



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15306-15411 Joliet Rd. and 23909, 23913-14 Union St.

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.603826° Longitude: -88.199589°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.603826° Longitude: -88.199589°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5304B01, E5304B02, E5304B04 were sampled within the construction zone adjacent to ISGS #2141-4 (Residences). Refer to PSI Report for ISGS #2141-4 (Residences) including Table 4-4, and Figures 4-8 and 4-7.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306844, R1306303, and R1306304.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

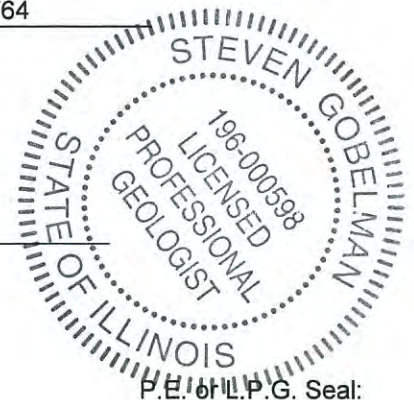
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 \_\_\_\_\_  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 \_\_\_\_\_  
 Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-4 (Residences)			Comparison Criteria			
	E5304B01	E5304B02	E5304B04	MACs			TACO
<b>BORING</b>	E5304B01 (4-6)	E5304B02 (6-8)	E5304B04 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
<b>SAMPLE</b>	Soil	Soil	Soil				
<b>MATRIX</b>	1.2-1.8	1.8-2.4	1.2-1.8				
<b>DEPTH (meters)</b>	8.32	8.80	7.50				
<b>pH</b>							
<b>VOCs (µg/kg)</b>							
Acetone	3.0 J	3.0 J	ND U	25,000	--	--	--
<b>SVOCs (µg/kg)</b>							
Fluoranthene	ND U	ND U	85 J	3,100,000	--	--	--
<b>Inorganics (mg/kg)</b>							
Aluminum	2,340	1,660	10,100	--	--	--	--
Arsenic	6.2	5.7	10.5	11.3	13	--	--
Barium	28.4	16.1	85.2	1,500	--	--	--
Beryllium	0.18 J	0.10 J	0.60	22	--	--	--
Calcium	87,400	117,000	65,100	--	--	--	--
Chromium	5.4	4.4	13.7	21	--	--	--
Cobalt	3.5 J	2.5 J	7.1	20	--	--	--
Copper	18.2	11.1 B	22.1	2,900	--	--	--
Iron	11,400	10,400	21,300 †m	15,000	15,900	--	--
Lead	7.1	6.6	43.7	107	--	--	--
Magnesium	54,900	70,500	42,100	325,000	--	--	--
Manganese	369	310	762 †m	630	636	--	--
Mercury	0.011 J	0.008 J	0.071	1	--	--	--
Nickel	9.4	6.2	17.1	100	--	--	--
Potassium	490	410	1,350	--	--	--	--
Silver	ND U	0.2 J	ND U	4	--	--	--
Vanadium	8.3	7.1	24.5	550	--	--	--
Zinc	41.3	24.0	73.7	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>							
Aluminum	5.14	0.71	0.83	--	--	--	--
Calcium	324	335	285	--	--	--	--
Iron	11.6 L	1.02	0.71	--	--	--	5
Magnesium	177	142	136	--	--	--	--
Manganese	0.966 L	0.859 L	0.084	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>							
Aluminum	0.16	NA	NA	--	--	--	--
Iron	0.16	NA	NA	--	--	--	5
Manganese	ND U	0.036	NA	--	--	--	0.15





September 19, 2013

Service Request No: R1306303

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306303**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For:*

Page 1 of 300



**REPORT QUALIFIERS AND DEFINITIONS**

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$  Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)  
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



**Rochester Lab ID # for State Certifications<sup>1</sup>**

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B01 (4-6)  
Lab Code: R1306303-001

Service Request: R1306303  
Date Collected: 8/28/13 1100  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	92.8	Percent	1.0	1	NA	8/30/13 09:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13

Basis: Dry  
 Percent Solids: 92.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2340		mg/Kg	10	3	1	9/ 5/13	9/13/13 21:28	
Antimony, Total	6010C	6.2	U	mg/Kg	6.2	0.3	1	9/ 5/13	9/13/13 21:28	
Arsenic, Total	6010C	6.2		mg/Kg	1.0	0.5	1	9/ 5/13	9/13/13 21:28	
Barium, Total	6010C	28.4		mg/Kg	2.1	0.08	1	9/ 5/13	9/13/13 21:28	
Beryllium, Total	6010C	0.18	J	mg/Kg	0.31	0.03	1	9/ 5/13	9/13/13 21:28	
Boron, Total	6010C	5	BJ	mg/Kg	21	4	1	9/ 5/13	9/13/13 21:28	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/ 5/13	9/13/13 21:28	
Calcium, Total	6010C	87400		mg/Kg	1000	300	10	9/ 5/13	9/11/13 20:19	
Chromium, Total	6010C	5.4		mg/Kg	1.0	0.2	1	9/ 5/13	9/13/13 21:28	
Cobalt, Total	6010C	3.5	J	mg/Kg	5.1	0.06	1	9/ 5/13	9/13/13 21:28	
Copper, Total	6010C	18.2		mg/Kg	2.1	0.7	1	9/ 5/13	9/13/13 21:28	
Iron, Total	6010C	11400		mg/Kg	100	60	10	9/ 5/13	9/11/13 20:19	
Lead, Total	6010C	7.1		mg/Kg	5.1	0.3	1	9/ 5/13	9/13/13 21:28	
Magnesium, Total	6010C	54900		mg/Kg	1000	20	10	9/ 5/13	9/11/13 20:19	
Manganese, Total	6010C	369		mg/Kg	10	2	10	9/ 5/13	9/11/13 20:19	
Mercury, Total	7471B	0.011	J	mg/Kg	0.036	0.006	1	9/ 9/13	9/9/13 16:56	
Nickel, Total	6010C	9.4		mg/Kg	4.1	0.09	1	9/ 5/13	9/13/13 21:28	
Potassium, Total	6010C	490		mg/Kg	210	20	1	9/ 5/13	9/13/13 21:28	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/ 5/13	9/13/13 21:28	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/ 5/13	9/13/13 21:28	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/ 5/13	9/13/13 21:28	
Vanadium, Total	6010C	8.3		mg/Kg	5.1	0.06	1	9/ 5/13	9/13/13 21:28	
Zinc, Total	6010C	41.3		mg/Kg	2.1	0.08	1	9/ 5/13	9/13/13 21:28	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 14:15

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\083013\K4856.D\

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.86

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.0	J	4.6	2.7	
71-43-2	Benzene	4.6	U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6	U	4.6	0.57	
75-25-2	Bromoform	4.6	U	4.6	0.87	
74-83-9	Bromomethane	4.6	U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6	U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6	U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6	U	4.6	0.86	
108-90-7	Chlorobenzene	4.6	U	4.6	0.27	
75-00-3	Chloroethane	4.6	U	4.6	2.7	
67-66-3	Chloroform	4.6	U	4.6	1.2	
74-87-3	Chloromethane	4.6	U	4.6	0.38	
124-48-1	Dibromochloromethane	4.6	U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6	U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6	U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.89	
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.80	
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.90	
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.19	
100-41-4	Ethylbenzene	4.6	U	4.6	0.22	
591-78-6	2-Hexanone	4.6	U	4.6	1.2	
75-09-2	Methylene Chloride	4.6	U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	0.91	
100-42-5	Styrene	4.6	U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.76	
127-18-4	Tetrachloroethene	4.6	U	4.6	0.82	
108-88-3	Toluene	4.6	U	4.6	0.93	
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6	U	4.6	0.68	
79-01-6	Trichloroethene	4.6	U	4.6	0.94	
75-01-4	Vinyl Chloride	4.6	U	4.6	1.8	
95-47-6	o-Xylene	4.6	U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.3	U	9.3	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 14:15

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\083013\K4856.D\

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.86

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.88	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	28-150	8/30/13 14:15	
Toluene-d8	100	66-138	8/30/13 14:15	
Dibromofluoromethane	97	63-138	8/30/13 14:15	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 13:09

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ446.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	36	
95-50-1	1,2-Dichlorobenzene	360	U	360	40	
541-73-1	1,3-Dichlorobenzene	360	U	360	54	
106-46-7	1,4-Dichlorobenzene	360	U	360	41	
95-95-4	2,4,5-Trichlorophenol	360	U	360	63	
88-06-2	2,4,6-Trichlorophenol	360	U	360	52	
120-83-2	2,4-Dichlorophenol	360	U	360	48	
105-67-9	2,4-Dimethylphenol	360	U	360	40	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	360	U	360	76	
606-20-2	2,6-Dinitrotoluene	360	U	360	59	
91-58-7	2-Chloronaphthalene	360	U	360	37	
95-57-8	2-Chlorophenol	360	U	360	38	
91-57-6	2-Methylnaphthalene	360	U	360	36	
95-48-7	2-Methylphenol	360	U	360	47	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	360	U	360	53	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	65	
	3- and 4-Methylphenol Coelution	360	U	360	54	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	64	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	51	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	360	U	360	51	
208-96-8	Acenaphthylene	360	U	360	48	
120-12-7	Anthracene	360	U	360	56	
56-55-3	Benz(a)anthracene	360	U	360	55	
50-32-8	Benzo(a)pyrene	360	U	360	60	
205-99-2	Benzo(b)fluoranthene	360	U	360	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 13:09

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ446.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	68	
207-08-9	Benzo(k)fluoranthene	360	U	360	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	43	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	49	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	49	
85-68-7	Butyl Benzyl Phthalate	360	U	360	55	
86-74-8	Carbazole	360	U	360	50	
218-01-9	Chrysene	360	U	360	50	
84-74-2	Di-n-butyl Phthalate	360	U	360	98	
117-84-0	Di-n-octyl Phthalate	360	U	360	69	
53-70-3	Dibenz(a,h)anthracene	360	U	360	96	
132-64-9	Dibenzofuran	360	U	360	39	
84-66-2	Diethyl Phthalate	360	U	360	47	
131-11-3	Dimethyl Phthalate	360	U	360	51	
206-44-0	Fluoranthene	360	U	360	57	
86-73-7	Fluorene	360	U	360	45	
118-74-1	Hexachlorobenzene	360	U	360	55	
87-68-3	Hexachlorobutadiene	360	U	360	40	
77-47-4	Hexachlorocyclopentadiene	360	U	360	57	
67-72-1	Hexachloroethane	360	U	360	50	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	59	
78-59-1	Isophorone	360	U	360	48	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	41	
86-30-6	N-Nitrosodiphenylamine	360	U	360	56	
91-20-3	Naphthalene	360	U	360	36	
98-95-3	Nitrobenzene	360	U	360	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	360	U	360	48	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 13:09

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306303-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ446.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	56	41-151	9/5/13 13:09	
2-Fluorobiphenyl	66	47-126	9/5/13 13:09	
2-Fluorophenol	48	16-129	9/5/13 13:09	
Nitrobenzene-d5	73	39-136	9/5/13 13:09	
Phenol-d6	56	10-145	9/5/13 13:09	
p-Terphenyl-d14	59	35-152	9/5/13 13:09	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5304B01 (4-6)  
**Lab Code:** R1306303-001  
**Matrix:** Soil

**Service Request:** R1306303

**Date Collected:** 8/28/13  
**Date Received:** 8/29/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B02 (6-8)  
Lab Code: R1306303-003

Service Request: R1306303  
Date Collected: 8/28/13 1320  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.7	Percent	1.0	1	NA	8/30/13 09:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5304B02 (6-8)  
 Lab Code: R1306303-003

Service Request: R1306303  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13

Basis: Dry  
 Percent Solids: 95.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1660		mg/Kg	10	3	1	9/ 5/13	9/13/13 21:41	
Antimony, Total	6010C	6.1	U	mg/Kg	6.1	0.3	1	9/ 5/13	9/13/13 21:41	
Arsenic, Total	6010C	5.7		mg/Kg	1.0	0.5	1	9/ 5/13	9/13/13 21:41	
Barium, Total	6010C	16.1		mg/Kg	2.0	0.08	1	9/16/13	9/17/13 09:49	
Beryllium, Total	6010C	0.10	J	mg/Kg	0.30	0.03	1	9/ 5/13	9/13/13 21:41	
Boron, Total	6010C	5	BJ	mg/Kg	20	4	1	9/ 5/13	9/13/13 21:41	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/ 5/13	9/13/13 21:41	
Calcium, Total	6010C	117000		mg/Kg	1000	300	10	9/ 5/13	9/11/13 20:31	
Chromium, Total	6010C	4.4		mg/Kg	1.0	0.2	1	9/ 5/13	9/13/13 21:41	
Cobalt, Total	6010C	2.5	J	mg/Kg	5.1	0.06	1	9/ 5/13	9/13/13 21:41	
Copper, Total	6010C	11.1	B	mg/Kg	2.0	0.7	1	9/ 5/13	9/13/13 21:41	
Iron, Total	6010C	10400		mg/Kg	100	60	10	9/ 5/13	9/11/13 20:31	
Lead, Total	6010C	6.6		mg/Kg	5.1	0.3	1	9/ 5/13	9/13/13 21:41	
Magnesium, Total	6010C	70500		mg/Kg	1000	20	10	9/ 5/13	9/11/13 20:31	
Manganese, Total	6010C	310		mg/Kg	10	2	10	9/ 5/13	9/11/13 20:31	
Mercury, Total	7471B	0.008	J	mg/Kg	0.034	0.006	1	9/9/13	9/9/13 16:59	
Nickel, Total	6010C	6.2		mg/Kg	4.1	0.09	1	9/ 5/13	9/13/13 21:41	
Potassium, Total	6010C	410		mg/Kg	200	20	1	9/ 5/13	9/13/13 21:41	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/ 5/13	9/13/13 21:41	
Silver, Total	6010C	0.2	J	mg/Kg	1.0	0.09	1	9/ 5/13	9/13/13 21:41	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/ 5/13	9/13/13 21:41	
Vanadium, Total	6010C	7.1		mg/Kg	5.1	0.05	1	9/ 5/13	9/13/13 21:41	
Zinc, Total	6010C	24.0		mg/Kg	2.0	0.08	1	9/ 5/13	9/13/13 21:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 15:30

Sample Name: E5304B02 (6-8)  
 Lab Code: R1306303-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\083013\K4858.D\

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.0	J	4.6	2.6	
71-43-2	Benzene	4.6	U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6	U	4.6	0.57	
75-25-2	Bromoform	4.6	U	4.6	0.86	
74-83-9	Bromomethane	4.6	U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6	U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6	U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6	U	4.6	0.85	
108-90-7	Chlorobenzene	4.6	U	4.6	0.27	
75-00-3	Chloroethane	4.6	U	4.6	2.7	
67-66-3	Chloroform	4.6	U	4.6	1.2	
74-87-3	Chloromethane	4.6	U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6	U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6	U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6	U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.88	
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.80	
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.90	
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.83	
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.19	
100-41-4	Ethylbenzene	4.6	U	4.6	0.22	
591-78-6	2-Hexanone	4.6	U	4.6	1.2	
75-09-2	Methylene Chloride	4.6	U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	0.91	
100-42-5	Styrene	4.6	U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.75	
127-18-4	Tetrachloroethene	4.6	U	4.6	0.81	
108-88-3	Toluene	4.6	U	4.6	0.92	
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6	U	4.6	0.68	
79-01-6	Trichloroethene	4.6	U	4.6	0.93	
75-01-4	Vinyl Chloride	4.6	U	4.6	1.7	
95-47-6	o-Xylene	4.6	U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.2	U	9.2	1.1	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 15:30

Sample Name: E5304B02 (6-8)  
 Lab Code: R1306303-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\083013\K4858.D\

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6	U	4.6	0.87	
1330-20-7	Xylenes, Total	14	U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	28-150	8/30/13 15:30	
Toluene-d8	97	66-138	8/30/13 15:30	
Dibromofluoromethane	100	63-138	8/30/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 14:14

Sample Name: E5304B02 (6-8)  
 Lab Code: R1306303-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ448.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340	U	340	35	
95-50-1	1,2-Dichlorobenzene	340	U	340	39	
541-73-1	1,3-Dichlorobenzene	340	U	340	53	
106-46-7	1,4-Dichlorobenzene	340	U	340	40	
95-95-4	2,4,5-Trichlorophenol	340	U	340	61	
88-06-2	2,4,6-Trichlorophenol	340	U	340	51	
120-83-2	2,4-Dichlorophenol	340	U	340	46	
105-67-9	2,4-Dimethylphenol	340	U	340	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	340	U	340	74	
606-20-2	2,6-Dinitrotoluene	340	U	340	58	
91-58-7	2-Chloronaphthalene	340	U	340	36	
95-57-8	2-Chlorophenol	340	U	340	37	
91-57-6	2-Methylnaphthalene	340	U	340	35	
95-48-7	2-Methylphenol	340	U	340	45	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	340	U	340	52	
91-94-1	3,3'-Dichlorobenzidine	340	U	340	63	
	3- and 4-Methylphenol Coelution	340	U	340	53	
99-09-2	3-Nitroaniline	1800	U	1800	320	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	340	U	340	62	
59-50-7	4-Chloro-3-methylphenol	340	U	340	38	
106-47-8	4-Chloroaniline	340	U	340	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	340	U	340	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	250	
83-32-9	Acenaphthene	340	U	340	50	
208-96-8	Acenaphthylene	340	U	340	46	
120-12-7	Anthracene	340	U	340	54	
56-55-3	Benz(a)anthracene	340	U	340	54	
50-32-8	Benzo(a)pyrene	340	U	340	58	
205-99-2	Benzo(b)fluoranthene	340	U	340	84	

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 14:14

Sample Name: E5304B02 (6-8)  
 Lab Code: R1306303-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.7

## Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090513\AQ448.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	U	340	65	
207-08-9	Benzo(k)fluoranthene	340	U	340	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	42	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	48	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	48	
85-68-7	Butyl Benzyl Phthalate	340	U	340	53	
86-74-8	Carbazole	340	U	340	48	
218-01-9	Chrysene	340	U	340	49	
84-74-2	Di-n-butyl Phthalate	120	BJ	340	95	
117-84-0	Di-n-octyl Phthalate	340	U	340	67	
53-70-3	Dibenz(a,h)anthracene	340	U	340	93	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	340	U	340	45	
131-11-3	Dimethyl Phthalate	340	U	340	50	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	44	
118-74-1	Hexachlorobenzene	340	U	340	53	
87-68-3	Hexachlorobutadiene	340	U	340	39	
77-47-4	Hexachlorocyclopentadiene	340	U	340	55	
67-72-1	Hexachloroethane	340	U	340	48	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	57	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	40	
86-30-6	N-Nitrosodiphenylamine	340	U	340	54	
91-20-3	Naphthalene	340	U	340	35	
98-95-3	Nitrobenzene	340	U	340	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	340	U	340	47	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	67	

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306303  
**Date Collected:** 8/28/13 1320  
**Date Received:** 8/29/13  
**Date Extracted:** 9/4/13  
**Date Analyzed:** 9/5/13 14:14

**Sample Name:** E5304B02 (6-8)  
**Lab Code:** R1306303-003

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.7

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUDATA\5973D\DATA\090513\AQ448.D\

**Analysis Lot:** 357144  
**Extraction Lot:** 190720  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	82	41-151	9/5/13 14:14	
2-Fluorobiphenyl	70	47-126	9/5/13 14:14	
2-Fluorophenol	66	16-129	9/5/13 14:14	
Nitrobenzene-d5	74	39-136	9/5/13 14:14	
Phenol-d6	69	10-145	9/5/13 14:14	
p-Terphenyl-d14	64	35-152	9/5/13 14:14	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5304B02 (6-8)  
**Lab Code:** R1306303-003  
**Matrix:** Soil

**Service Request:** R1306303

**Date Collected:** 8/28/13

**Date Received:** 8/29/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B04 (4-6)  
Lab Code: R1306303-004

Service Request: R1306303  
Date Collected: 8/28/13 1415  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.1	Percent	1.0	1	NA	8/30/13 09:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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 Sample Matrix: Soil  
 Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13

Basis: Dry  
 Percent Solids: 82.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10100		mg/Kg	12	4	1	9/ 5/13	9/13/13 21:48	
Antimony, Total	6010C	7.1	U	mg/Kg	7.1	0.3	1	9/ 5/13	9/13/13 21:48	
Arsenic, Total	6010C	10.5		mg/Kg	1.2	0.5	1	9/ 5/13	9/13/13 21:48	
Barium, Total	6010C	85.2		mg/Kg	2.4	0.09	1	9/ 5/13	9/13/13 21:48	
Beryllium, Total	6010C	0.60		mg/Kg	0.35	0.03	1	9/ 5/13	9/13/13 21:48	
Boron, Total	6010C	24	U	mg/Kg	24	5	1	9/ 5/13	9/13/13 21:48	
Cadmium, Total	6010C	0.59	U	mg/Kg	0.59	0.08	1	9/ 5/13	9/13/13 21:48	
Calcium, Total	6010C	65100		mg/Kg	1200	400	10	9/ 5/13	9/11/13 20:37	
Chromium, Total	6010C	13.7		mg/Kg	1.2	0.2	1	9/ 5/13	9/13/13 21:48	
Cobalt, Total	6010C	7.1		mg/Kg	5.9	0.07	1	9/ 5/13	9/13/13 21:48	
Copper, Total	6010C	22.1		mg/Kg	2.4	0.8	1	9/ 5/13	9/13/13 21:48	
Iron, Total	6010C	21300		mg/Kg	120	70	10	9/ 5/13	9/11/13 20:37	
Lead, Total	6010C	43.7		mg/Kg	5.9	0.3	1	9/ 5/13	9/13/13 21:48	
Magnesium, Total	6010C	42100		mg/Kg	1200	20	10	9/ 5/13	9/11/13 20:37	
Manganese, Total	6010C	762		mg/Kg	12	2	10	9/ 5/13	9/11/13 20:37	
Mercury, Total	7471B	0.071		mg/Kg	0.040	0.007	1	9/ 9/13	9/9/13 17:01	
Nickel, Total	6010C	17.1		mg/Kg	4.7	0.10	1	9/ 5/13	9/13/13 21:48	
Potassium, Total	6010C	1350		mg/Kg	240	20	1	9/ 5/13	9/13/13 21:48	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/ 5/13	9/13/13 21:48	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/ 5/13	9/13/13 21:48	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/ 5/13	9/13/13 21:48	
Vanadium, Total	6010C	24.5		mg/Kg	5.9	0.06	1	9/ 5/13	9/13/13 21:48	
Zinc, Total	6010C	73.7		mg/Kg	2.4	0.09	1	9/ 5/13	9/13/13 21:48	



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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 16:07

Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\083013\K4859.D\

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.65

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.0 U	4.0	2.3	
71-43-2	Benzene	4.0 U	4.0	0.23	
75-27-4	Bromodichloromethane	4.0 U	4.0	0.49	
75-25-2	Bromoform	4.0 U	4.0	0.74	
74-83-9	Bromomethane	4.0 U	4.0	1.1	
78-93-3	2-Butanone (MEK)	4.0 U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0 U	4.0	0.99	
56-23-5	Carbon Tetrachloride	4.0 U	4.0	0.73	
108-90-7	Chlorobenzene	4.0 U	4.0	0.23	
75-00-3	Chloroethane	4.0 U	4.0	2.3	
67-66-3	Chloroform	4.0 U	4.0	1.0	
74-87-3	Chloromethane	4.0 U	4.0	0.32	
124-48-1	Dibromochloromethane	4.0 U	4.0	0.58	
75-34-3	1,1-Dichloroethane	4.0 U	4.0	0.99	
107-06-2	1,2-Dichloroethane	4.0 U	4.0	0.49	
75-35-4	1,1-Dichloroethene	4.0 U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0 U	4.0	0.76	
156-60-5	trans-1,2-Dichloroethene	4.0 U	4.0	0.69	
78-87-5	1,2-Dichloropropane	4.0 U	4.0	0.77	
10061-01-5	cis-1,3-Dichloropropene	4.0 U	4.0	0.72	
10061-02-6	trans-1,3-Dichloropropene	4.0 U	4.0	0.16	
100-41-4	Ethylbenzene	4.0 U	4.0	0.19	
591-78-6	2-Hexanone	4.0 U	4.0	0.96	
75-09-2	Methylene Chloride	4.0 U	4.0	0.46	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	4.0	0.78	
100-42-5	Styrene	4.0 U	4.0	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	4.0	0.65	
127-18-4	Tetrachloroethene	4.0 U	4.0	0.70	
108-88-3	Toluene	4.0 U	4.0	0.80	
71-55-6	1,1,1-Trichloroethane	4.0 U	4.0	0.58	
79-00-5	1,1,2-Trichloroethane	4.0 U	4.0	0.58	
79-01-6	Trichloroethene	4.0 U	4.0	0.80	
75-01-4	Vinyl Chloride	4.0 U	4.0	1.5	
95-47-6	o-Xylene	4.0 U	4.0	0.39	
179601-23-1	m,p-Xylenes	7.9 U	7.9	0.87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Date Analyzed: 8/30/13 16:07

Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\083013\K4859.D

Analysis Lot: 357057  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.65

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0	U	4.0	0.75	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	28-150	8/30/13 16:07	
Toluene-d8	95	66-138	8/30/13 16:07	
Dibromofluoromethane	99	63-138	8/30/13 16:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 14:47

Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ449.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	47	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	43	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	74	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

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 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 14:47

Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ449.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	130	BJ	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	53	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	85	J	400	65	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	54	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 14:47

Sample Name: E5304B04 (4-6)  
 Lab Code: R1306303-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ449.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	82	41-151	9/5/13 14:47	
2-Fluorobiphenyl	67	47-126	9/5/13 14:47	
2-Fluorophenol	55	16-129	9/5/13 14:47	
Nitrobenzene-d5	68	39-136	9/5/13 14:47	
Phenol-d6	60	10-145	9/5/13 14:47	
p-Terphenyl-d14	60	35-152	9/5/13 14:47	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5304B04 (4-6)  
**Lab Code:** R1306303-004  
**Matrix:** Soil

**Service Request:** R1306303

**Date Collected:** 8/28/13

**Date Received:** 8/29/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM : 10452 E753-01

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>FDOT US 30</b>		Project Number <b>62-004335-0001-0170</b>						
Project Manager <b>Karen Banker-Sheri Johnson</b>		Report CC <b>Dena Tice</b>						
Company/Address <b>Ecology &amp; Environment 33 W Market St. Suite 1410 Chicago, IL 60603</b>								
Phone # <b>312 578 9243</b>		Email <b>John@ecology.com</b>						
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Scott Cooper</b>						
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	ANALYSIS REQUESTED (Include Method Number and Container Preservative)	REMARKS/ALTERNATE DESCRIPTION
ES304B01(4-6)	001	8-28-13	1100	Soil	4	GCMS SVOCs ° 8270 • 825	GCMS SVOCs ° 8270 • 825	
ES307B01(2-4)	002	8-28-13	1255	Soil	4	GCMS SVOCs ° 8270 • 825	GCMS SVOCs ° 8270 • 825	
ES304B02(6-8)	003	8-28-13	1320	Soil	4	GCMS SVOCs ° 8270 • 825	GCMS SVOCs ° 8270 • 825	
ES304B03(4-6)	004	8-28-13	1415	Soil	4	GCMS SVOCs ° 8270 • 825	GCMS SVOCs ° 8270 • 825	
ES309B09(0-2)	005	8-28-13	1445	Soil	4	GCMS SVOCs ° 8270 • 825	GCMS SVOCs ° 8270 • 825	
<del>ES304B04(4-6)</del>								
<del>ES304B05(4-6)</del>								
<del>ES304B06(4-6)</del>								
<del>ES304B07(4-6)</del>								
<del>ES304B08(4-6)</del>								
<del>ES304B09(4-6)</del>								
<del>ES304B10(4-6)</del>								
<del>ES304B11(4-6)</del>								
<del>ES304B12(4-6)</del>								
<del>ES304B13(4-6)</del>								
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<del>ES304B99(4-6)</del>								
<del>ES304B00(4-6)</del>								

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

*MS - Total Metals/ver/sue only  
total HCLP analysis*

See QAPP

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY <i>[Signature]</i> Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>8-28-13 / 09:30</i>	RECEIVED BY <i>[Signature]</i> Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>8-28-13 / 09:30</i>
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REQUIREMENTS

I. Results Only

II. Results + OC Summaries (LCS, DUP, MS/MSD as required)

III. Results + OC and Calibration Summaries

IV. Data Validation Report with Raw Data

EDATA Yes  No

RELINQUISHED BY

Signature: *[Signature]*  
Printed Name: *[Name]*  
Firm: *[Firm]*  
Date/Time: *[Date/Time]*

INVOICE INFORMATION

PO #

BILL TO:

R1306303 5  
Ecology And Environment, Incorporated  
IDOT US 30



September 19, 2013

Service Request No: R1306304

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306304**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 104

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B01 (4-6)  
Lab Code: R1306304-001

Service Request: R1306304  
Date Collected: 8/28/13 1100  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.32	pH Units		1	NA	9/10/13 13:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/28/13 1100  
 Date Received: 8/29/13  
 Pre-Prep Date: 9/4/13

Sample Name: E5304B01 (4-6)  
 Lab Code: R1306304-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	5.14		mg/L	0.20	1	9/ 9/13	9/15/13 11:34	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/ 9/13	9/15/13 11:34	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/ 9/13	9/15/13 11:34	
Barium	6010C	1.0	U	mg/L	1.0	1	9/ 9/13	9/15/13 11:34	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/ 9/13	9/15/13 11:34	
Boron	6010C	1.0	U	mg/L	1.0	1	9/ 9/13	9/15/13 11:34	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Calcium	6010C	324		mg/L	10	10	9/ 9/13	9/11/13 16:30	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/ 9/13	9/15/13 11:34	
Copper	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Iron	6010C	11.6		mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Lead	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Magnesium	6010C	177		mg/L	1.0	1	9/ 9/13	9/15/13 11:34	
Manganese	6010C	0.966		mg/L	0.010	1	9/ 9/13	9/15/13 11:34	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/ 9/13	9/9/13 19:36	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/ 9/13	9/15/13 11:34	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/ 9/13	9/15/13 11:34	
Silver	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/ 9/13	9/15/13 11:34	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/ 9/13	9/15/13 11:34	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 11:34	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B02 (6-8)  
Lab Code: R1306304-003

Service Request: R1306304  
Date Collected: 8/28/13 1320  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.80	pH Units		1	NA	9/10/13 13:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/28/13 1320  
 Date Received: 8/29/13  
 Pre-Prep Date: 9/4/13

Sample Name: E5304B02 (6-8)  
 Lab Code: R1306304-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.71		mg/L	0.20	1	9/9/13	9/15/13 12:31	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/9/13	9/15/13 12:31	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/15/13 12:31	
Barium	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/15/13 12:31	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/9/13	9/15/13 12:31	
Boron	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/15/13 12:31	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Calcium	6010C	335		mg/L	10	10	9/9/13	9/11/13 17:19	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/15/13 12:31	
Copper	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Iron	6010C	1.02		mg/L	0.10	1	9/9/13	9/15/13 12:31	
Lead	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Magnesium	6010C	142		mg/L	1.0	1	9/9/13	9/15/13 12:31	
Manganese	6010C	0.859		mg/L	0.010	1	9/9/13	9/15/13 12:31	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/9/13	9/9/13 19:42	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/9/13	9/15/13 12:31	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/15/13 12:31	
Silver	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/9/13	9/15/13 12:31	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/15/13 12:31	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 12:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5304B04 (4-6)  
Lab Code: R1306304-004

Service Request: R1306304  
Date Collected: 8/28/13 1415  
Date Received: 8/29/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.50	pH Units		1	NA	9/10/13 13:40	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/28/13 1415  
 Date Received: 8/29/13  
 Pre-Prep Date: 9/4/13

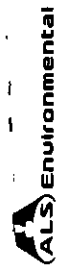
Sample Name: E5304B04 (4-6)  
 Lab Code: R1306304-004

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.83		mg/L	0.20	1	9/ 9/13	9/15/13 12:38	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/ 9/13	9/15/13 12:38	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/ 9/13	9/15/13 12:38	
Barium	6010C	1.0	U	mg/L	1.0	1	9/ 9/13	9/15/13 12:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/ 9/13	9/15/13 12:38	
Boron	6010C	1.0	U	mg/L	1.0	1	9/ 9/13	9/15/13 12:38	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Calcium	6010C	285		mg/L	10	10	9/ 9/13	9/11/13 17:25	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/ 9/13	9/15/13 12:38	
Copper	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Iron	6010C	0.71		mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Lead	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Magnesium	6010C	136		mg/L	1.0	1	9/ 9/13	9/15/13 12:38	
Manganese	6010C	0.084		mg/L	0.010	1	9/ 9/13	9/15/13 12:38	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/ 9/13	9/9/13 19:44	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/ 9/13	9/15/13 12:38	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/ 9/13	9/15/13 12:38	
Silver	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/ 9/13	9/15/13 12:38	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/ 9/13	9/15/13 12:38	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/ 9/13	9/15/13 12:38	



Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)			
EDOT US30		6E-004335-0001-01770					
Project Manager		Report CC					
Kaveen Bhatia - Sherri Johnson		Denn Ticebert					
Company/Address							
Ecology + Environment							
33 W Mendix St. Suite 1410							
Chicago, IL 60603							
Phone #		Email					
312 578 9243		Shohansen@ene.com					
Sampler's Signature		Sampler's Printed Name					
<i>[Signature]</i>		Scott Cooper					
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	ANALYSIS REQUESTED (Include Method Number and Container Preservative)
E5304B01(4-6)	001	8-28-13	1100	Soil	4		GCMS VOAS ° 8280 • 624 • CLP
E5307B01(2-4)	002	8-28-13	1255	Soil	4		GCMS SVOAS ° 8270 • 825
E5304B02(6-8)	003	8-28-13	1320	Soil	4		GC VOAS ° 8021 • 801/802
E5304B04(4-6)	004	8-28-13	1415	Soil	4		PESTICIDES ° 8081 • 808
E5309B09(0-2)	005	8-28-13	1448	Soil	4		PCBS ° 8092 • 808
							METALS TOTAL (List in comments below)
							METALS DISSOLVED (List in comments below)
							VCs
							SVCS
							T.H.L. TAC Metals
							T.H.L. TAC Metals
							PH % S.P.I.
							REMARKS/ ALTERNATE DESCRIPTION
							Preservative Key
							0. NONE
							1. HCl
							2. HNO3
							3. H2SO4
							4. NaOH
							5. Zn Acetate
							6. MeOH
							7. NaHSO4
							8. Other _____
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____		I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report		PO # BILL TO:	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata Yes _____ No _____		R1306304 Ecology And Environment, Incorporated DOT US 30	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		Signature	
RELINQUISHED BY		Signature		Signature		Printed Name	
Signature		Printed Name		Printed Name		Firm	
Printed Name		Firm		Firm		Date/Time	
Firm		Date/Time		Date/Time		Date/Time	
Date/Time		Date/Time		Date/Time		Date/Time	
8-28-12/1545		8/28/13/0930		8/28/13		8/28/13	
RELINQUISHED BY		Signature		Signature		Printed Name	
Signature		Printed Name		Printed Name		Firm	
Printed Name		Firm		Firm		Date/Time	
Firm		Date/Time		Date/Time		Date/Time	
Date/Time		Date/Time		Date/Time		Date/Time	
8-28-12/1545		8/28/13/0930		8/28/13		8/28/13	

TCLP Metals and PH only. SLP metals on hold pending analysis





October 07, 2013

Service Request No: R1306844

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

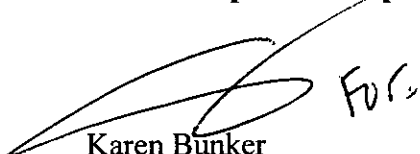
Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306844**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 45

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306844

<u>Lab ID</u>	<u>Client ID</u>
R1306844-001	E5304B01 (4-6)
R1306844-002	E5307B01 (2-4)
R1306844-003	E5304B02 (6-8)
R1306844-004	E5309B09 (0-2)
R1306844-005	E5304B03 (2-4)
R1306844-006	E5308B03 (0-2)
R1306844-007	E5308B03 (4-6)
R1306844-008	E5308B02 (2-4)
R1306844-009	E5308B02D (2-4)
R1306844-010	E5308B02 (6-8)
R1306844-011	E5308B01 (2-4)
R1306844-012	E5308B04 (8-10)
R1306844-013	E5308B05 (10-12)
R1306844-014	E53VLB01 (4-6)

00003

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306844  
**Date Collected:** 8/28/13 1100  
**Date Received:** 8/29/13  
**Pre-Prep Date:** 9/25/13

**Sample Name:** E5304B01 (4-6)  
**Lab Code:** R1306844-001

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.16		mg/L	0.10	1	9/30/13	10/4/13 08:49	
Iron	6010C	0.16		mg/L	0.10	1	9/30/13	10/3/13 10:03	
Manganese	6010C	0.010	U	mg/L	0.010	1	9/30/13	10/3/13 10:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306844  
**Date Collected:** 8/28/13 1320  
**Date Received:** 8/29/13  
**Pre-Prep Date:** 9/25/13

**Sample Name:** E5304B02 (6-8)  
**Lab Code:** R1306844-003

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.036	mg/L	0.010	1	9/30/13	10/3/13 10:16	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5304B02 (6-8)  
**Lab Code:** R1306844-003  
**Matrix:** Soil

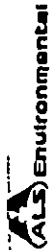
**Service Request:** R1306844

**Date Collected:** 8/28/13

**Date Received:** 8/29/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10452 E7S3-01

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

<b>Project Name</b> IDOT US30		<b>Project Number</b> CE-004335-0001-01770		<b>ANALYSIS REQUESTED (Include Method Number and Container Preservative)</b>	
<b>Project Manager</b> Karon Bunt - Sherril Johnson		<b>Report OC</b> Dean Tice		<b>PRESERVATIVE</b>	
<b>Company/Agency</b> Ecology - Environment		<b>Client</b> 33 W Morris St. Suite 1410		<b>PRELIMINARY ANALYSIS</b>	
<b>Phone #</b> Chicago, IL 60603		<b>Client Address</b> 312 S 7th Ave		<b>PRELIMINARY ANALYSIS</b>	
<b>Sample's Signature</b> Scott Cooper		<b>Client Contact</b> Scott Cooper		<b>PRELIMINARY ANALYSIS</b>	
<b>FOR OFFICE USE ONLY LAB ID</b>		<b>DATE</b>		<b>MATRIX</b>	
E5304301 (4-6)		8-28-13		Soil	
E5307301 (2-4)		8-26-13		Soil	
E5304302 (6-8)		8-28-13		Soil	
E5304308 (4-6)		8-28-13		Soil	
E5309309 (0-2)		8-28-13		Soil	
<b>SPECIAL INSTRUCTIONS/COMMENTS</b> Metals TCEP metals and pH only. SPUP metals on hold pending analysis. SPUP only. C-911113		<b>TURNAROUND REQUIREMENTS</b> RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____		<b>REPORT REQUIREMENTS</b> I. Results Only _____ II. Results + OC Summaries _____ III. Results + OC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____	
<b>STATE WHERE SAMPLES WERE COLLECTED</b>		<b>RECEIVED BY</b> David Mirek		<b>RELINQUISHED BY</b>	
<b>RELINQUISHED BY</b> Signature: Scott Cooper Printed Name: Scott Cooper Firm: Ecology		<b>RECEIVED BY</b> Signature: David Mirek Printed Name: David Mirek Firm: ALS		<b>RELINQUISHED BY</b> Signature: _____ Printed Name: _____ Firm: _____	
<b>Date/Time</b> 8-26-13 1545		<b>Date/Time</b> 8/28/13 0930		<b>Date/Time</b>	
<b>See QAPP</b> <input type="checkbox"/>		<b>Signature</b>		<b>Date/Time</b>	
<b>INVOICE INFORMATION</b> PO # _____ BILL TO: _____		<b>Signature</b>		<b>Date/Time</b>	
<b>INVOICE INFORMATION</b> PO # _____ BILL TO: _____		<b>Signature</b>		<b>Date/Time</b>	

R1306844 5

Ecology And Environment, Incorporated  
IDOT US30 Plainfield, NJ







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15502 Joliet Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.600758° Longitude: -88.196579°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30Latitude: 41.600758° Longitude: -88.196579°Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E53VLB01 was sampled within the construction zone adjacent to ISGS #2141-7 (Vacant Lot). Refer to PSI Report for ISGS #2141-7 (Vacant Lot) including Table 4-4, and Figure 4-7.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306844, R1306303, and R1306304.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

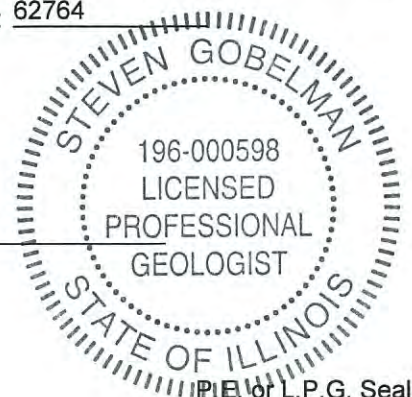
I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 11/24/14





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-7 (Vacant Lot)	Comparison Criteria			
BORING	E53VLB01	MACs			TACO
SAMPLE	E53VLB01 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	1.2-1.8				
pH	8.62				
<b>VOCs (µg/kg)</b>					
Acetone	4.1 J	25,000	--	--	--
Bromomethane	1.3 J	200	--	--	--
<b>SVOCs (None Detected)</b>					
<b>Inorganics (mg/kg)</b>					
Aluminum	1,440	--	--	--	--
Arsenic	4.3	11.3	13	--	--
Barium	13.1	1,500	--	--	--
Beryllium	0.07 J	22	--	--	--
Calcium	130,000	--	--	--	--
Chromium	3.9	21	--	--	--
Cobalt	2.1 J	20	--	--	--
Copper	9.0 B	2,900	--	--	--
Iron	8,190	15,000	15,900	--	--
Lead	4.5 J	107	--	--	--
Magnesium	81,300	325,000	--	--	--
Manganese	309	630	636	--	--
Nickel	5.6	100	--	--	--
Potassium	320	--	--	--	--
Silver	0.2 J	4	--	--	--
Vanadium	5.6	550	--	--	--
Zinc	19.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	336	--	--	--	--
Iron	0.20	--	--	--	5
Magnesium	175	--	--	--	--
Manganese	1.01 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	0.012	--	--	--	0.15



September 19, 2013

Service Request No: R1306303

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306303**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For:*

Page 1 of 300



**REPORT QUALIFIERS AND DEFINITIONS**

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- \* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$  Difference between two GC columns).
- X See Case Narrative for discussion.
- MRL Method Reporting Limit. Also known as:
- LOQ Limit of Quantitation (LOQ)  
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
- MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
- LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
- ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



**Rochester Lab ID # for State Certifications<sup>1</sup>**

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.5	Percent	1.0	1	NA	9/5/13 13:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13

Basis: Dry  
 Percent Solids: 94.5

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1440	mg/Kg	10	3	1	9/ 5/13	9/14/13 00:25	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/ 5/13	9/14/13 00:25	
Arsenic, Total	6010C	4.3	mg/Kg	1.0	0.5	1	9/ 5/13	9/14/13 00:25	
Barium, Total	6010C	13.1	mg/Kg	2.1	0.08	1	9/16/13	9/17/13 10:32	
Beryllium, Total	6010C	0.07 J	mg/Kg	0.31	0.03	1	9/ 5/13	9/14/13 00:25	
Boron, Total	6010C	20 U	mg/Kg	20	4	1	9/ 5/13	9/14/13 00:25	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/ 5/13	9/14/13 00:25	
Calcium, Total	6010C	130000	mg/Kg	1000	300	10	9/ 5/13	9/11/13 23:03	
Chromium, Total	6010C	3.9	mg/Kg	1.0	0.2	1	9/ 5/13	9/14/13 00:25	
Cobalt, Total	6010C	2.1 J	mg/Kg	5.1	0.06	1	9/ 5/13	9/14/13 00:25	
Copper, Total	6010C	9.0 B	mg/Kg	2.0	0.7	1	9/ 5/13	9/14/13 00:25	
Iron, Total	6010C	8190	mg/Kg	100	60	10	9/ 5/13	9/11/13 23:03	
Lead, Total	6010C	4.5 J	mg/Kg	5.1	0.3	1	9/ 5/13	9/14/13 00:25	
Magnesium, Total	6010C	81300	mg/Kg	1000	20	10	9/ 5/13	9/11/13 23:03	
Manganese, Total	6010C	309	mg/Kg	10	2	10	9/ 5/13	9/11/13 23:03	
Mercury, Total	7471B	0.035 U	mg/Kg	0.035	0.006	1	9/ 9/13	9/9/13 17:37	
Nickel, Total	6010C	5.6	mg/Kg	4.1	0.09	1	9/ 5/13	9/14/13 00:25	
Potassium, Total	6010C	320	mg/Kg	200	20	1	9/ 5/13	9/14/13 00:25	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/ 5/13	9/14/13 00:25	
Silver, Total	6010C	0.2 J	mg/Kg	1.0	0.09	1	9/ 5/13	9/14/13 00:25	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/ 5/13	9/14/13 00:25	
Vanadium, Total	6010C	5.6	mg/Kg	5.1	0.05	1	9/ 5/13	9/14/13 00:25	
Zinc, Total	6010C	19.9	mg/Kg	2.0	0.08	1	9/ 5/13	9/14/13 00:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Date Analyzed: 9/5/13 12:51

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9526.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.1 J	4.5	2.6	
71-43-2	Benzene	4.5 U	4.5	0.27	
75-27-4	Bromodichloromethane	4.5 U	4.5	0.55	
75-25-2	Bromoform	4.5 U	4.5	0.84	
74-83-9	Bromomethane	1.3 BJ	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5 U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5 U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5 U	4.5	0.83	
108-90-7	Chlorobenzene	4.5 U	4.5	0.27	
75-00-3	Chloroethane	4.5 U	4.5	2.6	
67-66-3	Chloroform	4.5 U	4.5	1.2	
74-87-3	Chloromethane	4.5 U	4.5	0.36	
124-48-1	Dibromochloromethane	4.5 U	4.5	0.66	
75-34-3	1,1-Dichloroethane	4.5 U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5 U	4.5	0.55	
75-35-4	1,1-Dichloroethene	4.5 U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5 U	4.5	0.86	
156-60-5	trans-1,2-Dichloroethene	4.5 U	4.5	0.78	
78-87-5	1,2-Dichloropropane	4.5 U	4.5	0.88	
10061-01-5	cis-1,3-Dichloropropene	4.5 U	4.5	0.81	
10061-02-6	trans-1,3-Dichloropropene	4.5 U	4.5	0.18	
100-41-4	Ethylbenzene	4.5 U	4.5	0.21	
591-78-6	2-Hexanone	4.5 U	4.5	1.1	
75-09-2	Methylene Chloride	4.5 U	4.5	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5 U	4.5	0.89	
100-42-5	Styrene	4.5 U	4.5	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.5 U	4.5	0.73	
127-18-4	Tetrachloroethene	4.5 U	4.5	0.80	
108-88-3	Toluene	4.5 U	4.5	0.90	
71-55-6	1,1,1-Trichloroethane	4.5 U	4.5	0.66	
79-00-5	1,1,2-Trichloroethane	4.5 U	4.5	0.66	
79-01-6	Trichloroethene	4.5 U	4.5	0.91	
75-01-4	Vinyl Chloride	4.5 U	4.5	1.7	
95-47-6	o-Xylene	4.5 U	4.5	0.44	
179601-23-1	m,p-Xylenes	9.0 U	9.0	0.99	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Date Analyzed: 9/5/13 12:51

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\MSVOA12\DATA\090513\T9526.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5	U	4.5	0.85	
1330-20-7	Xylenes, Total	13	U	13	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	28-150	9/5/13 12:51	
Toluene-d8	104	66-138	9/5/13 12:51	
Dibromofluoromethane	97	63-138	9/5/13 12:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 16:41

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090613\AQ479.D\

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coclution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 16:41

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090613\AQ479.D\

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	150	BJ	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 16:41

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306303-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ479.D\

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	54	41-151	9/6/13 16:41	
2-Fluorobiphenyl	74	47-126	9/6/13 16:41	
2-Fluorophenol	52	16-129	9/6/13 16:41	
Nitrobenzene-d5	77	39-136	9/6/13 16:41	
Phenol-d6	58	10-145	9/6/13 16:41	
p-Terphenyl-d14	76	35-152	9/6/13 16:41	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53VLB01 (4-6)  
**Lab Code:** R1306303-020  
**Matrix:** Soil

**Service Request:** R1306303

**Date Collected:** 8/29/13

**Date Received:** 8/30/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	ZMIAO



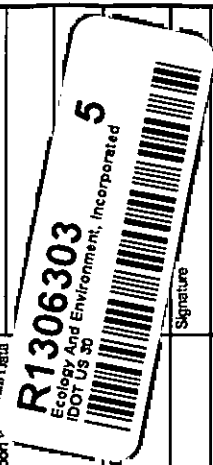


# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10454 E753-04

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US30</b>		Project Number <b>EE-004325-0001-0170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker/Shevi Johnson</b>		Report CC <b>Dean Tebaut</b>		PRESERVATIVE	
Company/Address <b>Ecology &amp; Environment 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>John@ecol.com</b>		PRELIMINARY RESULTS	
Phone # <b>312 598 9243</b>		Sampler's Signature <b>Scott Cooper</b>		METALS TOTAL (List in comments below)	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		MATRIX	
ES308B06 (02)		8-29-13		Soil	
ES308B06 (2.4)		8-29-13		Soil	
ES308B06 (4.6)		8-29-13		Soil	
SPECIAL INSTRUCTIONS/COMMENTS Metals		RECEIVED BY <b>John Tebaut</b>		RECEIVED BY	
See OAPP <input type="checkbox"/>		Signature <b>John Tebaut</b>		Signature	
STATE WHERE SAMPLES WERE COLLECTED		Printed Name <b>John Tebaut</b>		Printed Name	
RELINQUISHED BY <b>Scott Cooper</b>		Firm <b>ALS</b>		Firm	
Date/Time <b>8-29-13/1615</b>		Date/Time <b>8/29/13/0900</b>		Date/Time	
RELINQUISHED BY		Signature		Signature	
Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REQUESTED REPORT DATE		REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report	
INVOICE INFORMATION PO # BILL TO:		INVOICE INFORMATION		INVOICE INFORMATION	





September 19, 2013

Service Request No: R1306304

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306304**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 104

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306304

<u>Lab ID</u>	<u>Client ID</u>
R1306304-001	E5304B01 (4-6)
R1306304-002	E5307B01 (2-4)
R1306304-003	E5304B02 (6-8)
R1306304-004	E5304B04 (4-6)
R1306304-005	E5309B09 (0-2)
R1306304-006	E5304B03 (2-4)
R1306304-007	E5308B03 (0-2)
R1306304-008	E5308B03 (4-6)
R1306304-009	E5308B02 (2-4)
R1306304-010	E5308B02D (2-4)
R1306304-011	E5308B02 (6-8)
R1306304-012	E5308B01 (0-2)
R1306304-013	E5308B01 (2-4)
R1306304-014	E5308B04 (2-4)
R1306304-015	E5308B04 (8-10)
R1306304-016	E5308B05 (0-2)
R1306304-017	E5308B05 (10-12)
R1306304-018	E5308B06 (0-2)
R1306304-019	E5308B06 (2-4)
R1306304-020	E53VLB01 (4-6)

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306304-020

Service Request: R1306304  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.62	pH Units		1	NA	9/10/13 13:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/29/13 1510  
 Date Received: 8/30/13  
 Pre-Prep Date: 9/4/13

Sample Name: E53VLB01 (4-6)  
 Lab Code: R1306304-020

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/9/13	9/10/13 19:55	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/9/13	9/10/13 19:55	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/10/13 19:55	
Barium	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/10/13 19:55	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/9/13	9/10/13 19:55	
Boron	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/10/13 19:55	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/10/13 19:55	
Calcium	6010C	336		mg/L	10	10	9/9/13	9/12/13 10:34	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/10/13 19:55	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/10/13 19:55	
Copper	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/12/13 10:41	
Iron	6010C	0.20		mg/L	0.10	1	9/9/13	9/10/13 19:55	
Lead	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/10/13 19:55	
Magnesium	6010C	175		mg/L	1.0	1	9/9/13	9/10/13 19:55	
Manganese	6010C	1.01		mg/L	0.010	1	9/9/13	9/10/13 19:55	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/9/13	9/9/13 20:33	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/10/13 19:55	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/9/13	9/10/13 19:55	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/10/13 19:55	
Silver	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/10/13 19:55	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/9/13	9/10/13 19:55	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/10/13 19:55	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/12/13 10:41	





October 07, 2013

Service Request No: R1306844

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

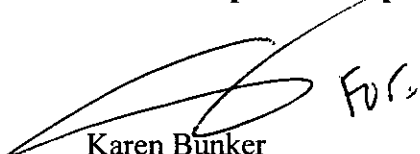
Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306844**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 45



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1306844  
Date Collected: 8/29/13 1510  
Date Received: 8/30/13  
Pre-Prep Date: 9/25/13

Sample Name: E53VLB01 (4-6)  
Lab Code: R1306844-014

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.012	mg/L	0.010	1	9/30/13	10/3/13 12:15	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TU4D4 E7S3-04

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US30</b>		Project Number <b>EE-004325-004-0177c</b>					
Project Manager <b>Karen Bunker/Sheen Johnson</b>		Report QC <b>Beau Tebawt</b>					
Company/Address <b>Ecology; Environment 33 W Monroe St Suite 1410 Chicago IL 60603</b>							
Photo # <b>312 578 9243</b>		Email <b>Sjohnson@ecology.com</b>					
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Scott Cooper</b>					
CLIENT SAMPLE ID	FOR OFFICE USE ONLY/LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	ANALYSIS REQUESTED (Include Method Number and Container Preservative)
<b>E5308B06 (02)</b>		<b>8-29-13</b>	<b>1405</b>	<b>Soil</b>	<b>4</b>		<b>SLOC</b> <b>VOC</b> <b>TCAP/PCB TKW Well</b> <b>PTG S.L.S</b>
<b>E5308B06 (2-4)</b>		<b>8-29-13</b>	<b>1410</b>	<b>Soil</b>	<b>4</b>		
<b>E53V6B01 (4-6)</b>	<b>014</b>	<b>8-29-13</b>	<b>1510</b>	<b>Soil</b>	<b>4</b>		
SPECIAL INSTRUCTIONS/COMMENTS <b>Metals</b>							
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____							
REPORT REQUIREMENTS I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MSMSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____							
INVOICE INFORMATION PO # _____ BILL TO: _____							
RECEIVED BY Signature: <i>[Signature]</i> Printed Name: <b>Scott Cooper</b> Firm: <b>Ecology; Environment</b> Date/Time: <b>8-29-13/1415</b>							
RECEIVED BY Signature: <i>[Signature]</i> Printed Name: _____ Firm: _____ Date/Time: _____							

Distribution: White - Lab Copy; Yellow - Return to Originator

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Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15510 Joliet Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.600088° Longitude: -88.195817°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805066 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.600088° Longitude: -88.195817°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E53WLB01 was sampled within the construction zone adjacent to ISGS #2141-8 (Western Landscape). Refer to PSI Report for ISGS #2141-8 (Western Landscape) including Table 4-4, and Figures 4-6 and 4-7.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306381, R1306382, and R1307107.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

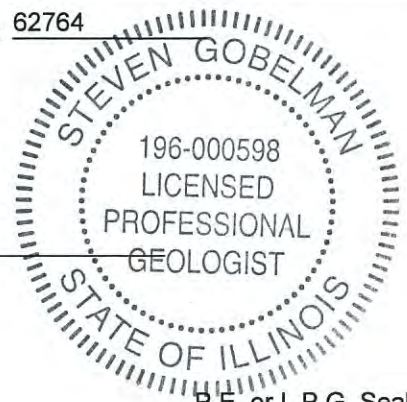
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-8 (Western Landscape)		Comparison Criteria			
BORING	E53WLB01		MACs			TACO
SAMPLE	E53WLB01 (2-4)	E53WLB01 (12-14)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (meters)	0.6-1.2	3.7-4.3				
pH	7.92	8.42				
<b>VOCs (µg/kg)</b>						
Acetone	ND U	4.2 J	25,000	--	--	--
Toluene	ND U	2.1 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>						
Diethyl Phthalate	ND U	52 J	470,000	--	--	--
Di-n-butyl Phthalate	ND U	150 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>						
Aluminum	10,900	1,270	--	--	--	--
Arsenic	8.4	5.0	11.3	13	--	--
Barium	166	3.1	1,500	--	--	--
Beryllium	0.66	0.07 J	22	--	--	--
Boron	9 J	4 J	40	--	--	--
Calcium	2,980	168,000	--	--	--	--
Chromium	15.5	4.1	21	--	--	--
Cobalt	10.8	2.1 J	20	--	--	--
Copper	13.5	8.5	2,900	--	--	--
Iron	18,700 †m	9,780	15,000	15,900	--	--
Lead	24.7	4.8 J	107	--	--	--
Magnesium	2,500	92,700	325,000	--	--	--
Manganese	1,250 †m	361	630	636	--	--
Mercury	0.038 J	ND U	1	--	--	--
Nickel	13.6	4.6	100	--	--	--
Potassium	910	370	--	--	--	--
Selenium	0.8 J	ND U	1	--	--	--
Silver	ND U	0.3 J	4	--	--	--
Vanadium	30.9	9.4	550	--	--	--
Zinc	58.8	14.8	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	0.25	ND U	--	--	--	--
Calcium	71	940	--	--	--	--
Iron	ND U	0.81	--	--	--	5
Magnesium	22.8	499	--	--	--	--
Manganese	0.014	4.33 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	NA	ND U	--	--	--	0.15



September 25, 2013

Service Request No: R1306381

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306381**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 110





REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State/Agency Accredited, ID #, and State/Agency ID #. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois, Virginia.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53WLB01 (2-4)  
**Lab Code:** R1306381-020

**Service Request:** R1306381  
**Date Collected:** 9/3/13 0940  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.92	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/450000I345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 0940  
**Date Received:** 9/ 4/13  
**Pre-Prep Date:** 9/10/13

**Sample Name:** E53WLB01 (2-4)  
**Lab Code:** R1306381-020

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.25		mg/L	0.20	1	9/11/13	9/18/13 06:51	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 06:51	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 06:51	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 06:51	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 06:51	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 06:51	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Calcium	6010C	71		mg/L	10	10	9/11/13	9/18/13 00:51	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 06:51	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Iron	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Magnesium	6010C	22.8		mg/L	1.0	1	9/11/13	9/18/13 06:51	
Manganese	6010C	0.014		mg/L	0.010	1	9/11/13	9/18/13 06:51	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 12:12	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 06:51	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 06:51	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 06:51	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 06:51	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 06:51	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53WLB01 (2-4)  
**Lab Code:** R1306381-020  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53WLB01 (12-14)  
**Lab Code:** R1306381-021

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 0945  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.42	pH Units		1	NA	9/11/13 14:10	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 0945  
**Date Received:** 9/ 4/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E53WLB01 (12-14)  
**Lab Code:** R1306381-021

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	2.0	U	mg/L	2.0	10	9/12/13	9/18/13 20:50	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 01:08	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:08	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:08	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 01:08	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:08	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Calcium	6010C	940		mg/L	10	10	9/12/13	9/18/13 20:50	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:08	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Iron	6010C	0.81		mg/L	0.10	1	9/12/13	9/19/13 01:08	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Magnesium	6010C	499		mg/L	1.0	1	9/12/13	9/19/13 01:08	
Manganese	6010C	4.33		mg/L	0.010	1	9/12/13	9/19/13 01:08	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:42	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 01:08	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:08	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 01:08	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:08	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:08	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53WLB01 (12-14)  
**Lab Code:** R1306381-021  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







September 25, 2013

Service Request No: R1306382

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306382**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 312

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E53WLB01 (2-4)  
Lab Code: R1306382-020

Service Request: R1306382  
Date Collected: 9/ 3/13 0940  
Date Received: 9/ 4/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.2	Percent	1.0	1	NA	9/5/13 13:35	

00159rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53WLB01 (2-4)  
 Lab Code: R1306382-020

Service Request: R1306382  
 Date Collected: 9/ 3/13 0940  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 82.2

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10900	mg/Kg	12	4	1	9/ 9/13	9/14/13 04:24	
Antimony, Total	6010C	7.2 U	mg/Kg	7.2	0.3	1	9/ 9/13	9/14/13 04:24	
Arsenic, Total	6010C	8.4	mg/Kg	1.2	0.5	1	9/ 9/13	9/14/13 04:24	
Barium, Total	6010C	166	mg/Kg	2.4	0.09	1	9/ 9/13	9/14/13 04:24	
Beryllium, Total	6010C	0.66	mg/Kg	0.36	0.04	1	9/ 9/13	9/14/13 04:24	
Boron, Total	6010C	9 J	mg/Kg	24	5	1	9/ 9/13	9/18/13 00:38	
Cadmium, Total	6010C	0.60 U	mg/Kg	0.60	0.08	1	9/ 9/13	9/14/13 04:24	
Calcium, Total	6010C	2980	mg/Kg	120	40	1	9/ 9/13	9/14/13 04:24	
Chromium, Total	6010C	15.5	mg/Kg	1.2	0.2	1	9/ 9/13	9/14/13 04:24	
Cobalt, Total	6010C	10.8	mg/Kg	6.0	0.07	1	9/ 9/13	9/14/13 04:24	
Copper, Total	6010C	13.5	mg/Kg	2.4	0.8	1	9/ 9/13	9/14/13 04:24	
Iron, Total	6010C	18700	mg/Kg	120	70	10	9/ 9/13	9/13/13 20:12	
Lead, Total	6010C	24.7	mg/Kg	6.0	0.3	1	9/ 9/13	9/14/13 04:24	
Magnesium, Total	6010C	2500	mg/Kg	120	2	1	9/ 9/13	9/14/13 04:24	
Manganese, Total	6010C	1250	mg/Kg	12	2	10	9/ 9/13	9/13/13 20:12	
Mercury, Total	7471B	0.038 J	mg/Kg	0.039	0.007	1	9/ 9/13	9/9/13 18:31	
Nickel, Total	6010C	13.6	mg/Kg	4.8	0.10	1	9/ 9/13	9/14/13 04:24	
Potassium, Total	6010C	910	mg/Kg	240	20	1	9/ 9/13	9/14/13 04:24	
Selenium, Total	6010C	0.8 J	mg/Kg	1.2	0.4	1	9/ 9/13	9/14/13 04:24	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	0.10	1	9/ 9/13	9/14/13 04:24	
Thallium, Total	6010C	2.4 U	mg/Kg	2.4	0.9	2	9/ 9/13	9/16/13 19:05	
Vanadium, Total	6010C	30.9	mg/Kg	6.0	0.06	1	9/ 9/13	9/14/13 04:24	
Zinc, Total	6010C	58.8	mg/Kg	2.4	0.09	1	9/ 9/13	9/14/13 04:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0940  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 22:15

Sample Name: E53WLB01 (2-4)  
 Lab Code: R1306382-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA7\DATA\090513\K4925.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.7 U	4.7	2.7	
71-43-2	Benzene	4.7 U	4.7	0.28	
75-27-4	Bromodichloromethane	4.7 U	4.7	0.58	
75-25-2	Bromoform	4.7 U	4.7	0.88	
74-83-9	Bromomethane	4.7 U	4.7	1.3	
78-93-3	2-Butanone (MEK)	4.7 U	4.7	2.2	
75-15-0	Carbon Disulfide	4.7 U	4.7	1.2	
56-23-5	Carbon Tetrachloride	4.7 U	4.7	0.87	
108-90-7	Chlorobenzene	4.7 U	4.7	0.28	
75-00-3	Chloroethane	4.7 U	4.7	2.7	
67-66-3	Chloroform	4.7 U	4.7	1.2	
74-87-3	Chloromethane	4.7 U	4.7	0.38	
124-48-1	Dibromochloromethane	4.7 U	4.7	0.69	
75-34-3	1,1-Dichloroethane	4.7 U	4.7	1.2	
107-06-2	1,2-Dichloroethane	4.7 U	4.7	0.58	
75-35-4	1,1-Dichloroethene	4.7 U	4.7	1.2	
156-59-2	cis-1,2-Dichloroethene	4.7 U	4.7	0.89	
156-60-5	trans-1,2-Dichloroethene	4.7 U	4.7	0.81	
78-87-5	1,2-Dichloropropane	4.7 U	4.7	0.91	
10061-01-5	cis-1,3-Dichloropropene	4.7 U	4.7	0.85	
10061-02-6	trans-1,3-Dichloropropene	4.7 U	4.7	0.19	
100-41-4	Ethylbenzene	4.7 U	4.7	0.22	
591-78-6	2-Hexanone	4.7 U	4.7	1.2	
75-09-2	Methylene Chloride	4.7 U	4.7	0.54	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.7 U	4.7	0.92	
100-42-5	Styrene	4.7 U	4.7	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	4.7 U	4.7	0.76	
127-18-4	Tetrachloroethene	4.7 U	4.7	0.83	
108-88-3	Toluene	4.7 U	4.7	0.94	
71-55-6	1,1,1-Trichloroethane	4.7 U	4.7	0.69	
79-00-5	1,1,2-Trichloroethane	4.7 U	4.7	0.69	
79-01-6	Trichloroethene	4.7 U	4.7	0.95	
75-01-4	Vinyl Chloride	4.7 U	4.7	1.8	
95-47-6	o-Xylene	4.7 U	4.7	0.45	

00161 re J

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0940  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 22:15

Sample Name: E53WLB01 (2-4)  
 Lab Code: R1306382-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4925.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	9.4 U	9.4	1.1	
1634-04-4	Methyl tert-Butyl Ether	4.7 U	4.7	0.89	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	28-150	9/5/13 22:15	
Toluene-d8	101	66-138	9/5/13 22:15	
Dibromofluoromethane	96	63-138	9/5/13 22:15	

00162W

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0940  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 20:14

Sample Name: E53WLB01 (2-4)  
 Lab Code: R1306382-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS880.D\

Analysis Lot: 358073  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	73	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	

00163rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0940  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 20:14

Sample Name: E53WLB01 (2-4)  
 Lab Code: R1306382-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS880.D\

Analysis Lot: 358073  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	400	U	400	98	
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	52	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	64	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	54	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	78	

00164rev



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/450001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 0940  
**Date Received:** 9/ 4/13  
**Date Extracted:** 9/9/13  
**Date Analyzed:** 9/10/13 20:14

**Sample Name:** E53WLB01 (2-4)  
**Lab Code:** R1306382-020

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 82.2

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUDATA\5973A\DATA\091013\CS880.D\

**Analysis Lot:** 358073  
**Extraction Lot:** 191200  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	63	41-151	9/10/13 20:14	
2-Fluorobiphenyl	63	47-126	9/10/13 20:14	
2-Fluorophenol	45	16-129	9/10/13 20:14	
Nitrobenzene-d5	58	39-136	9/10/13 20:14	
Phenol-d6	52	10-145	9/10/13 20:14	
p-Terphenyl-d14	54	35-152	9/10/13 20:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53WLB01 (12-14)  
**Lab Code:** R1306382-021

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 0945  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.7	Percent	1.0	1	NA	9/5/13 13:35	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Service Request: R1306382  
 Date Collected: 9/ 3/13 0945  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 94.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1270		mg/Kg	10	3	1	9/11/13	9/19/13 08:32	
Antimony, Total	6010C	6.2	U	mg/Kg	6.2	0.3	1	9/11/13	9/19/13 08:32	
Arsenic, Total	6010C	5.0		mg/Kg	1.0	0.5	1	9/11/13	9/19/13 08:32	
Barium, Total	6010C	3.1		mg/Kg	2.1	0.08	1	9/11/13	9/19/13 08:32	
Beryllium, Total	6010C	0.07	J	mg/Kg	0.31	0.03	1	9/11/13	9/19/13 08:32	
Boron, Total	6010C	4	J	mg/Kg	21	4	1	9/11/13	9/19/13 08:32	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/11/13	9/19/13 08:32	
Calcium, Total	6010C	168000		mg/Kg	1000	300	10	9/11/13	9/18/13 07:59	
Chromium, Total	6010C	4.1		mg/Kg	1.0	0.2	1	9/11/13	9/19/13 08:32	
Cobalt, Total	6010C	2.1	J	mg/Kg	5.1	0.06	1	9/11/13	9/19/13 08:32	
Copper, Total	6010C	8.5		mg/Kg	2.1	0.7	1	9/11/13	9/19/13 08:32	
Iron, Total	6010C	9780		mg/Kg	100	60	10	9/11/13	9/18/13 07:59	
Lead, Total	6010C	4.8	J	mg/Kg	5.1	0.3	1	9/11/13	9/19/13 08:32	
Magnesium, Total	6010C	92700		mg/Kg	1000	20	10	9/11/13	9/18/13 07:59	
Manganese, Total	6010C	361		mg/Kg	1.0	0.2	1	9/11/13	9/19/13 08:32	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/12/13	9/12/13 18:29	
Nickel, Total	6010C	4.6		mg/Kg	4.1	0.09	1	9/11/13	9/19/13 08:32	
Potassium, Total	6010C	370		mg/Kg	210	20	1	9/11/13	9/19/13 08:32	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/11/13	9/19/13 08:32	
Silver, Total	6010C	0.3	J	mg/Kg	1.0	0.09	1	9/11/13	9/19/13 08:32	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/11/13	9/19/13 08:32	
Vanadium, Total	6010C	9.4		mg/Kg	5.1	0.06	1	9/11/13	9/19/13 08:32	
Zinc, Total	6010C	14.8		mg/Kg	2.1	0.08	1	9/11/13	9/19/13 08:32	

00165ru

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 0945  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 22:53

Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4926.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: 1.01

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.2	J	5.3	3.0	
71-43-2	Benzene	5.3	U	5.3	0.31	
75-27-4	Bromodichloromethane	5.3	U	5.3	0.66	
75-25-2	Bromoform	5.3	U	5.3	1.0	
74-83-9	Bromomethane	5.3	U	5.3	1.5	
78-93-3	2-Butanone (MEK)	5.3	U	5.3	2.5	
75-15-0	Carbon Disulfide	5.3	U	5.3	1.4	
56-23-5	Carbon Tetrachloride	5.3	U	5.3	0.99	
108-90-7	Chlorobenzene	5.3	U	5.3	0.31	
75-00-3	Chloroethane	5.3	U	5.3	3.1	
67-66-3	Chloroform	5.3	U	5.3	1.4	
74-87-3	Chloromethane	5.3	U	5.3	0.43	
124-48-1	Dibromochloromethane	5.3	U	5.3	0.78	
75-34-3	1,1-Dichloroethane	5.3	U	5.3	1.4	
107-06-2	1,2-Dichloroethane	5.3	U	5.3	0.66	
75-35-4	1,1-Dichloroethene	5.3	U	5.3	1.4	
156-59-2	cis-1,2-Dichloroethene	5.3	U	5.3	1.1	
156-60-5	trans-1,2-Dichloroethene	5.3	U	5.3	0.92	
78-87-5	1,2-Dichloropropane	5.3	U	5.3	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.3	U	5.3	0.96	
10061-02-6	trans-1,3-Dichloropropene	5.3	U	5.3	0.22	
100-41-4	Ethylbenzene	5.3	U	5.3	0.25	
591-78-6	2-Hexanone	5.3	U	5.3	1.3	
75-09-2	Methylene Chloride	5.3	U	5.3	0.61	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.3	U	5.3	1.1	
100-42-5	Styrene	5.3	U	5.3	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U	5.3	0.87	
127-18-4	Tetrachloroethene	5.3	U	5.3	0.94	
108-88-3	Toluene	2.1	J	5.3	1.1	
71-55-6	1,1,1-Trichloroethane	5.3	U	5.3	0.78	
79-00-5	1,1,2-Trichloroethane	5.3	U	5.3	0.78	
79-01-6	Trichloroethene	5.3	U	5.3	1.1	
75-01-4	Vinyl Chloride	5.3	U	5.3	2.0	
95-47-6	o-Xylene	5.3	U	5.3	0.52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0945  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 22:53

Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4926.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: 1.01

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	11 U	11	1.2	
1634-04-4	Methyl tert-Butyl Ether	5.3 U	5.3	1.1	
1330-20-7	Xylenes, Total	16 U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	28-150	9/5/13 22:53	
Toluene-d8	99	66-138	9/5/13 22:53	
Dibromofluoromethane	101	63-138	9/5/13 22:53	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0945  
 Date Received: 9/ 4/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:10

Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS966.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	

00171 RV

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 0945  
 Date Received: 9/4/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:10

Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS966.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	350	U	350	85	
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	150	J	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	52	J	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

00172 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 0945  
 Date Received: 9/ 4/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:10

Sample Name: E53WLB01 (12-14)  
 Lab Code: R1306382-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS966.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	64	41-151	9/16/13 17:10	
2-Fluorobiphenyl	85	47-126	9/16/13 17:10	
2-Fluorophenol	58	16-129	9/16/13 17:10	
Nitrobenzene-d5	80	39-136	9/16/13 17:10	
Phenol-d6	69	10-145	9/16/13 17:10	
p-Terphenyl-d14	96	35-152	9/16/13 17:10	

00173REV





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10457 E703-07

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
EDOT WSB0		EE-004335-0001-01770			
Project Manager		Report CC		PRESERVATIVE	
Karen Bunker Sherr Johnson		Dean Treibert			
Company/Address		Email		METALS TOTAL (List in comments below)	
Ecology Environment 33 W Monroe St Suite 1410 Chicago IL 60603		Stephen@ecenv.com			
Phone #		Sampler's Signature		METALS DISSOLVED (List in comments below)	
312 579 9243		<i>[Signature]</i>			
Sampler's Name		SAMPLING TIME		NUMBER OF CONTAINERS	
S.H. Corp					
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	
ES309B07(0-15)	019	9-3-13	0850	Soil	8
ES3WL301(2-4)	020	9-3-13	0940	Soil	4
ES3WL301(12-14)	021	9-3-13	0945	Soil	4
ES3WL601		9-3-13	1005	Water	4
ES3TB02		9-3-13	1020	Water	1
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<del>ES3TB00</del>					

Preservative Key  
 0. NONE  
 1. HCL  
 2. HNO3  
 3. H2SO4  
 4. NaOH  
 5. Zn Acetate  
 6. MeOH  
 7. NaHSO4  
 8. Other \_\_\_\_\_

REMARKS/  
ALTERNATE DESCRIPTION

MS/MSD

Trip Blank

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

See QAPP

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY: *[Signature]*  
Signature: *[Signature]*  
Printed Name: S.H. Corp  
Firm: S.H. Corp  
Date/Time: 9-3-13 1030

RECEIVED BY: *[Signature]*  
Signature: *[Signature]*  
Printed Name: John Sand  
Firm: ALS  
Date/Time: 9-3-13 1030

TURNAROUND REQUIREMENTS  
PUSH (SURCHARGES APPLY)  
1 day \_\_\_ 2 day \_\_\_ 3 day \_\_\_  
4 day \_\_\_ 5 day \_\_\_  
REQUESTED REPORT DATE

REPORT REQUIREMENTS  
I. Results Only  
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)  
III. Results + QC and Calibration Summaries  
IV. Data Validation Report with Raw Data  
Edata \_\_\_ Yes \_\_\_ No

INVOICE INFORMATION  
PO #  
BILL TO:  
RECEIVED BY: *[Signature]*  
Signature: *[Signature]*  
Printed Name: *[Signature]*  
Firm: *[Signature]*  
Date/Time: *[Signature]*



October 10, 2013

Service Request No: R1307107

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1307107**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



*K.B.*

Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 9/3/13 0945  
Date Received: 9/4/13  
Pre-Prep Date: 9/29/13

Sample Name: E53WLB01 (12-14)  
Lab Code: R1307107-012

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/1/13	10/9/13 12:55	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53WLB01 (12-14)  
**Lab Code:** R1307107-012  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10457

E703-07

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

Project Name		Project Number		ANALYSIS REQUESTED (include Method Number and Container Preservative)	
IDOT W830		EE-004335-0001-01770			
Project Manager		Report DC		PRESERVATIVE	
Karen Bunke/Sheer-Johns		Dean Trebort			
Company/Address		NUMBER OF CONTAINERS		METALS, TOTAL (List in comments below)	
Ecology Environment					
33 W Monroe St, Suite 1440					
Chicago, IL 60603					
Phone #		Email		METALS, DISSOLVED (List in comments below)	
312.579.9243		stjohns@ecv.com			
Sampler's Signature		Sampler's Printed Name		PCBS o 8082 o 608	
<i>[Signature]</i>		St. H Coop			
CLIENT SAMPLE ID		DATE		PESTICIDES o 8021 o 601/602	
E5309B07(0-15)		9-3-13			
E53WLB01(2-4)		9-3-13			
E53WLB01(12-14)		9-3-13			
E53WLB01		9-3-13			
E53TB02		9-3-13			
FOR OFFICE USE ONLY/LAB ID		SAMPLING TIME		GC VOAs o 8270 o 825	
011 019		0850			
020		0940			
012 021		0945			
016		1005			
011 019		1020			
MATRIX		SAMPLING DATE		GC SVoAs o 8260 o 824 o CLP	
So-1		9-3-13			
So-1		9-3-13			
So-1		9-3-13			
Water		9-3-13			
Water		9-3-13			
REMARKS/ALTERNATE DESCRIPTION					
Mystard 4(2013)					
Trip Blank					
9-3-13					

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO # BILL TO:	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata Yes No		RECEIVED BY <i>[Signature]</i>	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		RECEIVED BY <i>[Signature]</i>	
RELINQUISHED BY		Signature		Signature		Signature	
Signature <i>[Signature]</i>		Printed Name		Printed Name		Printed Name	
Printed Name <i>[Signature]</i>		Firm		Firm		Firm	
Firm <i>[Signature]</i>		Date/Time		Date/Time		Date/Time	
Date/Time 9-3-13/1700		Date/Time 1030		Date/Time		Date/Time	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15518-15610 Joliet Rd. and 15730 Howard St.

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.599119° Longitude: -88.195143°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.599119° Longitude: -88.195143°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E53CMB01, E53CMB02, E53CMB03, and E53CMB04 were sampled within the construction zone adjacent to ISGS #2141-10 (Commercial Buildings). Refer to PSI Report for ISGS #2141-10 (Commercial Buildings) including Table 4-4, and Figure 4-6.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306381, R1306382, and R1307107.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/11

Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-10 (Commercial Buildings)					Comparison Criteria			
	E53CMB01		E53CMB02	E53CMB03	E53CMB04	MACs			TACO
BORING	E53CMB01 (2-4)	E53CMB01D (2-4)	E53CMB02 (4-6)	E53CMB03 (0-2)	E53CMB04 (6-8)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE									
MATRIX	Soil	Soil	Soil	Soil	Soil				
DEPTH (meters)	0.6-1.2	0.6-1.2	1.2-1.8	0.0-0.6	1.8-2.4				
pH	7.34	7.37	8.17	7.23	8.38				
<b>VOCs (µg/kg)</b>									
Acetone	ND U	ND U	ND U	ND U	2.7 J	25,000	--	--	--
Ethylbenzene	ND U	ND U	ND U	ND U	0.21 J	13,000	--	--	--
Toluene	ND U	1.3 J	1.6 J	1.0 J	1.7 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>									
Di-n-butyl Phthalate	ND U	ND U	ND U	150 J	110 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>									
Aluminum	12,100	14,300	6,400	11,800	2,050	--	--	--	--
Arsenic	8.2	11.0	11.2	10.4	6.3	11.3	13	--	--
Barium	147	214	63.3	133	16.3	1,500	--	--	--
Beryllium	0.68	0.83	0.41	0.70	0.12 J	22	--	--	--
Boron	8 J	13 J	11 J	9 J	8 J	40	--	--	--
Calcium	1,540	1,750	39,100	2,690	119,000	--	--	--	--
Chromium	16.4	18.9	10.9	16.6	5.0	21	--	--	--
Cobalt	12.3	20.3 †	6.3	8.6	2.7 J	20	--	--	--
Copper	8.4	9.8	28.0	15.8	12.6	2,900	--	--	--
Iron	18,800 †m	23,300 †m	20,800 †m	21,200 †m	10,400	15,000	15,900	--	--
Lead	17.0	26.2	17.7	16.3	7.0	107	--	--	--
Magnesium	3,000	3,400	25,300	2,670	70,100	325,000	--	--	--
Manganese	1,400 †m	2,370 †m	622	773 †m	348	630	636	--	--
Mercury	0.021 J	0.020 J	0.015 J	0.030 J	0.009 J	1	--	--	--
Nickel	12.7	15.1	18.8	15.3	7.2	100	--	--	--
Potassium	980	1,010	1,010	850	480	--	--	--	--
Selenium	0.7 J	1.6 †	ND U	ND U	ND U	1	--	--	--
Silver	ND U	ND U	ND U	ND U	0.1 J	4	--	--	--
Vanadium	30.9	39.0	21.8	31.8	8.7	550	--	--	--
Zinc	49.0	55.4	69.3	54.8	35.6	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>									
Aluminum	0.96	1.27	0.27	0.41	ND U	--	--	--	--
Boron	ND U	ND U	ND U	ND U	1.8	--	--	--	2
Calcium	46.2	53.8	321	77.4	918	--	--	--	--
Iron	0.58	0.75	0.27	0.20	0.24	--	--	--	5
Magnesium	20.5	23.0	174	33.5	546	--	--	--	--
Manganese	0.032	0.028	0.197 L	0.087	4.66 L	--	--	--	0.15
Potassium	ND U	ND U	8.2	ND U	ND U	--	--	--	--
<b>SPLP Metals (mg/L)</b>									
Manganese	NA	NA	0.043	NA	ND U	--	--	--	0.15



September 25, 2013

Service Request No: R1306381

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306381**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 110

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB04 (6-8)  
**Lab Code:** R1306381-013

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1055  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.38	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1055  
**Date Received:** 9/4/13  
**Pre-Prep Date:** 9/10/13

**Sample Name:** E53CMB04 (6-8)  
**Lab Code:** R1306381-013

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 05:14	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:14	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:14	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:14	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:14	
Boron	6010C	1.8		mg/L	1.0	1	9/11/13	9/18/13 05:14	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Calcium	6010C	918		mg/L	50	50	9/11/13	9/18/13 21:52	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:14	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Iron	6010C	0.24		mg/L	0.10	1	9/11/13	9/18/13 05:14	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Magnesium	6010C	546		mg/L	10	10	9/11/13	9/17/13 22:54	
Manganese	6010C	4.66		mg/L	0.010	1	9/11/13	9/18/13 05:14	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:54	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:14	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:14	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:14	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:14	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:14	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB04 (6-8)  
**Lab Code:** R1306381-013  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB03 (0-2)  
**Lab Code:** R1306381-014

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 1125  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.23	pH Units		1	NA	9/11/13 14:10	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1125  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306381-014

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.41		mg/L	0.20	1	9/11/13	9/18/13 05:20	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:20	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:20	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:20	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:20	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:20	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Calcium	6010C	77.4		mg/L	2.0	2	9/11/13	9/18/13 21:58	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:20	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Iron	6010C	0.20		mg/L	0.10	1	9/11/13	9/18/13 05:20	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Magnesium	6010C	33.5		mg/L	1.0	1	9/11/13	9/18/13 05:20	
Manganese	6010C	0.087		mg/L	0.010	1	9/11/13	9/18/13 05:20	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:56	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:20	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:20	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:20	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:20	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:20	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB03 (0-2)  
**Lab Code:** R1306381-014  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB02 (4-6)  
**Lab Code:** R1306381-016

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 1310  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.17	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306381-016

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.27		mg/L	0.20	1	9/11/13	9/18/13 05:44	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:44	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:44	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:44	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:44	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:44	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Calcium	6010C	321		mg/L	10	10	9/11/13	9/17/13 23:34	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:44	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Iron	6010C	0.27		mg/L	0.10	1	9/11/13	9/18/13 05:44	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Magnesium	6010C	174		mg/L	1.0	1	9/11/13	9/18/13 05:44	
Manganese	6010C	0.197		mg/L	0.010	1	9/11/13	9/18/13 05:44	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:59	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Potassium	6010C	8.2		mg/L	5.0	1	9/11/13	9/18/13 05:44	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:44	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:44	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:44	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:44	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB02 (4-6)  
**Lab Code:** R1306381-016  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB01 (2-4)  
**Lab Code:** R1306381-017

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1335  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.34	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/3/13 1335  
 Date Received: 9/4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306381-017

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.96		mg/L	0.20	1	9/11/13	9/18/13 05:50	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:50	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:50	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:50	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:50	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:50	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Calcium	6010C	46.2		mg/L	2.0	2	9/11/13	9/18/13 22:05	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:50	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Iron	6010C	0.58		mg/L	0.10	1	9/11/13	9/18/13 05:50	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Magnesium	6010C	20.5		mg/L	1.0	1	9/11/13	9/18/13 05:50	
Manganese	6010C	0.032		mg/L	0.010	1	9/11/13	9/18/13 05:50	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 12:04	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:50	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:50	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:50	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:50	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:50	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB01 (2-4)  
**Lab Code:** R1306381-017  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306381-018

Service Request: R1306381  
 Date Collected: 9/3/13 13:35  
 Date Received: 9/4/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.37	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306381-018

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	1.27		mg/L	0.20	1	9/11/13	9/18/13 05:56	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:56	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:56	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:56	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:56	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:56	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Calcium	6010C	53.8		mg/L	2.0	2	9/11/13	9/18/13 22:11	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:56	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Iron	6010C	0.75		mg/L	0.10	1	9/11/13	9/18/13 05:56	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Magnesium	6010C	23.0		mg/L	1.0	1	9/11/13	9/18/13 05:56	
Manganese	6010C	0.028		mg/L	0.010	1	9/11/13	9/18/13 05:56	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 12:06	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:56	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:56	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:56	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:56	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:56	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB01D (2-4)  
**Lab Code:** R1306381-018  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





September 25, 2013

Service Request No: R1306382

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306382**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 312

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306382

<u>Lab ID</u>	<u>Client ID</u>
R1306382-001	E5309B08 (2-4)
R1306382-002	E5311B01 (6-8)
R1306382-003	E5311B03 (4-6)
R1306382-004	E5311B02 (2-4)
R1306382-005	E5311B05 (4-6)
R1306382-006	E5312B02 (0-2)
R1306382-007	E5312B01 (2-4)
R1306382-008	E5311B04 (10-12)
R1306382-009	E5310B02 (6-8)
R1306382-010	E5309B05 (2-4)
R1306382-011	E5309B04 (4-6)
R1306382-012	E5310B01 (0-2)
R1306382-013	E53CMB04 (6-8)
R1306382-014	E53CMB03 (0-2)
R1306382-015	E5309B06 (2-4)
R1306382-016	E53CMB02 (4-6)
R1306382-017	E53CMB01 (2-4)
R1306382-018	E53CMB01D (2-4)
R1306382-019	E5309B07 (0-1.5)
R1306382-020	E53WLB01 (2-4)
R1306382-021	E53WLB01 (12-14)

00004 REV

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB04 (6-8)  
**Lab Code:** R1306382-013

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1055  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.9	Percent	1.0	1	NA	9/5/13 13:35	

00103 rev



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Service Request: R1306382  
 Date Collected: 9/ 3/13 1055  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 95.9

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2050	mg/Kg	10	3	1	9/ 9/13	9/14/13 02:59	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/ 9/13	9/14/13 02:59	
Arsenic, Total	6010C	6.3	mg/Kg	1.0	0.5	1	9/ 9/13	9/14/13 02:59	
Barium, Total	6010C	16.3	mg/Kg	2.0	0.08	1	9/ 9/13	9/14/13 02:59	
Beryllium, Total	6010C	0.12 J	mg/Kg	0.31	0.03	1	9/ 9/13	9/14/13 02:59	
Boron, Total	6010C	8 J	mg/Kg	20	4	1	9/ 9/13	9/17/13 23:13	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/ 9/13	9/14/13 02:59	
Calcium, Total	6010C	119000	mg/Kg	1000	300	10	9/ 9/13	9/13/13 18:50	
Chromium, Total	6010C	5.0	mg/Kg	1.0	0.2	1	9/ 9/13	9/14/13 02:59	
Cobalt, Total	6010C	2.7 J	mg/Kg	5.1	0.06	1	9/ 9/13	9/14/13 02:59	
Copper, Total	6010C	12.6	mg/Kg	2.0	0.7	1	9/ 9/13	9/14/13 02:59	
Iron, Total	6010C	10400	mg/Kg	100	60	10	9/ 9/13	9/13/13 18:50	
Lead, Total	6010C	7.0	mg/Kg	5.1	0.3	1	9/ 9/13	9/14/13 02:59	
Magnesium, Total	6010C	70100	mg/Kg	1000	20	10	9/ 9/13	9/13/13 18:50	
Manganese, Total	6010C	348	mg/Kg	10	2	10	9/ 9/13	9/13/13 18:50	
Mercury, Total	7471B	0.009 J	mg/Kg	0.033	0.006	1	9/ 9/13	9/9/13 18:13	
Nickel, Total	6010C	7.2	mg/Kg	4.1	0.09	1	9/ 9/13	9/14/13 02:59	
Potassium, Total	6010C	480	mg/Kg	200	20	1	9/ 9/13	9/14/13 02:59	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/ 9/13	9/14/13 02:59	
Silver, Total	6010C	0.1 J	mg/Kg	1.0	0.09	1	9/ 9/13	9/14/13 02:59	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/ 9/13	9/14/13 02:59	
Vanadium, Total	6010C	8.7	mg/Kg	5.1	0.06	1	9/ 9/13	9/14/13 02:59	
Zinc, Total	6010C	35.6	mg/Kg	2.0	0.08	1	9/ 9/13	9/14/13 02:59	

00104 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1055  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 18:31

Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4919.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .82

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	2.7	J	4.3	2.5	
71-43-2	Benzene	4.3	U	4.3	0.25	
75-27-4	Bromodichloromethane	4.3	U	4.3	0.53	
75-25-2	Bromoform	4.3	U	4.3	0.80	
74-83-9	Bromomethane	4.3	U	4.3	1.2	
78-93-3	2-Butanone (MEK)	4.3	U	4.3	2.0	
75-15-0	Carbon Disulfide	4.3	U	4.3	1.1	
56-23-5	Carbon Tetrachloride	4.3	U	4.3	0.79	
108-90-7	Chlorobenzene	4.3	U	4.3	0.25	
75-00-3	Chloroethane	4.3	U	4.3	2.5	
67-66-3	Chloroform	4.3	U	4.3	1.1	
74-87-3	Chloromethane	4.3	U	4.3	0.35	
124-48-1	Dibromochloromethane	4.3	U	4.3	0.63	
75-34-3	1,1-Dichloroethane	4.3	U	4.3	1.1	
107-06-2	1,2-Dichloroethane	4.3	U	4.3	0.53	
75-35-4	1,1-Dichloroethene	4.3	U	4.3	1.1	
156-59-2	cis-1,2-Dichloroethene	4.3	U	4.3	0.82	
156-60-5	trans-1,2-Dichloroethene	4.3	U	4.3	0.74	
78-87-5	1,2-Dichloropropane	4.3	U	4.3	0.83	
10061-01-5	cis-1,3-Dichloropropene	4.3	U	4.3	0.77	
10061-02-6	trans-1,3-Dichloropropene	4.3	U	4.3	0.18	
100-41-4	Ethylbenzene	0.21	J	4.3	0.20	
591-78-6	2-Hexanone	4.3	U	4.3	1.1	
75-09-2	Methylene Chloride	4.3	U	4.3	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	0.84	
100-42-5	Styrene	4.3	U	4.3	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U	4.3	0.70	
127-18-4	Tetrachloroethene	4.3	U	4.3	0.76	
108-88-3	Toluene	1.7	J	4.3	0.86	
71-55-6	1,1,1-Trichloroethane	4.3	U	4.3	0.63	
79-00-5	1,1,2-Trichloroethane	4.3	U	4.3	0.63	
79-01-6	Trichloroethene	4.3	U	4.3	0.87	
75-01-4	Vinyl Chloride	4.3	U	4.3	1.6	
95-47-6	o-Xylene	4.3	U	4.3	0.42	

00105-22

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1055  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 18:31

Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4919.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .82

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	8.6 U	8.6	0.94	
1634-04-4	Methyl tert-Butyl Ether	4.3 U	4.3	0.81	
1330-20-7	Xylenes, Total	13 U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	28-150	9/5/13 18:31	
Toluene-d8	101	66-138	9/5/13 18:31	
Dibromofluoromethane	96	63-138	9/5/13 18:31	

*cd 106 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1055  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 18:57

Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS878.D\

Analysis Lot: 358073  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340	U	340	35	
95-50-1	1,2-Dichlorobenzene	340	U	340	39	
541-73-1	1,3-Dichlorobenzene	340	U	340	53	
106-46-7	1,4-Dichlorobenzene	340	U	340	40	
95-95-4	2,4,5-Trichlorophenol	340	U	340	61	
88-06-2	2,4,6-Trichlorophenol	340	U	340	51	
120-83-2	2,4-Dichlorophenol	340	U	340	46	
105-67-9	2,4-Dimethylphenol	340	U	340	38	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	340	U	340	74	
606-20-2	2,6-Dinitrotoluene	340	U	340	58	
91-58-7	2-Chloronaphthalene	340	U	340	36	
95-57-8	2-Chlorophenol	340	U	340	36	
91-57-6	2-Methylnaphthalene	340	U	340	35	
95-48-7	2-Methylphenol	340	U	340	45	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	340	U	340	52	
91-94-1	3,3'-Dichlorobenzidine	340	U	340	63	
	3- and 4-Methylphenol Coelution	340	U	340	53	
99-09-2	3-Nitroaniline	1800	U	1800	320	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	340	U	340	62	
59-50-7	4-Chloro-3-methylphenol	340	U	340	38	
106-47-8	4-Chloroaniline	340	U	340	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	340	U	340	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	250	
83-32-9	Acenaphthene	340	U	340	50	
208-96-8	Acenaphthylene	340	U	340	46	
120-12-7	Anthracene	340	U	340	54	
56-55-3	Benz(a)anthracene	340	U	340	53	
50-32-8	Benzo(a)pyrene	340	U	340	58	

00107 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1055  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 18:57

Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS878.D\

Analysis Lot: 358073  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	340	U	340	84	
191-24-2	Benzo(g,h,i)perylene	340	U	340	65	
207-08-9	Benzo(k)fluoranthene	340	U	340	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	42	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	48	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	48	
85-68-7	Butyl Benzyl Phthalate	340	U	340	53	
86-74-8	Carbazole	340	U	340	48	
218-01-9	Chrysene	340	U	340	49	
84-74-2	Di-n-butyl Phthalate	110	J	340	95	
117-84-0	Di-n-octyl Phthalate	340	U	340	66	
53-70-3	Dibenz(a,h)anthracene	340	U	340	93	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	340	U	340	45	
131-11-3	Dimethyl Phthalate	340	U	340	50	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	44	
118-74-1	Hexachlorobenzene	340	U	340	53	
87-68-3	Hexachlorobutadiene	340	U	340	39	
77-47-4	Hexachlorocyclopentadiene	340	U	340	55	
67-72-1	Hexachloroethane	340	U	340	48	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	57	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	39	
86-30-6	N-Nitrosodiphenylamine	340	U	340	54	
91-20-3	Naphthalene	340	U	340	35	
98-95-3	Nitrobenzene	340	U	340	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	340	U	340	47	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	67	

*00/08 re U*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 10:55  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 18:57

Sample Name: E53CMB04 (6-8)  
 Lab Code: R1306382-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS878.D\

Analysis Lot: 358073  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	56	41-151	9/10/13 18:57	
2-Fluorobiphenyl	71	47-126	9/10/13 18:57	
2-Fluorophenol	48	16-129	9/10/13 18:57	
Nitrobenzene-d5	67	39-136	9/10/13 18:57	
Phenol-d6	57	10-145	9/10/13 18:57	
p-Terphenyl-d14	62	35-152	9/10/13 18:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E53CMB03 (0-2)  
Lab Code: R1306382-014

Service Request: R1306382  
Date Collected: 9/ 3/13 1125  
Date Received: 9/ 4/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	87.7	Percent	1.0	1	NA	9/5/13 13:35	

00111 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Service Request: R1306382  
 Date Collected: 9/ 3/13 1125  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 87.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11800		mg/Kg	11	4	1	9/ 9/13	9/14/13 03:06	
Antimony, Total	6010C	6.8	U	mg/Kg	6.8	0.3	1	9/ 9/13	9/14/13 03:06	
Arsenic, Total	6010C	10.4		mg/Kg	1.1	0.5	1	9/ 9/13	9/14/13 03:06	
Barium, Total	6010C	133		mg/Kg	2.3	0.09	1	9/ 9/13	9/14/13 03:06	
Beryllium, Total	6010C	0.70		mg/Kg	0.34	0.03	1	9/ 9/13	9/14/13 03:06	
Boron, Total	6010C	9	J	mg/Kg	23	4	1	9/ 9/13	9/17/13 23:19	
Cadmium, Total	6010C	0.56	U	mg/Kg	0.56	0.07	1	9/ 9/13	9/14/13 03:06	
Calcium, Total	6010C	2690		mg/Kg	110	40	1	9/ 9/13	9/14/13 03:06	
Chromium, Total	6010C	16.6		mg/Kg	1.1	0.2	1	9/ 9/13	9/14/13 03:06	
Cobalt, Total	6010C	8.6		mg/Kg	5.6	0.06	1	9/ 9/13	9/14/13 03:06	
Copper, Total	6010C	15.8		mg/Kg	2.3	0.8	1	9/ 9/13	9/14/13 03:06	
Iron, Total	6010C	21200		mg/Kg	110	60	10	9/ 9/13	9/13/13 18:56	
Lead, Total	6010C	16.3		mg/Kg	5.6	0.3	1	9/ 9/13	9/14/13 03:06	
Magnesium, Total	6010C	2670		mg/Kg	110	2	1	9/ 9/13	9/14/13 03:06	
Manganese, Total	6010C	773		mg/Kg	11	2	10	9/ 9/13	9/13/13 18:56	
Mercury, Total	7471B	0.030	J	mg/Kg	0.035	0.006	1	9/ 9/13	9/9/13 18:14	
Nickel, Total	6010C	15.3		mg/Kg	4.5	0.10	1	9/ 9/13	9/14/13 03:06	
Potassium, Total	6010C	850		mg/Kg	230	20	1	9/ 9/13	9/14/13 03:06	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 9/13	9/14/13 03:06	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/ 9/13	9/14/13 03:06	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/ 9/13	9/14/13 03:06	
Vanadium, Total	6010C	31.8		mg/Kg	5.6	0.06	1	9/ 9/13	9/14/13 03:06	
Zinc, Total	6010C	54.8		mg/Kg	2.3	0.09	1	9/ 9/13	9/14/13 03:06	

*00112 re ✓*



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1125  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 19:08

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4920.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .85

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.8 U	4.8	2.8	
71-43-2	Benzene	4.8 U	4.8	0.29	
75-27-4	Bromodichloromethane	4.8 U	4.8	0.60	
75-25-2	Bromoform	4.8 U	4.8	0.91	
74-83-9	Bromomethane	4.8 U	4.8	1.4	
78-93-3	2-Butanone (MEK)	4.8 U	4.8	2.3	
75-15-0	Carbon Disulfide	4.8 U	4.8	1.3	
56-23-5	Carbon Tetrachloride	4.8 U	4.8	0.90	
108-90-7	Chlorobenzene	4.8 U	4.8	0.29	
75-00-3	Chloroethane	4.8 U	4.8	2.8	
67-66-3	Chloroform	4.8 U	4.8	1.3	
74-87-3	Chloromethane	4.8 U	4.8	0.39	
124-48-1	Dibromochloromethane	4.8 U	4.8	0.71	
75-34-3	1,1-Dichloroethane	4.8 U	4.8	1.3	
107-06-2	1,2-Dichloroethane	4.8 U	4.8	0.60	
75-35-4	1,1-Dichloroethene	4.8 U	4.8	1.3	
156-59-2	cis-1,2-Dichloroethene	4.8 U	4.8	0.93	
156-60-5	trans-1,2-Dichloroethene	4.8 U	4.8	0.84	
78-87-5	1,2-Dichloropropane	4.8 U	4.8	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.8 U	4.8	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.8 U	4.8	0.20	
100-41-4	Ethylbenzene	4.8 U	4.8	0.23	
591-78-6	2-Hexanone	4.8 U	4.8	1.2	
75-09-2	Methylene Chloride	4.8 U	4.8	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.8 U	4.8	0.95	
100-42-5	Styrene	4.8 U	4.8	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.8 U	4.8	0.79	
127-18-4	Tetrachloroethene	4.8 U	4.8	0.86	
108-88-3	Toluene	1.0 J	4.8	0.97	
71-55-6	1,1,1-Trichloroethane	4.8 U	4.8	0.71	
79-00-5	1,1,2-Trichloroethane	4.8 U	4.8	0.71	
79-01-6	Trichloroethene	4.8 U	4.8	0.98	
75-01-4	Vinyl Chloride	4.8 U	4.8	1.8	
95-47-6	o-Xylene	4.8 U	4.8	0.47	

00113 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1125  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 19:08

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4920.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .85

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	9.7 U	9.7	1.1	
1634-04-4	Methyl tert-Butyl Ether	4.8 U	4.8	0.92	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/5/13 19:08	
Toluene-d8	101	66-138	9/5/13 19:08	
Dibromofluoromethane	103	63-138	9/5/13 19:08	

*00114 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1125  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 23:41

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS854.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	38	
95-50-1	1,2-Dichlorobenzene	380	U	380	42	
541-73-1	1,3-Dichlorobenzene	380	U	380	58	
106-46-7	1,4-Dichlorobenzene	380	U	380	44	
95-95-4	2,4,5-Trichlorophenol	380	U	380	66	
88-06-2	2,4,6-Trichlorophenol	380	U	380	55	
120-83-2	2,4-Dichlorophenol	380	U	380	51	
105-67-9	2,4-Dimethylphenol	380	U	380	42	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	380	U	380	81	
606-20-2	2,6-Dinitrotoluene	380	U	380	63	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	40	
91-57-6	2-Methylnaphthalene	380	U	380	38	
95-48-7	2-Methylphenol	380	U	380	49	
88-74-4	2-Nitroaniline	1900	U	1900	320	
88-75-5	2-Nitrophenol	380	U	380	56	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	69	
	3- and 4-Methylphenol Coelution	380	U	380	57	
99-09-2	3-Nitroaniline	1900	U	1900	350	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	550	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	68	
59-50-7	4-Chloro-3-methylphenol	380	U	380	42	
106-47-8	4-Chloroaniline	380	U	380	73	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	54	
100-01-6	4-Nitroaniline	1900	U	1900	410	
100-02-7	4-Nitrophenol	1900	U	1900	280	
83-32-9	Acenaphthene	380	U	380	54	
208-96-8	Acenaphthylene	380	U	380	51	
120-12-7	Anthracene	380	U	380	59	
56-55-3	Benz(a)anthracene	380	U	380	58	
50-32-8	Benzo(a)pyrene	380	U	380	63	

00115 rev

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1125  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 23:41

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS854.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	380	U	380	91	
191-24-2	Benzo(g,h,i)perylene	380	U	380	71	
207-08-9	Benzo(k)fluoranthene	380	U	380	68	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	46	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	52	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	38	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	52	
85-68-7	Butyl Benzyl Phthalate	380	U	380	58	
86-74-8	Carbazole	380	U	380	52	
218-01-9	Chrysene	380	U	380	53	
84-74-2	Di-n-butyl Phthalate	150	J	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	73	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	49	
131-11-3	Dimethyl Phthalate	380	U	380	54	
206-44-0	Fluoranthene	380	U	380	60	
86-73-7	Fluorene	380	U	380	48	
118-74-1	Hexachlorobenzene	380	U	380	58	
87-68-3	Hexachlorobutadiene	380	U	380	42	
77-47-4	Hexachlorocyclopentadiene	380	U	380	60	
67-72-1	Hexachloroethane	380	U	380	53	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	63	
78-59-1	Isophorone	380	U	380	50	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	43	
86-30-6	N-Nitrosodiphenylamine	380	U	380	59	
91-20-3	Naphthalene	380	U	380	38	
98-95-3	Nitrobenzene	380	U	380	40	
87-86-5	Pentachlorophenol (PCP)	1900	U	1900	320	
85-01-8	Phenanthrene	380	U	380	51	
108-95-2	Phenol	380	U	380	42	
129-00-0	Pyrene	380	U	380	73	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1125  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 23:41

Sample Name: E53CMB03 (0-2)  
 Lab Code: R1306382-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS854.D

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	80	41-151	9/9/13 23:41	
2-Fluorobiphenyl	78	47-126	9/9/13 23:41	
2-Fluorophenol	65	16-129	9/9/13 23:41	
Nitrobenzene-d5	75	39-136	9/9/13 23:41	
Phenol-d6	70	10-145	9/9/13 23:41	
p-Terphenyl-d14	68	35-152	9/9/13 23:41	

00117 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB02 (4-6)  
**Lab Code:** R1306382-016

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1310  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.2	Percent	1.0	1	NA	9/5/13 13:35	

00127 *rw*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Service Request: R1306382  
 Date Collected: 9/3/13 1310  
 Date Received: 9/4/13

Basis: Dry  
 Percent Solids: 84.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	6400		mg/Kg	11	4	1	9/9/13	9/14/13 03:19	
Antimony, Total	6010C	0.4	BJ	mg/Kg	6.8	0.3	1	9/9/13	9/14/13 03:19	
Arsenic, Total	6010C	11.2		mg/Kg	1.1	0.5	1	9/9/13	9/14/13 03:19	
Barium, Total	6010C	63.3		mg/Kg	2.3	0.09	1	9/9/13	9/14/13 03:19	
Beryllium, Total	6010C	0.41		mg/Kg	0.34	0.03	1	9/9/13	9/14/13 03:19	
Boron, Total	6010C	11	J	mg/Kg	23	4	1	9/9/13	9/17/13 23:32	
Cadmium, Total	6010C	0.57	U	mg/Kg	0.57	0.07	1	9/9/13	9/14/13 03:19	
Calcium, Total	6010C	39100		mg/Kg	1100	400	10	9/9/13	9/13/13 19:09	
Chromium, Total	6010C	10.9		mg/Kg	1.1	0.2	1	9/9/13	9/14/13 03:19	
Cobalt, Total	6010C	6.3		mg/Kg	5.7	0.06	1	9/9/13	9/14/13 03:19	
Copper, Total	6010C	28.0		mg/Kg	2.3	0.8	1	9/9/13	9/14/13 03:19	
Iron, Total	6010C	20800		mg/Kg	110	60	10	9/9/13	9/13/13 19:09	
Lead, Total	6010C	17.7		mg/Kg	5.7	0.3	1	9/9/13	9/14/13 03:19	
Magnesium, Total	6010C	25300		mg/Kg	110	2	1	9/9/13	9/14/13 03:19	
Manganese, Total	6010C	622		mg/Kg	11	2	10	9/9/13	9/13/13 19:09	
Mercury, Total	7471B	0.015	J	mg/Kg	0.036	0.006	1	9/9/13	9/9/13 18:18	
Nickel, Total	6010C	18.8		mg/Kg	4.5	0.10	1	9/9/13	9/14/13 03:19	
Potassium, Total	6010C	1010		mg/Kg	230	20	1	9/9/13	9/14/13 03:19	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/9/13	9/14/13 03:19	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/9/13	9/14/13 03:19	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/9/13	9/14/13 03:19	
Vanadium, Total	6010C	21.8		mg/Kg	5.7	0.06	1	9/9/13	9/14/13 03:19	
Zinc, Total	6010C	69.3		mg/Kg	2.3	0.09	1	9/9/13	9/14/13 03:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 20:23

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4922.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.2 U	4.2	2.4	
71-43-2	Benzene	4.2 U	4.2	0.25	
75-27-4	Bromodichloromethane	4.2 U	4.2	0.52	
75-25-2	Bromoform	4.2 U	4.2	0.79	
74-83-9	Bromomethane	4.2 U	4.2	1.2	
78-93-3	2-Butanone (MEK)	4.2 U	4.2	2.0	
75-15-0	Carbon Disulfide	4.2 U	4.2	1.1	
56-23-5	Carbon Tetrachloride	4.2 U	4.2	0.78	
108-90-7	Chlorobenzene	4.2 U	4.2	0.25	
75-00-3	Chloroethane	4.2 U	4.2	2.5	
67-66-3	Chloroform	4.2 U	4.2	1.1	
74-87-3	Chloromethane	4.2 U	4.2	0.34	
124-48-1	Dibromochloromethane	4.2 U	4.2	0.62	
75-34-3	1,1-Dichloroethane	4.2 U	4.2	1.1	
107-06-2	1,2-Dichloroethane	4.2 U	4.2	0.52	
75-35-4	1,1-Dichloroethene	4.2 U	4.2	1.1	
156-59-2	cis-1,2-Dichloroethene	4.2 U	4.2	0.81	
156-60-5	trans-1,2-Dichloroethene	4.2 U	4.2	0.73	
78-87-5	1,2-Dichloropropane	4.2 U	4.2	0.82	
10061-01-5	cis-1,3-Dichloropropene	4.2 U	4.2	0.76	
10061-02-6	trans-1,3-Dichloropropene	4.2 U	4.2	0.17	
100-41-4	Ethylbenzene	4.2 U	4.2	0.20	
591-78-6	2-Hexanone	4.2 U	4.2	1.1	
75-09-2	Methylene Chloride	4.2 U	4.2	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2 U	4.2	0.83	
100-42-5	Styrene	4.2 U	4.2	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.2 U	4.2	0.69	
127-18-4	Tetrachloroethene	4.2 U	4.2	0.75	
108-88-3	Toluene	1.6 J	4.2	0.85	
71-55-6	1,1,1-Trichloroethane	4.2 U	4.2	0.62	
79-00-5	1,1,2-Trichloroethane	4.2 U	4.2	0.62	
79-01-6	Trichloroethene	4.2 U	4.2	0.86	
75-01-4	Vinyl Chloride	4.2 U	4.2	1.6	
95-47-6	o-Xylene	4.2 U	4.2	0.41	

*00129 rev*



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 20:23

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4922.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	8.4 U	8.4	0.92	
1634-04-4	Methyl tert-Butyl Ether	4.2 U	4.2	0.80	
1330-20-7	Xylenes, Total	13 U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	28-150	9/5/13 20:23	
Toluene-d8	101	66-138	9/5/13 20:23	
Dibromofluoromethane	101	63-138	9/5/13 20:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:54

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS856.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390 U	390	40	
95-50-1	1,2-Dichlorobenzene	390 U	390	44	
541-73-1	1,3-Dichlorobenzene	390 U	390	60	
106-46-7	1,4-Dichlorobenzene	390 U	390	45	
95-95-4	2,4,5-Trichlorophenol	390 U	390	69	
88-06-2	2,4,6-Trichlorophenol	390 U	390	58	
120-83-2	2,4-Dichlorophenol	390 U	390	53	
105-67-9	2,4-Dimethylphenol	390 U	390	44	
51-28-5	2,4-Dinitrophenol	2000 U	2000	170	
121-14-2	2,4-Dinitrotoluene	390 U	390	84	
606-20-2	2,6-Dinitrotoluene	390 U	390	65	
91-58-7	2-Chloronaphthalene	390 U	390	41	
95-57-8	2-Chlorophenol	390 U	390	41	
91-57-6	2-Methylnaphthalene	390 U	390	40	
95-48-7	2-Methylphenol	390 U	390	51	
88-74-4	2-Nitroaniline	2000 U	2000	330	
88-75-5	2-Nitrophenol	390 U	390	59	
91-94-1	3,3'-Dichlorobenzidine	390 U	390	72	
	3- and 4-Methylphenol Coelution	390 U	390	60	
99-09-2	3-Nitroaniline	2000 U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000 U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	390 U	390	70	
59-50-7	4-Chloro-3-methylphenol	390 U	390	43	
106-47-8	4-Chloroaniline	390 U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390 U	390	56	
100-01-6	4-Nitroaniline	2000 U	2000	430	
100-02-7	4-Nitrophenol	2000 U	2000	290	
83-32-9	Acenaphthene	390 U	390	56	
208-96-8	Acenaphthylene	390 U	390	53	
120-12-7	Anthracene	390 U	390	62	
56-55-3	Benz(a)anthracene	390 U	390	61	
50-32-8	Benzo(a)pyrene	390 U	390	66	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:54

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS856.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	390	U	390	95	
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	48	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	55	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	76	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	50	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	53	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1310  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:54

Sample Name: E53CMB02 (4-6)  
 Lab Code: R1306382-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS856.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	41-151	9/10/13 00:54	
2-Fluorobiphenyl	74	47-126	9/10/13 00:54	
2-Fluorophenol	61	16-129	9/10/13 00:54	
Nitrobenzene-d5	70	39-136	9/10/13 00:54	
Phenol-d6	66	10-145	9/10/13 00:54	
p-Terphenyl-d14	66	35-152	9/10/13 00:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB01 (2-4)  
**Lab Code:** R1306382-017

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1335  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	77.3	Percent	1.0	1	NA	9/5/13 13:35	

*00135 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 77.3

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12100	mg/Kg	12	4	1	9/ 9/13	9/14/13 03:25	
Antimony, Total	6010C	7.4 U	mg/Kg	7.4	0.3	1	9/ 9/13	9/14/13 03:25	
Arsenic, Total	6010C	8.2	mg/Kg	1.2	0.5	1	9/ 9/13	9/14/13 03:25	
Barium, Total	6010C	147	mg/Kg	2.5	0.09	1	9/ 9/13	9/14/13 03:25	
Beryllium, Total	6010C	0.68	mg/Kg	0.37	0.04	1	9/ 9/13	9/14/13 03:25	
Boron, Total	6010C	8 J	mg/Kg	25	5	1	9/ 9/13	9/17/13 23:39	
Cadmium, Total	6010C	0.62 U	mg/Kg	0.62	0.08	1	9/ 9/13	9/14/13 03:25	
Calcium, Total	6010C	1540	mg/Kg	120	40	1	9/ 9/13	9/14/13 03:25	
Chromium, Total	6010C	16.4	mg/Kg	1.2	0.2	1	9/ 9/13	9/14/13 03:25	
Cobalt, Total	6010C	12.3	mg/Kg	6.2	0.07	1	9/ 9/13	9/14/13 03:25	
Copper, Total	6010C	8.4	mg/Kg	2.5	0.8	1	9/ 9/13	9/14/13 03:25	
Iron, Total	6010C	18800	mg/Kg	120	70	10	9/ 9/13	9/13/13 19:15	
Lead, Total	6010C	17.0	mg/Kg	6.2	0.3	1	9/ 9/13	9/14/13 03:25	
Magnesium, Total	6010C	3000	mg/Kg	120	2	1	9/ 9/13	9/14/13 03:25	
Manganese, Total	6010C	1400	mg/Kg	12	2	10	9/ 9/13	9/13/13 19:15	
Mercury, Total	7471B	0.021 J	mg/Kg	0.041	0.007	1	9/ 9/13	9/9/13 18:19	
Nickel, Total	6010C	12.7	mg/Kg	4.9	0.2	1	9/ 9/13	9/14/13 03:25	
Potassium, Total	6010C	980	mg/Kg	250	20	1	9/ 9/13	9/14/13 03:25	
Selenium, Total	6010C	0.7 J	mg/Kg	1.2	0.4	1	9/ 9/13	9/14/13 03:25	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	0.10	1	9/ 9/13	9/14/13 03:25	
Thallium, Total	6010C	2.5 U	mg/Kg	2.5	0.9	2	9/ 9/13	9/16/13 18:52	
Vanadium, Total	6010C	30.9	mg/Kg	6.2	0.07	1	9/ 9/13	9/14/13 03:25	
Zinc, Total	6010C	49.0	mg/Kg	2.5	0.09	1	9/ 9/13	9/14/13 03:25	

00136 ru

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1335  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 21:00

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4923.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .72

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.7 U	4.7	2.7	
71-43-2	Benzene	4.7 U	4.7	0.28	
75-27-4	Bromodichloromethane	4.7 U	4.7	0.57	
75-25-2	Bromoform	4.7 U	4.7	0.87	
74-83-9	Bromomethane	4.7 U	4.7	1.3	
78-93-3	2-Butanone (MEK)	4.7 U	4.7	2.2	
75-15-0	Carbon Disulfide	4.7 U	4.7	1.2	
56-23-5	Carbon Tetrachloride	4.7 U	4.7	0.86	
108-90-7	Chlorobenzene	4.7 U	4.7	0.28	
75-00-3	Chloroethane	4.7 U	4.7	2.7	
67-66-3	Chloroform	4.7 U	4.7	1.2	
74-87-3	Chloromethane	4.7 U	4.7	0.38	
124-48-1	Dibromochloromethane	4.7 U	4.7	0.68	
75-34-3	1,1-Dichloroethane	4.7 U	4.7	1.2	
107-06-2	1,2-Dichloroethane	4.7 U	4.7	0.57	
75-35-4	1,1-Dichloroethene	4.7 U	4.7	1.2	
156-59-2	cis-1,2-Dichloroethene	4.7 U	4.7	0.89	
156-60-5	trans-1,2-Dichloroethene	4.7 U	4.7	0.81	
78-87-5	1,2-Dichloropropane	4.7 U	4.7	0.91	
10061-01-5	cis-1,3-Dichloropropene	4.7 U	4.7	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.7 U	4.7	0.19	
100-41-4	Ethylbenzene	4.7 U	4.7	0.22	
591-78-6	2-Hexanone	4.7 U	4.7	1.2	
75-09-2	Methylene Chloride	4.7 U	4.7	0.54	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.7 U	4.7	0.92	
100-42-5	Styrene	4.7 U	4.7	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.7 U	4.7	0.76	
127-18-4	Tetrachloroethene	4.7 U	4.7	0.82	
108-88-3	Toluene	4.7 U	4.7	0.94	
71-55-6	1,1,1-Trichloroethane	4.7 U	4.7	0.68	
79-00-5	1,1,2-Trichloroethane	4.7 U	4.7	0.68	
79-01-6	Trichloroethene	4.7 U	4.7	0.95	
75-01-4	Vinyl Chloride	4.7 U	4.7	1.8	
95-47-6	o-Xylene	4.7 U	4.7	0.45	

00137 nu

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1335  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 21:00

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4923.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .72

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	9.3 U	9.3	1.1	
1634-04-4	Methyl tert-Butyl Ether	4.7 U	4.7	0.88	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/5/13 21:00	
Toluene-d8	98	66-138	9/5/13 21:00	
Dibromofluoromethane	98	63-138	9/5/13 21:00	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 03:20

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS860.D\

Analysis Lot: 357640  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	430	U	430	43	
95-50-1	1,2-Dichlorobenzene	430	U	430	48	
541-73-1	1,3-Dichlorobenzene	430	U	430	65	
106-46-7	1,4-Dichlorobenzene	430	U	430	49	
95-95-4	2,4,5-Trichlorophenol	430	U	430	75	
88-06-2	2,4,6-Trichlorophenol	430	U	430	63	
120-83-2	2,4-Dichlorophenol	430	U	430	57	
105-67-9	2,4-Dimethylphenol	430	U	430	48	
51-28-5	2,4-Dinitrophenol	2200	U	2200	180	
121-14-2	2,4-Dinitrotoluene	430	U	430	92	
606-20-2	2,6-Dinitrotoluene	430	U	430	71	
91-58-7	2-Chloronaphthalene	430	U	430	45	
95-57-8	2-Chlorophenol	430	U	430	45	
91-57-6	2-Methylnaphthalene	430	U	430	43	
95-48-7	2-Methylphenol	430	U	430	56	
88-74-4	2-Nitroaniline	2200	U	2200	360	
88-75-5	2-Nitrophenol	430	U	430	64	
91-94-1	3,3'-Dichlorobenzidine	430	U	430	78	
	3- and 4-Methylphenol Coelution	430	U	430	65	
99-09-2	3-Nitroaniline	2200	U	2200	400	
534-52-1	4,6-Dinitro-2-methylphenol	2200	U	2200	630	
101-55-3	4-Bromophenyl Phenyl Ether	430	U	430	77	
59-50-7	4-Chloro-3-methylphenol	430	U	430	47	
106-47-8	4-Chloroaniline	430	U	430	83	
7005-72-3	4-Chlorophenyl Phenyl Ether	430	U	430	61	
100-01-6	4-Nitroaniline	2200	U	2200	470	
100-02-7	4-Nitrophenol	2200	U	2200	310	
83-32-9	Acenaphthene	430	U	430	61	
208-96-8	Acenaphthylene	430	U	430	57	
120-12-7	Anthracene	430	U	430	67	
56-55-3	Benz(a)anthracene	430	U	430	66	
50-32-8	Benzo(a)pyrene	430	U	430	72	

0013920

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 03:20

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS860.D\

Analysis Lot: 357640  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	430	U	430	110	
191-24-2	Benzo(g,h,i)perylene	430	U	430	81	
207-08-9	Benzo(k)fluoranthene	430	U	430	77	
108-60-1	2,2'-Oxybis(1-chloropropane)	430	U	430	52	
111-91-1	Bis(2-chloroethoxy)methane	430	U	430	59	
111-44-4	Bis(2-chloroethyl) Ether	430	U	430	43	
117-81-7	Bis(2-ethylhexyl) Phthalate	430	U	430	59	
85-68-7	Butyl Benzyl Phthalate	430	U	430	66	
86-74-8	Carbazole	430	U	430	59	
218-01-9	Chrysene	430	U	430	60	
84-74-2	Di-n-butyl Phthalate	430	U	430	120	
117-84-0	Di-n-octyl Phthalate	430	U	430	82	
53-70-3	Dibenz(a,h)anthracene	430	U	430	120	
132-64-9	Dibenzofuran	430	U	430	47	
84-66-2	Diethyl Phthalate	430	U	430	56	
131-11-3	Dimethyl Phthalate	430	U	430	61	
206-44-0	Fluoranthene	430	U	430	69	
86-73-7	Fluorene	430	U	430	54	
118-74-1	Hexachlorobenzene	430	U	430	65	
87-68-3	Hexachlorobutadiene	430	U	430	48	
77-47-4	Hexachlorocyclopentadiene	430	U	430	68	
67-72-1	Hexachloroethane	430	U	430	60	
193-39-5	Indeno(1,2,3-cd)pyrene	430	U	430	71	
78-59-1	Isophorone	430	U	430	57	
621-64-7	N-Nitrosodi-n-propylamine	430	U	430	49	
86-30-6	N-Nitrosodiphenylamine	430	U	430	67	
91-20-3	Naphthalene	430	U	430	43	
98-95-3	Nitrobenzene	430	U	430	46	
87-86-5	Pentachlorophenol (PCP)	2200	U	2200	360	
85-01-8	Phenanthrene	430	U	430	58	
108-95-2	Phenol	430	U	430	47	
129-00-0	Pyrene	430	U	430	83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 03:20

Sample Name: E53CMB01 (2-4)  
 Lab Code: R1306382-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Semivolatle Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\090913\CS860.D\

Analysis Lot: 357640  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	80	41-151	9/10/13 03:20	
2-Fluorobiphenyl	75	47-126	9/10/13 03:20	
2-Fluorophenol	63	16-129	9/10/13 03:20	
Nitrobenzene-d5	73	39-136	9/10/13 03:20	
Phenol-d6	68	10-145	9/10/13 03:20	
p-Terphenyl-d14	71	35-152	9/10/13 03:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CMB01D (2-4)  
**Lab Code:** R1306382-018

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1335  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	74.3	Percent	1.0	1	NA	9/5/13 13:35	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306382-018

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 74.3

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14300	mg/Kg	13	4	1	9/ 9/13	9/14/13 03:32	
Antimony, Total	6010C	7.8 U	mg/Kg	7.8	0.3	1	9/ 9/13	9/14/13 03:32	
Arsenic, Total	6010C	11.0	mg/Kg	1.3	0.6	1	9/ 9/13	9/14/13 03:32	
Barium, Total	6010C	214	mg/Kg	2.6	0.10	1	9/ 9/13	9/14/13 03:32	
Beryllium, Total	6010C	0.83	mg/Kg	0.39	0.04	1	9/ 9/13	9/14/13 03:32	
Boron, Total	6010C	13 J	mg/Kg	26	5	1	9/ 9/13	9/17/13 23:46	
Cadmium, Total	6010C	0.65 U	mg/Kg	0.65	0.08	1	9/ 9/13	9/14/13 03:32	
Calcium, Total	6010C	1750	mg/Kg	130	40	1	9/ 9/13	9/14/13 03:32	
Chromium, Total	6010C	18.9	mg/Kg	1.3	0.2	1	9/ 9/13	9/14/13 03:32	
Cobalt, Total	6010C	20.3	mg/Kg	6.5	0.07	1	9/ 9/13	9/14/13 03:32	
Copper, Total	6010C	9.8	mg/Kg	2.6	0.9	1	9/ 9/13	9/14/13 03:32	
Iron, Total	6010C	23300	mg/Kg	130	70	10	9/ 9/13	9/13/13 19:34	
Lead, Total	6010C	26.2	mg/Kg	6.5	0.3	1	9/ 9/13	9/14/13 03:32	
Magnesium, Total	6010C	3400	mg/Kg	130	2	1	9/ 9/13	9/14/13 03:32	
Manganese, Total	6010C	2370	mg/Kg	13	2	10	9/ 9/13	9/13/13 19:34	
Mercury, Total	7471B	0.020 J	mg/Kg	0.042	0.007	1	9/ 9/13	9/9/13 18:21	
Nickel, Total	6010C	15.1	mg/Kg	5.2	0.2	1	9/ 9/13	9/14/13 03:32	
Potassium, Total	6010C	1010	mg/Kg	260	20	1	9/ 9/13	9/14/13 03:32	
Selenium, Total	6010C	1.6	mg/Kg	1.3	0.4	1	9/ 9/13	9/14/13 03:32	
Silver, Total	6010C	1.3 U	mg/Kg	1.3	0.2	1	9/ 9/13	9/14/13 03:32	
Thallium, Total	6010C	13 U	mg/Kg	13	5	10	9/ 9/13	9/17/13 16:06	
Vanadium, Total	6010C	39.0	mg/Kg	6.5	0.07	1	9/ 9/13	9/14/13 03:32	
Zinc, Total	6010C	55.4	mg/Kg	2.6	0.10	1	9/ 9/13	9/14/13 03:32	

001449

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 21:38

Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306382-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4924.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .84

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.7 U	5.7	3.2	
71-43-2	Benzene	5.7 U	5.7	0.33	
75-27-4	Bromodichloromethane	5.7 U	5.7	0.69	
75-25-2	Bromoform	5.7 U	5.7	1.1	
74-83-9	Bromomethane	5.7 U	5.7	1.6	
78-93-3	2-Butanone (MEK)	5.7 U	5.7	2.6	
75-15-0	Carbon Disulfide	5.7 U	5.7	1.5	
56-23-5	Carbon Tetrachloride	5.7 U	5.7	1.1	
108-90-7	Chlorobenzene	5.7 U	5.7	0.33	
75-00-3	Chloroethane	5.7 U	5.7	3.3	
67-66-3	Chloroform	5.7 U	5.7	1.5	
74-87-3	Chloromethane	5.7 U	5.7	0.46	
124-48-1	Dibromochloromethane	5.7 U	5.7	0.83	
75-34-3	1,1-Dichloroethane	5.7 U	5.7	1.5	
107-06-2	1,2-Dichloroethane	5.7 U	5.7	0.69	
75-35-4	1,1-Dichloroethene	5.7 U	5.7	1.5	
156-59-2	cis-1,2-Dichloroethene	5.7 U	5.7	1.1	
156-60-5	trans-1,2-Dichloroethene	5.7 U	5.7	0.98	
78-87-5	1,2-Dichloropropane	5.7 U	5.7	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.7 U	5.7	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.7 U	5.7	0.23	
100-41-4	Ethylbenzene	5.7 U	5.7	0.27	
591-78-6	2-Hexanone	5.7 U	5.7	1.4	
75-09-2	Methylene Chloride	5.7 U	5.7	0.65	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.7 U	5.7	1.2	
100-42-5	Styrene	5.7 U	5.7	0.34	
79-34-5	1,1,2,2-Tetrachloroethane	5.7 U	5.7	0.92	
127-18-4	Tetrachloroethene	5.7 U	5.7	1.0	
108-88-3	Toluene	1.3 J	5.7	1.2	
71-55-6	1,1,1-Trichloroethane	5.7 U	5.7	0.83	
79-00-5	1,1,2-Trichloroethane	5.7 U	5.7	0.83	
79-01-6	Trichloroethene	5.7 U	5.7	1.2	
75-01-4	Vinyl Chloride	5.7 U	5.7	2.1	
95-47-6	o-Xylene	5.7 U	5.7	0.55	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 21:38

Sample Name: E53CMB01D (2-4)  
 Lab Code: RI306382-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4924.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .84

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	11 U	11	1.3	
1634-04-4	Methyl tert-Butyl Ether	5.7 U	5.7	1.1	
1330-20-7	Xylenes, Total	17 U	17	1.8	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	28-150	9/5/13 21:38	
Toluene-d8	100	66-138	9/5/13 21:38	
Dibromofluoromethane	98	63-138	9/5/13 21:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1335  
 Date Received: 9/4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 19:36

Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306382-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS879.D\

Analysis Lot: 358073  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	440	U	440	45	
95-50-1	1,2-Dichlorobenzene	440	U	440	50	
541-73-1	1,3-Dichlorobenzene	440	U	440	68	
106-46-7	1,4-Dichlorobenzene	440	U	440	51	
95-95-4	2,4,5-Trichlorophenol	440	U	440	78	
88-06-2	2,4,6-Trichlorophenol	440	U	440	65	
120-83-2	2,4-Dichlorophenol	440	U	440	60	
105-67-9	2,4-Dimethylphenol	440	U	440	49	
51-28-5	2,4-Dinitrophenol	2300	U	2300	190	
121-14-2	2,4-Dinitrotoluene	440	U	440	95	
606-20-2	2,6-Dinitrotoluene	440	U	440	74	
91-58-7	2-Chloronaphthalene	440	U	440	47	
95-57-8	2-Chlorophenol	440	U	440	47	
91-57-6	2-Methylnaphthalene	440	U	440	45	
95-48-7	2-Methylphenol	440	U	440	58	
88-74-4	2-Nitroaniline	2300	U	2300	370	
88-75-5	2-Nitrophenol	440	U	440	66	
91-94-1	3,3'-Dichlorobenzidine	440	U	440	81	
	3- and 4-Methylphenol Coelution	440	U	440	68	
99-09-2	3-Nitroaniline	2300	U	2300	420	
534-52-1	4,6-Dinitro-2-methylphenol	2300	U	2300	650	
101-55-3	4-Bromophenyl Phenyl Ether	440	U	440	80	
59-50-7	4-Chloro-3-methylphenol	440	U	440	49	
106-47-8	4-Chloroaniline	440	U	440	86	
7005-72-3	4-Chlorophenyl Phenyl Ether	440	U	440	63	
100-01-6	4-Nitroaniline	2300	U	2300	490	
100-02-7	4-Nitrophenol	2300	U	2300	330	
83-32-9	Acenaphthene	440	U	440	64	
208-96-8	Acenaphthylene	440	U	440	60	
120-12-7	Anthracene	440	U	440	70	
56-55-3	Benz(a)anthracene	440	U	440	69	
50-32-8	Benzo(a)pyrene	440	U	440	74	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1335  
 Date Received: 9/4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 19:36

Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306382-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091013\CS879.D\

Analysis Lot: 358073  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	440	U	440	110	
191-24-2	Benzo(g,h,i)perylene	440	U	440	84	
207-08-9	Benzo(k)fluoranthene	440	U	440	80	
108-60-1	2,2'-Oxybis(1-chloropropane)	440	U	440	54	
111-91-1	Bis(2-chloroethoxy)methane	440	U	440	62	
111-44-4	Bis(2-chloroethyl) Ether	440	U	440	45	
117-81-7	Bis(2-ethylhexyl) Phthalate	440	U	440	62	
85-68-7	Butyl Benzyl Phthalate	440	U	440	68	
86-74-8	Carbazole	440	U	440	62	
218-01-9	Chrysene	440	U	440	63	
84-74-2	Di-n-butyl Phthalate	440	U	440	130	
117-84-0	Di-n-octyl Phthalate	440	U	440	86	
53-70-3	Dibenz(a,h)anthracene	440	U	440	120	
132-64-9	Dibenzofuran	440	U	440	49	
84-66-2	Diethyl Phthalate	440	U	440	58	
131-11-3	Dimethyl Phthalate	440	U	440	64	
206-44-0	Fluoranthene	440	U	440	71	
86-73-7	Fluorene	440	U	440	56	
118-74-1	Hexachlorobenzene	440	U	440	68	
87-68-3	Hexachlorobutadiene	440	U	440	50	
77-47-4	Hexachlorocyclopentadiene	440	U	440	71	
67-72-1	Hexachloroethane	440	U	440	62	
193-39-5	Indeno(1,2,3-cd)pyrene	440	U	440	74	
78-59-1	Isophorone	440	U	440	59	
621-64-7	N-Nitrosodi-n-propylamine	440	U	440	51	
86-30-6	N-Nitrosodiphenylamine	440	U	440	70	
91-20-3	Naphthalene	440	U	440	45	
98-95-3	Nitrobenzene	440	U	440	47	
87-86-5	Pentachlorophenol (PCP)	2300	U	2300	370	
85-01-8	Phenanthrene	440	U	440	60	
108-95-2	Phenol	440	U	440	49	
129-00-0	Pyrene	440	U	440	87	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1335  
 Date Received: 9/ 4/13  
 Date Extracted: 9/9/13  
 Date Analyzed: 9/10/13 19:36

Sample Name: E53CMB01D (2-4)  
 Lab Code: R1306382-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQDATA\5973A\DATA\091013\CS879.D\

Analysis Lot: 358073  
 Extraction Lot: 191200  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	79	41-151	9/10/13 19:36	
2-Fluorobiphenyl	72	47-126	9/10/13 19:36	
2-Fluorophenol	60	16-129	9/10/13 19:36	
Nitrobenzene-d5	69	39-136	9/10/13 19:36	
Phenol-d6	64	10-145	9/10/13 19:36	
p-Terphenyl-d14	66	35-152	9/10/13 19:36	

00144reJ



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10458 E753-08

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: <b>IPUT US 30</b> Project Manager: <b>Karen Bunker/Over: Johnson</b> Company/Address: <b>Ecology, Environment</b> <b>33 W Monroe St Suite 1710</b> <b>Chicago IL 60603</b> Phone #: <b>312 578 9413</b> Sampler's Signature: <i>[Signature]</i> Sample Printed Name: <b>John Cene. Co.</b> Email: <b>John Cene</b>		Project Number: <b>EE-004335-001-01770</b> Report DC: <b>Sean Trebut</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
PRESERVATIVE: <b>VAC</b> METALS TOTAL (List in comments below) METALS DISSOLVED (List in comments below) PCBs 8092 & 808 PESTICIDES 9081 & 608 GC VOAs 9021 & 601/602 GCMS SVOAs 8270 & 825 GCMS VOAs 8260 & 624 CLP		PRESENTATIVE: <b>VAC</b> METALS TOTAL (List in comments below) METALS DISSOLVED (List in comments below) PCBs 8092 & 808 PESTICIDES 9081 & 608 GC VOAs 9021 & 601/602 GCMS SVOAs 8270 & 825 GCMS VOAs 8260 & 624 CLP		PRESERVATIVE KEY: 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other: _____	
CLIENT SAMPLE ID <b>ES3CMB04(6-8)</b> <b>ES3CMB02(0-2)</b> <b>ES309B06(2-4)</b> <b>ES3CMB02(4-6)</b> <b>ES3CMB01(2-4)</b> <b>ES3CMB01D(2-4)</b>		FOR OFFICE USE ONLY LAB ID <b>013</b> <b>014</b> <b>015</b> <b>016</b> <b>017</b> <b>018</b>		DATE <b>9-3-13</b> <b>9-3-13</b> <b>9-3-13</b> <b>9-3-13</b> <b>9-3-13</b> <b>9-3-13</b>	
SAMPLING TIME <b>1055</b> <b>1125</b> <b>1200</b> <b>1310</b> <b>1335</b> <b>1335</b>		MATRIX <b>So-1</b> <b>So-1</b> <b>So-1</b> <b>So-1</b> <b>So-1</b> <b>So-1</b>		NUMBER OF CONTAINERS <b>4</b> <b>4</b> <b>4</b> <b>4</b> <b>4</b> <b>4</b>	
SPECIAL INSTRUCTIONS/COMMENTS <b>Metals</b> <b>9-3-13</b>		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____		REPORT REQUIREMENTS I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____	
RECEIVED BY: <i>[Signature]</i> Signature: _____ Printed Name: _____ Firm: _____ Date/Time: <b>9-3-13 1700</b>		RECEIVED BY: <i>[Signature]</i> Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RECEIVED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE: _____		INVOICE INFORMATION PO # _____ BILL TO: _____	
STATE WHERE SAMPLES WERE COLLECTED: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	
RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	
RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____		RELINQUISHED BY: _____ Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____	

**R1306382**  
 Ecology and Environment, Incorporated  
 IDOT US30 Plainfield PSI

Edato Yes  
 RELINQUISHED





October 10, 2013

Service Request No: R1307107

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1307107**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



*K.B.*

Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 9/ 3/13 1055  
Date Received: 9/ 4/13  
Pre-Prep Date: 9/29/13

Sample Name: E53CMB04 (6-8)  
Lab Code: R1307107-008

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 1/13	10/9/13 12:31	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB04 (6-8)  
**Lab Code:** R1307107-008  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 9/3/13 1310  
Date Received: 9/4/13  
Pre-Prep Date: 9/29/13

Sample Name: E53CMB02 (4-6)  
Lab Code: R1307107-010

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.043	mg/L	0.010	1	10/1/13	10/9/13 12:43	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CMB02 (4-6)  
**Lab Code:** R1307107-010  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10458

0753-08

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: **IPOT US30**  
 Project Manager: **Kate Bunker-Davis-Johnson**  
 Company/Address: **Ecology; Environment**  
**33 W Waverly St Sault 1710**  
**Chicago IL 60603**  
 Phone #: **312 578 9443**  
 Sample's Signature: *[Signature]*  
 Email: **sjohnson@ene.com**  
 Project Number: **EE-004335-0001-01770**  
 Report CC: **Dea Tselout**

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE	NUMBER OF CONTAINERS	GCMS VOAS 0260 • 624 • CLP	GCMS SVOAS 0270 • 625	GC VOAS 0021 • 801/602	PESTICIDES 0081 • 608	PCBS 0082 • 608	METALS TOTAL (List in comments below)	METALS DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
	4								
	4								
	4								
	4								
	4								
	4								

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
ES3CMBAH(6-8)	013	9-3-13	1055	So-1
ES3CMB03(0-2)	014	9-3-13	1125	So-1
ES309B06(2-4)	015	9-3-13	1200	So-1
ES3CMB02(4-6)	010	9-3-13	1310	So-1
ES3CMB01(2-4)	011	9-3-13	1335	So-1
ES3CMB01D(2-4)	012	9-3-13	1335	So-1

ANALYSIS REQUESTED	REPORT REQUIREMENTS	TURNAROUND REQUIREMENTS	INVOICE INFORMATION
<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data	<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data	RUSH (SURCHARGES APPLY) <input type="checkbox"/> 1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/> 4 day <input type="checkbox"/> 5 day REQUESTED REPORT DATE: _____	PO # _____ BILL TO: _____ R1306381 Ecology And Environment, Incorporated IDOT US30 Pigwidgeon P&S R1307107 5 9/24/13

SPECIAL INSTRUCTIONS/COMMENTS  
 Metals  
 See QAPP   
 STATE WHERE SAMPLES WERE COLLECTED  
 RELINQUISHED BY: *[Signature]*  
 RECEIVED BY: *[Signature]*  
 Date/Time: 9-3-13/1700  
 Date/Time: 9-4-13 (08x)

RECEIVED BY: *[Signature]*  
 Signature: *[Signature]*  
 Printed Name: *[Name]*  
 Firm: *[Firm]*  
 Date/Time: \_\_\_\_\_



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16010 and 16020 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.591171° Longitude: -88.185253°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805162 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.591171° Longitude: -88.185253°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E53CCB01 was sampled within the construction zone adjacent to ISGS #2141-24 (Commercial Buildings). Refer to PSI Report for ISGS #2141-24 (Commercial Buildings) including Table 4-4, and Figures 4-3 and 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306535, R1306536, and R1307206.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-24 (Commercial Buildings)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	E53CCB01				
<b>SAMPLE</b>	E53CCB01 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	0.6-1.2				
<b>pH</b>	8.85				
<b>VOCs (µg/kg)</b>					
Acetone	5.7	25,000	--	--	--
Chloroform	ND U	300	--	--	--
Toluene	2.7 J	12,000	--	--	--
<b>SVOCs (None Detected)</b>					
<b>Inorganics (mg/kg)</b>					
Aluminum	5,010	--	--	--	--
Arsenic	9.4	11.3	13	--	--
Barium	36.7	1,500	--	--	--
Beryllium	0.29 J	22	--	--	--
Boron	ND U	40	--	--	--
Calcium	61,000	--	--	--	--
Chromium	8.9	21	--	--	--
Cobalt	5.1 J	20	--	--	--
Copper	16.0	2,900	--	--	--
Iron	16,200 †m	15,000	15,900	--	--
Lead	9.6	107	--	--	--
Magnesium	37,900	325,000	--	--	--
Manganese	500	630	636	--	--
Mercury	0.016 J	1	--	--	--
Nickel	11.5	100	--	--	--
Potassium	640	--	--	--	--
Vanadium	15.6	550	--	--	--
Zinc	69.2	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	395	--	--	--	--
Magnesium	206	--	--	--	--
Manganese	1.05 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	ND U	--	--	--	0.15



September 25, 2013

Service Request No: R1306535

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306535**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 99



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CCB01 (2-4)  
**Lab Code:** R1306535-017

**Service Request:** R1306535  
**Date Collected:** 9/6/13 1320  
**Date Received:** 9/7/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.85	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306535  
**Date Collected:** 9/ 6/13 1320  
**Date Received:** 9/ 7/13  
**Pre-Prep Date:** 9/12/13

**Sample Name:** E53CCB01 (2-4)  
**Lab Code:** R1306535-017

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/16/13	9/20/13 06:17	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/16/13	9/20/13 06:17	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 06:17	
Barium	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 06:17	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/16/13	9/20/13 06:17	
Boron	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 06:17	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Calcium	6010C	395		mg/L	10	10	9/16/13	9/19/13 23:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 06:17	
Copper	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Iron	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Lead	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Magnesium	6010C	206		mg/L	1.0	1	9/16/13	9/20/13 06:17	
Manganese	6010C	1.05		mg/L	0.010	1	9/16/13	9/20/13 06:17	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/17/13	9/18/13 16:14	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/16/13	9/20/13 06:17	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 06:17	
Silver	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/16/13	9/20/13 06:17	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 06:17	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 06:17	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CCB01 (2-4)  
**Lab Code:** R1306535-017  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/6/13  
**Date Received:** 9/7/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





September 26, 2013

Service Request No: R1306536

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 278

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E53CCB01 (2-4)  
Lab Code: R1306536-017

Service Request: R1306536  
Date Collected: 9/ 6/13 1320  
Date Received: 9/ 7/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	88.9	Percent	1.0	1	NA	9/10/13 11:38	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CCB01 (2-4)  
**Lab Code:** R1306536-017

**Service Request:** R1306536  
**Date Collected:** 9/6/13 1320  
**Date Received:** 9/7/13

**Basis:** Dry  
**Percent Solids:** 88.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	5010		mg/Kg	11	4	1	9/16/13	9/24/13 12:18	
Antimony, Total	6010C	6.5	U	mg/Kg	6.5	0.3	1	9/16/13	9/23/13 11:36	
Arsenic, Total	6010C	9.4		mg/Kg	1.1	0.5	1	9/16/13	9/23/13 11:36	
Barium, Total	6010C	36.7		mg/Kg	2.2	0.08	1	9/16/13	9/23/13 11:36	
Beryllium, Total	6010C	0.29	J	mg/Kg	0.32	0.03	1	9/16/13	9/23/13 11:36	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/16/13	9/23/13 11:36	
Cadmium, Total	6010C	0.54	U	mg/Kg	0.54	0.07	1	9/16/13	9/23/13 11:36	
Calcium, Total	6010C	61000		mg/Kg	2200	700	20	9/16/13	9/23/13 11:07	
Chromium, Total	6010C	8.9		mg/Kg	1.1	0.2	1	9/16/13	9/23/13 11:36	
Cobalt, Total	6010C	5.1	J	mg/Kg	5.4	0.06	1	9/16/13	9/23/13 11:36	
Copper, Total	6010C	16.0		mg/Kg	2.2	0.7	1	9/16/13	9/23/13 11:36	
Iron, Total	6010C	16200		mg/Kg	110	60	10	9/16/13	9/22/13 14:09	
Lead, Total	6010C	9.6		mg/Kg	5.4	0.3	1	9/16/13	9/23/13 11:36	
Magnesium, Total	6010C	37900		mg/Kg	110	2	1	9/16/13	9/23/13 11:36	
Manganese, Total	6010C	500		mg/Kg	11	2	10	9/16/13	9/22/13 14:09	
Mercury, Total	7471B	0.016	J	mg/Kg	0.035	0.006	1	9/12/13	9/12/13 20:07	
Nickel, Total	6010C	11.5		mg/Kg	4.3	0.09	1	9/16/13	9/23/13 11:36	
Potassium, Total	6010C	640		mg/Kg	220	20	1	9/16/13	9/23/13 11:36	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/16/13	9/23/13 11:36	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/16/13	9/23/13 11:36	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/16/13	9/23/13 11:36	
Vanadium, Total	6010C	15.6		mg/Kg	5.4	0.06	1	9/16/13	9/23/13 11:36	
Zinc, Total	6010C	69.2		mg/Kg	2.2	0.08	1	9/16/13	9/23/13 11:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1320  
 Date Received: 9/ 7/13  
 Date Analyzed: 9/9/13 21:40

Sample Name: E53CCB01 (2-4)  
 Lab Code: R1306536-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDDATA\msyvoa12\Data\090913\T9597.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .86

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.7		4.8	2.8	
71-43-2	Benzene	4.8	U	4.8	0.29	
75-27-4	Bromodichloromethane	4.8	U	4.8	0.60	
75-25-2	Bromoform	4.8	U	4.8	0.90	
74-83-9	Bromomethane	4.8	U	4.8	1.4	
78-93-3	2-Butanone (MEK)	4.8	U	4.8	2.3	
75-15-0	Carbon Disulfide	4.8	U	4.8	1.2	
56-23-5	Carbon Tetrachloride	4.8	U	4.8	0.89	
108-90-7	Chlorobenzene	4.8	U	4.8	0.29	
75-00-3	Chloroethane	4.8	U	4.8	2.8	
67-66-3	Chloroform	4.8	U	4.8	1.3	
74-87-3	Chloromethane	4.8	U	4.8	0.39	
124-48-1	Dibromochloromethane	4.8	U	4.8	0.71	
75-34-3	1,1-Dichloroethane	4.8	U	4.8	1.3	
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.60	
75-35-4	1,1-Dichloroethene	4.8	U	4.8	1.3	
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.92	
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.84	
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.94	
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.20	
100-41-4	Ethylbenzene	4.8	U	4.8	0.23	
591-78-6	2-Hexanone	4.8	U	4.8	1.2	
75-09-2	Methylene Chloride	4.8	U	4.8	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.8	U	4.8	0.95	
100-42-5	Styrene	4.8	U	4.8	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.79	
127-18-4	Tetrachloroethene	4.8	U	4.8	0.86	
108-88-3	Toluene	2.7	J	4.8	0.97	
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.71	
79-00-5	1,1,2-Trichloroethane	4.8	U	4.8	0.71	
79-01-6	Trichloroethene	4.8	U	4.8	0.98	
75-01-4	Vinyl Chloride	4.8	U	4.8	1.8	
95-47-6	o-Xylene	4.8	U	4.8	0.47	
179601-23-1	m,p-Xylenes	9.7	U	9.7	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1320  
 Date Received: 9/ 7/13  
 Date Analyzed: 9/9/13 21:40

Sample Name: E53CCB01 (2-4)  
 Lab Code: R1306536-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9597.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .86

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.8 U	4.8	0.91	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	51-136	9/9/13 21:40	
Toluene-d8	105	66-138	9/9/13 21:40	
Dibromofluoromethane	100	63-138	9/9/13 21:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1320  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/11/13 22:27

Sample Name: E53CCB01 (2-4)  
 Lab Code: R1306536-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\091113\AQ576.D\

Analysis Lot: 358086  
 Extraction Lot: 191327  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	370	U	370	38	
95-50-1	1,2-Dichlorobenzene	370	U	370	42	
541-73-1	1,3-Dichlorobenzene	370	U	370	57	
106-46-7	1,4-Dichlorobenzene	370	U	370	43	
95-95-4	2,4,5-Trichlorophenol	370	U	370	65	
88-06-2	2,4,6-Trichlorophenol	370	U	370	55	
120-83-2	2,4-Dichlorophenol	370	U	370	50	
105-67-9	2,4-Dimethylphenol	370	U	370	41	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	370	U	370	80	
606-20-2	2,6-Dinitrotoluene	370	U	370	62	
91-58-7	2-Chloronaphthalene	370	U	370	39	
95-57-8	2-Chlorophenol	370	U	370	39	
91-57-6	2-Methylnaphthalene	370	U	370	38	
95-48-7	2-Methylphenol	370	U	370	49	
88-74-4	2-Nitroaniline	1900	U	1900	310	
88-75-5	2-Nitrophenol	370	U	370	56	
91-94-1	3,3'-Dichlorobenzidine	370	U	370	68	
	3- and 4-Methylphenol Coelution	370	U	370	57	
99-09-2	3-Nitroaniline	1900	U	1900	350	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	540	
101-55-3	4-Bromophenyl Phenyl Ether	370	U	370	67	
59-50-7	4-Chloro-3-methylphenol	370	U	370	41	
106-47-8	4-Chloroaniline	370	U	370	72	
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U	370	53	
100-01-6	4-Nitroaniline	1900	U	1900	410	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	370	U	370	53	
208-96-8	Acenaphthylene	370	U	370	50	
120-12-7	Anthracene	370	U	370	59	
56-55-3	Benz(a)anthracene	370	U	370	58	
50-32-8	Benzo(a)pyrene	370	U	370	62	
205-99-2	Benzo(b)fluoranthene	370	U	370	90	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1320  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/11/13 22:27

Sample Name: E53CCB01 (2-4)  
 Lab Code: R1306536-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\091113\AQ576.D\

Analysis Lot: 358086  
 Extraction Lot: 191327  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	370	U	370	70	
207-08-9	Benzo(k)fluoranthene	370	U	370	67	
108-60-1	2,2'-Oxybis(1-chloropropane)	370	U	370	45	
111-91-1	Bis(2-chloroethoxy)methane	370	U	370	52	
111-44-4	Bis(2-chloroethyl) Ether	370	U	370	38	
117-81-7	Bis(2-ethylhexyl) Phthalate	370	U	370	52	
85-68-7	Butyl Benzyl Phthalate	370	U	370	57	
86-74-8	Carbazole	370	U	370	52	
218-01-9	Chrysene	370	U	370	52	
84-74-2	Di-n-butyl Phthalate	370	U	370	110	
117-84-0	Di-n-octyl Phthalate	370	U	370	72	
53-70-3	Dibenz(a,h)anthracene	370	U	370	100	
132-64-9	Dibenzofuran	370	U	370	41	
84-66-2	Diethyl Phthalate	370	U	370	49	
131-11-3	Dimethyl Phthalate	370	U	370	53	
206-44-0	Fluoranthene	370	U	370	60	
86-73-7	Fluorene	370	U	370	47	
118-74-1	Hexachlorobenzene	370	U	370	57	
87-68-3	Hexachlorobutadiene	370	U	370	42	
77-47-4	Hexachlorocyclopentadiene	370	U	370	59	
67-72-1	Hexachloroethane	370	U	370	52	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	370	62	
78-59-1	Isophorone	370	U	370	50	
621-64-7	N-Nitrosodi-n-propylamine	370	U	370	43	
86-30-6	N-Nitrosodiphenylamine	370	U	370	58	
91-20-3	Naphthalene	370	U	370	38	
98-95-3	Nitrobenzene	370	U	370	40	
87-86-5	Pentachlorophenol (PCP)	1900	U	1900	310	
85-01-8	Phenanthrene	370	U	370	50	
108-95-2	Phenol	370	U	370	41	
129-00-0	Pyrene	370	U	370	72	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1320  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/11/13 22:27

Sample Name: E53CCB01 (2-4)  
 Lab Code: R1306536-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\091113\AQ576.D\

Analysis Lot: 358086  
 Extraction Lot: 191327  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	89	41-151	9/11/13 22:27	
2-Fluorobiphenyl	84	47-126	9/11/13 22:27	
2-Fluorophenol	71	16-129	9/11/13 22:27	
Nitrobenzene-d5	88	39-136	9/11/13 22:27	
Phenol-d6	74	10-145	9/11/13 22:27	
p-Terphenyl-d14	98	35-152	9/11/13 22:27	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10467 E753-17

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>FE004335-S001-0176</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker (Sharon) Johnson</b>		Report CC <b>Dean Ticeant</b>		PRESERVATIVE	
Company/Address <b>Ecology: Environment 33 W Main Street Cuite 1410 Chicago IL 60603</b>		Email <b>slah-b@enc.com</b>		PRELIMINARY TESTS VOC Svoc Total for Metals pH % Sol. (p. 105)	
Phone # <b>712 572 9247</b>		Sampler's Signature <i>[Signature]</i>		METALS, TOTAL (List in comments below)	
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Scott Cook</b>		METALS, DISSOLVED (List in comments below)	
FOR OFFICE USE ONLY LAB ID		DATE		NUMBER OF CONTAINERS	
CLIENT SAMPLE ID		SAMPLING TIME		MATRIX	
ES320802(0-2)		9-6-13 1250		Soil	
ES320802(4-4)		9-6-13 1255		Soil	
ES3CCB01(2-4)		9-6-13 1320		Soil	
ES3BBB01(2-4)		9-6-13 1445		Soil	
ES3BBB01(6-8)		9-6-13 1450		Soil	
SPECIAL INSTRUCTIONS/COMMENTS Metals		RECEIVED BY <i>[Signature]</i> Printed Name <b>Scott Cook</b> Firm <b>ALS</b> Date/Time <b>9-6-13 1615</b>		RECEIVED BY <i>[Signature]</i> Printed Name <b>Garth Esmenjan</b> Firm <b>ALS</b> Date/Time <b>9-7-13 9:35</b>	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		RECEIVED BY		RECEIVED BY	
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		RECEIVED BY		RECEIVED BY	
INVOICE INFORMATION PO # BILL TO:		RECEIVED BY		RECEIVED BY	
See QAPP <input type="checkbox"/>		RECEIVED BY		RECEIVED BY	
R1306536 Ecology and Environment, Incorporated USDO Plant and PSI Totals		RECEIVED BY		RECEIVED BY	
Barcode		RECEIVED BY		RECEIVED BY	
Signature		RECEIVED BY		RECEIVED BY	
Printed Name		RECEIVED BY		RECEIVED BY	
Firm		RECEIVED BY		RECEIVED BY	
Date/Time		RECEIVED BY		RECEIVED BY	



October 14, 2013

Service Request No: R1307206

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1307206**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 44



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307206  
Date Collected: 9/ 6/13 1320  
Date Received: 9/ 7/13  
Pre-Prep Date: 10/4/13

Sample Name: E53CCB01 (2-4)  
Lab Code: R1307206-011

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 7/13	10/11/13 08:36	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CCB01 (2-4)  
**Lab Code:** R1307206-011  
**Matrix:** Soil

**Service Request:** R1307206

**Date Collected:** 9/6/13

**Date Received:** 9/7/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	CWINKSTERN	DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16030 (23241), 16031 (23224), and 16040 (23235) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.590817° Longitude: -88.184596°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.590817° Longitude: -88.184596°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E53CBB02 was sampled within the construction zone adjacent to ISGS #2141-25 (Commercial Buildings). Refer to PSI Report for ISGS #2141-25 (Commercial Buildings) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306591 and R1306593.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

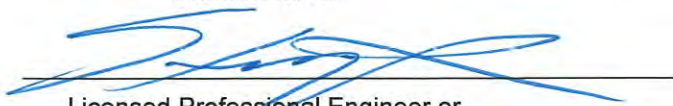
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

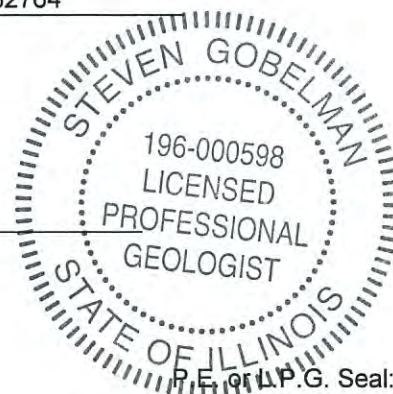
Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14

Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-25 (Commercial Buildings)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	<b>E53CBB02</b>				
<b>SAMPLE</b>	E53CBB02 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	0.0-0.6				
<b>pH</b>	7.90				
<b>VOCs (µg/kg)</b>					
Acetone	4.7 B	25,000	--	--	--
Toluene	1.9 J	12,000	--	--	--
<b>SVOCs (None Detected)</b>					
<b>Inorganics (mg/kg)</b>					
Aluminum	16,600	--	--	--	--
Arsenic	11.7 †	11.3	13	--	--
Barium	114	1,500	--	--	--
Beryllium	0.72	22	--	--	--
Calcium	2,030	--	--	--	--
Chromium	22.3 †	21	--	--	--
Cobalt	11.7	20	--	--	--
Copper	15.9	2,900	--	--	--
Iron	26,600 †m	15,000	15,900	--	--
Lead	15.9	107	--	--	--
Magnesium	4,240	325,000	--	--	--
Manganese	809 †m	630	636	--	--
Mercury	0.043	1	--	--	--
Nickel	20.5	100	--	--	--
Potassium	1,170	--	--	--	--
Vanadium	39.0	550	--	--	--
Zinc	63.0	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	0.50	--	--	--	--
Calcium	63	--	--	--	--
Iron	0.20	--	--	--	5
Magnesium	25.2	--	--	--	--
Manganese	0.034	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	NA	--	--	--	0.15





September 25, 2013

Service Request No: R1306591

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306591**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*For.*

Page 1 of 76



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Agency, ID #, and Certification #. Rows include Connecticut, Delaware, DoD ELAP, Florida, Illinois, Maine, Nebraska, Nevada, New Jersey, New York, New Hampshire, North Carolina, Pennsylvania, Rhode Island, and Virginia.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CBB02 (0-2)  
**Lab Code:** R1306591-007

**Service Request:** R1306591  
**Date Collected:** 9/9/13 1450  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.90	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/9/13 1450  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306591-007

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.50		mg/L	0.20	1	9/19/13	9/23/13 17:31	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 17:31	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:31	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 10:02	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 17:31	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 17:31	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	
Calcium	6010C	63		mg/L	10	10	9/19/13	9/23/13 22:02	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 10:02	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:31	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	
Iron	6010C	0.20		mg/L	0.10	1	9/19/13	9/23/13 17:31	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	
Magnesium	6010C	25.2		mg/L	1.0	1	9/19/13	9/23/13 17:31	
Manganese	6010C	0.034		mg/L	0.010	1	9/19/13	9/23/13 17:31	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:20	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 17:31	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:31	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 17:31	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:31	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:31	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53CBB02 (0-2)  
**Lab Code:** R1306591-007  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM : 10654 E753-20

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>21st US30</b>		Project Number <b>CE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Butler / Sheri Johnson</b>		Report CC <b>Dana Tebeaut</b>		PRESERVATIVE	
Company/Address <b>Ecology, Environment 30 W. Niagara St. Suite 1460 Chicago IL 60603</b>		Email <b>johnson@ecol-en.com</b>		PRESERVATIVE	
Phone # <b>312 576 7117</b>		Sample # <b>Ecology</b>		PRESERVATIVE	
Sample # <b>Signature</b>		Sample # <b>Printed Name</b>		PRESERVATIVE	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		NUMBER OF CONTAINERS	
DATE		SAMPLING TIME		MATRIX	
ES321B02 (0-2)		002 9-9-12 1235		S.L.	
ES321B03 (0-2)		003 9-9-13 1300		S.L.	
ES321B03 (0-4)		004 9-9-13 1305		S.L.	
ES321B04 (2-4)		005 9-9-13 1345		S.L.	
ES321B04 (4-4)		006 9-9-13 1350		S.L.	
ES30B02 (0-2)		007 9-9-12 1450		S.L.	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
RECEIVED BY <b>Signature: [Signature]</b> Printed Name <b>Gary [Signature]</b> Firm <b>ECO</b>		RECEIVED BY <b>Signature: [Signature]</b> Printed Name <b>[Signature]</b> Firm <b>[Signature]</b>		RECEIVED BY <b>Signature: [Signature]</b> Printed Name <b>[Signature]</b> Firm <b>[Signature]</b>	
Date/Time <b>9-1-12 / 1030</b>		Date/Time <b>9/13 / 0930</b>		Date/Time <b>9/13 / 0659</b>	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		EVEN Yes No	
STATE WHERE SAMPLES WERE COLLECTED		INVOICE INFORMATION		RECEIVED BY	
PO #		BILL TO:		RECEIVED BY	



September 27, 2013

Service Request No: R1306593

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306593**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*For:*

Karen Bunker  
Project Manager

Page 1 of 189

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53CBB02 (0-2)  
**Lab Code:** R1306593-007

**Service Request:** R1306593  
**Date Collected:** 9/ 9/13 1450  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.0	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Service Request: R1306593  
 Date Collected: 9/9/13 1450  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 82.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	16600		mg/Kg	12	4	1	9/18/13	9/21/13 00:56	
Antimony, Total	6010C	1.5	BJ	mg/Kg	7.1	0.3	1	9/18/13	9/21/13 00:56	
Arsenic, Total	6010C	11.7		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:56	
Barium, Total	6010C	114		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 00:56	
Beryllium, Total	6010C	0.72		mg/Kg	0.36	0.03	1	9/18/13	9/21/13 00:56	
Boron, Total	6010C	17	BJ	mg/Kg	24	5	1	9/18/13	9/21/13 00:56	
Cadmium, Total	6010C	0.59	U	mg/Kg	0.59	0.08	1	9/18/13	9/21/13 00:56	
Calcium, Total	6010C	2030		mg/Kg	120	40	1	9/18/13	9/21/13 00:56	
Chromium, Total	6010C	22.3		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:56	
Cobalt, Total	6010C	11.7		mg/Kg	5.9	0.07	1	9/18/13	9/21/13 00:56	
Copper, Total	6010C	15.9		mg/Kg	2.4	0.8	1	9/18/13	9/21/13 00:56	
Iron, Total	6010C	26600		mg/Kg	120	70	10	9/18/13	9/20/13 21:48	
Lead, Total	6010C	15.9		mg/Kg	5.9	0.3	1	9/18/13	9/21/13 00:56	
Magnesium, Total	6010C	4240		mg/Kg	120	2	1	9/18/13	9/21/13 00:56	
Manganese, Total	6010C	809		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:56	
Mercury, Total	7471B	0.043		mg/Kg	0.038	0.006	1	9/18/13	9/19/13 16:59	
Nickel, Total	6010C	20.5		mg/Kg	4.7	0.10	1	9/18/13	9/21/13 00:56	
Potassium, Total	6010C	1170		mg/Kg	240	20	1	9/18/13	9/21/13 00:56	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/18/13	9/23/13 09:36	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 00:56	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:56	
Vanadium, Total	6010C	39.0		mg/Kg	5.9	0.06	1	9/18/13	9/21/13 00:56	
Zinc, Total	6010C	63.0		mg/Kg	2.4	0.09	1	9/18/13	9/23/13 09:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1450  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 14:52

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA7\DATA\091613\K5047.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .65

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.7 B	4.0	2.3	
71-43-2	Benzene	4.0 U	4.0	0.23	
75-27-4	Bromodichloromethane	4.0 U	4.0	0.49	
75-25-2	Bromoform	4.0 U	4.0	0.74	
74-83-9	Bromomethane	4.0 U	4.0	1.1	
78-93-3	2-Butanone (MEK)	4.0 U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0 U	4.0	0.99	
56-23-5	Carbon Tetrachloride	4.0 U	4.0	0.73	
108-90-7	Chlorobenzene	4.0 U	4.0	0.23	
75-00-3	Chloroethane	4.0 U	4.0	2.3	
67-66-3	Chloroform	4.0 U	4.0	1.0	
74-87-3	Chloromethane	4.0 U	4.0	0.32	
124-48-1	Dibromochloromethane	4.0 U	4.0	0.58	
75-34-3	1,1-Dichloroethane	4.0 U	4.0	1.0	
107-06-2	1,2-Dichloroethane	4.0 U	4.0	0.49	
75-35-4	1,1-Dichloroethene	4.0 U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0 U	4.0	0.76	
156-60-5	trans-1,2-Dichloroethene	4.0 U	4.0	0.69	
78-87-5	1,2-Dichloropropane	4.0 U	4.0	0.77	
10061-01-5	cis-1,3-Dichloropropene	4.0 U	4.0	0.72	
10061-02-6	trans-1,3-Dichloropropene	4.0 U	4.0	0.16	
100-41-4	Ethylbenzene	4.0 U	4.0	0.19	
591-78-6	2-Hexanone	4.0 U	4.0	0.96	
75-09-2	Methylene Chloride	4.0 U	4.0	0.46	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	4.0	0.78	
100-42-5	Styrene	4.0 U	4.0	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	4.0	0.65	
127-18-4	Tetrachloroethene	4.0 U	4.0	0.70	
108-88-3	Toluene	1.9 J	4.0	0.80	
71-55-6	1,1,1-Trichloroethane	4.0 U	4.0	0.58	
79-00-5	1,1,2-Trichloroethane	4.0 U	4.0	0.58	
79-01-6	Trichloroethene	4.0 U	4.0	0.81	
75-01-4	Vinyl Chloride	4.0 U	4.0	1.5	
95-47-6	o-Xylene	4.0 U	4.0	0.39	
179601-23-1	m,p-Xylenes	7.9 U	7.9	0.87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1450  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 14:52

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5047.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .65

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0 U	4.0	0.75	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	51-136	9/16/13 14:52	
Toluene-d8	101	66-138	9/16/13 14:52	
Dibromofluoromethane	102	63-138	9/16/13 14:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1450  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 19:22

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\091313\AQ627.D

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	47	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	43	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	74	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1450  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 19:22

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ627.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	78	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	45	
84-66-2	Diethyl Phthalate	400	U	400	53	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	65	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	55	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1450  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 19:22

Sample Name: E53CBB02 (0-2)  
 Lab Code: R1306593-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\091313\AQ627.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/13/13 19:22	
2-Fluorobiphenyl	56	47-126	9/13/13 19:22	
2-Fluorophenol	55	16-129	9/13/13 19:22	
Nitrobenzene-d5	64	39-136	9/13/13 19:22	
Phenol-d6	58	10-145	9/13/13 19:22	
p-Terphenyl-d14	72	35-152	9/13/13 19:22	







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16041 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.591512° Longitude: -88.183803°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.591512° Longitude: -88.183803°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E53OPB01 was sampled within the construction zone adjacent to ISGS #2141-26 (Off the Press). Refer to PSI Report for ISGS #2141-26 (Off the Press) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306591 and R1306593.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

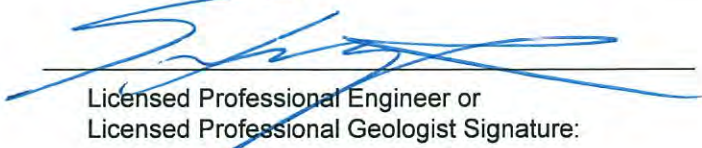
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

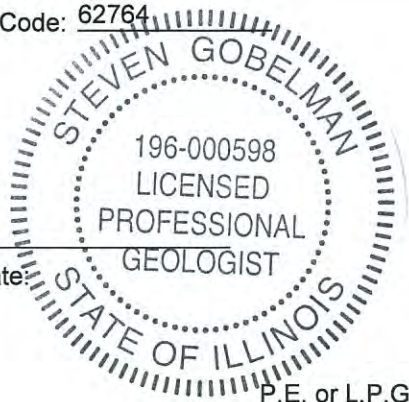
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/17  
 Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-26 (Off the Press)	Comparison Criteria			
BORING	E53OPB01	MACs			TACO
SAMPLE	E53OPB01 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	0.6-1.2				
pH	7.95				
<b>VOCs (µg/kg)</b>					
Acetone	ND U	25,000	--	--	--
Toluene	0.84 J	12,000	--	--	--
<b>SVOCs (None Detected)</b>					
<b>Inorganics (mg/kg)</b>					
Aluminum	12,400	--	--	--	--
Arsenic	8.1	11.3	13	--	--
Barium	120	1,500	--	--	--
Beryllium	0.68	22	--	--	--
Boron	ND U	40	--	--	--
Calcium	2,190	--	--	--	--
Chromium	18.4	21	--	--	--
Cobalt	12.3	20	--	--	--
Copper	12.2	2,900	--	--	--
Iron	20,400 †m	15,000	15,900	--	--
Lead	15.6	107	--	--	--
Magnesium	3,280	325,000	--	--	--
Manganese	973 †m	630	636	--	--
Mercury	0.033 J	1	--	--	--
Nickel	15.4	100	--	--	--
Potassium	1,330	--	--	--	--
Selenium	1.2	1	--	--	--
Thallium	0.5 J	3	--	--	--
Vanadium	32.0	550	--	--	--
Zinc	56.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	0.36	--	--	--	--
Calcium	57	--	--	--	--
Iron	0.16	--	--	--	5
Magnesium	26.5	--	--	--	--
Manganese	0.027	--	--	--	0.15



September 25, 2013

Service Request No: R1306591

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306591**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For.*

Page 1 of 76





REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Agency, ID #, and Certification #. Rows include Connecticut, Delaware, DoD ELAP, Florida, Illinois, Maine, Nebraska, Nevada, New Jersey, New York, New Hampshire, North Carolina, Pennsylvania, Rhode Island, and Virginia.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53OPB01 (2-4)  
**Lab Code:** R1306591-009

**Service Request:** R1306591  
**Date Collected:** 9/9/13 0950  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.95	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/9/13 0950  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306591-009

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.36		mg/L	0.20	1	9/19/13	9/23/13 18:13	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 18:13	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 18:13	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 10:39	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 18:13	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 18:13	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	
Calcium	6010C	57		mg/L	10	10	9/19/13	9/23/13 22:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 10:39	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 18:13	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	
Iron	6010C	0.16		mg/L	0.10	1	9/19/13	9/23/13 18:13	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	
Magnesium	6010C	26.5		mg/L	1.0	1	9/19/13	9/23/13 18:13	
Manganese	6010C	0.027		mg/L	0.010	1	9/19/13	9/23/13 18:13	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:26	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 18:13	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 18:13	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 18:13	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 18:13	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:13	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53OPB01 (2-4)  
**Lab Code:** R1306591-009  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13

**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10468

E753-18

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

Project Name: **WS30**  
 Project Manager: **Kevin Bunker/Steve Johnson**  
 Company/Address: **Ecology; Environment**  
**33 W Monroe St Suite 1410**  
**Chicago IL 60603**  
 Phone #: **312 578 9240**  
 Sample's Signature: **Scott Coop**  
 Sample's Printed Name: **Shahsun Cencic**  
 Email: **sc@shahsunCencic.com**

Project Number: **E6-004335-0001-01770**  
 Report CC: **Dean Tabin**  
 PRESERVATIVE: **None**  
 ANALYSIS REQUESTED (Include Method Number and Container Preservative):  
 METALS TOTAL (List in comments below)  
 METALS DISSOLVED (List in comments below)  
 PCBs (E082 • E08)  
 PESTICIDES (E021 • E01/E02)  
 GC VDAS (E270 • E25)  
 GCMS SVDA (E260 • E24 • CLP)  
 NUMBER OF CONTAINERS: **8**  
 MATRIX: **S.L.**

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	REMARKS/ALTERNATE DESCRIPTION
E53CB01 (2-4)	015	9-9-13	0920	S.L.	MS/MSD
E53OPB01 (2-4)	015	9-9-13	0950	S.L.	
E5321B01 (0-2)	010	9-9-13	1105	S.L.	
E5321B01 (6-8)	011	9-9-13	1110	S.L.	
E5321B02 (2-4)	012	9-9-13	1230	S.L.	

SPECIAL INSTRUCTIONS/COMMENTS: **Metals**

See OAPP

STATE WHERE SAMPLES WERE COLLECTED: **IL**

RECEIVED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

RELINQUISHED BY: **Shahsun Cencic** (Signature), **Shahsun Cencic** (Printed Name), **Shahsun Cencic** (Firm), **9-9-13/0920** (Date/Time)

TURNAROUND REQUIREMENTS: **RUSH (SURCHARGES APPLY)**  
 1 day \_\_\_\_\_ 2 day \_\_\_\_\_ 3 day \_\_\_\_\_  
 4 day \_\_\_\_\_ 5 day \_\_\_\_\_

REPORT REQUIREMENTS: **I. Results Only**  
**II. Results + QC Summaries (LCS, DUP, MS/MSD as required)**  
**III. Results + OC and Calibration Summaries**  
**IV. Data Validation Report with Raw Data**

INVOICE INFORMATION: **PO #** \_\_\_\_\_ **BILL TO:** \_\_\_\_\_

RECEIVED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

RELINQUISHED BY: **Shahsun Cencic** (Signature), **Shahsun Cencic** (Printed Name), **Shahsun Cencic** (Firm), **9-9-13/0920** (Date/Time)



September 27, 2013

Service Request No: R1306593

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306593**.

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Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*For:*

Karen Bunker  
Project Manager

Page 1 of 189

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306593

<u>Lab ID</u>	<u>Client ID</u>
R1306593-001	E5328B04 (2-4)
R1306593-002	E5321B02 (8-10)
R1306593-003	E5321B03 (0-2)
R1306593-004	E5321B03 (6-8)
R1306593-005	E5321B04 (2-4)
R1306593-006	E5321B04 (4-6)
R1306593-007	E53CBB02 (0-2)
R1306593-008	E53CBB01 (8-10)
R1306593-009	E53OPB01 (2-4)
R1306593-010	E5321B01 (0-2)
R1306593-011	E5321B01 (6-8)
R1306593-012	E5321B02 (2-4)

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Service Request: R1306593  
 Date Collected: 9/9/13 0950  
 Date Received: 9/10/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	81.3	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Service Request: R1306593  
 Date Collected: 9/9/13 0950  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 81.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12400		mg/Kg	12	4	1	9/18/13	9/21/13 01:53	
Antimony, Total	6010C	1.2	BJ	mg/Kg	7.2	0.3	1	9/18/13	9/21/13 01:53	
Arsenic, Total	6010C	8.1		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 01:53	
Barium, Total	6010C	120		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 01:53	
Beryllium, Total	6010C	0.68		mg/Kg	0.36	0.03	1	9/18/13	9/21/13 01:53	
Boron, Total	6010C	12	BJ	mg/Kg	24	5	1	9/18/13	9/21/13 01:53	
Cadmium, Total	6010C	0.60	U	mg/Kg	0.60	0.08	1	9/18/13	9/21/13 01:53	
Calcium, Total	6010C	2190		mg/Kg	120	40	1	9/18/13	9/21/13 01:53	
Chromium, Total	6010C	18.4		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 01:53	
Cobalt, Total	6010C	12.3		mg/Kg	6.0	0.07	1	9/18/13	9/21/13 01:53	
Copper, Total	6010C	12.2		mg/Kg	2.4	0.8	1	9/18/13	9/21/13 01:53	
Iron, Total	6010C	20400		mg/Kg	120	70	10	9/18/13	9/20/13 22:34	
Lead, Total	6010C	15.6		mg/Kg	6.0	0.3	1	9/18/13	9/21/13 01:53	
Magnesium, Total	6010C	3280		mg/Kg	120	2	1	9/18/13	9/21/13 01:53	
Manganese, Total	6010C	973		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 01:53	
Mercury, Total	7471B	0.033	J	mg/Kg	0.037	0.006	1	9/18/13	9/19/13 17:09	
Nickel, Total	6010C	15.4		mg/Kg	4.8	0.10	1	9/18/13	9/21/13 01:53	
Potassium, Total	6010C	1330		mg/Kg	240	20	1	9/18/13	9/21/13 01:53	
Selenium, Total	6010C	1.2		mg/Kg	1.2	0.4	1	9/18/13	9/21/13 01:53	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 01:53	
Thallium, Total	6010C	0.5	J	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 01:53	
Vanadium, Total	6010C	32.0		mg/Kg	6.0	0.06	1	9/18/13	9/21/13 01:53	
Zinc, Total	6010C	56.9		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 01:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 0950  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 16:07

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5049.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .67

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.1	U	4.1	2.4	
71-43-2	Benzene	4.1	U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1	U	4.1	0.51	
75-25-2	Bromoform	4.1	U	4.1	0.77	
74-83-9	Bromomethane	4.1	U	4.1	1.2	
78-93-3	2-Butanone (MEK)	4.1	U	4.1	1.9	
75-15-0	Carbon Disulfide	4.1	U	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1	U	4.1	0.76	
108-90-7	Chlorobenzene	4.1	U	4.1	0.24	
75-00-3	Chloroethane	4.1	U	4.1	2.4	
67-66-3	Chloroform	4.1	U	4.1	1.1	
74-87-3	Chloromethane	4.1	U	4.1	0.33	
124-48-1	Dibromochloromethane	4.1	U	4.1	0.61	
75-34-3	1,1-Dichloroethane	4.1	U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1	U	4.1	0.51	
75-35-4	1,1-Dichloroethene	4.1	U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1	U	4.1	0.79	
156-60-5	trans-1,2-Dichloroethene	4.1	U	4.1	0.71	
78-87-5	1,2-Dichloropropane	4.1	U	4.1	0.80	
10061-01-5	cis-1,3-Dichloropropene	4.1	U	4.1	0.75	
10061-02-6	trans-1,3-Dichloropropene	4.1	U	4.1	0.17	
100-41-4	Ethylbenzene	4.1	U	4.1	0.19	
591-78-6	2-Hexanone	4.1	U	4.1	1.0	
75-09-2	Methylene Chloride	4.1	U	4.1	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	0.81	
100-42-5	Styrene	4.1	U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1	U	4.1	0.73	
108-88-3	Toluene	0.84	J	4.1	0.83	
71-55-6	1,1,1-Trichloroethane	4.1	U	4.1	0.61	
79-00-5	1,1,2-Trichloroethane	4.1	U	4.1	0.61	
79-01-6	Trichloroethene	4.1	U	4.1	0.84	
75-01-4	Vinyl Chloride	4.1	U	4.1	1.6	
95-47-6	o-Xylene	4.1	U	4.1	0.40	
179601-23-1	m,p-Xylenes	8.2	U	8.2	0.90	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 0950  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 16:07

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5049.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .67

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.1	U	4.1	0.78	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/16/13 16:07	
Toluene-d8	102	66-138	9/16/13 16:07	
Dibromofluoromethane	101	63-138	9/16/13 16:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 0950  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 21:33

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ631.D

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410	U	410	41	
95-50-1	1,2-Dichlorobenzene	410	U	410	46	
541-73-1	1,3-Dichlorobenzene	410	U	410	62	
106-46-7	1,4-Dichlorobenzene	410	U	410	47	
95-95-4	2,4,5-Trichlorophenol	410	U	410	71	
88-06-2	2,4,6-Trichlorophenol	410	U	410	60	
120-83-2	2,4-Dichlorophenol	410	U	410	55	
105-67-9	2,4-Dimethylphenol	410	U	410	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	410	U	410	87	
606-20-2	2,6-Dinitrotoluene	410	U	410	68	
91-58-7	2-Chloronaphthalene	410	U	410	43	
95-57-8	2-Chlorophenol	410	U	410	43	
91-57-6	2-Methylnaphthalene	410	U	410	41	
95-48-7	2-Methylphenol	410	U	410	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	410	U	410	61	
91-94-1	3,3'-Dichlorobenzidine	410	U	410	74	
	3- and 4-Methylphenol Coelution	410	U	410	62	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	600	
101-55-3	4-Bromophenyl Phenyl Ether	410	U	410	73	
59-50-7	4-Chloro-3-methylphenol	410	U	410	45	
106-47-8	4-Chloroaniline	410	U	410	79	
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U	410	58	
100-01-6	4-Nitroaniline	2100	U	2100	450	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	410	U	410	58	
208-96-8	Acenaphthylene	410	U	410	55	
120-12-7	Anthracene	410	U	410	64	
56-55-3	Benz(a)anthracene	410	U	410	63	
50-32-8	Benzo(a)pyrene	410	U	410	68	
205-99-2	Benzo(b)fluoranthene	410	U	410	99	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 0950  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 21:33

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\091313\AQ631.D

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	410 U	410	77	
207-08-9	Benzo(k)fluoranthene	410 U	410	73	
108-60-1	2,2'-Oxybis(1-chloropropane)	410 U	410	49	
111-91-1	Bis(2-chloroethoxy)methane	410 U	410	56	
111-44-4	Bis(2-chloroethyl) Ether	410 U	410	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	410 U	410	56	
85-68-7	Butyl Benzyl Phthalate	410 U	410	62	
86-74-8	Carbazole	410 U	410	57	
218-01-9	Chrysene	410 U	410	57	
84-74-2	Di-n-butyl Phthalate	410 U	410	120	
117-84-0	Di-n-octyl Phthalate	410 U	410	78	
53-70-3	Dibenz(a,h)anthracene	410 U	410	110	
132-64-9	Dibenzofuran	410 U	410	45	
84-66-2	Diethyl Phthalate	410 U	410	53	
131-11-3	Dimethyl Phthalate	410 U	410	58	
206-44-0	Fluoranthene	410 U	410	65	
86-73-7	Fluorene	410 U	410	51	
118-74-1	Hexachlorobenzene	410 U	410	62	
87-68-3	Hexachlorobutadiene	410 U	410	45	
77-47-4	Hexachlorocyclopentadiene	410 U	410	65	
67-72-1	Hexachloroethane	410 U	410	57	
193-39-5	Indeno(1,2,3-cd)pyrene	410 U	410	67	
78-59-1	Isophorone	410 U	410	54	
621-64-7	N-Nitrosodi-n-propylamine	410 U	410	47	
86-30-6	N-Nitrosodiphenylamine	410 U	410	64	
91-20-3	Naphthalene	410 U	410	41	
98-95-3	Nitrobenzene	410 U	410	43	
87-86-5	Pentachlorophenol (PCP)	2100 U	2100	340	
85-01-8	Phenanthrene	410 U	410	55	
108-95-2	Phenol	410 U	410	45	
129-00-0	Pyrene	410 U	410	79	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 0950  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 21:33

Sample Name: E53OPB01 (2-4)  
 Lab Code: R1306593-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\091313\AQ631.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	93	41-151	9/13/13 21:33	
2-Fluorobiphenyl	71	47-126	9/13/13 21:33	
2-Fluorophenol	71	16-129	9/13/13 21:33	
Nitrobenzene-d5	79	39-136	9/13/13 21:33	
Phenol-d6	75	10-145	9/13/13 21:33	
p-Terphenyl-d14	91	35-152	9/13/13 21:33	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10468

E753-18

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>JWT US30</b>		Project Number <b>EC-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																											
Project Manager <b>Karen Bunker/Shari Johnson</b>		Report CC <b>Dean Tobin</b>		PRESERVATIVE																											
Company/Address <b>Ecology; Environment 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Stahman@ecoc.com</b>		NUMBER OF CONTAINERS																											
Phone # <b>312 578 9247</b>		Sampler's Signature <b>Scott Coop</b>		METALS, TOTAL (List in comments below)																											
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		METALS, DISSOLVED (List in comments below)				PCBS 8082 & 808				PESTICIDES 8081 & 808				GC VOAS 8021 & 801/802				GC/MS SVOAS 8270 & 825				GC/MS VOAS 8290 & 824 CLP			
CLIENT SAMPLE ID		DATE		SAMPLING TIME		MATRIX		METALS, DISSOLVED (List in comments below)				PCBS 8082 & 808				PESTICIDES 8081 & 808				GC VOAS 8021 & 801/802				GC/MS SVOAS 8270 & 825				GC/MS VOAS 8290 & 824 CLP			
E53CB01 (870)		9-9-13		0920		Soil		X				X				X				X				X							
E53ORB01 (2-4)		9-9-13		0950		Soil		X				X				X				X				X							
E5321B01 (0-2)		9-9-13		1105		Soil		X				X				X				X				X							
E5321B01 (6-8)		9-9-13		1110		Soil		X				X				X				X				X							
E5321B02 (2-4)		9-9-13		1230		Soil		X				X				X				X				X							
REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION			
SPECIAL INSTRUCTIONS/COMMENTS Metals		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS			
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS		TURNAROUND REQUIREMENTS			
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS		REPORT REQUIREMENTS			
INVOICE INFORMATION PO # BILL TO:		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION			
RECEIVED BY <b>[Signature]</b>		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY			
Signature <b>[Signature]</b>		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature			
Printed Name <b>Scott Coop</b>		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name			
Firm <b>ALS</b>		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm			
Date/Time <b>9-9-13/1620</b>		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time			



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16100 (23227) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.590229° Longitude: -88.183907°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805011 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.590229° Longitude: -88.183907°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E53COB01 and E53COB02 were sampled within the construction zone adjacent to ISGS #2141-27 (Commercial Building). Refer to PSI Report for ISGS #2141-27 (Commercial Building) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

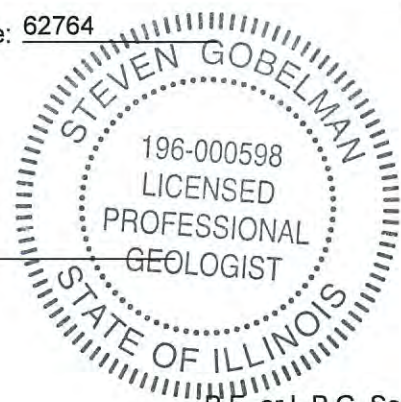
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/19  
 Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN**

SITE	ISGS #2141-27 (Commercial Building)				Comparison Criteria			
	E53COB01		E53COB02		MACs			TACO
BORING	E53COB01		E53COB02		Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	E53COB01 (2-4)	E53COB01 (10-12)	E53COB02 (0-2)	E53COB02 (4-6)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (meters)	0.6-1.2	3.1-3.7	0.0-0.6	1.2-1.8				
pH	7.52	8.25	7.67	8.34				
<b>VOCs (µg/kg)</b>								
Acetone	ND U	3.0 J	ND U	3.6 J	25,000	--	--	--
Toluene	ND U	1.3 J	1.1 J	1.2 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>								
Chrysene	ND U	ND U	65 J	ND U	88,000	--	--	--
Fluoranthene	ND U	ND U	140 J	ND U	3,100,000	--	--	--
Phenanthrene	ND U	ND U	78 J	ND U	--	--	--	--
Pyrene	ND U	ND U	97 J	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>								
Aluminum	18,000	1,770	14,300	3,150	--	--	--	--
Arsenic	10.9	11.6 †	7.6	7.5	11.3	13	--	--
Barium	136	8.8	164	19.5	1,500	--	--	--
Beryllium	0.82	0.04 J	0.71	0.22 J	22	--	--	--
Boron	14 J	ND U	8 J	ND U	40	--	--	--
Cadmium	0.32 J	ND U	0.17 J	ND U	5	--	--	--
Calcium	2,100	149,000	2,340	71,600	--	--	--	--
Chromium	22.0 †	10.7	18.5	7.8	21	--	--	--
Cobalt	12.5	3.3 J	12.8	5.8	20	--	--	--
Copper	20.8	20.3	13.6	23.2	2,900	--	--	--
Iron	26,400 †m	15,500 †	19,900 †m	11,800	15,000	15,900	--	--
Lead	16.9	7.4	16.1	7.9	107	--	--	--
Magnesium	4,220	86,400	3,110	43,000	325,000	--	--	--
Manganese	782 †m	362	1,020 †m	313	630	636	--	--
Mercury	0.050	0.011 J	0.031 J	0.036	1	--	--	--
Nickel	21.4	6.9	15.2	12.4	100	--	--	--
Potassium	1,080	490	800	820	--	--	--	--
Vanadium	39.7	8.6	33.8	10.4	550	--	--	--
Zinc	56.7	52.3	49.8	37.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>								
Aluminum	0.38	ND U	0.26	ND U	--	--	--	--
Calcium	50	955	93	889	--	--	--	--
Iron	0.13	1.01	ND U	ND U	--	--	--	5.
Magnesium	24.3	534	43.8	509	--	--	--	--
Manganese	0.012	3.40 L	0.065	4.59 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>								
Manganese	NA	ND U	NA	0.216 L	--	--	--	0.15



October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB01 (2-4)  
**Lab Code:** R1306652-001

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1115  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.52	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 11:15  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53COB01 (2-4)  
 Lab Code: R1306652-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.38		mg/L	0.20	1	9/19/13	9/23/13 19:41	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 19:41	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:41	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:15	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:15	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 19:41	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:41	
Calcium	6010C	50		mg/L	10	10	9/19/13	9/23/13 23:28	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:15	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:41	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:41	
Iron	6010C	0.13		mg/L	0.10	1	9/19/13	9/23/13 19:41	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:41	
Magnesium	6010C	24.3		mg/L	1.0	1	9/19/13	9/23/13 19:41	
Manganese	6010C	0.012		mg/L	0.010	1	9/19/13	9/23/13 19:41	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:35	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:41	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 19:41	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:41	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:41	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 19:41	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:41	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:15	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB01 (2-4)  
**Lab Code:** R1306652-001  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

*0008 acw*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB01 (10-12)  
**Lab Code:** R1306652-002

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1120  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.25	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306652-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	2.0 U	mg/L	2.0	10	9/19/13	9/23/13 23:35	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/19/13	9/23/13 19:47	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/19/13	9/23/13 19:47	
Barium	6010C	1.0 U	mg/L	1.0	1	9/19/13	9/24/13 11:21	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/19/13	9/24/13 11:21	
Boron	6010C	1.0 U	mg/L	1.0	1	9/19/13	9/23/13 19:47	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Calcium	6010C	955	mg/L	10	10	9/19/13	9/23/13 23:35	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/24/13 11:21	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/19/13	9/23/13 19:47	
Copper	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Iron	6010C	1.01	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Lead	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Magnesium	6010C	534	mg/L	10	10	9/19/13	9/23/13 23:35	
Manganese	6010C	3.40	mg/L	0.010	1	9/19/13	9/23/13 19:47	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/20/13	9/21/13 15:36	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/19/13	9/23/13 19:47	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/19/13	9/23/13 19:47	
Silver	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/23/13 19:47	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/19/13	9/23/13 19:47	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/19/13	9/23/13 19:47	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/19/13	9/24/13 11:21	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB01 (10-12)  
**Lab Code:** R1306652-002  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

*00011 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB02 (0-2)  
**Lab Code:** R1306652-003

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1250  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.67	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E53COB02 (0-2)  
Lab Code: R1306655-003

Service Request: R1306655  
Date Collected: 9/10/13 1250  
Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	81.8	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 81.8

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14300	mg/Kg	12	4	1	9/23/13	9/25/13 00:21	
Antimony, Total	6010C	1.0 BJ	mg/Kg	7.1	0.3	1	9/23/13	9/25/13 00:21	
Arsenic, Total	6010C	7.6	mg/Kg	1.2	0.5	1	9/23/13	9/25/13 00:21	
Barium, Total	6010C	164	mg/Kg	2.4	0.09	1	9/23/13	9/25/13 00:21	
Beryllium, Total	6010C	0.71	mg/Kg	0.35	0.03	1	9/23/13	9/25/13 00:21	
Boron, Total	6010C	8 J	mg/Kg	24	5	1	9/23/13	9/25/13 00:21	
Cadmium, Total	6010C	0.17 J	mg/Kg	0.59	0.08	1	9/23/13	9/25/13 00:21	
Calcium, Total	6010C	2340	mg/Kg	120	40	1	9/23/13	9/27/13 10:00	
Chromium, Total	6010C	18.5	mg/Kg	1.2	0.2	1	9/23/13	9/25/13 00:21	
Cobalt, Total	6010C	12.8	mg/Kg	5.9	0.07	1	9/23/13	9/25/13 00:21	
Copper, Total	6010C	13.6	mg/Kg	2.4	0.8	1	9/23/13	9/25/13 00:21	
Iron, Total	6010C	19900	mg/Kg	120	70	10	9/23/13	9/24/13 19:03	
Lead, Total	6010C	16.1	mg/Kg	5.9	0.3	1	9/23/13	9/25/13 00:21	
Magnesium, Total	6010C	3110	mg/Kg	120	2	1	9/23/13	9/25/13 00:21	
Manganese, Total	6010C	1020	mg/Kg	1.2	0.2	1	9/23/13	9/25/13 00:21	
Mercury, Total	7471B	0.031 J	mg/Kg	0.037	0.006	1	9/18/13	9/19/13 17:37	
Nickel, Total	6010C	15.2	mg/Kg	4.7	0.10	1	9/23/13	9/25/13 00:21	
Potassium, Total	6010C	800	mg/Kg	240	20	1	9/23/13	9/25/13 00:21	
Selenium, Total	6010C	1.2 U	mg/Kg	1.2	0.4	1	9/23/13	9/25/13 00:21	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	0.10	1	9/23/13	9/25/13 00:21	
Thallium, Total	6010C	1.2 U	mg/Kg	1.2	0.5	1	9/23/13	9/25/13 00:21	
Vanadium, Total	6010C	33.8	mg/Kg	5.9	0.06	1	9/23/13	9/25/13 00:21	
Zinc, Total	6010C	49.8	mg/Kg	2.4	0.09	1	9/23/13	9/25/13 00:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 13:26

Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\092413\K5208.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.3	U	4.3	2.5	
71-43-2	Benzene	4.3	U	4.3	0.26	
75-27-4	Bromodichloromethane	4.3	U	4.3	0.53	
75-25-2	Bromoform	4.3	U	4.3	0.81	
74-83-9	Bromomethane	4.3	U	4.3	1.2	
78-93-3	2-Butanone (MEK)	4.3	U	4.3	2.0	
75-15-0	Carbon Disulfide	4.3	U	4.3	1.1	
56-23-5	Carbon Tetrachloride	4.3	U	4.3	0.80	
108-90-7	Chlorobenzene	4.3	U	4.3	0.26	
75-00-3	Chloroethane	4.3	U	4.3	2.5	
67-66-3	Chloroform	4.3	U	4.3	1.1	
74-87-3	Chloromethane	4.3	U	4.3	0.35	
124-48-1	Dibromochloromethane	4.3	U	4.3	0.64	
75-34-3	1,1-Dichloroethane	4.3	U	4.3	1.1	
107-06-2	1,2-Dichloroethane	4.3	U	4.3	0.53	
75-35-4	1,1-Dichloroethene	4.3	U	4.3	1.2	
156-59-2	cis-1,2-Dichloroethene	4.3	U	4.3	0.83	
156-60-5	trans-1,2-Dichloroethene	4.3	U	4.3	0.75	
78-87-5	1,2-Dichloropropane	4.3	U	4.3	0.85	
10061-01-5	cis-1,3-Dichloropropene	4.3	U	4.3	0.79	
10061-02-6	trans-1,3-Dichloropropene	4.3	U	4.3	0.18	
100-41-4	Ethylbenzene	4.3	U	4.3	0.20	
591-78-6	2-Hexanone	4.3	U	4.3	1.1	
75-09-2	Methylene Chloride	4.3	U	4.3	0.50	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	0.86	
100-42-5	Styrene	4.3	U	4.3	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U	4.3	0.71	
127-18-4	Tetrachloroethene	4.3	U	4.3	0.77	
108-88-3	Toluene	1.1	J	4.3	0.87	
71-55-6	1,1,1-Trichloroethane	4.3	U	4.3	0.64	
79-00-5	1,1,2-Trichloroethane	4.3	U	4.3	0.64	
79-01-6	Trichloroethene	4.3	U	4.3	0.88	
75-01-4	Vinyl Chloride	4.3	U	4.3	1.6	
95-47-6	o-Xylene	4.3	U	4.3	0.42	
179601-23-1	m,p-Xylenes	8.7	U	8.7	0.95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 13:26  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5208.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.3	U	4.3	0.82	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/24/13 13:26	
Toluene-d8	97	66-138	9/24/13 13:26	
Dibromofluoromethane	99	63-138	9/24/13 13:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 15:34

Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS986.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	62	
106-46-7	1,4-Dichlorobenzene	400	U	400	47	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	87	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	43	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	74	
	3- and 4-Methylphenol Coelution	400	U	400	62	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	73	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	64	
56-55-3	Benz(a)anthracene	400	U	400	63	
50-32-8	Benzo(a)pyrene	400	U	400	68	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 15:34

Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS986.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	77	
207-08-9	Benzo(k)fluoranthene	400	U	400	73	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	65	J	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	78	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	45	
84-66-2	Diethyl Phthalate	400	U	400	53	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	140	J	400	65	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	65	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	78	J	400	55	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	97	J	400	79	



Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1250  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 15:34

Sample Name: E53COB02 (0-2)  
 Lab Code: R1306655-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS986.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	61	41-151	9/17/13 15:34	
2-Fluorobiphenyl	63	47-126	9/17/13 15:34	
2-Fluorophenol	55	16-129	9/17/13 15:34	
Nitrobenzene-d5	60	39-136	9/17/13 15:34	
Phenol-d6	59	10-145	9/17/13 15:34	
p-Terphenyl-d14	64	35-152	9/17/13 15:34	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB02 (0-2)  
**Lab Code:** R1306655-003  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1250  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 9/18/13

**Sample Name:** E53COB02 (0-2)  
**Lab Code:** R1306652-003

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.26		mg/L	0.20	1	9/19/13	9/23/13 19:53	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 19:53	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:53	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:27	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:27	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 19:53	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Calcium	6010C	93		mg/L	10	10	9/19/13	9/23/13 23:42	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:27	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:53	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Magnesium	6010C	43.8		mg/L	1.0	1	9/19/13	9/23/13 19:53	
Manganese	6010C	0.065		mg/L	0.010	1	9/19/13	9/23/13 19:53	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:41	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 19:53	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:53	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:53	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 19:53	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:53	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:27	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB02 (0-2)  
**Lab Code:** R1306652-003  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

*00014 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB02 (4-6)  
**Lab Code:** R1306652-004

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1255  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.34	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53COB02 (4-6)  
 Lab Code: R1306652-004

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 19:59	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 19:59	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:59	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:33	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:33	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 19:59	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Calcium	6010C	889		mg/L	10	10	9/19/13	9/23/13 23:50	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:33	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:59	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Magnesium	6010C	509		mg/L	10	10	9/19/13	9/23/13 23:50	
Manganese	6010C	4.59		mg/L	0.010	1	9/19/13	9/23/13 19:59	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:43	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 19:59	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 19:59	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 19:59	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 19:59	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 19:59	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:33	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB02 (4-6)  
**Lab Code:** R1306652-004  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10657

0753-23

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT W630</b>		Project Number <b>FE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>KAREN BUNKER SHARI JOHNSON</b>		Report Of <b>Jessie Tubert</b>		PRESERVATIVE	
Company/Address <b>Ecology, Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnson@env.com</b>		NUMBER OF CONTAINERS	
Phone # <b>312 576 9243</b>		Sampler's Signature <b>[Signature]</b>		GCMS VOA CLP • 8260 • 824 • 825	
Client Sample ID		FOR OFFICE USE ONLY LAB ID		GC VOA • 8270 • 825	
ES3COB01 (2-4)		001		PESTICIDES • 8021 • 801/802	
ES3COB01 (10-12)		002		GC SVOA • 8270 • 825	
ES3COB02 (0-2)		003		PCBS • 8032 • 808	
ES3COB02 (4-6)		004		METALS TOTAL (List in comments below)	
ES3JCB02 (2-4)		005		METALS DISSOLVED (List in comments below)	
ES3JCB02 (8-12)		006		VOC	
				TSP/SPM/PM10/PM2.5	
				TSP/SPM/PM10/PM2.5	
				PH	
				S.P.I.	
				REMARKS/ ALTERNATE DESCRIPTION	
				Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other	

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

TURNAROUND REQUIREMENTS  
RUSH (SURCHARGES APPLY)  
1 day - 2 day - 3 day  
4 day - 5 day

REPORT REQUIREMENTS  
I. Results Only  
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)  
III. Results + QC and Calibration Summaries  
IV. Data Validation Report with Raw Data

INVOICE INFORMATION  
PO #  
BILL TO:

See OAPP

STATE WHERE SAMPLES WERE COLLECTED

RECEIVED BY: **[Signature]**  
Signature  
Printed Name  
Firm  
Date/Time

RECEIVED BY: **[Signature]**  
Signature  
Printed Name  
Firm  
Date/Time

RECEIVED BY: **[Signature]**  
Signature  
Printed Name  
Firm  
Date/Time

RECEIVED BY: **[Signature]**  
Signature  
Printed Name  
Firm  
Date/Time

**R1306652 5**  
Ecology and Environment, Incorporated  
DOT US30 Plainfield PS

TEP + PHENOLS  
SPM on W630

9-10-13





October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB01 (2-4)  
**Lab Code:** R1306655-001

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1115  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.6	Percent	1.0	1	NA	9/12/13 16:51	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB01 (2-4)  
 Lab Code: R1306655-001

Service Request: R1306655  
 Date Collected: 9/10/13 1115  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 79.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	18000		mg/Kg	13	4	1	9/23/13	9/25/13 00:09	
Antimony, Total	6010C	1.2	BJ	mg/Kg	7.5	0.3	1	9/23/13	9/25/13 00:09	
Arsenic, Total	6010C	10.9		mg/Kg	1.3	0.5	1	9/23/13	9/25/13 00:09	
Barium, Total	6010C	136		mg/Kg	2.5	0.10	1	9/23/13	9/25/13 00:09	
Beryllium, Total	6010C	0.82		mg/Kg	0.38	0.04	1	9/23/13	9/25/13 00:09	
Boron, Total	6010C	14	J	mg/Kg	25	5	1	9/23/13	9/25/13 00:09	
Cadmium, Total	6010C	0.32	J	mg/Kg	0.63	0.08	1	9/23/13	9/25/13 00:09	
Calcium, Total	6010C	2100		mg/Kg	130	40	1	9/23/13	9/27/13 09:53	
Chromium, Total	6010C	22.0		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:09	
Cobalt, Total	6010C	12.5		mg/Kg	6.3	0.07	1	9/23/13	9/25/13 00:09	
Copper, Total	6010C	20.8		mg/Kg	2.5	0.8	1	9/23/13	9/25/13 00:09	
Iron, Total	6010C	26400		mg/Kg	130	70	10	9/23/13	9/24/13 18:45	
Lead, Total	6010C	16.9		mg/Kg	6.3	0.3	1	9/23/13	9/25/13 00:09	
Magnesium, Total	6010C	4220		mg/Kg	130	2	1	9/23/13	9/25/13 00:09	
Manganese, Total	6010C	782		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:09	
Mercury, Total	7471B	0.050		mg/Kg	0.039	0.007	1	9/18/13	9/19/13 17:33	
Nickel, Total	6010C	21.4		mg/Kg	5.0	0.2	1	9/23/13	9/25/13 00:09	
Potassium, Total	6010C	1080		mg/Kg	250	20	1	9/23/13	9/25/13 00:09	
Selenium, Total	6010C	1.3	U	mg/Kg	1.3	0.4	1	9/23/13	9/25/13 00:09	
Silver, Total	6010C	1.3	U	mg/Kg	1.3	0.10	1	9/23/13	9/25/13 00:09	
Thallium, Total	6010C	1.3	U	mg/Kg	1.3	0.5	1	9/23/13	9/25/13 00:09	
Vanadium, Total	6010C	39.7		mg/Kg	6.3	0.07	1	9/23/13	9/25/13 00:09	
Zinc, Total	6010C	56.7		mg/Kg	2.5	0.09	1	9/23/13	9/25/13 00:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1115  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 12:11

Sample Name: E53COB01 (2-4)  
 Lab Code: R1306655-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5206.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .74

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.6	U	4.6	2.7	
71-43-2	Benzene	4.6	U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6	U	4.6	0.57	
75-25-2	Bromoform	4.6	U	4.6	0.87	
74-83-9	Bromomethane	4.6	U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6	U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6	U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6	U	4.6	0.86	
108-90-7	Chlorobenzene	4.6	U	4.6	0.27	
75-00-3	Chloroethane	4.6	U	4.6	2.7	
67-66-3	Chloroform	4.6	U	4.6	1.2	
74-87-3	Chloromethane	4.6	U	4.6	0.38	
124-48-1	Dibromochloromethane	4.6	U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6	U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6	U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.89	
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.80	
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.91	
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.19	
100-41-4	Ethylbenzene	4.6	U	4.6	0.22	
591-78-6	2-Hexanone	4.6	U	4.6	1.2	
75-09-2	Methylene Chloride	4.6	U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	0.92	
100-42-5	Styrene	4.6	U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.76	
127-18-4	Tetrachloroethene	4.6	U	4.6	0.82	
108-88-3	Toluene	4.6	U	4.6	0.93	
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6	U	4.6	0.68	
79-01-6	Trichloroethene	4.6	U	4.6	0.94	
75-01-4	Vinyl Chloride	4.6	U	4.6	1.8	
95-47-6	o-Xylene	4.6	U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.3	U	9.3	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1115  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 12:11

Sample Name: E53COB01 (2-4)  
 Lab Code: R1306655-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5206.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .74

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.88	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/24/13 12:11	
Toluene-d8	97	66-138	9/24/13 12:11	
Dibromofluoromethane	102	63-138	9/24/13 12:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1115  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 14:20

Sample Name: E53COB01 (2-4)  
 Lab Code: R1306655-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS984.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410 U	410	42	
95-50-1	1,2-Dichlorobenzene	410 U	410	47	
541-73-1	1,3-Dichlorobenzene	410 U	410	63	
106-46-7	1,4-Dichlorobenzene	410 U	410	48	
95-95-4	2,4,5-Trichlorophenol	410 U	410	73	
88-06-2	2,4,6-Trichlorophenol	410 U	410	61	
120-83-2	2,4-Dichlorophenol	410 U	410	56	
105-67-9	2,4-Dimethylphenol	410 U	410	46	
51-28-5	2,4-Dinitrophenol	2100 U	2100	180	
121-14-2	2,4-Dinitrotoluene	410 U	410	89	
606-20-2	2,6-Dinitrotoluene	410 U	410	69	
91-58-7	2-Chloronaphthalene	410 U	410	44	
95-57-8	2-Chlorophenol	410 U	410	44	
91-57-6	2-Methylnaphthalene	410 U	410	42	
95-48-7	2-Methylphenol	410 U	410	54	
88-74-4	2-Nitroaniline	2100 U	2100	350	
88-75-5	2-Nitrophenol	410 U	410	62	
91-94-1	3,3'-Dichlorobenzidine	410 U	410	76	
	3- and 4-Methylphenol Coelution	410 U	410	63	
99-09-2	3-Nitroaniline	2100 U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100 U	2100	610	
101-55-3	4-Bromophenyl Phenyl Ether	410 U	410	74	
59-50-7	4-Chloro-3-methylphenol	410 U	410	46	
106-47-8	4-Chloroaniline	410 U	410	81	
7005-72-3	4-Chlorophenyl Phenyl Ether	410 U	410	59	
100-01-6	4-Nitroaniline	2100 U	2100	450	
100-02-7	4-Nitrophenol	2100 U	2100	310	
83-32-9	Acenaphthene	410 U	410	60	
208-96-8	Acenaphthylene	410 U	410	56	
120-12-7	Anthracene	410 U	410	65	
56-55-3	Benz(a)anthracene	410 U	410	64	
50-32-8	Benzo(a)pyrene	410 U	410	69	
205-99-2	Benzo(b)fluoranthene	410 U	410	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1115  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 14:20

Sample Name: E53COB01 (2-4)  
 Lab Code: R1306655-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS984.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	410	U	410	79	
207-08-9	Benzo(k)fluoranthene	410	U	410	75	
108-60-1	2,2'-Oxybis(1-chloropropane)	410	U	410	50	
111-91-1	Bis(2-chloroethoxy)methane	410	U	410	58	
111-44-4	Bis(2-chloroethyl) Ether	410	U	410	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	410	U	410	58	
85-68-7	Butyl Benzyl Phthalate	410	U	410	64	
86-74-8	Carbazole	410	U	410	58	
218-01-9	Chrysene	410	U	410	58	
84-74-2	Di-n-butyl Phthalate	410	U	410	120	
117-84-0	Di-n-octyl Phthalate	410	U	410	80	
53-70-3	Dibenz(a,h)anthracene	410	U	410	120	
132-64-9	Dibenzofuran	410	U	410	46	
84-66-2	Diethyl Phthalate	410	U	410	54	
131-11-3	Dimethyl Phthalate	410	U	410	60	
206-44-0	Fluoranthene	410	U	410	67	
86-73-7	Fluorene	410	U	410	53	
118-74-1	Hexachlorobenzene	410	U	410	64	
87-68-3	Hexachlorobutadiene	410	U	410	46	
77-47-4	Hexachlorocyclopentadiene	410	U	410	66	
67-72-1	Hexachloroethane	410	U	410	58	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	410	69	
78-59-1	Isophorone	410	U	410	56	
621-64-7	N-Nitrosodi-n-propylamine	410	U	410	47	
86-30-6	N-Nitrosodiphenylamine	410	U	410	65	
91-20-3	Naphthalene	410	U	410	42	
98-95-3	Nitrobenzene	410	U	410	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	350	
85-01-8	Phenanthrene	410	U	410	56	
108-95-2	Phenol	410	U	410	46	
129-00-0	Pyrene	410	U	410	81	



Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1115  
**Date Received:** 9/11/13  
**Date Extracted:** 9/12/13  
**Date Analyzed:** 9/17/13 14:20

**Sample Name:** E53COB01 (2-4)  
**Lab Code:** R1306655-001

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 79.6

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\091713\CS984.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191525  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/17/13 14:20	
2-Fluorobiphenyl	62	47-126	9/17/13 14:20	
2-Fluorophenol	58	16-129	9/17/13 14:20	
Nitrobenzene-d5	61	39-136	9/17/13 14:20	
Phenol-d6	64	10-145	9/17/13 14:20	
p-Terphenyl-d14	75	35-152	9/17/13 14:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53COB01 (10-12)  
**Lab Code:** R1306655-002

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1120  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	91.7	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Service Request: R1306655  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 91.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1770		mg/Kg	11	4	1	9/23/13	9/25/13 00:15	
Antimony, Total	6010C	1.7	BJ	mg/Kg	6.5	0.3	1	9/23/13	9/25/13 00:15	
Arsenic, Total	6010C	11.6		mg/Kg	1.1	0.5	1	9/23/13	9/25/13 00:15	
Barium, Total	6010C	8.8		mg/Kg	2.2	0.08	1	9/23/13	9/25/13 00:15	
Beryllium, Total	6010C	0.04	J	mg/Kg	0.33	0.03	1	9/23/13	9/25/13 00:15	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/23/13	9/25/13 00:15	
Cadmium, Total	6010C	0.55	U	mg/Kg	0.55	0.07	1	9/23/13	9/25/13 00:15	
Calcium, Total	6010C	149000		mg/Kg	1100	400	10	9/23/13	9/24/13 18:51	
Chromium, Total	6010C	10.7		mg/Kg	1.1	0.2	1	9/23/13	9/25/13 00:15	
Cobalt, Total	6010C	3.3	J	mg/Kg	5.5	0.06	1	9/23/13	9/25/13 00:15	
Copper, Total	6010C	20.3		mg/Kg	2.2	0.7	1	9/23/13	9/25/13 00:15	
Iron, Total	6010C	15500		mg/Kg	110	60	10	9/23/13	9/24/13 18:51	
Lead, Total	6010C	7.4		mg/Kg	5.5	0.3	1	9/23/13	9/25/13 00:15	
Magnesium, Total	6010C	86400		mg/Kg	1100	20	10	9/23/13	9/24/13 18:51	
Manganese, Total	6010C	362		mg/Kg	1.1	0.2	1	9/23/13	9/25/13 00:15	
Mercury, Total	7471B	0.011	J	mg/Kg	0.034	0.006	1	9/18/13	9/19/13 17:35	
Nickel, Total	6010C	6.9		mg/Kg	4.4	0.10	1	9/23/13	9/25/13 00:15	
Potassium, Total	6010C	490		mg/Kg	220	20	1	9/23/13	9/25/13 00:15	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/23/13	9/25/13 00:15	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/23/13	9/25/13 00:15	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/23/13	9/25/13 00:15	
Vanadium, Total	6010C	8.6		mg/Kg	5.5	0.06	1	9/23/13	9/25/13 00:15	
Zinc, Total	6010C	52.3		mg/Kg	2.2	0.08	1	9/23/13	9/25/13 00:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 12:49

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 91.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\MSVOA7\DATA\092413\K5207.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .72

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.0	J	3.9	2.3	
71-43-2	Benzene	3.9	U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9	U	3.9	0.48	
75-25-2	Bromoform	3.9	U	3.9	0.74	
74-83-9	Bromomethane	3.9	U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9	U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9	U	3.9	0.98	
56-23-5	Carbon Tetrachloride	3.9	U	3.9	0.73	
108-90-7	Chlorobenzene	3.9	U	3.9	0.23	
75-00-3	Chloroethane	3.9	U	3.9	2.3	
67-66-3	Chloroform	3.9	U	3.9	0.99	
74-87-3	Chloromethane	3.9	U	3.9	0.32	
124-48-1	Dibromochloromethane	3.9	U	3.9	0.58	
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.99	
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9	U	3.9	1.1	
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.75	
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.68	
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.77	
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.71	
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.16	
100-41-4	Ethylbenzene	3.9	U	3.9	0.19	
591-78-6	2-Hexanone	3.9	U	3.9	0.96	
75-09-2	Methylene Chloride	3.9	U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	0.77	
100-42-5	Styrene	3.9	U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.64	
127-18-4	Tetrachloroethene	3.9	U	3.9	0.70	
108-88-3	Toluene	1.3	J	3.9	0.79	
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.58	
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	0.58	
79-01-6	Trichloroethene	3.9	U	3.9	0.80	
75-01-4	Vinyl Chloride	3.9	U	3.9	1.5	
95-47-6	o-Xylene	3.9	U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.9	U	7.9	0.86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 12:49

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 91.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5207.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .72

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9 U	3.9	0.74	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/24/13 12:49	
Toluene-d8	98	66-138	9/24/13 12:49	
Dibromofluoromethane	96	63-138	9/24/13 12:49	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 14:57

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 91.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS985.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	36	
95-50-1	1,2-Dichlorobenzene	360	U	360	41	
541-73-1	1,3-Dichlorobenzene	360	U	360	55	
106-46-7	1,4-Dichlorobenzene	360	U	360	42	
95-95-4	2,4,5-Trichlorophenol	360	U	360	63	
88-06-2	2,4,6-Trichlorophenol	360	U	360	53	
120-83-2	2,4-Dichlorophenol	360	U	360	48	
105-67-9	2,4-Dimethylphenol	360	U	360	40	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	360	U	360	77	
606-20-2	2,6-Dinitrotoluene	360	U	360	60	
91-58-7	2-Chloronaphthalene	360	U	360	38	
95-57-8	2-Chlorophenol	360	U	360	38	
91-57-6	2-Methylnaphthalene	360	U	360	36	
95-48-7	2-Methylphenol	360	U	360	47	
88-74-4	2-Nitroaniline	1900	U	1900	300	
88-75-5	2-Nitrophenol	360	U	360	54	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	66	
	3- and 4-Methylphenol Coelution	360	U	360	55	
99-09-2	3-Nitroaniline	1900	U	1900	340	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	530	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	65	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	70	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	51	
100-01-6	4-Nitroaniline	1900	U	1900	400	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	360	U	360	52	
208-96-8	Acenaphthylene	360	U	360	48	
120-12-7	Anthracene	360	U	360	57	
56-55-3	Benz(a)anthracene	360	U	360	56	
50-32-8	Benzo(a)pyrene	360	U	360	60	
205-99-2	Benzo(b)fluoranthene	360	U	360	88	

## ALS Group USA, Corp. dba ALS Environmental

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1120  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 14:57

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 91.7

## Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS985.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	68	
207-08-9	Benzo(k)fluoranthene	360	U	360	65	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	44	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	50	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	50	
85-68-7	Butyl Benzyl Phthalate	360	U	360	55	
86-74-8	Carbazole	360	U	360	50	
218-01-9	Chrysene	360	U	360	51	
84-74-2	Di-n-butyl Phthalate	360	U	360	99	
117-84-0	Di-n-octyl Phthalate	360	U	360	69	
53-70-3	Dibenz(a,h)anthracene	360	U	360	97	
132-64-9	Dibenzofuran	360	U	360	40	
84-66-2	Diethyl Phthalate	360	U	360	47	
131-11-3	Dimethyl Phthalate	360	U	360	52	
206-44-0	Fluoranthene	360	U	360	58	
86-73-7	Fluorene	360	U	360	46	
118-74-1	Hexachlorobenzene	360	U	360	55	
87-68-3	Hexachlorobutadiene	360	U	360	40	
77-47-4	Hexachlorocyclopentadiene	360	U	360	58	
67-72-1	Hexachloroethane	360	U	360	50	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	60	
78-59-1	Isophorone	360	U	360	48	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	41	
86-30-6	N-Nitrosodiphenylamine	360	U	360	56	
91-20-3	Naphthalene	360	U	360	36	
98-95-3	Nitrobenzene	360	U	360	38	
87-86-5	Pentachlorophenol (PCP)	1900	U	1900	300	
85-01-8	Phenanthrene	360	U	360	49	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 11:20  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 14:57

Sample Name: E53COB01 (10-12)  
 Lab Code: R1306655-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 91.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS985.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/17/13 14:57	
2-Fluorobiphenyl	86	47-126	9/17/13 14:57	
2-Fluorophenol	67	16-129	9/17/13 14:57	
Nitrobenzene-d5	78	39-136	9/17/13 14:57	
Phenol-d6	76	10-145	9/17/13 14:57	
p-Terphenyl-d14	82	35-152	9/17/13 14:57	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Service Request: R1306655  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.5	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Service Request: R1306655  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 94.5

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	3150		mg/Kg	10	3	1	9/23/13	9/25/13 00:27	
Antimony, Total	6010C	1.1	BJ	mg/Kg	6.0	0.2	1	9/23/13	9/25/13 00:27	
Arsenic, Total	6010C	7.5		mg/Kg	1.0	0.4	1	9/23/13	9/25/13 00:27	
Barium, Total	6010C	19.5		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 00:27	
Beryllium, Total	6010C	0.22	J	mg/Kg	0.30	0.03	1	9/23/13	9/25/13 00:27	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/23/13	9/25/13 00:27	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.07	1	9/23/13	9/25/13 00:27	
Calcium, Total	6010C	71600		mg/Kg	1000	300	10	9/23/13	9/24/13 19:09	
Chromium, Total	6010C	7.8		mg/Kg	1.0	0.10	1	9/23/13	9/25/13 00:27	
Cobalt, Total	6010C	5.8		mg/Kg	5.0	0.06	1	9/23/13	9/25/13 00:27	
Copper, Total	6010C	23.2		mg/Kg	2.0	0.7	1	9/23/13	9/25/13 00:27	
Iron, Total	6010C	11800		mg/Kg	100	60	10	9/23/13	9/24/13 19:09	
Lead, Total	6010C	7.9		mg/Kg	5.0	0.3	1	9/23/13	9/25/13 00:27	
Magnesium, Total	6010C	43000		mg/Kg	100	2	1	9/23/13	9/25/13 00:27	
Manganese, Total	6010C	313		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 00:27	
Mercury, Total	7471B	0.036		mg/Kg	0.034	0.006	1	9/18/13	9/19/13 17:38	
Nickel, Total	6010C	12.4		mg/Kg	4.0	0.09	1	9/23/13	9/25/13 00:27	
Potassium, Total	6010C	820		mg/Kg	200	20	1	9/23/13	9/25/13 00:27	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 00:27	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/23/13	9/25/13 00:27	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 00:27	
Vanadium, Total	6010C	10.4		mg/Kg	5.0	0.05	1	9/23/13	9/25/13 00:27	
Zinc, Total	6010C	37.9		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 00:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 14:03

Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5209.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .74

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.6	J	3.9	2.3	
71-43-2	Benzene	3.9	U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9	U	3.9	0.48	
75-25-2	Bromoform	3.9	U	3.9	0.73	
74-83-9	Bromomethane	3.9	U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9	U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9	U	3.9	0.98	
56-23-5	Carbon Tetrachloride	3.9	U	3.9	0.73	
108-90-7	Chlorobenzene	3.9	U	3.9	0.23	
75-00-3	Chloroethane	3.9	U	3.9	2.3	
67-66-3	Chloroform	3.9	U	3.9	0.99	
74-87-3	Chloromethane	3.9	U	3.9	0.32	
124-48-1	Dibromochloromethane	3.9	U	3.9	0.58	
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.98	
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9	U	3.9	1.1	
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.75	
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.68	
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.76	
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.71	
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.16	
100-41-4	Ethylbenzene	3.9	U	3.9	0.19	
591-78-6	2-Hexanone	3.9	U	3.9	0.95	
75-09-2	Methylene Chloride	3.9	U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	0.77	
100-42-5	Styrene	3.9	U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.64	
127-18-4	Tetrachloroethene	3.9	U	3.9	0.69	
108-88-3	Toluene	1.2	J	3.9	0.79	
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.58	
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	0.58	
79-01-6	Trichloroethene	3.9	U	3.9	0.80	
75-01-4	Vinyl Chloride	3.9	U	3.9	1.5	
95-47-6	o-Xylene	3.9	U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.8	U	7.8	0.86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 14:03

Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\092413\K5209.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .74

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9 U	3.9	0.74	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	51-136	9/24/13 14:03	
Toluene-d8	98	66-138	9/24/13 14:03	
Dibromofluoromethane	99	63-138	9/24/13 14:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1255  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 16:16

Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS988.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 12:55  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 16:16

Sample Name: E53COB02 (4-6)  
 Lab Code: R1306655-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS988.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1255  
**Date Received:** 9/11/13  
**Date Extracted:** 9/12/13  
**Date Analyzed:** 9/17/13 16:16

**Sample Name:** E53COB02 (4-6)  
**Lab Code:** R1306655-004

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.5

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\091713\CS988.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191525  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	59	41-151	9/17/13 16:16	
2-Fluorobiphenyl	77	47-126	9/17/13 16:16	
2-Fluorophenol	55	16-129	9/17/13 16:16	
Nitrobenzene-d5	70	39-136	9/17/13 16:16	
Phenol-d6	64	10-145	9/17/13 16:16	
p-Terphenyl-d14	81	35-152	9/17/13 16:16	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB02 (4-6)  
**Lab Code:** R1306655-004  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10657

6753-23

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT W630</b>		Project Number <b>EC-000335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Brunko (Shore Johnson)</b>		Report CC <b>Vella Tschert</b>		PRESERVATIVE	
Company/Address <b>Ecology; Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnsen@euc.com</b>		PRELIMINARY TESTS	
Phone # <b>773 576 9243</b>		Sampler's Signature <i>[Signature]</i>		METALS TOTAL (List in comments below)	
Sampler's Name <b>Scott Cooper</b>		Sampled Printed Name <b>Scott Cooper</b>		METALS DISSOLVED (List in comments below)	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
ES3COB01 (2-4)		9-10-13		1115	
ES3COB01 (10-12)		9-10-13		1120	
ES3COB02 (0-2)		9-10-13		1250	
ES3COB02 (4-6)		9-10-13		1255	
ES3JC B02 (2-4)		9-10-13		1255	
ES3JC B02 (8-10)		9-10-13		1255	
REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION	
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other	
SPECIAL INSTRUCTIONS/COMMENTS Metals		SPECIAL INSTRUCTIONS/COMMENTS Metals		SPECIAL INSTRUCTIONS/COMMENTS Metals	
See OAPP <input type="checkbox"/>		See OAPP <input type="checkbox"/>		See OAPP <input type="checkbox"/>	
STATE WHERE SAMPLES WERE COLLECTED		STATE WHERE SAMPLES WERE COLLECTED		STATE WHERE SAMPLES WERE COLLECTED	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>E.C.</b>		Firm <b>E.C.</b>		Firm <b>E.C.</b>	
Date/Time <b>9-10-13/1600</b>		Date/Time <b>9/10/13 1005</b>		Date/Time <b>9-10-13</b>	
RECEIVED BY		RECEIVED BY		RECEIVED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>E.C.</b>		Firm <b>E.C.</b>		Firm <b>E.C.</b>	
Date/Time <b>9-10-13/1600</b>		Date/Time <b>9-10-13</b>		Date/Time <b>9-10-13</b>	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day	
REQUESTED REPORT DATE		REQUESTED REPORT DATE		REQUESTED REPORT DATE	
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION	
PO #		PO #		PO #	
BILL TO:		BILL TO:		BILL TO:	
R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI		R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI		R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI	
Edata Yes		Edata Yes		Edata Yes	
RELINQUISHED		RELINQUISHED		RELINQUISHED	



October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13 1120  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/6/13

**Sample Name:** E53COB01 (10-12)  
**Lab Code:** R1307320-001

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/9/13	10/10/13 18:59	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB01 (10-12)  
**Lab Code:** R1307320-001  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

JWILLY

DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307320  
 Date Collected: 9/10/13 12:55  
 Date Received: 9/11/13  
 Pre-Prep Date: 10/6/13

Sample Name: E53COB02 (4-6)  
 Lab Code: R1307320-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.216		mg/L	0.010	1	10/9/13	10/10/13 19:04	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53COB02 (4-6)  
**Lab Code:** R1307320-002  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10657

6733-23

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT W630</b>		Project Number <b>EE-004335-0001-01710</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Buehler/Barbara Johnson</b>		Report QC <b>Debra Tichert</b>		PRESERVATIVE	
Company/Address <b>Ecology &amp; Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnson@ecr.com</b>		NUMBER OF CONTAINERS	
Phone # <b>712 576 9243</b>		Sampler's Signature <i>[Signature]</i>		GCMS VOA's • 8260 • 824 • CLP • 8270 • 825	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		MATRIX	
ES3C0B01 (2-4)		9-9-13		S.L.	
ES3C0B01 (0-2)		9-10-13		S.L.	
ES3C0B02 (0-2)		9-10-13		S.L.	
ES3C0B02 (4-6)		9-10-13		S.L.	
ES3JC0B02 (2-4)		9-10-13		S.L.	
ES3JC0B02 (8-10)		9-10-13		S.L.	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>See-It Cooper</b>		Printed Name <b>See-It Cooper</b>		Printed Name <b>See-It Cooper</b>	
Firm <b>See-It Cooper</b>		Firm <b>See-It Cooper</b>		Firm <b>See-It Cooper</b>	
Date/Time <b>9-10-13/1650</b>		Date/Time <b>9/13/13 1005</b>		Date/Time <b>9-10-13</b>	
See QAPP <input type="checkbox"/>		R1306652		R1306652	
INVOICE INFORMATION		PC #		Ecology And Environment, Incorporated IDOT US30 Plainsfield, PS	
BILL TO: <b>AB07320</b>		INVOICE INFORMATION		Ecology And Environment, Incorporated IDOT US30 Plainsfield, PS	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>See-It Cooper</b>		Printed Name <b>See-It Cooper</b>		Printed Name <b>See-It Cooper</b>	
Firm <b>See-It Cooper</b>		Firm <b>See-It Cooper</b>		Firm <b>See-It Cooper</b>	
Date/Time <b>9-10-13/1650</b>		Date/Time <b>9/13/13 1005</b>		Date/Time <b>9-10-13</b>	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16140 (23205) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.589280° Longitude: -88.182710°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805010 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.589280° Longitude: -88.182710°

### Uncontaminated Site Certification

#### **III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E53JCB01 and E53JCB02 were sampled within the construction zone adjacent to ISGS #2141-29 (Bill Jacobs Chevrolet). Refer to PSI Report for ISGS #2141-29 (Bill Jacobs Chevrolet) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

#### **IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

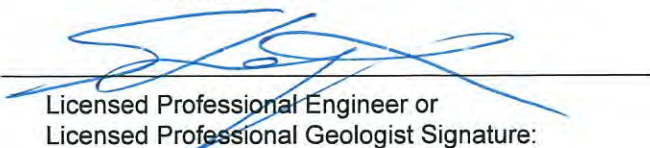
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

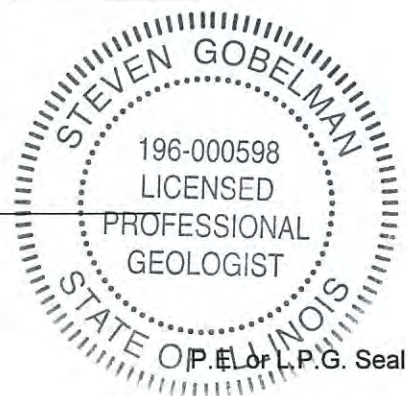
Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

1/24/14

Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-29 (Bill Jacobs Chevrolet)				Comparison Criteria			
	E53JCB01		E53JCB02		MACs			TACO
BORING					Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	E53JCB01 (4-6)	E53JCB01 (8-10)	E53JCB02 (2-4)	E53JCB02 (8-10)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (meters)	1.2-1.8	2.4-3.1	0.6-1.2	2.4-3.1				
pH	8.51	8.46	7.99	8.26				
<b>VOCs (µg/kg)</b>								
Acetone	2.9 J	5.6	ND U	3.7 J	25,000	--	--	--
Toluene	1.8 J	2.2 J	ND U	1.9 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>								
Di-n-butyl Phthalate	140 J	130 J	ND U	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>								
Aluminum	2,340	1,910	14,700	1,770	--	--	--	--
Arsenic	4.1	11.7 †	12.3 †	3.9	11.3	13	--	--
Barium	11.9	12.8	195	10.7	1,500	--	--	--
Beryllium	0.13 J	0.08 J	0.81	0.08 J	22	--	--	--
Boron	ND U	ND U	12 J	ND U	40	--	--	--
Cadmium	ND U	ND U	0.45 J	ND U	5	--	--	--
Calcium	79,800	132,000	13,200	151,000	--	--	--	--
Chromium	6.7	10.9	19.3	10.1	21	--	--	--
Cobalt	3.4 J	4.2 J	10.6	2.6 J	20	--	--	--
Copper	13.7	21.5	23.2	9.7	2,900	--	--	--
Iron	8,070	16,700 †m	24,400 †m	6,710	15,000	15,900	--	--
Lead	6.8	7.0	29.8	3.2 J	107	--	--	--
Magnesium	48,600	76,200	9,110	89,400	325,000	--	--	--
Manganese	261	315	940 †m	277	630	636	--	--
Mercury	0.007 J	0.012 J	0.049	0.009 J	1	--	--	--
Nickel	7.8	8.4	18.8	5.2	100	--	--	--
Potassium	600	510	1,630	670	--	--	--	--
Vanadium	7.4	24.3	34.9	8.9	550	--	--	--
Zinc	26.9	35.2	80.5	17.6	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>								
Calcium	888	1,010	224	865	--	--	--	--
Iron	0.94	0.53	ND U	ND U	--	--	--	5
Magnesium	488	501	116	514	--	--	--	--
Manganese	4.23 L	3.86 L	0.127	4.02 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>								
Manganese	0.101	ND U	NA	0.033	--	--	--	0.15



October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306652

<u>Lab ID</u>	<u>Client ID</u>
R1306652-001	E53COB01 (2-4)
R1306652-002	E53COB01 (10-12)
R1306652-003	E53COB02 (0-2)
R1306652-004	E53COB02 (4-6)
R1306652-005	E53JCB02 (2-4)
R1306652-006	E53JCB02 (8-10)
R1306652-007	E5322B01 (2-4)
R1306652-008	E5322B01 (8-10)
R1306652-009	E5322B01D (8-10)
R1306652-010	E5322B03 (0-2)
R1306652-011	E5322B03 (6-8)
R1306652-012	E5322B02 (0-1.5)
R1306652-013	E53JCB01 (4-6)
R1306652-014	E53JCB01 (8-10)
R1306652-015	E5332B01 (8-10)
R1306652-016	E5333B01 (2-4)
R1306652-017	E5323B01 (4-6)
R1306652-018	E5324B03 (2-4)
R1306652-019	E5324B01 (0-2)
R1306652-020	E5324B02 (2-4)
R1306652-021	E5335B01 (0-2)
R1306652-022	E5326B01 (0-2)



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB02 (2-4)  
**Lab Code:** R1306652-005

**Service Request:** R1306652  
**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.99	pH Units		1	NA	9/23/13 15:50	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306652-005

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 20:05	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 20:05	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:05	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:39	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:39	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 20:05	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Calcium	6010C	224		mg/L	10	10	9/19/13	9/23/13 23:57	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:39	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:05	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Magnesium	6010C	116		mg/L	1.0	1	9/19/13	9/23/13 20:05	
Manganese	6010C	0.127		mg/L	0.010	1	9/19/13	9/23/13 20:05	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:44	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 20:05	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:05	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:05	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 20:05	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:05	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:39	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB02 (2-4)  
**Lab Code:** R1306652-005  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306652-006

Service Request: R1306652  
 Date Collected: 9/10/13  
 Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.26	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306652-006

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 20:11	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 20:11	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:11	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:45	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:45	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 20:11	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Calcium	6010C	865		mg/L	10	10	9/19/13	9/24/13 00:04	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:45	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:11	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Magnesium	6010C	514		mg/L	10	10	9/19/13	9/24/13 00:04	
Manganese	6010C	4.02		mg/L	0.010	1	9/19/13	9/23/13 20:11	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:46	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 20:11	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:11	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:11	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 20:11	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:11	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:45	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB02 (8-10)  
**Lab Code:** R1306652-006  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1306652-013

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1430  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.51	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306652-013

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 16:02	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 16:02	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:02	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:02	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 16:02	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:02	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Calcium	6010C	888		mg/L	10	10	9/19/13	9/26/13 11:42	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:02	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Iron	6010C	0.94		mg/L	0.10	1	9/19/13	9/25/13 16:02	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Magnesium	6010C	488		mg/L	1.0	1	9/19/13	9/25/13 16:02	
Manganese	6010C	4.23		mg/L	0.010	1	9/19/13	9/25/13 16:02	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 15:58	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 18:15	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:02	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 16:02	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:02	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:02	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1306652-013  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E53JCB01 (8-10)  
Lab Code: R1306652-014

Service Request: R1306652  
Date Collected: 9/10/13 1435  
Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.46		pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306652-014

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 16:08	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 16:08	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:08	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:08	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 16:08	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:08	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Calcium	6010C	1010		mg/L	10	10	9/19/13	9/26/13 11:49	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:08	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Iron	6010C	0.53		mg/L	0.10	1	9/19/13	9/25/13 16:08	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Magnesium	6010C	501		mg/L	10	10	9/19/13	9/26/13 11:49	
Manganese	6010C	3.86		mg/L	0.010	1	9/19/13	9/25/13 16:08	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:02	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 18:21	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:08	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 16:08	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:08	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:08	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB01 (8-10)  
**Lab Code:** R1306652-014  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10656

E753-22

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)										INVOICE INFORMATION									
EDT W053		EE-004725-0001-01770		PRESERVATIVE		NUMBER OF CONTAINERS		METALS, TOTAL (List in comments below)		METALS, DISSOLVED (List in comments below)		VOC		SVC		TCH TAK WCHLS		TCH TAK WCHLS		PH to S.I.I.			
Project Manager Karen Bunker Sherrill Johnson		Report CC Devin Tichout		GCMS VOLS • 8280 • 824 • CLP		GCMS SVOL • 8270 • 825		PESTICIDES • 8081 • 808		PCBS • 8082 • 808		GC VOLS • 8021 • 801/802		GCMS SVOL • 8270 • 825		GCMS VOLS • 8280 • 824 • CLP		GCMS SVOL • 8270 • 825		PESTICIDES • 8081 • 808		PCBS • 8082 • 808	
Company/Address Ecology & Environment 33 W Main St Suite 1460 Chicago IL 60603		Email Sylvain@enc.com		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		REMARKS/ALTERNATE DESCRIPTION		PO #		BILL TO:		RECEIVED BY		RECEIVED BY			
Sample's Signature [Signature]		Sample's Printed Name Sylvain Enc		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		REMARKS/ALTERNATE DESCRIPTION		PO #		BILL TO:		RECEIVED BY		RECEIVED BY			
ES322601		9-10-13		0930		Waker		Y		X		X		X		X		X		X			
ES3TD07		9-4-13		0910		Waker		1		X		X		X		X		X		X			
ES3CO601		9-10-13		1130		Waker		Y		X		X		X		X		X		X			
ES3JCB01(4-6)		9-10-13		1430		S-1		Y		X		X		X		X		X		X			
ES3JCB01(EB)		9-10-13		1435		S-1		Y		X		X		X		X		X		X			
ES3JCB01		9-10-13		1440		Waker		Y		X		X		X		X		X		X			



October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB02 (2-4)  
**Lab Code:** R1306655-005

**Service Request:** R1306655  
**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	75.0	Percent	1.0	1	NA	9/12/13 16:51	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 75.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14700		mg/Kg	13	4	1	9/23/13	9/25/13 00:33	
Antimony, Total	6010C	1.3	BJ	mg/Kg	7.6	0.3	1	9/23/13	9/25/13 00:33	
Arsenic, Total	6010C	12.3		mg/Kg	1.3	0.6	1	9/23/13	9/25/13 00:33	
Barium, Total	6010C	195		mg/Kg	2.5	0.10	1	9/23/13	9/25/13 00:33	
Beryllium, Total	6010C	0.81		mg/Kg	0.38	0.04	1	9/23/13	9/25/13 00:33	
Boron, Total	6010C	12	J	mg/Kg	25	5	1	9/23/13	9/25/13 00:33	
Cadmium, Total	6010C	0.45	J	mg/Kg	0.63	0.08	1	9/23/13	9/25/13 00:33	
Calcium, Total	6010C	13200		mg/Kg	1300	400	10	9/23/13	9/24/13 19:15	
Chromium, Total	6010C	19.3		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:33	
Cobalt, Total	6010C	10.6		mg/Kg	6.3	0.07	1	9/23/13	9/25/13 00:33	
Copper, Total	6010C	23.2		mg/Kg	2.5	0.8	1	9/23/13	9/25/13 00:33	
Iron, Total	6010C	24400		mg/Kg	130	70	10	9/23/13	9/24/13 19:15	
Lead, Total	6010C	29.8		mg/Kg	6.3	0.3	1	9/23/13	9/25/13 00:33	
Magnesium, Total	6010C	9110		mg/Kg	130	2	1	9/23/13	9/25/13 00:33	
Manganese, Total	6010C	940		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:33	
Mercury, Total	7471B	0.049		mg/Kg	0.043	0.007	1	9/18/13	9/19/13 17:40	
Nickel, Total	6010C	18.8		mg/Kg	5.1	0.2	1	9/23/13	9/25/13 00:33	
Potassium, Total	6010C	1630		mg/Kg	250	20	1	9/23/13	9/25/13 00:33	
Selenium, Total	6010C	1.3	U	mg/Kg	1.3	0.4	1	9/23/13	9/25/13 00:33	
Silver, Total	6010C	1.3	U	mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:33	
Thallium, Total	6010C	1.3	U	mg/Kg	1.3	0.5	1	9/23/13	9/25/13 00:33	
Vanadium, Total	6010C	34.9		mg/Kg	6.3	0.07	1	9/23/13	9/25/13 00:33	
Zinc, Total	6010C	80.5		mg/Kg	2.5	0.10	1	9/23/13	9/25/13 00:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 14:41

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\092413\K5210.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.0 U	5.0	2.9	
71-43-2	Benzene	5.0 U	5.0	0.29	
75-27-4	Bromodichloromethane	5.0 U	5.0	0.61	
75-25-2	Bromoform	5.0 U	5.0	0.93	
74-83-9	Bromomethane	5.0 U	5.0	1.4	
78-93-3	2-Butanone (MEK)	5.0 U	5.0	2.3	
75-15-0	Carbon Disulfide	5.0 U	5.0	1.3	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	0.92	
108-90-7	Chlorobenzene	5.0 U	5.0	0.29	
75-00-3	Chloroethane	5.0 U	5.0	2.9	
67-66-3	Chloroform	5.0 U	5.0	1.3	
74-87-3	Chloromethane	5.0 U	5.0	0.40	
124-48-1	Dibromochloromethane	5.0 U	5.0	0.73	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	1.3	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	0.61	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	1.3	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	0.95	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	0.86	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	0.97	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	0.90	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	0.20	
100-41-4	Ethylbenzene	5.0 U	5.0	0.23	
591-78-6	2-Hexanone	5.0 U	5.0	1.3	
75-09-2	Methylene Chloride	5.0 U	5.0	0.57	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U	5.0	0.98	
100-42-5	Styrene	5.0 U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.81	
127-18-4	Tetrachloroethene	5.0 U	5.0	0.88	
108-88-3	Toluene	5.0 U	5.0	1.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	0.73	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	0.73	
79-01-6	Trichloroethene	5.0 U	5.0	1.1	
75-01-4	Vinyl Chloride	5.0 U	5.0	1.9	
95-47-6	o-Xylene	5.0 U	5.0	0.48	
179601-23-1	m,p-Xylenes	10 U	10	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 14:41

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5210.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .75

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	0.94	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/24/13 14:41	
Toluene-d8	99	66-138	9/24/13 14:41	
Dibromofluoromethane	101	63-138	9/24/13 14:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 16:53

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS989.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	440	U	440	45	
95-50-1	1,2-Dichlorobenzene	440	U	440	49	
541-73-1	1,3-Dichlorobenzene	440	U	440	67	
106-46-7	1,4-Dichlorobenzene	440	U	440	51	
95-95-4	2,4,5-Trichlorophenol	440	U	440	77	
88-06-2	2,4,6-Trichlorophenol	440	U	440	65	
120-83-2	2,4-Dichlorophenol	440	U	440	59	
105-67-9	2,4-Dimethylphenol	440	U	440	49	
51-28-5	2,4-Dinitrophenol	2300	U	2300	190	
121-14-2	2,4-Dinitrotoluene	440	U	440	94	
606-20-2	2,6-Dinitrotoluene	440	U	440	73	
91-58-7	2-Chloronaphthalene	440	U	440	46	
95-57-8	2-Chlorophenol	440	U	440	47	
91-57-6	2-Methylnaphthalene	440	U	440	45	
95-48-7	2-Methylphenol	440	U	440	58	
88-74-4	2-Nitroaniline	2300	U	2300	370	
88-75-5	2-Nitrophenol	440	U	440	66	
91-94-1	3,3'-Dichlorobenzidine	440	U	440	81	
	3- and 4-Methylphenol Coelution	440	U	440	67	
99-09-2	3-Nitroaniline	2300	U	2300	410	
534-52-1	4,6-Dinitro-2-methylphenol	2300	U	2300	650	
101-55-3	4-Bromophenyl Phenyl Ether	440	U	440	79	
59-50-7	4-Chloro-3-methylphenol	440	U	440	49	
106-47-8	4-Chloroaniline	440	U	440	86	
7005-72-3	4-Chlorophenyl Phenyl Ether	440	U	440	63	
100-01-6	4-Nitroaniline	2300	U	2300	480	
100-02-7	4-Nitrophenol	2300	U	2300	320	
83-32-9	Acenaphthene	440	U	440	63	
208-96-8	Acenaphthylene	440	U	440	59	
120-12-7	Anthracene	440	U	440	69	
56-55-3	Benz(a)anthracene	440	U	440	68	
50-32-8	Benzo(a)pyrene	440	U	440	74	
205-99-2	Benzo(b)fluoranthene	440	U	440	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 16:53

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS989.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	440	U	440	83	
207-08-9	Benzo(k)fluoranthene	440	U	440	79	
108-60-1	2,2'-Oxybis(1-chloropropane)	440	U	440	53	
111-91-1	Bis(2-chloroethoxy)methane	440	U	440	61	
111-44-4	Bis(2-chloroethyl) Ether	440	U	440	45	
117-81-7	Bis(2-ethylhexyl) Phthalate	440	U	440	61	
85-68-7	Butyl Benzyl Phthalate	440	U	440	68	
86-74-8	Carbazole	440	U	440	61	
218-01-9	Chrysene	440	U	440	62	
84-74-2	Di-n-butyl Phthalate	440	U	440	130	
117-84-0	Di-n-octyl Phthalate	440	U	440	85	
53-70-3	Dibenz(a,h)anthracene	440	U	440	120	
132-64-9	Dibenzofuran	440	U	440	49	
84-66-2	Diethyl Phthalate	440	U	440	57	
131-11-3	Dimethyl Phthalate	440	U	440	63	
206-44-0	Fluoranthene	440	U	440	71	
86-73-7	Fluorene	440	U	440	56	
118-74-1	Hexachlorobenzene	440	U	440	67	
87-68-3	Hexachlorobutadiene	440	U	440	49	
77-47-4	Hexachlorocyclopentadiene	440	U	440	70	
67-72-1	Hexachloroethane	440	U	440	61	
193-39-5	Indeno(1,2,3-cd)pyrene	440	U	440	73	
78-59-1	Isophorone	440	U	440	59	
621-64-7	N-Nitrosodi-n-propylamine	440	U	440	50	
86-30-6	N-Nitrosodiphenylamine	440	U	440	69	
91-20-3	Naphthalene	440	U	440	45	
98-95-3	Nitrobenzene	440	U	440	47	
87-86-5	Pentachlorophenol (PCP)	2300	U	2300	370	
85-01-8	Phenanthrene	440	U	440	60	
108-95-2	Phenol	440	U	440	49	
129-00-0	Pyrene	440	U	440	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 16:53

Sample Name: E53JCB02 (2-4)  
 Lab Code: R1306655-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS989.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/17/13 16:53	
2-Fluorobiphenyl	65	47-126	9/17/13 16:53	
2-Fluorophenol	63	16-129	9/17/13 16:53	
Nitrobenzene-d5	58	39-136	9/17/13 16:53	
Phenol-d6	67	10-145	9/17/13 16:53	
p-Terphenyl-d14	76	35-152	9/17/13 16:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated.  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB02 (8-10)  
**Lab Code:** R1306655-006

**Service Request:** R1306655  
**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	92.1	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 92.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1770		mg/Kg	10	3	1	9/23/13	9/25/13 00:39	
Antimony, Total	6010C	1.1	BJ	mg/Kg	6.2	0.3	1	9/23/13	9/25/13 00:39	
Arsenic, Total	6010C	3.9		mg/Kg	1.0	0.5	1	9/23/13	9/25/13 00:39	
Barium, Total	6010C	10.7		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 00:39	
Beryllium, Total	6010C	0.08	J	mg/Kg	0.31	0.03	1	9/23/13	9/25/13 00:39	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/23/13	9/25/13 00:39	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/23/13	9/25/13 00:39	
Calcium, Total	6010C	151000		mg/Kg	1000	300	10	9/23/13	9/24/13 19:21	
Chromium, Total	6010C	10.1		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 00:39	
Cobalt, Total	6010C	2.6	J	mg/Kg	5.2	0.06	1	9/23/13	9/25/13 00:39	
Copper, Total	6010C	9.7		mg/Kg	2.1	0.7	1	9/23/13	9/25/13 00:39	
Iron, Total	6010C	6710		mg/Kg	100	60	10	9/23/13	9/24/13 19:21	
Lead, Total	6010C	3.2	J	mg/Kg	5.2	0.3	1	9/23/13	9/25/13 00:39	
Magnesium, Total	6010C	89400		mg/Kg	1000	20	10	9/23/13	9/24/13 19:21	
Manganese, Total	6010C	277		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 00:39	
Mercury, Total	7471B	0.009	J	mg/Kg	0.033	0.006	1	9/18/13	9/19/13 17:42	
Nickel, Total	6010C	5.2		mg/Kg	4.1	0.09	1	9/23/13	9/25/13 00:39	
Potassium, Total	6010C	670		mg/Kg	210	20	1	9/23/13	9/25/13 00:39	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 00:39	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/23/13	9/25/13 00:39	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 00:39	
Vanadium, Total	6010C	8.9		mg/Kg	5.2	0.06	1	9/23/13	9/25/13 00:39	
Zinc, Total	6010C	17.6		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 00:39	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 15:19

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5211.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.7	J	4.5	2.6	
71-43-2	Benzene	4.5	U	4.5	0.27	
75-27-4	Bromodichloromethane	4.5	U	4.5	0.55	
75-25-2	Bromoform	4.5	U	4.5	0.84	
74-83-9	Bromomethane	4.5	U	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5	U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5	U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5	U	4.5	0.83	
108-90-7	Chlorobenzene	4.5	U	4.5	0.27	
75-00-3	Chloroethane	4.5	U	4.5	2.6	
67-66-3	Chloroform	4.5	U	4.5	1.2	
74-87-3	Chloromethane	4.5	U	4.5	0.37	
124-48-1	Dibromochloromethane	4.5	U	4.5	0.66	
75-34-3	1,1-Dichloroethane	4.5	U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.55	
75-35-4	1,1-Dichloroethene	4.5	U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.86	
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.78	
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.88	
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.82	
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.19	
100-41-4	Ethylbenzene	4.5	U	4.5	0.21	
591-78-6	2-Hexanone	4.5	U	4.5	1.1	
75-09-2	Methylene Chloride	4.5	U	4.5	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5	U	4.5	0.89	
100-42-5	Styrene	4.5	U	4.5	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.73	
127-18-4	Tetrachloroethene	4.5	U	4.5	0.80	
108-88-3	Toluene	1.9	J	4.5	0.91	
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.66	
79-00-5	1,1,2-Trichloroethane	4.5	U	4.5	0.66	
79-01-6	Trichloroethene	4.5	U	4.5	0.92	
75-01-4	Vinyl Chloride	4.5	U	4.5	1.7	
95-47-6	o-Xylene	4.5	U	4.5	0.44	
179601-23-1	m,p-Xylenes	9.0	U	9.0	0.99	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 15:19

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5211.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .83

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5 U	4.5	0.85	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	51-136	9/24/13 15:19	
Toluene-d8	99	66-138	9/24/13 15:19	
Dibromofluoromethane	101	63-138	9/24/13 15:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 17:30

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS990.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	36	
95-50-1	1,2-Dichlorobenzene	360	U	360	40	
541-73-1	1,3-Dichlorobenzene	360	U	360	55	
106-46-7	1,4-Dichlorobenzene	360	U	360	42	
95-95-4	2,4,5-Trichlorophenol	360	U	360	63	
88-06-2	2,4,6-Trichlorophenol	360	U	360	53	
120-83-2	2,4-Dichlorophenol	360	U	360	48	
105-67-9	2,4-Dimethylphenol	360	U	360	40	
51-28-5	2,4-Dinitrophenol	1800	U	1800	160	
121-14-2	2,4-Dinitrotoluene	360	U	360	77	
606-20-2	2,6-Dinitrotoluene	360	U	360	60	
91-58-7	2-Chloronaphthalene	360	U	360	38	
95-57-8	2-Chlorophenol	360	U	360	38	
91-57-6	2-Methylnaphthalene	360	U	360	36	
95-48-7	2-Methylphenol	360	U	360	47	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	360	U	360	54	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	66	
	3- and 4-Methylphenol Coelution	360	U	360	55	
99-09-2	3-Nitroaniline	1800	U	1800	340	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	530	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	64	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	70	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	51	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	360	U	360	52	
208-96-8	Acenaphthylene	360	U	360	48	
120-12-7	Anthracene	360	U	360	57	
56-55-3	Benz(a)anthracene	360	U	360	56	
50-32-8	Benzo(a)pyrene	360	U	360	60	
205-99-2	Benzo(b)fluoranthene	360	U	360	87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 17:30

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS990.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	68	
207-08-9	Benzo(k)fluoranthene	360	U	360	65	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	43	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	50	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	50	
85-68-7	Butyl Benzyl Phthalate	360	U	360	55	
86-74-8	Carbazole	360	U	360	50	
218-01-9	Chrysene	360	U	360	51	
84-74-2	Di-n-butyl Phthalate	360	U	360	99	
117-84-0	Di-n-octyl Phthalate	360	U	360	69	
53-70-3	Dibenz(a,h)anthracene	360	U	360	97	
132-64-9	Dibenzofuran	360	U	360	40	
84-66-2	Diethyl Phthalate	360	U	360	47	
131-11-3	Dimethyl Phthalate	360	U	360	52	
206-44-0	Fluoranthene	360	U	360	58	
86-73-7	Fluorene	360	U	360	45	
118-74-1	Hexachlorobenzene	360	U	360	55	
87-68-3	Hexachlorobutadiene	360	U	360	40	
77-47-4	Hexachlorocyclopentadiene	360	U	360	57	
67-72-1	Hexachloroethane	360	U	360	50	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	60	
78-59-1	Isophorone	360	U	360	48	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	41	
86-30-6	N-Nitrosodiphenylamine	360	U	360	56	
91-20-3	Naphthalene	360	U	360	36	
98-95-3	Nitrobenzene	360	U	360	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	360	U	360	49	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 17:30

Sample Name: E53JCB02 (8-10)  
 Lab Code: R1306655-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS990.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/17/13 17:30	
2-Fluorobiphenyl	70	47-126	9/17/13 17:30	
2-Fluorophenol	61	16-129	9/17/13 17:30	
Nitrobenzene-d5	62	39-136	9/17/13 17:30	
Phenol-d6	65	10-145	9/17/13 17:30	
p-Terphenyl-d14	76	35-152	9/17/13 17:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1306655-013

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1430  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	93.9	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1306655-013

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1430  
**Date Received:** 9/11/13

**Basis:** Dry  
**Percent Solids:** 93.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2340		mg/Kg	10	3	1	9/23/13	9/25/13 01:34	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.2	0.3	1	9/23/13	9/25/13 01:34	
Arsenic, Total	6010C	4.1		mg/Kg	1.0	0.5	1	9/23/13	9/25/13 01:34	
Barium, Total	6010C	11.9		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:34	
Beryllium, Total	6010C	0.13	J	mg/Kg	0.31	0.03	1	9/23/13	9/25/13 01:34	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/23/13	9/25/13 01:34	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/23/13	9/25/13 01:34	
Calcium, Total	6010C	79800		mg/Kg	1000	300	10	9/23/13	9/24/13 20:16	
Chromium, Total	6010C	6.7		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:34	
Cobalt, Total	6010C	3.4	J	mg/Kg	5.2	0.06	1	9/23/13	9/25/13 01:34	
Copper, Total	6010C	13.7		mg/Kg	2.1	0.7	1	9/23/13	9/25/13 01:34	
Iron, Total	6010C	8070		mg/Kg	100	60	10	9/23/13	9/24/13 20:16	
Lead, Total	6010C	6.8		mg/Kg	5.2	0.3	1	9/23/13	9/25/13 01:34	
Magnesium, Total	6010C	48600		mg/Kg	100	2	1	9/23/13	9/25/13 01:34	
Manganese, Total	6010C	261		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:34	
Mercury, Total	7471B	0.007	J	mg/Kg	0.035	0.006	1	9/18/13	9/19/13 17:56	
Nickel, Total	6010C	7.8		mg/Kg	4.1	0.09	1	9/23/13	9/25/13 01:34	
Potassium, Total	6010C	600		mg/Kg	210	20	1	9/23/13	9/25/13 01:34	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 01:34	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/23/13	9/25/13 01:34	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 01:34	
Vanadium, Total	6010C	7.4		mg/Kg	5.2	0.06	1	9/23/13	9/25/13 01:34	
Zinc, Total	6010C	26.9		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:34	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 14:16

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306655-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091813\K5091.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .82

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	2.9	J	4.4	2.5	
71-43-2	Benzene	4.4	U	4.4	0.26	
75-27-4	Bromodichloromethane	4.4	U	4.4	0.54	
75-25-2	Bromoform	4.4	U	4.4	0.82	
74-83-9	Bromomethane	4.4	U	4.4	1.3	
78-93-3	2-Butanone (MEK)	4.4	U	4.4	2.0	
75-15-0	Carbon Disulfide	4.4	U	4.4	1.1	
56-23-5	Carbon Tetrachloride	4.4	U	4.4	0.81	
108-90-7	Chlorobenzene	4.4	U	4.4	0.26	
75-00-3	Chloroethane	4.4	U	4.4	2.6	
67-66-3	Chloroform	4.4	U	4.4	1.2	
74-87-3	Chloromethane	4.4	U	4.4	0.35	
124-48-1	Dibromochloromethane	4.4	U	4.4	0.64	
75-34-3	1,1-Dichloroethane	4.4	U	4.4	1.1	
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.54	
75-35-4	1,1-Dichloroethene	4.4	U	4.4	1.2	
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.83	
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.76	
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.85	
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.79	
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.18	
100-41-4	Ethylbenzene	4.4	U	4.4	0.21	
591-78-6	2-Hexanone	4.4	U	4.4	1.1	
75-09-2	Methylene Chloride	4.4	U	4.4	0.50	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.4	U	4.4	0.86	
100-42-5	Styrene	4.4	U	4.4	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.71	
127-18-4	Tetrachloroethene	4.4	U	4.4	0.77	
108-88-3	Toluene	1.8	J	4.4	0.88	
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.64	
79-00-5	1,1,2-Trichloroethane	4.4	U	4.4	0.64	
79-01-6	Trichloroethene	4.4	U	4.4	0.89	
75-01-4	Vinyl Chloride	4.4	U	4.4	1.7	
95-47-6	o-Xylene	4.4	U	4.4	0.42	
179601-23-1	m,p-Xylenes	8.7	U	8.7	0.96	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 14:16

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306655-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091813\K5091.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .82

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.4	U	4.4	0.83	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/18/13 14:16	
Toluene-d8	98	66-138	9/18/13 14:16	
Dibromofluoromethane	101	63-138	9/18/13 14:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:11

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306655-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091913\CT007.D

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	36	
95-50-1	1,2-Dichlorobenzene	350	U	350	40	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	36	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	54	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	51	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	55	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:11

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306655-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091913\CT007.D\

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	140	J	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1430  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:11

Sample Name: E53JCB01 (4-6)  
 Lab Code: R1306655-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091913\CT007.D\

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/19/13 13:11	
2-Fluorobiphenyl	71	47-126	9/19/13 13:11	
2-Fluorophenol	56	16-129	9/19/13 13:11	
Nitrobenzene-d5	68	39-136	9/19/13 13:11	
Phenol-d6	63	10-145	9/19/13 13:11	
p-Terphenyl-d14	81	35-152	9/19/13 13:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53JCB01 (8-10)  
**Lab Code:** R1306655-014

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1435  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.2	Percent	1.0	1	NA	9/16/13 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 95.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1910		mg/Kg	10	3	1	9/23/13	9/25/13 01:40	
Antimony, Total	6010C	1.5	BJ	mg/Kg	6.0	0.2	1	9/23/13	9/25/13 01:40	
Arsenic, Total	6010C	11.7		mg/Kg	1.0	0.4	1	9/23/13	9/25/13 01:40	
Barium, Total	6010C	12.8		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 01:40	
Beryllium, Total	6010C	0.08	J	mg/Kg	0.30	0.03	1	9/23/13	9/25/13 01:40	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/23/13	9/25/13 01:40	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.07	1	9/23/13	9/25/13 01:40	
Calcium, Total	6010C	132000		mg/Kg	1000	300	10	9/23/13	9/24/13 20:23	
Chromium, Total	6010C	10.9		mg/Kg	1.0	0.10	1	9/23/13	9/25/13 01:40	
Cobalt, Total	6010C	4.2	J	mg/Kg	5.0	0.06	1	9/23/13	9/25/13 01:40	
Copper, Total	6010C	21.5		mg/Kg	2.0	0.7	1	9/23/13	9/25/13 01:40	
Iron, Total	6010C	16700		mg/Kg	100	60	10	9/23/13	9/24/13 20:23	
Lead, Total	6010C	7.0		mg/Kg	5.0	0.3	1	9/23/13	9/25/13 01:40	
Magnesium, Total	6010C	76200		mg/Kg	1000	20	10	9/23/13	9/24/13 20:23	
Manganese, Total	6010C	315		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:40	
Mercury, Total	7471B	0.012	J	mg/Kg	0.032	0.006	1	9/18/13	9/19/13 17:58	
Nickel, Total	6010C	8.4		mg/Kg	4.0	0.09	1	9/23/13	9/25/13 01:40	
Potassium, Total	6010C	510		mg/Kg	200	20	1	9/23/13	9/25/13 01:40	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 01:40	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/23/13	9/25/13 01:40	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 01:40	
Vanadium, Total	6010C	24.3		mg/Kg	5.0	0.05	1	9/23/13	9/25/13 01:40	
Zinc, Total	6010C	35.2		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 01:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 14:54

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5092.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .93

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.6	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.60	
75-25-2	Bromoform	4.9 U	4.9	0.91	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.90	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.9	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.40	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.85	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.96	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.80	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.86	
108-88-3	Toluene	2.2 J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.72	
79-01-6	Trichloroethene	4.9 U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.8	
95-47-6	o-Xylene	4.9 U	4.9	0.47	
179601-23-1	m,p-Xylenes	9.8 U	9.8	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 14:54

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091813\K5092.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .93

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9	U	4.9	0.92	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/18/13 14:54	
Toluene-d8	100	66-138	9/18/13 14:54	
Dibromofluoromethane	103	63-138	9/18/13 14:54	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:48

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091913\CT008.D\

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	74	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	62	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	
205-99-2	Benzo(b)fluoranthene	350 U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:48

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091913\CT008.D

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	130	J	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1435  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/19/13 13:48

Sample Name: E53JCB01 (8-10)  
 Lab Code: R1306655-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091913\CT008.D\

Analysis Lot: 359438  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	65	41-151	9/19/13 13:48	
2-Fluorobiphenyl	73	47-126	9/19/13 13:48	
2-Fluorophenol	60	16-129	9/19/13 13:48	
Nitrobenzene-d5	72	39-136	9/19/13 13:48	
Phenol-d6	68	10-145	9/19/13 13:48	
p-Terphenyl-d14	85	35-152	9/19/13 13:48	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10657

6753-23

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT W630</b>		Project Number <b>EC-000335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Brunko (Shore Johnson)</b>		Report CC <b>Vella Tebbit</b>		PRESERVATIVE	
Company/Address <b>Ecology; Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnsen@euc.com</b>		PRELIMINARY TESTS	
Phone # <b>773 576 9243</b>		Sampler's Signature <i>[Signature]</i>		METALS TOTAL (List in comments below)	
Sampler's Name <b>Scott Cooper</b>		Sampled Printed Name <b>Scott Cooper</b>		METALS DISSOLVED (List in comments below)	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
ES3COB01 (2-4)		9-10-13		1115	
ES3COB01 (10-12)		9-10-13		1120	
ES3COB02 (0-2)		9-10-13		1250	
ES3COB02 (4-6)		9-10-13		1255	
ES3JCB02 (2-4)		9-10-13		1255	
ES3JCB02 (8-10)		9-10-13		1255	
REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION	
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other	
SPECIAL INSTRUCTIONS/COMMENTS Metals		SPECIAL INSTRUCTIONS/COMMENTS Metals		SPECIAL INSTRUCTIONS/COMMENTS Metals	
See OAPP <input type="checkbox"/>		See OAPP <input type="checkbox"/>		See OAPP <input type="checkbox"/>	
STATE WHERE SAMPLES WERE COLLECTED		STATE WHERE SAMPLES WERE COLLECTED		STATE WHERE SAMPLES WERE COLLECTED	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>E.C.</b>		Firm <b>E.C.</b>		Firm <b>E.C.</b>	
Date/Time <b>9-10-13/1600</b>		Date/Time <b>9/10/13 1005</b>		Date/Time <b>9-10-13</b>	
RECEIVED BY		RECEIVED BY		RECEIVED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>E.C.</b>		Firm <b>E.C.</b>		Firm <b>E.C.</b>	
Date/Time <b>9-10-13/1600</b>		Date/Time <b>9-10-13/1600</b>		Date/Time <b>9-10-13/1600</b>	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day	
REQUESTED REPORT DATE		REQUESTED REPORT DATE		REQUESTED REPORT DATE	
RECEIVED BY		RECEIVED BY		RECEIVED BY	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>E.C.</b>		Firm <b>E.C.</b>		Firm <b>E.C.</b>	
Date/Time <b>9-10-13/1600</b>		Date/Time <b>9-10-13/1600</b>		Date/Time <b>9-10-13/1600</b>	
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION	
PO #		PO #		PO #	
BILL TO:		BILL TO:		BILL TO:	
R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI		R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI		R1306655 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI	
Edata Yes		Edata Yes		Edata Yes	
RELINQUISHED		RELINQUISHED		RELINQUISHED	

Soil Total via SWA, Met only  
SPP in Hold

9-10-13







# Cooler Receipt and Preservation

R1306655 5

Ecology And Environment, Incorporated  
IDOT US30 Plainfield PSI



Project/Client E+E Folder Number \_\_\_\_\_

Cooler received on 9-12-13 by: ME COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant\* air bubbles? YES\* NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROO, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 06° 1.3° \_\_\_\_\_

Is the temperature within 0° - 6° C?: YN YN YN YN YN  
If No, Explain Below Date/Time Temperatures Taken: 9-12-13 @ 10:18

Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank / Sample Bottle

### If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R'00a by ME on 9-12-13 at 10:30  
5035 samples placed in storage location \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_

PC Secondary Review: 9/12/13

Cooler Breakdown: Date: 9/12/13 Time: 1304 by: ICS

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

### Explain any discrepancies:

pH	Reagent			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO							
≥12	NaOH									No = Samples were preserved at lab as listed
≤2	HNO <sub>3</sub>									
≤2	H <sub>2</sub> SO <sub>4</sub>									
<4	NaHSO <sub>4</sub>									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						PM OK to Adjust:
	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	-	-						*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet	
	Zn Aceta	-	-							
	HCl	*	*							

Bottle lot numbers: 010713-1A, 061613-1W  
Other Comments:

\* Trip Blank: 1 of 3 vials has sig. Headspace.

PC Secondary Review: 9/14/13 \*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter  
P:\INTRANET\QAQC\FORMS Controlled\Cooler Receipt r6.doc 11/6/12



October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/6/13

**Sample Name:** E53JCB02 (8-10)  
**Lab Code:** R1307320-003

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.033	mg/L	0.010	1	10/9/13	10/10/13 19:11	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB02 (8-10)  
**Lab Code:** R1307320-003  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13 1430  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/6/13

**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1307320-009

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.101	mg/L	0.010	1	10/9/13	10/10/13 20:00	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB01 (4-6)  
**Lab Code:** R1307320-009  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13 1435  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/10/13

**Sample Name:** E53JCB01 (8-10)  
**Lab Code:** R1307320-010

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/11/13	10/15/13 10:50	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53JCB01 (8-10)  
**Lab Code:** R1307320-010  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

CWINKSTERN

DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10657

6733-23

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT W630</b>		Project Number <b>EE-004335-0001-01710</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Buehler/Barbara Johnson</b>		Report QC <b>Debra Tichert</b>		PRESERVATIVE	
Company/Address <b>Ecology &amp; Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnson@ecr.com</b>		NUMBER OF CONTAINERS	
Phone # <b>712 576 9243</b>		Sampler's Signature <i>[Signature]</i>		GCMS VOA's • 8260 • 824 • CLP • 8270 • 825	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		MATRIX	
ES3COB01 (2-4)		9-9-13		SL	
ES3COB01 (0-2)		9-10-13		SL	
ES3COB02 (0-2)		9-10-13		SL	
ES3COB02 (4-6)		9-10-13		SL	
ES3JC B02 (2-4)		9-10-13		SL	
ES3JC B02 (8-10)		9-10-13		SL	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>	
Printed Name: <b>See-It Cooper</b>		Printed Name: <b>See-It Cooper</b>		Printed Name: <b>See-It Cooper</b>	
Firm: <b>See-It Cooper</b>		Firm: <b>See-It Cooper</b>		Firm: <b>See-It Cooper</b>	
Date/Time: <b>9-10-13/1650</b>		Date/Time: <b>9/11/13 1005</b>		Date/Time: <b>9-10-13</b>	
See QAPP <input type="checkbox"/>		Requested Report Date		Requested Report Date	
EDATA <input type="checkbox"/> YES <input type="checkbox"/>		Requested Report Date		Requested Report Date	
INVOICE INFORMATION		INVOICE INFORMATION		INVOICE INFORMATION	
PC #		PC #		PC #	
BILL TO: <b>AB07320</b>		BILL TO: <b>AB07320</b>		BILL TO: <b>AB07320</b>	
R1306652		R1306652		R1306652	
Ecology And Environment, Incorporated		Ecology And Environment, Incorporated		Ecology And Environment, Incorporated	
IDOT US30 Plainsfield, PS		IDOT US30 Plainsfield, PS		IDOT US30 Plainsfield, PS	
5		5		5	
REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION		REMARKS/ALTERNATE DESCRIPTION	
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other	
VOC		VOC		VOC	
METALS, TOTAL (List in comments below)		METALS, TOTAL (List in comments below)		METALS, TOTAL (List in comments below)	
METALS, DISSOLVED (List in comments below)		METALS, DISSOLVED (List in comments below)		METALS, DISSOLVED (List in comments below)	
PCBS • 8082 • 808		PCBS • 8082 • 808		PCBS • 8082 • 808	
PESTICIDES • 8081 • 808		PESTICIDES • 8081 • 808		PESTICIDES • 8081 • 808	
GC VOA's • 8021 • 801/802		GC VOA's • 8021 • 801/802		GC VOA's • 8021 • 801/802	
SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS		SPECIAL INSTRUCTIONS/COMMENTS	
Metals		Metals		Metals	







Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
23150, 23152, 23160, 23162 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.589640° Longitude: -88.181693°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.589640° Longitude: -88.181693°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5332B01 was sampled within the construction zone adjacent to ISGS #2141-32 (Commercial Buildings). Refer to PSI Report for ISGS #2141-32 (Commercial Buildings) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

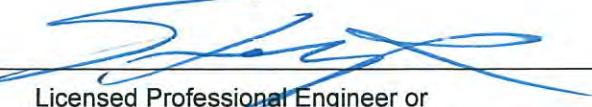
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14

Date:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-32 (Commercial Buildings)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	E5332B01				
<b>SAMPLE</b>	E5332B01 (8-10)	<b>Most Stringent</b>	<b>Within an MSA</b>	<b>Within Chicago</b>	<b>SCGIER</b>
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	2.4-3.1				
<b>pH</b>	8.57				
<b>VOCs (µg/kg)</b>					
Acetone	7.3	25,000	--	--	--
Toluene	2.2 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>					
Di-n-butyl Phthalate	140 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	2,100	--	--	--	--
Arsenic	3.9	11.3	13	--	--
Barium	9.6	1,500	--	--	--
Beryllium	0.07 J	22	--	--	--
Calcium	138,000	--	--	--	--
Chromium	11.1	21	--	--	--
Cobalt	2.8 J	20	--	--	--
Copper	9.4	2,900	--	--	--
Iron	7,700	15,000	15,900	--	--
Lead	4.3 J	107	--	--	--
Magnesium	80,000	325,000	--	--	--
Manganese	287	630	636	--	--
Nickel	6.3	100	--	--	--
Potassium	650	--	--	--	--
Vanadium	8.3	550	--	--	--
Zinc	20.3	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	426	--	--	--	--
Magnesium	181	--	--	--	--
Manganese	1.70 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	ND U	--	--	--	0.15





October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5332B01 (8-10)  
**Lab Code:** R1306652-015

**Service Request:** R1306652  
**Date Collected:** 9/11/13 0910  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.57	pH Units		1	NA	9/23/13 15:50	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/11/13 09:10  
 Date Received: 9/12/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306652-015

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 16:14	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 16:14	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:14	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:14	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 16:14	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 16:14	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Calcium	6010C	426		mg/L	10	10	9/19/13	9/26/13 11:55	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:14	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Magnesium	6010C	181		mg/L	1.0	1	9/19/13	9/25/13 16:14	
Manganese	6010C	1.70		mg/L	0.010	1	9/19/13	9/25/13 16:14	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:04	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/27/13 17:09	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 16:14	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 16:14	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 16:14	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 16:14	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5332B01 (8-10)  
**Lab Code:** R1306652-015  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



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NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Service Request: R1306655  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13

Basis: Dry  
 Percent Solids: 93.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2100		mg/Kg	11	3	1	9/23/13	9/25/13 01:47	
Antimony, Total	6010C	1.1	BJ	mg/Kg	6.3	0.3	1	9/23/13	9/25/13 01:47	
Arsenic, Total	6010C	3.9		mg/Kg	1.1	0.5	1	9/23/13	9/25/13 01:47	
Barium, Total	6010C	9.6		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:47	
Beryllium, Total	6010C	0.07	J	mg/Kg	0.32	0.03	1	9/23/13	9/25/13 01:47	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/23/13	9/25/13 01:47	
Cadmium, Total	6010C	0.53	U	mg/Kg	0.53	0.07	1	9/23/13	9/25/13 01:47	
Calcium, Total	6010C	138000		mg/Kg	1100	400	10	9/23/13	9/24/13 20:29	
Chromium, Total	6010C	11.1		mg/Kg	1.1	0.2	1	9/23/13	9/25/13 01:47	
Cobalt, Total	6010C	2.8	J	mg/Kg	5.3	0.06	1	9/23/13	9/25/13 01:47	
Copper, Total	6010C	9.4		mg/Kg	2.1	0.7	1	9/23/13	9/25/13 01:47	
Iron, Total	6010C	7700		mg/Kg	110	60	10	9/23/13	9/24/13 20:29	
Lead, Total	6010C	4.3	J	mg/Kg	5.3	0.3	1	9/23/13	9/25/13 01:47	
Magnesium, Total	6010C	80000		mg/Kg	1100	20	10	9/23/13	9/24/13 20:29	
Manganese, Total	6010C	287		mg/Kg	1.1	0.2	1	9/23/13	9/25/13 01:47	
Mercury, Total	7471B	0.034	U	mg/Kg	0.034	0.006	1	9/18/13	9/19/13 17:59	
Nickel, Total	6010C	6.3		mg/Kg	4.2	0.09	1	9/23/13	9/25/13 01:47	
Potassium, Total	6010C	650		mg/Kg	210	20	1	9/23/13	9/25/13 01:47	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/23/13	9/25/13 01:47	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/23/13	9/25/13 01:47	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/23/13	9/25/13 01:47	
Vanadium, Total	6010C	8.3		mg/Kg	5.3	0.06	1	9/23/13	9/25/13 01:47	
Zinc, Total	6010C	20.3		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:47	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13  
 Date Analyzed: 9/24/13 17:11

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5214.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .98

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	7.3		5.2	3.0	
71-43-2	Benzene	5.2	U	5.2	0.31	
75-27-4	Bromodichloromethane	5.2	U	5.2	0.64	
75-25-2	Bromoform	5.2	U	5.2	0.98	
74-83-9	Bromomethane	5.2	U	5.2	1.5	
78-93-3	2-Butanone (MEK)	5.2	U	5.2	2.4	
75-15-0	Carbon Disulfide	5.2	U	5.2	1.3	
56-23-5	Carbon Tetrachloride	5.2	U	5.2	0.97	
108-90-7	Chlorobenzene	5.2	U	5.2	0.31	
75-00-3	Chloroethane	5.2	U	5.2	3.0	
67-66-3	Chloroform	5.2	U	5.2	1.4	
74-87-3	Chloromethane	5.2	U	5.2	0.42	
124-48-1	Dibromochloromethane	5.2	U	5.2	0.77	
75-34-3	1,1-Dichloroethane	5.2	U	5.2	1.4	
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.64	
75-35-4	1,1-Dichloroethene	5.2	U	5.2	1.4	
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	1.0	
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.90	
78-87-5	1,2-Dichloropropane	5.2	U	5.2	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.95	
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.21	
100-41-4	Ethylbenzene	5.2	U	5.2	0.25	
591-78-6	2-Hexanone	5.2	U	5.2	1.3	
75-09-2	Methylene Chloride	5.2	U	5.2	0.60	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	1.1	
100-42-5	Styrene	5.2	U	5.2	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.85	
127-18-4	Tetrachloroethene	5.2	U	5.2	0.92	
108-88-3	Toluene	2.2	J	5.2	1.1	
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.77	
79-00-5	1,1,2-Trichloroethane	5.2	U	5.2	0.77	
79-01-6	Trichloroethene	5.2	U	5.2	1.1	
75-01-4	Vinyl Chloride	5.2	U	5.2	2.0	
95-47-6	o-Xylene	5.2	U	5.2	0.51	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13  
 Date Analyzed: 9/24/13 17:11

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5214.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .98

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.2	U	5.2	0.99	
1330-20-7	Xylenes, Total	16	U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/24/13 17:11	
Toluene-d8	99	66-138	9/24/13 17:11	
Dibromofluoromethane	100	63-138	9/24/13 17:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:47

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091613\CS967.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	36	
95-50-1	1,2-Dichlorobenzene	350	U	350	40	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	76	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	36	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	54	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	51	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	56	
56-55-3	Benz(a)anthracene	350	U	350	55	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:47

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS967.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	140	J	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 09:10  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 17:47

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091613\CS967.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	65	41-151	9/16/13 17:47	
2-Fluorobiphenyl	80	47-126	9/16/13 17:47	
2-Fluorophenol	60	16-129	9/16/13 17:47	
Nitrobenzene-d5	76	39-136	9/16/13 17:47	
Phenol-d6	65	10-145	9/16/13 17:47	
p-Terphenyl-d14	71	35-152	9/16/13 17:47	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/11/13  
**Date Received:** 9/12/13  
**Date Analyzed:** 9/16/13

**Replicate Sample Summary  
 General Chemistry Parameters**

**Sample Name:** E5332B01 (8-10)  
**Lab Code:** R1306655-015

**Units:** Percent  
**Basis:** As Received

Analyte Name	Method	MRL	Sample Result	E5332B01 (8-10)DUP Duplicate Sample R1306655-015DUP		RPD	RPD Limit
				Result	Average		
Solids, Total	160.3 Modified	1.0	93.8	93.7	93.8	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13  
 Date Received: 9/12/13  
 Date Analyzed: 9/19/13 - 9/25/13

Replicate Sample Summary  
 Inorganic Parameters

Sample Name: E5332B01 (8-10)  
 Lab Code: R1306655-015

Units: mg/Kg  
 Basis: Dry

Analyte Name	Method	MRL	MDL	Sample Result	E5332B01 (8-10)DUP Duplicate Sample		RPD	RPD Limit
					R1306655-015DUP	Average		
Aluminum, Total	6010C	10	3	2100	2110	2110	<1	20
Antimony, Total	6010C	6.3	0.3	1.1 BJ	1.2 J	1.18	6	20
Arsenic, Total	6010C	1.0	0.5	3.9	3.5	3.67	11	20
Barium, Total	6010C	2.1	0.08	9.6	9.7	9.63	<1	20
Beryllium, Total	6010C	0.31	0.03	0.07 J	0.08 J	0.0750	9	20
Boron, Total	6010C	21	4	21 U	21 U	NC	NC	20
Cadmium, Total	6010C	0.52	0.07	0.52 U	0.52 U	NC	NC	20
Calcium, Total	6010C	1000	400	138000	151000	145000	9	20
Chromium, Total	6010C	1.0	0.2	11.1	11.0	11.1	1	20
Cobalt, Total	6010C	5.2	0.06	2.8 J	2.4 J	2.64	15	20
Copper, Total	6010C	2.1	0.7	9.4	9.5	9.44	1	20
Iron, Total	6010C	100	60	7700	7720	7710	<1	20
Lead, Total	6010C	5.2	0.3	4.3 J	5.2 J	4.74	18	20
Magnesium, Total	6010C	1000	20	80000	85900	83000	7	20
Manganese, Total	6010C	1.0	0.2	287	375	331	27 *	20
Mercury, Total	7471B	0.034	0.006	0.034 U	0.034 U	NC	NC	35
Nickel, Total	6010C	4.2	0.09	6.3	4.9	5.61	24 *	20
Potassium, Total	6010C	210	20	650	640	644	<1	20
Selenium, Total	6010C	1.0	0.4	1.0 U	1.0 U	NC	NC	20
Silver, Total	6010C	1.0	0.09	1.0 U	1.0 U	NC	NC	20
Thallium, Total	6010C	1.0	0.4	1.0 U	1.0 U	NC	NC	20
Vanadium, Total	6010C	5.2	0.06	8.3	7.6	7.94	8	20
Zinc, Total	6010C	2.1	0.08	20.3	21.5	20.9	6	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.







October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307320  
 Date Collected: 9/11/13 0910  
 Date Received: 9/12/13  
 Pre-Prep Date: 10/10/13

Sample Name: E5332B01 (8-10)  
 Lab Code: R1307320-011

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/11/13	10/15/13	10:56

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5332B01 (8-10)  
**Lab Code:** R1307320-011  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	CWINKSTERN	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10655

E753-21  
OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1

Project Name IP17 US 30		Project Number EE-004335-0001-0170		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Karen Pinter/Sheri Pinter		Report CC Dear Trebant		PRESERVATIVE	
Company/Address Ecology & Environment 33 W Waverly St Suite 1460 Chicago IL 60603		Email EJohnson@ecenv.com		PREPARATIVE	
Phone # 312 578 9243		Sampler's Signature S.A.H. Cooper		NUMBER OF CONTAINERS	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
E5322B01(2-4)		9-10-13		0910	
E5322B01(8-10)		9-16-13		0915	
E5322B01D(4-10)		9-16-13		0915	
E5322B03(0-2)		9-10-13		1010	
E5322B03(6-8)		9-10-13		1015	
E5322B02(0-1.5)		9-10-13		1030	
SPECIAL INSTRUCTIONS/COMMENTS Metals		RECEIVED BY		RELINQUISHED BY	
See QAPP <input type="checkbox"/>		Signature [Signature]		Signature [Signature]	
STATE WHERE SAMPLES WERE COLLECTED		Printed Name John Samuel		Printed Name [Name]	
RECEIVED BY		Firm E.E.		Firm [Firm]	
Date/Time 9-10-13 1600		Date/Time 11/3 1130		Date/Time [Date/Time]	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day		RECEIVED BY		RELINQUISHED BY	
REQUESTED REPORT DATE		Signature [Signature]		Signature [Signature]	
RECEIVED BY		Printed Name [Name]		Printed Name [Name]	
Date/Time 9-10-13		Firm [Firm]		Firm [Firm]	
Date/Time [Date/Time]		Date/Time [Date/Time]		Date/Time [Date/Time]	
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		Edata Yes ___ No ___		RELINQUISHED BY	
INVOICE INFORMATION PO # BILL TO: [Signature] [Signature]		RECEIVED BY		RELINQUISHED BY	
Date/Time [Date/Time]		Signature [Signature]		Signature [Signature]	
Date/Time [Date/Time]		Printed Name [Name]		Printed Name [Name]	
Date/Time [Date/Time]		Firm [Firm]		Firm [Firm]	
Date/Time [Date/Time]		Date/Time [Date/Time]		Date/Time [Date/Time]	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
23056 - 23142 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.588949° Longitude: -88.180982°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms



Project Name: FAP 575: U.S. Route 30

Latitude: 41.588949° Longitude: -88.180982°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

Location E5335B01 was sampled within the construction zone adjacent to ISGS #2141-35 (Residences). Refer to PSI Report for ISGS #2141-35 (Residences) including Table 4-4, and Figures 4-2 and 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data package R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

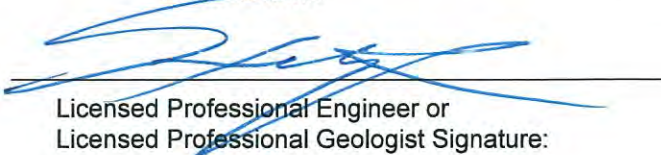
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

## CONTAMINANTS OF CONCERN

SITE	ISGS #2141-35 (Residences)	Comparison Criteria			
BORING	E5335B01	MACs			TACO
SAMPLE	E5335B01 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	0.0-0.6				
pH	8.18				
<b>VOCs (Not Detected)</b>					
<b>SVOCs (µg/kg)</b>					
Benzo(a)anthracene	190 J	900	1,800	1,100.	--
Benzo(a)pyrene	240 J †	90	2,100	1,300.	--
Benzo(b)fluoranthene	310 J	900	2,100	1,500.	--
Benzo(g,h,i)perylene	240 J	--	--	--	--
Benzo(k)fluoranthene	190 J	9,000	--	--	--
Chrysene	270 J	88,000	--	--	--
Fluoranthene	530	3,100,000	--	--	--
Indeno(1,2,3-cd)pyrene	200 J	900	1,600	900.	--
Phenanthrene	240 J	--	--	--	--
Pyrene	400 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	13,000	--	--	--	--
Arsenic	7.2	11.3	13	--	--
Barium	149	1,500	--	--	--
Beryllium	0.71	22	--	--	--
Calcium	11,900	--	--	--	--
Chromium	18.0	21	--	--	--
Cobalt	8.2	20	--	--	--
Copper	16.3	2,900	--	--	--
Iron	20,300 †m	15,000	15,900	--	--
Lead	20.3	107	--	--	--
Magnesium	8,440	325,000	--	--	--
Manganese	459	630	636	--	--
Mercury	0.040	1	--	--	--
Nickel	15.5	100	--	--	--
Potassium	1,220	--	--	--	--
Selenium	0.6 J	1	--	--	--
Vanadium	31.7	550	--	--	--
Zinc	54.6	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	0.25	--	--	--	--
Calcium	303	--	--	--	--
Iron	0.17	--	--	--	5
Magnesium	150	--	--	--	--
Manganese	0.865 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	1.28 L	--	--	--	0.15



October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	D1 extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306655-021

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1410  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.9	Percent	1.0	1	NA	9/16/13 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5335B01 (0-2)  
 Lab Code: R1306655-021

Service Request: R1306655  
 Date Collected: 9/11/13 1410  
 Date Received: 9/12/13

Basis: Dry  
 Percent Solids: 82.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	13000		mg/Kg	12	4	1	9/18/13	9/21/13 02:31	
Antimony, Total	6010C	1.2	BJ	mg/Kg	7.1	0.3	1	9/18/13	9/21/13 02:31	
Arsenic, Total	6010C	7.2		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 02:31	
Barium, Total	6010C	149		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 02:31	
Beryllium, Total	6010C	0.71		mg/Kg	0.35	0.03	1	9/18/13	9/21/13 02:31	
Boron, Total	6010C	10	BJ	mg/Kg	24	5	1	9/18/13	9/21/13 02:31	
Cadmium, Total	6010C	0.59	U	mg/Kg	0.59	0.08	1	9/18/13	9/21/13 02:31	
Calcium, Total	6010C	11900		mg/Kg	120	40	1	9/18/13	9/21/13 02:31	
Chromium, Total	6010C	18.0		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 02:31	
Cobalt, Total	6010C	8.2		mg/Kg	5.9	0.07	1	9/18/13	9/21/13 02:31	
Copper, Total	6010C	16.3		mg/Kg	2.4	0.8	1	9/18/13	9/21/13 02:31	
Iron, Total	6010C	20300		mg/Kg	120	70	10	9/18/13	9/20/13 22:58	
Lead, Total	6010C	20.3		mg/Kg	5.9	0.3	1	9/18/13	9/21/13 02:31	
Magnesium, Total	6010C	8440		mg/Kg	120	2	1	9/18/13	9/21/13 02:31	
Manganese, Total	6010C	459		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 02:31	
Mercury, Total	7471B	0.040		mg/Kg	0.038	0.006	1	9/18/13	9/19/13 17:15	
Nickel, Total	6010C	15.5		mg/Kg	4.7	0.10	1	9/18/13	9/21/13 02:31	
Potassium, Total	6010C	1220		mg/Kg	240	20	1	9/18/13	9/21/13 02:31	
Selenium, Total	6010C	0.6	J	mg/Kg	1.2	0.4	1	9/18/13	9/21/13 02:31	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 02:31	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 02:31	
Vanadium, Total	6010C	31.7		mg/Kg	5.9	0.06	1	9/18/13	9/21/13 02:31	
Zinc, Total	6010C	54.6		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 02:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1410  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 18:38

Sample Name: E5335B01 (0-2)  
 Lab Code: R1306655-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA7\DATA\091813\K5098.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.5 U	4.5	2.6	
71-43-2	Benzene	4.5 U	4.5	0.27	
75-27-4	Bromodichloromethane	4.5 U	4.5	0.56	
75-25-2	Bromoform	4.5 U	4.5	0.85	
74-83-9	Bromomethane	4.5 U	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5 U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5 U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5 U	4.5	0.84	
108-90-7	Chlorobenzene	4.5 U	4.5	0.27	
75-00-3	Chloroethane	4.5 U	4.5	2.6	
67-66-3	Chloroform	4.5 U	4.5	1.2	
74-87-3	Chloromethane	4.5 U	4.5	0.37	
124-48-1	Dibromochloromethane	4.5 U	4.5	0.67	
75-34-3	1,1-Dichloroethane	4.5 U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5 U	4.5	0.56	
75-35-4	1,1-Dichloroethene	4.5 U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5 U	4.5	0.86	
156-60-5	trans-1,2-Dichloroethene	4.5 U	4.5	0.78	
78-87-5	1,2-Dichloropropane	4.5 U	4.5	0.88	
10061-01-5	cis-1,3-Dichloropropene	4.5 U	4.5	0.82	
10061-02-6	trans-1,3-Dichloropropene	4.5 U	4.5	0.19	
100-41-4	Ethylbenzene	4.5 U	4.5	0.21	
591-78-6	2-Hexanone	4.5 U	4.5	1.1	
75-09-2	Methylene Chloride	4.5 U	4.5	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5 U	4.5	0.89	
100-42-5	Styrene	4.5 U	4.5	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.5 U	4.5	0.74	
127-18-4	Tetrachloroethene	4.5 U	4.5	0.80	
108-88-3	Toluene	4.5 U	4.5	0.91	
71-55-6	1,1,1-Trichloroethane	4.5 U	4.5	0.67	
79-00-5	1,1,2-Trichloroethane	4.5 U	4.5	0.67	
79-01-6	Trichloroethene	4.5 U	4.5	0.92	
75-01-4	Vinyl Chloride	4.5 U	4.5	1.7	
95-47-6	o-Xylene	4.5 U	4.5	0.44	
179601-23-1	m,p-Xylenes	9.0 U	9.0	0.99	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1410  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 18:38

Sample Name: E5335B01 (0-2)  
 Lab Code: R1306655-021

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5098.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5 U	4.5	0.86	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	51-136	9/18/13 18:38	
Toluene-d8	97	66-138	9/18/13 18:38	
Dibromofluoromethane	103	63-138	9/18/13 18:38	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1410  
**Date Received:** 9/12/13  
**Date Extracted:** 9/13/13  
**Date Analyzed:** 9/17/13 13:06

**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306655-021

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 82.9

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUATA\5973A\DATA\091713\CS982.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191633  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	40	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	70	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	44	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	85	
606-20-2	2,6-Dinitrotoluene	400	U	400	66	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	40	
95-48-7	2-Methylphenol	400	U	400	52	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	73	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	370	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	580	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	44	
106-47-8	4-Chloroaniline	400	U	400	77	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	290	
83-32-9	Acenaphthene	400	U	400	57	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	190	J	400	62	
50-32-8	Benzo(a)pyrene	240	J	400	67	
205-99-2	Benzo(b)fluoranthene	310	J	400	97	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1410  
**Date Received:** 9/12/13  
**Date Extracted:** 9/13/13  
**Date Analyzed:** 9/17/13 13:06

**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306655-021

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 82.9

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUATA\5973A\DATA\091713\CS982.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191633  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	240	J	400	76	
207-08-9	Benzo(k)fluoranthene	190	J	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	48	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	55	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	55	
85-68-7	Butyl Benzyl Phthalate	400	U	400	61	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	270	J	400	56	
84-74-2	Di-n-butyl Phthalate	400	U	400	110	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	52	
131-11-3	Dimethyl Phthalate	400	U	400	57	
206-44-0	Fluoranthene	530		400	64	
86-73-7	Fluorene	400	U	400	50	
118-74-1	Hexachlorobenzene	400	U	400	61	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	200	J	400	66	
78-59-1	Isophorone	400	U	400	53	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	62	
91-20-3	Naphthalene	400	U	400	40	
98-95-3	Nitrobenzene	400	U	400	42	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	330	
85-01-8	Phenanthrene	240	J	400	54	
108-95-2	Phenol	400	U	400	44	
129-00-0	Pyrene	400	J	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1410  
**Date Received:** 9/12/13  
**Date Extracted:** 9/13/13  
**Date Analyzed:** 9/17/13 13:06

**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306655-021

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 82.9

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\091713\CS982.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191633  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	74	41-151	9/17/13 13:06	
2-Fluorobiphenyl	84	47-126	9/17/13 13:06	
2-Fluorophenol	69	16-129	9/17/13 13:06	
Nitrobenzene-d5	77	39-136	9/17/13 13:06	
Phenol-d6	73	10-145	9/17/13 13:06	
p-Terphenyl-d14	63	35-152	9/17/13 13:06	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306655-021  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/11/13  
**Date Received:** 9/12/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU





October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306652-02I

**Service Request:** R1306652  
**Date Collected:** 9/11/13 1410  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.18	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/11/13 1410  
 Date Received: 9/12/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5335B01 (0-2)  
 Lab Code: R1306652-021

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.25		mg/L	0.20	1	9/19/13	9/25/13 17:33	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 17:33	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:33	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:33	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 17:33	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:33	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Calcium	6010C	303		mg/L	10	10	9/19/13	9/26/13 13:10	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:33	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Iron	6010C	0.17		mg/L	0.10	1	9/19/13	9/25/13 17:33	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Magnesium	6010C	150		mg/L	1.0	1	9/19/13	9/25/13 17:33	
Manganese	6010C	0.865		mg/L	0.010	1	9/19/13	9/25/13 17:33	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:17	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/27/13 09:09	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:33	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 17:33	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:33	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:33	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1306652-021  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307320  
Date Collected: 9/11/13 1410  
Date Received: 9/12/13  
Pre-Prep Date: 10/10/13

Sample Name: E5335B01 (0-2)  
Lab Code: R1307320-016

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	1.28	mg/L	0.010	1	10/11/13	10/15/13 11:40	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5335B01 (0-2)  
**Lab Code:** R1307320-016  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	CWINKSTERN	DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.588173° Longitude: -88.179757°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.588173° Longitude: -88.179757°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5339B01 was sampled within the construction zone adjacent to ISGS #2141-39 (Vacant Lot). Refer to PSI Report for ISGS #2141-39 (Vacant Lot) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306775, R1306776, and R1307413.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

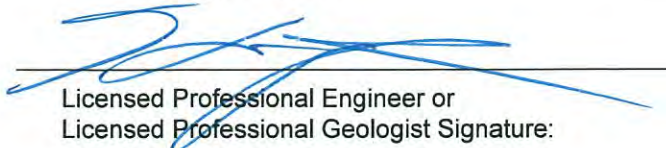
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

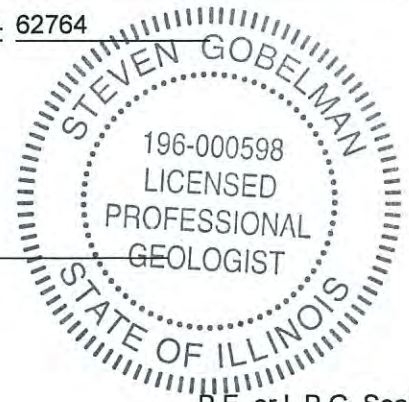
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/17  
Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-39 (Vacant Lot)	Comparison Criteria			
BORING	E5339B01	MACs			TACO
SAMPLE	E5339B01 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	0.6-1.2				
pH	8.57				
<b>VOCs (µg/kg)</b>					
Acetone	14	25,000	--	--	--
Bromomethane	6.0 B	200	--	--	--
Chloromethane	1.4 J	--	--	--	--
Ethylbenzene	0.50 J	13,000	--	--	--
Tetrachloroethene	1.3 J	60	--	--	--
Toluene	8.5	12,000	--	--	--
<b>SVOCs (None Detected)</b>					
<b>Inorganics (mg/kg)</b>					
Aluminum	270	--	--	--	--
Arsenic	3.1	11.3	13	--	--
Calcium	197,000	--	--	--	--
Chromium	1.6	21	--	--	--
Cobalt	0.6 J	20	--	--	--
Copper	1.0 J	2,900	--	--	--
Iron	4,780	15,000	15,900	--	--
Lead	3.8 J	107	--	--	--
Magnesium	118,000	325,000	--	--	--
Manganese	315	630	636	--	--
Nickel	2.1 J	100	--	--	--
Potassium	200	--	--	--	--
Silver	0.4 J	4	--	--	--
Thallium	0.4 J	3	--	--	--
Vanadium	2.5 J	550	--	--	--
Zinc	19.2	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	787	--	--	--	--
Iron	11.3 L	--	--	--	5
Magnesium	416	--	--	--	--
Manganese	1.40 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Iron	ND U	--	--	--	5
Manganese	ND U	--	--	--	0.15



October 03, 2013

Service Request No: R1306775

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306775**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted;

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 152



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1306775-004

**Service Request:** R1306775  
**Date Collected:** 9/13/13 0923  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.0	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5339B01 (2-4)  
 Lab Code: R1306775-004

Service Request: R1306775  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13

Basis: Dry  
 Percent Solids: 94.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	270		mg/Kg	10	3	1	9/24/13	9/29/13 15:26	
Antimony, Total	6010C	6.1	U	mg/Kg	6.1	0.3	1	9/24/13	9/29/13 15:26	
Arsenic, Total	6010C	3.1		mg/Kg	1.0	0.5	1	9/24/13	9/29/13 15:26	
Barium, Total	6010C	2.0	U	mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:26	
Beryllium, Total	6010C	0.30	U	mg/Kg	0.30	0.03	1	9/24/13	9/29/13 15:26	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/24/13	9/29/13 15:26	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/24/13	9/29/13 15:26	
Calcium, Total	6010C	197000		mg/Kg	10000	3000	100	9/24/13	10/1/13 02:21	
Chromium, Total	6010C	1.6		mg/Kg	1.0	0.2	1	9/24/13	9/29/13 15:26	
Cobalt, Total	6010C	0.6	BJ	mg/Kg	5.1	0.06	1	9/24/13	9/29/13 15:26	
Copper, Total	6010C	1.0	J	mg/Kg	2.0	0.7	1	9/24/13	9/29/13 15:26	
Iron, Total	6010C	4780		mg/Kg	100	60	10	9/24/13	9/27/13 18:03	
Lead, Total	6010C	3.8	J	mg/Kg	5.1	0.3	1	9/24/13	9/29/13 15:26	
Magnesium, Total	6010C	118000		mg/Kg	1000	20	10	9/24/13	9/27/13 18:03	
Manganese, Total	6010C	315		mg/Kg	10	2	10	9/24/13	9/27/13 18:03	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/23/13	9/23/13 14:58	
Nickel, Total	6010C	2.1	J	mg/Kg	4.1	0.09	1	9/24/13	9/29/13 15:26	
Potassium, Total	6010C	200		mg/Kg	200	20	1	9/24/13	9/29/13 15:26	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/24/13	9/29/13 15:26	
Silver, Total	6010C	0.4	J	mg/Kg	1.0	0.09	1	9/24/13	9/29/13 15:26	
Thallium, Total	6010C	0.4	J	mg/Kg	1.0	0.4	1	9/24/13	9/29/13 15:26	
Vanadium, Total	6010C	2.5	J	mg/Kg	5.1	0.05	1	9/24/13	9/29/13 15:26	
Zinc, Total	6010C	19.2		mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13  
 Date Analyzed: 9/18/13 20:10

Sample Name: E5339B01 (2-4)  
 Lab Code: R1306775-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091813\T9863.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .97

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	14	5.2	2.9	
71-43-2	Benzene	5.2 U	5.2	0.30	
75-27-4	Bromodichloromethane	5.2 U	5.2	0.63	
75-25-2	Bromoform	5.2 U	5.2	0.96	
74-83-9	Bromomethane	6.0 B	5.2	1.5	
78-93-3	2-Butanone (MEK)	5.2 U	5.2	2.4	
75-15-0	Carbon Disulfide	5.2 U	5.2	1.3	
56-23-5	Carbon Tetrachloride	5.2 U	5.2	0.95	
108-90-7	Chlorobenzene	5.2 U	5.2	0.30	
75-00-3	Chloroethane	5.2 U	5.2	3.0	
67-66-3	Chloroform	5.2 U	5.2	1.4	
74-87-3	Chloromethane	1.4 J	5.2	0.42	
124-48-1	Dibromochloromethane	5.2 U	5.2	0.76	
75-34-3	1,1-Dichloroethane	5.2 U	5.2	1.3	
107-06-2	1,2-Dichloroethane	5.2 U	5.2	0.63	
75-35-4	1,1-Dichloroethene	5.2 U	5.2	1.4	
156-59-2	cis-1,2-Dichloroethene	5.2 U	5.2	0.99	
156-60-5	trans-1,2-Dichloroethene	5.2 U	5.2	0.89	
78-87-5	1,2-Dichloropropane	5.2 U	5.2	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.2 U	5.2	0.93	
10061-02-6	trans-1,3-Dichloropropene	5.2 U	5.2	0.21	
100-41-4	Ethylbenzene	0.50 J	5.2	0.24	
591-78-6	2-Hexanone	5.2 U	5.2	1.3	
75-09-2	Methylene Chloride	5.2 U	5.2	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2 U	5.2	1.1	
100-42-5	Styrene	5.2 U	5.2	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.2 U	5.2	0.84	
127-18-4	Tetrachloroethene	1.3 J	5.2	0.91	
108-88-3	Toluene	8.5	5.2	1.1	
71-55-6	1,1,1-Trichloroethane	5.2 U	5.2	0.76	
79-00-5	1,1,2-Trichloroethane	5.2 U	5.2	0.76	
79-01-6	Trichloroethene	5.2 U	5.2	1.1	
75-01-4	Vinyl Chloride	5.2 U	5.2	1.9	
95-47-6	o-Xylene	5.2 U	5.2	0.50	
179601-23-1	m,p-Xylenes	10 U	10	1.2	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306775  
**Date Collected:** 9/13/13 0923  
**Date Received:** 9/16/13  
**Date Analyzed:** 9/18/13 20:10

**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1306775-004

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.0

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\091813\T9863.D\

**Analysis Lot:** 359021  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .97

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.2	U	5.2	0.98	
1330-20-7	Xylenes, Total	15	U	15	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	51-136	9/18/13 20:10	
Toluene-d8	102	66-138	9/18/13 20:10	
Dibromofluoromethane	99	63-138	9/18/13 20:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 20:53

Sample Name: E5339B01 (2-4)  
 Lab Code: R1306775-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\092413\CT103.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	36	
95-50-1	1,2-Dichlorobenzene	350	U	350	40	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	36	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	54	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	51	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	55	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 09:23  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 20:53

Sample Name: E5339B01 (2-4)  
 Lab Code: R1306775-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT103.D

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 20:53

Sample Name: E5339B01 (2-4)  
 Lab Code: R1306775-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\092413\CT103.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	49	41-151	9/24/13 20:53	
2-Fluorobiphenyl	72	47-126	9/24/13 20:53	
2-Fluorophenol	52	16-129	9/24/13 20:53	
Nitrobenzene-d5	65	39-136	9/24/13 20:53	
Phenol-d6	61	10-145	9/24/13 20:53	
p-Terphenyl-d14	72	35-152	9/24/13 20:53	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1306775-004  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13  
**Date Received:** 9/16/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU





October 04, 2013

Service Request No: R1306776

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306776**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 63

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1306776-004

**Service Request:** R1306776  
**Date Collected:** 9/13/13 0923  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.57	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5339B01 (2-4)  
 Lab Code: R1306776-004

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/28/13 00:13	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 00:13	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:13	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 00:13	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 00:13	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/30/13 22:34	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Calcium	6010C	787		mg/L	20	20	9/25/13	10/2/13 16:56	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:13	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Iron	6010C	11.3		mg/L	0.10	1	9/25/13	9/28/13 00:13	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Magnesium	6010C	416		mg/L	1.0	1	9/25/13	9/28/13 00:13	
Manganese	6010C	1.40		mg/L	0.010	1	9/25/13	9/28/13 00:13	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:18	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 18:54	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:13	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 00:13	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:13	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:13	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1306776-004  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 22, 2013

Service Request No: R1307413

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1307413**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 34



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State ID, State Name, and State ID #. Rows include: NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307413  
 Date Collected: 9/13/13 0923  
 Date Received: 9/16/13  
 Pre-Prep Date: 10/12/13

Sample Name: E5339B01 (2-4)  
 Lab Code: R1307413-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution	Date	Date	Note
						Factor	Extracted	Analyzed	
Iron	6010C	0.10	U	mg/L	0.10	1	10/15/13	10/17/13 21:30	
Manganese	6010C	0.010	U	mg/L	0.010	1	10/15/13	10/17/13 21:30	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5339B01 (2-4)  
**Lab Code:** R1307413-004  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	CWINKSTERN



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10660

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-0170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker / Sherril Johnson</b>		Report CC <b>Deau Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment</b>		Phone # <b>33 W Monroe 79410</b>		PRELIMINARY TESTS	
City/State/Zip <b>Chicago, IL 60603</b>		Email <b>312-578-9243</b>		GCMS VOCs GCMS SVOCs GC VOCs PESTICIDES PCBs METALS, TOTAL METALS, DISSOLVED	
Sampler's Signature <b>[Signature]</b>		Sampler's Printed Name <b>Jeff Hughes</b>		VOCs SVCs Total Metals TCLP/SPLP Metals pH % Solids	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	REMARKS/ALTERNATE DESCRIPTION
E5339801(2-4)	004	9/13/13	0923	Soil	X
E5339601	005	9/13/13	1000	Water	X
E5325801(0-2)	005	9/13/13	1025	Soil	X
E5337813	005	9/13/13	1050	Water	X
E5337813	006	9/13/13	935	Water	X
E5325802(0-2)	006	9/13/13	1110	Soil	X
E5325803(0-2)	007	9/13/13	1125	Soil	X
E5327801(0-2)	008	9/13/13	1255	Soil	X
E5343601	008	9/13/13	1505	Water	X

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

*-TCLP + SPLP only  
-SPLP or Help  
SPLP only  
10/14/13*

TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO: <b>61307413</b> <b>SW/410</b> <b>RT306722</b>	
RECEIVED BY Signature Printed Name Firm Date/Time		RECEIVED BY Signature Printed Name Firm Date/Time		RECEIVED BY Signature Printed Name Firm Date/Time	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16310 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.586465° Longitude: -88.177786°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.586465° Longitude: -88.177786°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5343B01 and E5343B02 were sampled within the construction zone adjacent to ISGS #2141-43 (Crest Creek Plaza). Refer to PSI Report for ISGS #2141-43 (Crest Creek Plaza) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306775, R1306776, and R1307413.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14

Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-43 (Crest Creek Plaza)			Comparison Criteria			
BORING	E5343B01		E5343B02	MACs			TACO
SAMPLE	E5343B01 (2-4)	E5343B01 (6-8)	E5343B02 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil	Soil				
DEPTH (meters)	0.6-1.2	1.8-2.4	0.6-1.2				
pH	7.62	8.35	8.36				
<b>VOCs (µg/kg)</b>							
Toluene	2.0 J	2.3 J	2.6 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>							
Chrysene	61 J	ND U	ND U	88,000	--	--	--
<b>Inorganics (mg/kg)</b>							
Aluminum	7,100	1,290	6,610	--	--	--	--
Arsenic	8.7	2.5	6.4	11.3	13	--	--
Barium	73.7	6.5	57.9	1,500	--	--	--
Beryllium	0.47	0.08 J	0.42	22	--	--	--
Calcium	87,800	138,000	63,000	--	--	--	--
Chromium	13.3	3.0	9.8	21	--	--	--
Cobalt	5.4 J	1.7 J	5.1 J	20	--	--	--
Copper	17.8	5.5	12.8	2,900	--	--	--
Iron	20,000 †m	5,250	13,800	15,000	15,900	--	--
Lead	68.2	8.9	18.2	107	--	--	--
Magnesium	52,200	86,400	39,100	325,000	--	--	--
Manganese	490	286	459	630	636	--	--
Mercury	0.019 J	ND U	ND U	1	--	--	--
Nickel	12.1	3.5 J	10.7	100	--	--	--
Potassium	930	430	1,040	--	--	--	--
Silver	ND U	0.3 J	ND U	4	--	--	--
Vanadium	19.9	4.7 J	17.6	550	--	--	--
Zinc	167	31.8	43.8	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>							
Aluminum	0.39	ND U	ND U	--	--	--	--
Calcium	382	349	313	--	--	--	--
Iron	0.37	0.20	ND U	--	--	--	5.
Magnesium	128	120	120	--	--	--	--
Manganese	2.07 L	1.38 L	2.00 L	--	--	--	0.15
Zinc	0.18	0.24	ND U	--	--	--	5.
<b>SPLP Metals (mg/L)</b>							
Manganese	0.148	0.014	0.415 L	--	--	--	0.15



October 03, 2013

Service Request No: R1306775

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306775**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted;

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 152

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5343B01 (2-4)  
Lab Code: R1306775-002

Service Request: R1306775  
Date Collected: 9/13/13 1425  
Date Received: 9/14/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	88.3	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5343B01 (2-4)  
 Lab Code: R1306775-002

Service Request: R1306775  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13

Basis: Dry  
 Percent Solids: 88.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	7100		mg/Kg	11	4	1	9/24/13	9/29/13 15:13	
Antimony, Total	6010C	6.7	U	mg/Kg	6.7	0.3	1	9/24/13	9/29/13 15:13	
Arsenic, Total	6010C	8.7		mg/Kg	1.1	0.5	1	9/24/13	9/29/13 15:13	
Barium, Total	6010C	73.7		mg/Kg	2.2	0.09	1	9/24/13	9/29/13 15:13	
Beryllium, Total	6010C	0.47		mg/Kg	0.33	0.03	1	9/24/13	9/29/13 15:13	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/24/13	9/29/13 15:13	
Cadmium, Total	6010C	0.56	U	mg/Kg	0.56	0.07	1	9/24/13	9/29/13 15:13	
Calcium, Total	6010C	87800		mg/Kg	2200	700	20	9/24/13	10/1/13 02:09	
Chromium, Total	6010C	13.3		mg/Kg	1.1	0.2	1	9/24/13	9/29/13 15:13	
Cobalt, Total	6010C	5.4	J	mg/Kg	5.6	0.06	1	9/24/13	9/29/13 15:13	
Copper, Total	6010C	17.8		mg/Kg	2.2	0.7	1	9/24/13	9/29/13 15:13	
Iron, Total	6010C	20000		mg/Kg	110	60	10	9/24/13	9/27/13 17:51	
Lead, Total	6010C	68.2		mg/Kg	5.6	0.3	1	9/24/13	9/29/13 15:13	
Magnesium, Total	6010C	52200		mg/Kg	1100	20	10	9/24/13	9/27/13 17:51	
Manganese, Total	6010C	490		mg/Kg	11	2	10	9/24/13	9/27/13 17:51	
Mercury, Total	7471B	0.019	J	mg/Kg	0.034	0.006	1	9/23/13	9/23/13 14:55	
Nickel, Total	6010C	12.1		mg/Kg	4.4	0.10	1	9/24/13	9/29/13 15:13	
Potassium, Total	6010C	930		mg/Kg	220	20	1	9/24/13	9/29/13 15:13	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:13	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/24/13	9/29/13 15:13	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:13	
Vanadium, Total	6010C	19.9		mg/Kg	5.6	0.06	1	9/24/13	9/29/13 15:13	
Zinc, Total	6010C	167		mg/Kg	2.2	0.08	1	9/24/13	9/29/13 15:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13  
 Date Analyzed: 9/18/13 19:06

Sample Name: E5343B01 (2-4)  
 Lab Code: R1306775-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091813\T9861.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.5	U	4.5	2.6	
71-43-2	Benzene	4.5	U	4.5	0.26	
75-27-4	Bromodichloromethane	4.5	U	4.5	0.55	
75-25-2	Bromoform	4.5	U	4.5	0.84	
74-83-9	Bromomethane	4.5	U	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5	U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5	U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5	U	4.5	0.83	
108-90-7	Chlorobenzene	4.5	U	4.5	0.26	
75-00-3	Chloroethane	4.5	U	4.5	2.6	
67-66-3	Chloroform	4.5	U	4.5	1.2	
74-87-3	Chloromethane	4.5	U	4.5	0.36	
124-48-1	Dibromochloromethane	4.5	U	4.5	0.66	
75-34-3	1,1-Dichloroethane	4.5	U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.55	
75-35-4	1,1-Dichloroethene	4.5	U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.85	
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.77	
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.87	
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.81	
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.18	
100-41-4	Ethylbenzene	4.5	U	4.5	0.21	
591-78-6	2-Hexanone	4.5	U	4.5	1.1	
75-09-2	Methylene Chloride	4.5	U	4.5	0.51	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5	U	4.5	0.88	
100-42-5	Styrene	4.5	U	4.5	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.73	
127-18-4	Tetrachloroethene	4.5	U	4.5	0.79	
108-88-3	Toluene	2.0	J	4.5	0.90	
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.66	
79-00-5	1,1,2-Trichloroethane	4.5	U	4.5	0.66	
79-01-6	Trichloroethene	4.5	U	4.5	0.91	
75-01-4	Vinyl Chloride	4.5	U	4.5	1.7	
95-47-6	o-Xylene	4.5	U	4.5	0.43	
179601-23-1	m,p-Xylenes	8.9	U	8.9	0.98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13  
 Date Analyzed: 9/18/13 19:06

Sample Name: E5343B01 (2-4)  
 Lab Code: R1306775-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9861.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5	U	4.5	0.85	
1330-20-7	Xylenes, Total	13	U	13	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/18/13 19:06	
Toluene-d8	108	66-138	9/18/13 19:06	
Dibromofluoromethane	102	63-138	9/18/13 19:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 22:25

Sample Name: E5343B01 (2-4)  
 Lab Code: R1306775-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091913\CT022.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	370	U	370	38	
95-50-1	1,2-Dichlorobenzene	370	U	370	42	
541-73-1	1,3-Dichlorobenzene	370	U	370	57	
106-46-7	1,4-Dichlorobenzene	370	U	370	43	
95-95-4	2,4,5-Trichlorophenol	370	U	370	66	
88-06-2	2,4,6-Trichlorophenol	370	U	370	55	
120-83-2	2,4-Dichlorophenol	370	U	370	50	
105-67-9	2,4-Dimethylphenol	370	U	370	42	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	370	U	370	80	
606-20-2	2,6-Dinitrotoluene	370	U	370	62	
91-58-7	2-Chloronaphthalene	370	U	370	39	
95-57-8	2-Chlorophenol	370	U	370	40	
91-57-6	2-Methylnaphthalene	370	U	370	38	
95-48-7	2-Methylphenol	370	U	370	49	
88-74-4	2-Nitroaniline	1900	U	1900	320	
88-75-5	2-Nitrophenol	370	U	370	56	
91-94-1	3,3'-Dichlorobenzidine	370	U	370	68	
	3- and 4-Methylphenol Coelution	370	U	370	57	
99-09-2	3-Nitroaniline	1900	U	1900	350	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	550	
101-55-3	4-Bromophenyl Phenyl Ether	370	U	370	67	
59-50-7	4-Chloro-3-methylphenol	370	U	370	41	
106-47-8	4-Chloroaniline	370	U	370	73	
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U	370	53	
100-01-6	4-Nitroaniline	1900	U	1900	410	
100-02-7	4-Nitrophenol	1900	U	1900	280	
83-32-9	Acenaphthene	370	U	370	54	
208-96-8	Acenaphthylene	370	U	370	50	
120-12-7	Anthracene	370	U	370	59	
56-55-3	Benz(a)anthracene	370	U	370	58	
50-32-8	Benzo(a)pyrene	370	U	370	63	
205-99-2	Benzo(b)fluoranthene	370	U	370	91	





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 22:25

Sample Name: E5343B01 (2-4)  
 Lab Code: R1306775-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091913\CT022.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	41-151	9/19/13 22:25	
2-Fluorobiphenyl	62	47-126	9/19/13 22:25	
2-Fluorophenol	54	16-129	9/19/13 22:25	
Nitrobenzene-d5	60	39-136	9/19/13 22:25	
Phenol-d6	60	10-145	9/19/13 22:25	
p-Terphenyl-d14	71	35-152	9/19/13 22:25	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (2-4)  
**Lab Code:** R1306775-002  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13  
**Date Received:** 9/14/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5343B01 (6-8)  
**Lab Code:** R1306775-003

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1428  
**Date Received:** 9/14/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	93.5	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5343B01 (6-8)  
 Lab Code: R1306775-003

Service Request: R1306775  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13

Basis: Dry  
 Percent Solids: 93.5

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1290	mg/Kg	10	3	1	9/24/13	9/29/13 15:19	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/24/13	9/29/13 15:19	
Arsenic, Total	6010C	2.5	mg/Kg	1.0	0.5	1	9/24/13	9/29/13 15:19	
Barium, Total	6010C	6.5	mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:19	
Beryllium, Total	6010C	0.08 J	mg/Kg	0.31	0.03	1	9/24/13	9/29/13 15:19	
Boron, Total	6010C	6 BJ	mg/Kg	20	4	1	9/24/13	9/29/13 15:19	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/24/13	9/29/13 15:19	
Calcium, Total	6010C	138000	mg/Kg	5100	1500	50	9/24/13	10/1/13 02:15	
Chromium, Total	6010C	3.0	mg/Kg	1.0	0.2	1	9/24/13	9/29/13 15:19	
Cobalt, Total	6010C	1.7 J	mg/Kg	5.1	0.06	1	9/24/13	9/29/13 15:19	
Copper, Total	6010C	5.5	mg/Kg	2.0	0.7	1	9/24/13	9/29/13 15:19	
Iron, Total	6010C	5250	mg/Kg	100	60	10	9/24/13	9/27/13 17:57	
Lead, Total	6010C	8.9	mg/Kg	5.1	0.3	1	9/24/13	9/29/13 15:19	
Magnesium, Total	6010C	86400	mg/Kg	1000	20	10	9/24/13	9/27/13 17:57	
Manganese, Total	6010C	286	mg/Kg	10	2	10	9/24/13	9/27/13 17:57	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	0.006	1	9/23/13	9/23/13 14:56	
Nickel, Total	6010C	3.5 J	mg/Kg	4.1	0.09	1	9/24/13	9/29/13 15:19	
Potassium, Total	6010C	430	mg/Kg	200	20	1	9/24/13	9/29/13 15:19	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/24/13	9/29/13 15:19	
Silver, Total	6010C	0.3 J	mg/Kg	1.0	0.09	1	9/24/13	9/29/13 15:19	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/24/13	9/29/13 15:19	
Vanadium, Total	6010C	4.7 J	mg/Kg	5.1	0.05	1	9/24/13	9/29/13 15:19	
Zinc, Total	6010C	31.8	mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13  
 Date Analyzed: 9/18/13 19:38

Sample Name: E5343B01 (6-8)  
 Lab Code: R1306775-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9862.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .91

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.9 U	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.60	
75-25-2	Bromoform	4.9 U	4.9	0.91	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.90	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.8	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.39	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.84	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.96	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.79	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.86	
108-88-3	Toluene	2.3 J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.72	
79-01-6	Trichloroethene	4.9 U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.8	
95-47-6	o-Xylene	4.9 U	4.9	0.47	
179601-23-1	m,p-Xylenes	9.7 U	9.7	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1428  
**Date Received:** 9/14/13  
**Date Analyzed:** 9/18/13 19:38

**Sample Name:** E5343B01 (6-8)  
**Lab Code:** R1306775-003

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 93.5

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\091813\T9862.D\

**Analysis Lot:** 359021  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .91

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9 U	4.9	0.92	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	51-136	9/18/13 19:38	
Toluene-d8	105	66-138	9/18/13 19:38	
Dibromofluoromethane	100	63-138	9/18/13 19:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 23:02

Sample Name: E5343B01 (6-8)  
 Lab Code: R1306775-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091913\CT023.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	36	
95-50-1	1,2-Dichlorobenzene	350 U	350	40	
541-73-1	1,3-Dichlorobenzene	350 U	350	54	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	48	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	76	
606-20-2	2,6-Dinitrotoluene	350 U	350	59	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	36	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	65	
	3- and 4-Methylphenol Coelution	350 U	350	54	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	390	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	51	
208-96-8	Acenaphthylene	350 U	350	48	
120-12-7	Anthracene	350 U	350	56	
56-55-3	Benz(a)anthracene	350 U	350	55	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	86	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 23:02

Sample Name: E5343B01 (6-8)  
 Lab Code: R1306775-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091913\CT023.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	40	
77-47-4	Hexachlorocyclopentadiene	350	U	350	57	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	59	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 23:02

Sample Name: E5343B01 (6-8)  
 Lab Code: R1306775-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091913\CT023.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	41-151	9/19/13 23:02	
2-Fluorobiphenyl	74	47-126	9/19/13 23:02	
2-Fluorophenol	60	16-129	9/19/13 23:02	
Nitrobenzene-d5	69	39-136	9/19/13 23:02	
Phenol-d6	69	10-145	9/19/13 23:02	
p-Terphenyl-d14	83	35-152	9/19/13 23:02	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (6-8)  
**Lab Code:** R1306775-003  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1306775-001

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1340  
**Date Received:** 9/14/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.6	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1306775-001

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1340  
**Date Received:** 9/14/13

**Basis:** Dry  
**Percent Solids:** 95.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	6610		mg/Kg	10	3	1	9/24/13	9/29/13 15:06	
Antimony, Total	6010C	6.2	U	mg/Kg	6.2	0.3	1	9/24/13	9/29/13 15:06	
Arsenic, Total	6010C	6.4		mg/Kg	1.0	0.5	1	9/24/13	9/29/13 15:06	
Barium, Total	6010C	57.9		mg/Kg	2.1	0.08	1	9/24/13	9/29/13 15:06	
Beryllium, Total	6010C	0.42		mg/Kg	0.31	0.03	1	9/24/13	9/29/13 15:06	
Boron, Total	6010C	5	BJ	mg/Kg	21	4	1	9/24/13	9/29/13 15:06	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/24/13	9/29/13 15:06	
Calcium, Total	6010C	63000		mg/Kg	2100	700	20	9/24/13	10/1/13 02:03	
Chromium, Total	6010C	9.8		mg/Kg	1.0	0.2	1	9/24/13	9/29/13 15:06	
Cobalt, Total	6010C	5.1	J	mg/Kg	5.2	0.06	1	9/24/13	9/29/13 15:06	
Copper, Total	6010C	12.8		mg/Kg	2.1	0.7	1	9/24/13	9/29/13 15:06	
Iron, Total	6010C	13800		mg/Kg	100	60	10	9/24/13	9/27/13 17:45	
Lead, Total	6010C	18.2		mg/Kg	5.2	0.3	1	9/24/13	9/29/13 15:06	
Magnesium, Total	6010C	39100		mg/Kg	1000	20	10	9/24/13	9/27/13 17:45	
Manganese, Total	6010C	459		mg/Kg	10	2	10	9/24/13	9/27/13 17:45	
Mercury, Total	7471B	0.035	U	mg/Kg	0.035	0.006	1	9/23/13	9/23/13 14:50	
Nickel, Total	6010C	10.7		mg/Kg	4.1	0.09	1	9/24/13	9/29/13 15:06	
Potassium, Total	6010C	1040		mg/Kg	210	20	1	9/24/13	9/29/13 15:06	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/24/13	9/29/13 15:06	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/24/13	9/29/13 15:06	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/24/13	9/29/13 15:06	
Vanadium, Total	6010C	17.6		mg/Kg	5.2	0.06	1	9/24/13	9/29/13 15:06	
Zinc, Total	6010C	43.8		mg/Kg	2.1	0.08	1	9/24/13	9/29/13 15:06	

## ALS Group USA, Corp. dba ALS Environmental

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Analyzed: 9/18/13 18:35

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9860.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.9 U	3.9	2.3	
71-43-2	Benzene	3.9 U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9 U	3.9	0.48	
75-25-2	Bromoform	3.9 U	3.9	0.73	
74-83-9	Bromomethane	3.9 U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9 U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9 U	3.9	0.98	
56-23-5	Carbon Tetrachloride	3.9 U	3.9	0.73	
108-90-7	Chlorobenzene	3.9 U	3.9	0.23	
75-00-3	Chloroethane	3.9 U	3.9	2.3	
67-66-3	Chloroform	3.9 U	3.9	0.99	
74-87-3	Chloromethane	3.9 U	3.9	0.32	
124-48-1	Dibromochloromethane	3.9 U	3.9	0.58	
75-34-3	1,1-Dichloroethane	3.9 U	3.9	0.99	
107-06-2	1,2-Dichloroethane	3.9 U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9 U	3.9	1.1	
156-59-2	cis-1,2-Dichloroethene	3.9 U	3.9	0.75	
156-60-5	trans-1,2-Dichloroethene	3.9 U	3.9	0.68	
78-87-5	1,2-Dichloropropane	3.9 U	3.9	0.77	
10061-01-5	cis-1,3-Dichloropropene	3.9 U	3.9	0.71	
10061-02-6	trans-1,3-Dichloropropene	3.9 U	3.9	0.16	
100-41-4	Ethylbenzene	3.9 U	3.9	0.19	
591-78-6	2-Hexanone	3.9 U	3.9	0.95	
75-09-2	Methylene Chloride	3.9 U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9 U	3.9	0.77	
100-42-5	Styrene	3.9 U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9 U	3.9	0.64	
127-18-4	Tetrachloroethene	3.9 U	3.9	0.70	
108-88-3	Toluene	2.6 J	3.9	0.79	
71-55-6	1,1,1-Trichloroethane	3.9 U	3.9	0.58	
79-00-5	1,1,2-Trichloroethane	3.9 U	3.9	0.58	
79-01-6	Trichloroethene	3.9 U	3.9	0.80	
75-01-4	Vinyl Chloride	3.9 U	3.9	1.5	
95-47-6	o-Xylene	3.9 U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.8 U	7.8	0.86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Analyzed: 9/18/13 18:35

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091813\T9860.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .75

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9	U	3.9	0.74	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	63	51-136	9/18/13 18:35	
Toluene-d8	98	66-138	9/18/13 18:35	
Dibromofluoromethane	103	63-138	9/18/13 18:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Analyzed: 9/19/13 11:23

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091913\K5109.D\

Analysis Lot: 359426  
 Instrument Name: R-MS-07  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.0	J	4.4	2.5	
71-43-2	Benzene	4.4	U	4.4	0.26	
75-27-4	Bromodichloromethane	4.4	U	4.4	0.55	
75-25-2	Bromoform	4.4	U	4.4	0.83	
74-83-9	Bromomethane	4.4	U	4.4	1.3	
78-93-3	2-Butanone (MEK)	4.4	U	4.4	2.1	
75-15-0	Carbon Disulfide	4.4	U	4.4	1.2	
56-23-5	Carbon Tetrachloride	4.4	U	4.4	0.82	
108-90-7	Chlorobenzene	4.4	U	4.4	0.26	
75-00-3	Chloroethane	4.4	U	4.4	2.6	
67-66-3	Chloroform	4.4	U	4.4	1.2	
74-87-3	Chloromethane	4.4	U	4.4	0.36	
124-48-1	Dibromochloromethane	4.4	U	4.4	0.65	
75-34-3	1,1-Dichloroethane	4.4	U	4.4	1.2	
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.55	
75-35-4	1,1-Dichloroethene	4.4	U	4.4	1.2	
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.85	
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.77	
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.87	
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.81	
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.18	
100-41-4	Ethylbenzene	4.4	U	4.4	0.21	
591-78-6	2-Hexanone	4.4	U	4.4	1.1	
75-09-2	Methylene Chloride	4.4	U	4.4	0.51	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.4	U	4.4	0.88	
100-42-5	Styrene	4.4	U	4.4	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.73	
127-18-4	Tetrachloroethene	4.4	U	4.4	0.79	
108-88-3	Toluene	2.3	J	4.4	0.89	
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.65	
79-00-5	1,1,2-Trichloroethane	4.4	U	4.4	0.65	
79-01-6	Trichloroethene	4.4	U	4.4	0.90	
75-01-4	Vinyl Chloride	4.4	U	4.4	1.7	
95-47-6	o-Xylene	4.4	U	4.4	0.43	
179601-23-1	m,p-Xylenes	8.9	U	8.9	0.97	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Analyzed: 9/19/13 11:23

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091913\K5109.D\

Analysis Lot: 359426  
 Instrument Name: R-MS-07  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.4	U	4.4	0.84	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	51-136	9/19/13 11:23	
Toluene-d8	117	66-138	9/19/13 11:23	
Dibromofluoromethane	105	63-138	9/19/13 11:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 21:49

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091913\CT021.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	1700	U	1700	180	
95-50-1	1,2-Dichlorobenzene	1700	U	1700	200	
541-73-1	1,3-Dichlorobenzene	1700	U	1700	270	
106-46-7	1,4-Dichlorobenzene	1700	U	1700	200	
95-95-4	2,4,5-Trichlorophenol	1700	U	1700	310	
88-06-2	2,4,6-Trichlorophenol	1700	U	1700	260	
120-83-2	2,4-Dichlorophenol	1700	U	1700	240	
105-67-9	2,4-Dimethylphenol	1700	U	1700	200	
51-28-5	2,4-Dinitrophenol	8900	U	8900	730	
121-14-2	2,4-Dinitrotoluene	1700	U	1700	370	
606-20-2	2,6-Dinitrotoluene	1700	U	1700	290	
91-58-7	2-Chloronaphthalene	1700	U	1700	180	
95-57-8	2-Chlorophenol	1700	U	1700	190	
91-57-6	2-Methylnaphthalene	1700	U	1700	180	
95-48-7	2-Methylphenol	1700	U	1700	230	
88-74-4	2-Nitroaniline	8900	U	8900	1500	
88-75-5	2-Nitrophenol	1700	U	1700	260	
91-94-1	3,3'-Dichlorobenzidine	1700	U	1700	320	
	3- and 4-Methylphenol Coelution	1700	U	1700	270	
99-09-2	3-Nitroaniline	8900	U	8900	1700	
534-52-1	4,6-Dinitro-2-methylphenol	8900	U	8900	2600	
101-55-3	4-Bromophenyl Phenyl Ether	1700	U	1700	310	
59-50-7	4-Chloro-3-methylphenol	1700	U	1700	190	
106-47-8	4-Chloroaniline	1700	U	1700	340	
7005-72-3	4-Chlorophenyl Phenyl Ether	1700	U	1700	250	
100-01-6	4-Nitroaniline	8900	U	8900	1900	
100-02-7	4-Nitrophenol	8900	U	8900	1300	
83-32-9	Acenaphthene	1700	U	1700	250	
208-96-8	Acenaphthylene	1700	U	1700	240	
120-12-7	Anthracene	1700	U	1700	270	
56-55-3	Benz(a)anthracene	1700	U	1700	270	
50-32-8	Benzo(a)pyrene	1700	U	1700	290	
205-99-2	Benzo(b)fluoranthene	1700	U	1700	420	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 21:49

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091913\CT021.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	1700	U	1700	330	
207-08-9	Benzo(k)fluoranthene	1700	U	1700	310	
108-60-1	2,2'-Oxybis(1-chloropropane)	1700	U	1700	210	
111-91-1	Bis(2-chloroethoxy)methane	1700	U	1700	240	
111-44-4	Bis(2-chloroethyl) Ether	1700	U	1700	180	
117-81-7	Bis(2-ethylhexyl) Phthalate	1700	U	1700	240	
85-68-7	Butyl Benzyl Phthalate	1700	U	1700	270	
86-74-8	Carbazole	1700	U	1700	240	
218-01-9	Chrysene	1700	U	1700	250	
84-74-2	Di-n-butyl Phthalate	1700	U	1700	480	
117-84-0	Di-n-octyl Phthalate	1700	U	1700	340	
53-70-3	Dibenz(a,h)anthracene	1700	U	1700	470	
132-64-9	Dibenzofuran	1700	U	1700	190	
84-66-2	Diethyl Phthalate	1700	U	1700	230	
131-11-3	Dimethyl Phthalate	1700	U	1700	250	
206-44-0	Fluoranthene	1700	U	1700	280	
86-73-7	Fluorene	1700	U	1700	220	
118-74-1	Hexachlorobenzene	1700	U	1700	270	
87-68-3	Hexachlorobutadiene	1700	U	1700	200	
77-47-4	Hexachlorocyclopentadiene	1700	U	1700	280	
67-72-1	Hexachloroethane	1700	U	1700	240	
193-39-5	Indeno(1,2,3-cd)pyrene	1700	U	1700	290	
78-59-1	Isophorone	1700	U	1700	230	
621-64-7	N-Nitrosodi-n-propylamine	1700	U	1700	200	
86-30-6	N-Nitrosodiphenylamine	1700	U	1700	270	
91-20-3	Naphthalene	1700	U	1700	180	
98-95-3	Nitrobenzene	1700	U	1700	190	
87-86-5	Pentachlorophenol (PCP)	8900	U	8900	1500	
85-01-8	Phenanthrene	1700	U	1700	240	
108-95-2	Phenol	1700	U	1700	190	
129-00-0	Pyrene	1700	U	1700	340	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/19/13 21:49

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306775-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091913\CT021.D\

Analysis Lot: 359438  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	45	41-151	9/19/13 21:49	
2-Fluorobiphenyl	49	47-126	9/19/13 21:49	
2-Fluorophenol	40	16-129	9/19/13 21:49	
Nitrobenzene-d5	42	39-136	9/19/13 21:49	
Phenol-d6	44	10-145	9/19/13 21:49	
p-Terphenyl-d14	52	35-152	9/19/13 21:49	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1306775-001  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10661

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker / Sherri Johnson</b>		Report CC <b>Deay Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment</b>		33 W Monroe ST #1410		PRELIMINARY TESTS	
Phone # <b>312-578-9293</b>		Chicago, IL 60603		GCMS VOCs • 8260 • 824 • CLP	
Sampler's Name <b>J. Hughes</b>		Email <b>J Hughes + ene.com</b>		GCMS SVOCs • 8270 • 825	
Sampler's Signature <i>J. Hughes</i>		Sampler's Eng'd Name <b>Jeffrey Hughes</b>		GC VOCs • 8021 • 801/802	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
<b>E5343 B02 (2-4)</b>	<b>001</b>	<b>9/13/13</b>	<b>1340</b>	<b>Soil</b>	<b>4</b>
<b>E5343 B01 (2-4)</b>	<b>002</b>	<b>9/13/13</b>	<b>1425</b>	<b>Soil</b>	<b>4</b>
<b>E5343 B01 (6-8)</b>	<b>003</b>	<b>9/13/13</b>	<b>1428</b>	<b>Soil</b>	<b>4</b>
SPECIAL INSTRUCTIONS/COMMENTS <b>Metals</b>  <b>Soil Total WA/SWA/Met</b> <b>SUP on Hold</b>					
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
RECEIVED BY <i>J. Hughes</i>		RECEIVED BY <i>Jeffrey Hughes</i>		RECEIVED BY <i>Deay Tiebout</i>	
Signature <i>J. Hughes</i>		Signature <i>Jeffrey Hughes</i>		Signature <i>Deay Tiebout</i>	
Printed Name <b>J. Hughes</b>		Printed Name <b>Jeffrey Hughes</b>		Printed Name <b>Deay Tiebout</b>	
Firm <b>E + E</b>		Firm <b>E + E</b>		Firm <b>E + E</b>	
Date/Time <b>9/13/13 1650</b>		Date/Time <b>9/13/13 1040</b>		Date/Time <b>1040</b>	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION	
REQUESTED REPORT DATE		ED 000 Yes		PO #	
RECEIVED BY		RECEIVED BY		BILL TO:	
Signature		Signature		R1306775	
Printed Name		Printed Name		Ecology And Environment, Incorporated	
Firm		Firm		IDOT US30 Plainsfield PSI	
Date/Time		Date/Time		5	



October 04, 2013

Service Request No: R1306776

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306776**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 63

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5343B01 (2-4)  
**Lab Code:** R1306776-002

**Service Request:** R1306776  
**Date Collected:** 9/13/13 1425  
**Date Received:** 9/14/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.62	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1425  
 Date Received: 9/14/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5343B01 (2-4)  
 Lab Code: R1306776-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.39	mg/L	0.20	1	9/25/13	9/27/13 23:49	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/25/13	9/27/13 23:49	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/25/13	9/27/13 23:49	
Barium	6010C	1.0 U	mg/L	1.0	1	9/25/13	9/27/13 23:49	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/25/13	9/27/13 23:49	
Boron	6010C	1.0 U	mg/L	1.0	1	9/25/13	9/30/13 22:20	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Calcium	6010C	382	mg/L	1.0	1	9/25/13	9/27/13 23:49	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/25/13	9/27/13 23:49	
Copper	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Iron	6010C	0.37	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Lead	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Magnesium	6010C	128	mg/L	1.0	1	9/25/13	9/27/13 23:49	
Manganese	6010C	2.07	mg/L	0.010	1	9/25/13	9/27/13 23:49	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 16:14	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/25/13	9/29/13 18:29	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/25/13	9/27/13 23:49	
Silver	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:49	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/25/13	9/27/13 23:49	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/25/13	9/27/13 23:49	
Zinc	6010C	0.18	mg/L	0.10	1	9/25/13	9/27/13 23:49	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (2-4)  
**Lab Code:** R1306776-002  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1428  
 Date Received: 9/14/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5343B01 (6-8)  
 Lab Code: R1306776-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/27/13 23:55	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/27/13 23:55	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/27/13 23:55	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/27/13 23:55	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/27/13 23:55	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/30/13 22:27	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Calcium	6010C	349		mg/L	10	10	9/25/13	9/27/13 20:37	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/27/13 23:55	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Iron	6010C	0.20		mg/L	0.10	1	9/25/13	9/27/13 23:55	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Magnesium	6010C	120		mg/L	1.0	1	9/25/13	9/27/13 23:55	
Manganese	6010C	1.38		mg/L	0.010	1	9/25/13	9/27/13 23:55	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:16	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 18:36	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/27/13 23:55	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/27/13 23:55	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/27/13 23:55	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/27/13 23:55	
Zinc	6010C	0.24		mg/L	0.10	1	9/25/13	9/27/13 23:55	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (6-8)  
**Lab Code:** R1306776-003  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1306776-001

**Service Request:** R1306776  
**Date Collected:** 9/13/13 1340  
**Date Received:** 9/14/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.36	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1340  
 Date Received: 9/14/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5343B02 (2-4)  
 Lab Code: R1306776-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20 U	mg/L	0.20	1	9/25/13	9/27/13 23:43	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/25/13	9/27/13 23:43	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/25/13	9/27/13 23:43	
Barium	6010C	1.0 U	mg/L	1.0	1	9/25/13	9/27/13 23:43	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/25/13	9/27/13 23:43	
Boron	6010C	1.0 U	mg/L	1.0	1	9/25/13	9/30/13 22:14	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Calcium	6010C	313	mg/L	10	10	9/25/13	9/27/13 20:24	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/25/13	9/27/13 23:43	
Copper	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Iron	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Lead	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Magnesium	6010C	120	mg/L	1.0	1	9/25/13	9/27/13 23:43	
Manganese	6010C	2.00	mg/L	0.010	1	9/25/13	9/27/13 23:43	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 16:13	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/25/13	9/29/13 18:23	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/25/13	9/27/13 23:43	
Silver	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/25/13	9/27/13 23:43	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/25/13	9/27/13 23:43	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/25/13	9/27/13 23:43	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1306776-001  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13  
**Date Received:** 9/14/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10661

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0061-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker/Sherri Johnson</b>		Report CC <b>Deay Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment</b>		GCMS VOCs ° 8260 ° 824 ° CLP		GCMS SVOCs ° 8270 ° 825	
33 W Monroe ST #1410		GCMS VOCs ° 8092 ° 608		GCMS SVOCs ° 8021 ° 607/602	
Chicago, IL 60603		PCBS ° 8081 ° 808		PESTICIDES ° 6011 ° 608	
Phone # <b>312-578-9293</b>		METALS, TOTAL (List in comments below)		METALS, DISSOLVED (List in comments below)	
Email <b>JHughes+ene.com</b>		METALS, TOTAL ° 8092 ° 608		METALS, DISSOLVED ° 8081 ° 808	
Sampler's Printed Name <b>Jeffrey Hughes</b>		PCBS ° 8081 ° 808		PESTICIDES ° 6011 ° 608	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID	LAB ID	DATE	TIME	MATRIX	
E5343 B02 (2-4)	001	9/13/13	1340	Soil	4
E5343 B01 (2-4)	002	9/13/13	1425	Soil	4
E5343 B01 (6-8)	003	9/13/13	1428	Soil	4
REMARKS/ALTERNATE DESCRIPTION					
PH, TCAP/SPL Metals, TOTAL Metals, SVOCs, VOCs					
96 Solids					
Preservative Key					
0. NONE					
1. HCL					
2. HNO3					
3. H2SO4					
4. NaOH					
5. Zn-Acetate					
6. MeOH					
7. NaHSO4					
8. Other					

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION FO # BILL TO:	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata Yes		R1306776 5 Ecology And Environment, Incorporated IDOT US30 Plainsfield PSl	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		RELINQUISHED I	
Signature: <i>Jeffrey Hughes</i>		Signature: <i>Jeffrey Hughes</i>		Signature: <i>Jeffrey Hughes</i>		Signature: _____	
Printed Name: <b>Jeffrey Hughes</b>		Printed Name: <b>Jeffrey Hughes</b>		Printed Name: <b>Jeffrey Hughes</b>		Printed Name: _____	
Firm: <b>E+E</b>		Firm: <b>E+E</b>		Firm: <b>E+E</b>		Firm: _____	
Date/Time: <b>9/12/13 1650</b>		Date/Time: <b>9/12/13 1040</b>		Date/Time: <b>9/12/13 1040</b>		Date/Time: _____	

Handwritten notes: **TCAP Metals + PH only**  
**SPL on Hold**



October 22, 2013

Service Request No: R1307413

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1307413**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 34



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/ID, Accredited ID, and State/ID. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois, Virginia.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307413  
Date Collected: 9/13/13 1425  
Date Received: 9/14/13  
Pre-Prep Date: 10/12/13

Sample Name: E5343B01 (2-4)  
Lab Code: R1307413-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.148		mg/L	0.010	1	10/15/13	10/17/13	21:18

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (2-4)  
**Lab Code:** R1307413-002  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307413  
Date Collected: 9/13/13 1428  
Date Received: 9/14/13  
Pre-Prep Date: 10/12/13

Sample Name: E5343B01 (6-8)  
Lab Code: R1307413-003

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.014	mg/L	0.010	1	10/15/13	10/17/13 21:25	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B01 (6-8)  
**Lab Code:** R1307413-003  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13  
**Date Received:** 9/14/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307413  
Date Collected: 9/13/13 1340  
Date Received: 9/14/13  
Pre-Prep Date: 10/14/13

Sample Name: E5343B02 (2-4)  
Lab Code: R1307413-001

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.415		mg/L	0.010	1	10/15/13	10/17/13	20:36

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5343B02 (2-4)  
**Lab Code:** R1307413-001  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/14/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of Lincoln Hwy and 22000 block of Harts Farm Rd.

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.586741° Longitude: -88.175874°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.586741° Longitude: -88.175874°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5344B01 was sampled within the construction zone adjacent to ISGS #2141-44 (Vacant Land). Refer to PSI Report for ISGS #2141-44 (Vacant Land) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306809, R1306810, and R1307503.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

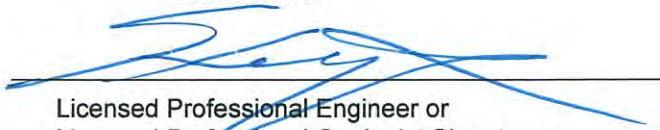
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

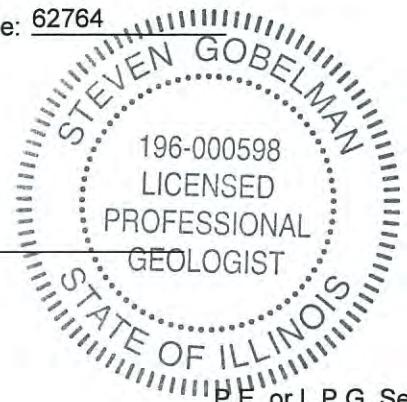
Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14

Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141-44 (Vacant Land)		Comparison Criteria			
BORING	E5344B01		MACs			TACO
SAMPLE	E5344B01 (0-2)	E5344B01D (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (meters)	0.0-0.6	0.0-0.6				
pH	7.24	7.45				
<b>VOCs (None Detected)</b>						
<b>SVOCs (µg/kg)</b>						
Fluoranthene	81 J	ND U	3,100,000	--	--	--
<b>Inorganics (mg/kg)</b>						
Aluminum	14,500	13,900	--	--	--	--
Arsenic	7.4	7.3	11.3	13	--	--
Barium	168	160	1,500	--	--	--
Beryllium	0.81	0.78	22	--	--	--
Cadmium	0.34 J	0.32 J	5	--	--	--
Calcium	8,300	8,000	--	--	--	--
Chromium	19.7	18.7	21	--	--	--
Cobalt	9.7	9.2	20	--	--	--
Copper	17.9	16.9	2,900	--	--	--
Iron	21,100 †m	20,600 †m	15,000	15,900	--	--
Lead	19.3	18.2	107	--	--	--
Magnesium	5,480	5,350	325,000	--	--	--
Manganese	639 †m	666 †m	630	636	--	--
Mercury	0.014 J	0.022 J	1	--	--	--
Nickel	16.3	16.1	100	--	--	--
Potassium	1,550	1,350	--	--	--	--
Vanadium	33.3	32.9	550	--	--	--
Zinc	57.9	53.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Calcium	150	171	--	--	--	--
Iron	ND U	0.14	--	--	--	5
Magnesium	59	68	--	--	--	--
Manganese	0.288 L	0.282 L	--	--	--	0.15
Potassium	7.4	5.1	--	--	--	--
<b>SPLP Metals (mg/L)</b>						
Manganese	0.064	0.111	--	--	--	0.15



October 07, 2013

Service Request No: R1306809

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306809**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 105



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1306809-013

**Service Request:** R1306809  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.24	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306809-013

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:19	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:19	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:19	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:19	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:19	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:19	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Calcium	6010C	150		mg/L	10	10	9/25/13	9/29/13 16:47	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:19	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Magnesium	6010C	59		mg/L	10	10	9/25/13	9/29/13 16:47	
Manganese	6010C	0.288		mg/L	0.010	1	9/25/13	10/2/13 23:19	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:43	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Potassium	6010C	7.4		mg/L	5.0	1	9/25/13	10/4/13 00:48	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:19	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:19	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:19	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:19	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1306809-013  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1306809-014

**Service Request:** R1306809  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.45	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5344B01D (0-2)  
 Lab Code: R1306809-014

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:38	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:38	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:38	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:38	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:38	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Calcium	6010C	171		mg/L	10	10	9/25/13	9/29/13 17:11	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:38	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Iron	6010C	0.14		mg/L	0.10	1	9/25/13	10/2/13 23:38	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Magnesium	6010C	68		mg/L	10	10	9/25/13	9/29/13 17:11	
Manganese	6010C	0.282		mg/L	0.010	1	9/25/13	10/2/13 23:38	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:45	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Potassium	6010C	5.1		mg/L	5.0	1	9/25/13	10/4/13 00:54	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:38	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:38	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:38	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:38	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1306809-014  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 07, 2013

Service Request No: R1306810

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI  
TCLP's/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306810**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 354

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1306810-013

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13

**Basis:** As Received .

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.6	Percent	1.0	1	NA	9/18/13 08:48	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1306810-013

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13

**Basis:** Dry  
**Percent Solids:** 84.6

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14500		mg/Kg	11	4	1	9/27/13	10/2/13 02:42	
Antimony, Total	6010C	0.9	BJ	mg/Kg	6.8	0.3	1	9/27/13	10/2/13 02:42	
Arsenic, Total	6010C	7.4		mg/Kg	1.1	0.5	1	9/27/13	10/2/13 02:42	
Barium, Total	6010C	168		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 02:42	
Beryllium, Total	6010C	0.81		mg/Kg	0.34	0.03	1	9/27/13	10/2/13 02:42	
Boron, Total	6010C	11	BJ	mg/Kg	23	4	1	9/27/13	10/2/13 02:42	
Cadmium, Total	6010C	0.34	J	mg/Kg	0.56	0.07	1	9/27/13	10/2/13 02:42	
Calcium, Total	6010C	8300		mg/Kg	1100	400	10	9/27/13	10/1/13 22:28	
Chromium, Total	6010C	19.7		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:42	
Cobalt, Total	6010C	9.7		mg/Kg	5.6	0.06	1	9/27/13	10/2/13 02:42	
Copper, Total	6010C	17.9		mg/Kg	2.3	0.8	1	9/27/13	10/2/13 02:42	
Iron, Total	6010C	21100		mg/Kg	110	60	10	9/27/13	10/1/13 22:28	
Lead, Total	6010C	19.3		mg/Kg	5.6	0.3	1	9/27/13	10/2/13 02:42	
Magnesium, Total	6010C	5480		mg/Kg	110	2	1	9/27/13	10/2/13 02:42	
Manganese, Total	6010C	639		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:42	
Mercury, Total	7471B	0.014	J	mg/Kg	0.036	0.006	1	9/23/13	9/23/13 15:40	
Nickel, Total	6010C	16.3		mg/Kg	4.5	0.10	1	9/27/13	10/2/13 02:42	
Potassium, Total	6010C	1550		mg/Kg	230	20	1	9/27/13	10/2/13 02:42	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/27/13	10/2/13 02:42	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/27/13	10/2/13 02:42	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/27/13	10/2/13 02:42	
Vanadium, Total	6010C	33.3		mg/Kg	5.6	0.06	1	9/27/13	10/2/13 02:42	
Zinc, Total	6010C	57.9		mg/Kg	2.3	0.08	1	9/27/13	10/2/13 02:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 19:57

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUOTA\msvoa12\Data\091913\T9894.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.07

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	6.3	U	6.3	3.6	
71-43-2	Benzene	6.3	U	6.3	0.37	
75-27-4	Bromodichloromethane	6.3	U	6.3	0.78	
75-25-2	Bromoform	6.3	U	6.3	1.2	
74-83-9	Bromomethane	6.3	U	6.3	1.8	
78-93-3	2-Butanone (MEK)	6.3	U	6.3	2.9	
75-15-0	Carbon Disulfide	6.3	U	6.3	1.6	
56-23-5	Carbon Tetrachloride	6.3	U	6.3	1.2	
108-90-7	Chlorobenzene	6.3	U	6.3	0.37	
75-00-3	Chloroethane	6.3	U	6.3	3.7	
67-66-3	Chloroform	6.3	U	6.3	1.6	
74-87-3	Chloromethane	6.3	U	6.3	0.51	
124-48-1	Dibromochloromethane	6.3	U	6.3	0.93	
75-34-3	1,1-Dichloroethane	6.3	U	6.3	1.6	
107-06-2	1,2-Dichloroethane	6.3	U	6.3	0.78	
75-35-4	1,1-Dichloroethene	6.3	U	6.3	1.7	
156-59-2	cis-1,2-Dichloroethene	6.3	U	6.3	1.3	
156-60-5	trans-1,2-Dichloroethene	6.3	U	6.3	1.1	
78-87-5	1,2-Dichloropropane	6.3	U	6.3	1.3	
10061-01-5	cis-1,3-Dichloropropene	6.3	U	6.3	1.2	
10061-02-6	trans-1,3-Dichloropropene	6.3	U	6.3	0.26	
100-41-4	Ethylbenzene	6.3	U	6.3	0.30	
591-78-6	2-Hexanone	6.3	U	6.3	1.6	
75-09-2	Methylene Chloride	6.3	U	6.3	0.73	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.3	U	6.3	1.3	
100-42-5	Styrene	6.3	U	6.3	0.38	
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U	6.3	1.1	
127-18-4	Tetrachloroethene	6.3	U	6.3	1.2	
108-88-3	Toluene	6.3	U	6.3	1.3	
71-55-6	1,1,1-Trichloroethane	6.3	U	6.3	0.93	
79-00-5	1,1,2-Trichloroethane	6.3	U	6.3	0.93	
79-01-6	Trichloroethene	6.3	U	6.3	1.3	
75-01-4	Vinyl Chloride	6.3	U	6.3	2.4	
95-47-6	o-Xylene	6.3	U	6.3	0.61	
179601-23-1	m,p-Xylenes	13	U	13	1.4	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 19:57

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091913\T9894.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.07

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.3 U	6.3	1.2	
1330-20-7	Xylenes, Total	19 U	19	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	71	51-136	9/19/13 19:57	
Toluene-d8	100	66-138	9/19/13 19:57	
Dibromofluoromethane	104	63-138	9/19/13 19:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 16:01

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9914.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.14

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	6.7 U	6.7	3.8	
71-43-2	Benzene	6.7 U	6.7	0.40	
75-27-4	Bromodichloromethane	6.7 U	6.7	0.83	
75-25-2	Bromoform	6.7 U	6.7	1.3	
74-83-9	Bromomethane	6.7 U	6.7	1.9	
78-93-3	2-Butanone (MEK)	6.7 U	6.7	3.1	
75-15-0	Carbon Disulfide	6.7 U	6.7	1.7	
56-23-5	Carbon Tetrachloride	6.7 U	6.7	1.3	
108-90-7	Chlorobenzene	6.7 U	6.7	0.40	
75-00-3	Chloroethane	6.7 U	6.7	3.9	
67-66-3	Chloroform	6.7 U	6.7	1.7	
74-87-3	Chloromethane	6.7 U	6.7	0.54	
124-48-1	Dibromochloromethane	6.7 U	6.7	0.99	
75-34-3	1,1-Dichloroethane	6.7 U	6.7	1.7	
107-06-2	1,2-Dichloroethane	6.7 U	6.7	0.83	
75-35-4	1,1-Dichloroethene	6.7 U	6.7	1.8	
156-59-2	cis-1,2-Dichloroethene	6.7 U	6.7	1.3	
156-60-5	trans-1,2-Dichloroethene	6.7 U	6.7	1.2	
78-87-5	1,2-Dichloropropane	6.7 U	6.7	1.4	
10061-01-5	cis-1,3-Dichloropropene	6.7 U	6.7	1.3	
10061-02-6	trans-1,3-Dichloropropene	6.7 U	6.7	0.27	
100-41-4	Ethylbenzene	6.7 U	6.7	0.31	
591-78-6	2-Hexanone	6.7 U	6.7	1.7	
75-09-2	Methylene Chloride	6.7 U	6.7	0.77	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.7 U	6.7	1.4	
100-42-5	Styrene	6.7 U	6.7	0.41	
79-34-5	1,1,2,2-Tetrachloroethane	6.7 U	6.7	1.1	
127-18-4	Tetrachloroethene	6.7 U	6.7	1.2	
108-88-3	Toluene	3.4 J	6.7	1.4	
71-55-6	1,1,1-Trichloroethane	6.7 U	6.7	0.99	
79-00-5	1,1,2-Trichloroethane	6.7 U	6.7	0.99	
79-01-6	Trichloroethene	6.7 U	6.7	1.4	
75-01-4	Vinyl Chloride	6.7 U	6.7	2.5	
95-47-6	o-Xylene	6.7 U	6.7	0.65	
179601-23-1	m,p-Xylenes	13 U	13	1.5	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 16:01

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9914.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.14

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.7 U	6.7	1.3	
1330-20-7	Xylenes, Total	20 U	20	2.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	79	51-136	9/20/13 16:01	
Toluene-d8	105	66-138	9/20/13 16:01	
Dibromofluoromethane	103	63-138	9/20/13 16:01	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 17:41

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\092313\AQ773.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390 U	390	40	
95-50-1	1,2-Dichlorobenzene	390 U	390	44	
541-73-1	1,3-Dichlorobenzene	390 U	390	60	
106-46-7	1,4-Dichlorobenzene	390 U	390	45	
95-95-4	2,4,5-Trichlorophenol	390 U	390	69	
88-06-2	2,4,6-Trichlorophenol	390 U	390	57	
120-83-2	2,4-Dichlorophenol	390 U	390	53	
105-67-9	2,4-Dimethylphenol	390 U	390	44	
51-28-5	2,4-Dinitrophenol	2000 U	2000	170	
121-14-2	2,4-Dinitrotoluene	390 U	390	84	
606-20-2	2,6-Dinitrotoluene	390 U	390	65	
91-58-7	2-Chloronaphthalene	390 U	390	41	
95-57-8	2-Chlorophenol	390 U	390	41	
91-57-6	2-Methylnaphthalene	390 U	390	40	
95-48-7	2-Methylphenol	390 U	390	51	
88-74-4	2-Nitroaniline	2000 U	2000	330	
88-75-5	2-Nitrophenol	390 U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390 U	390	71	
	3- and 4-Methylphenol Coelution	390 U	390	59	
99-09-2	3-Nitroaniline	2000 U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000 U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390 U	390	70	
59-50-7	4-Chloro-3-methylphenol	390 U	390	43	
106-47-8	4-Chloroaniline	390 U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390 U	390	55	
100-01-6	4-Nitroaniline	2000 U	2000	430	
100-02-7	4-Nitrophenol	2000 U	2000	290	
83-32-9	Acenaphthene	390 U	390	56	
208-96-8	Acenaphthylene	390 U	390	53	
120-12-7	Anthracene	390 U	390	61	
56-55-3	Benz(a)anthracene	390 U	390	61	
50-32-8	Benzo(a)pyrene	390 U	390	65	
205-99-2	Benzo(b)fluoranthene	390 U	390	95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 17:41

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\S973D\DATA\092313\AQ773.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390 U	390	74	
207-08-9	Benzo(k)fluoranthene	390 U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390 U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390 U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390 U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390 U	390	54	
85-68-7	Butyl Benzyl Phthalate	390 U	390	60	
86-74-8	Carbazole	390 U	390	54	
218-01-9	Chrysene	390 U	390	55	
84-74-2	Di-n-butyl Phthalate	390 U	390	110	
117-84-0	Di-n-octyl Phthalate	390 U	390	75	
53-70-3	Dibenz(a,h)anthracene	390 U	390	110	
132-64-9	Dibenzofuran	390 U	390	43	
84-66-2	Diethyl Phthalate	390 U	390	51	
131-11-3	Dimethyl Phthalate	390 U	390	56	
206-44-0	Fluoranthene	81 J	390	63	
86-73-7	Fluorene	390 U	390	49	
118-74-1	Hexachlorobenzene	390 U	390	60	
87-68-3	Hexachlorobutadiene	390 U	390	44	
77-47-4	Hexachlorocyclopentadiene	390 U	390	62	
67-72-1	Hexachloroethane	390 U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390 U	390	65	
78-59-1	Isophorone	390 U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390 U	390	45	
86-30-6	N-Nitrosodiphenylamine	390 U	390	61	
91-20-3	Naphthalene	390 U	390	40	
98-95-3	Nitrobenzene	390 U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000 U	2000	330	
85-01-8	Phenanthrene	390 U	390	53	
108-95-2	Phenol	390 U	390	43	
129-00-0	Pyrene	390 U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 17:41

Sample Name: E5344B01 (0-2)  
 Lab Code: R1306810-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\092313\AQ773.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/23/13 17:41	
2-Fluorobiphenyl	66	47-126	9/23/13 17:41	
2-Fluorophenol	56	16-129	9/23/13 17:41	
Nitrobenzene-d5	71	39-136	9/23/13 17:41	
Phenol-d6	60	10-145	9/23/13 17:41	
p-Terphenyl-d14	77	35-152	9/23/13 17:41	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1306810-013  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5344B01D (0-2)  
Lab Code: R1306810-014

Service Request: R1306810  
Date Collected: 9/16/13 0910  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.7	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5344B01D (0-2)  
 Lab Code: R1306810-014

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 85.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	13900		mg/Kg	11	4	1	9/27/13	10/2/13 02:50	
Antimony, Total	6010C	0.8	BJ	mg/Kg	6.7	0.3	1	9/27/13	10/2/13 02:50	
Arsenic, Total	6010C	7.3		mg/Kg	1.1	0.5	1	9/27/13	10/2/13 02:50	
Barium, Total	6010C	160		mg/Kg	2.2	0.09	1	9/27/13	10/2/13 02:50	
Beryllium, Total	6010C	0.78		mg/Kg	0.34	0.03	1	9/27/13	10/2/13 02:50	
Boron, Total	6010C	10	BJ	mg/Kg	22	4	1	9/27/13	10/2/13 02:50	
Cadmium, Total	6010C	0.32	J	mg/Kg	0.56	0.07	1	9/27/13	10/2/13 02:50	
Calcium, Total	6010C	8000		mg/Kg	1100	400	10	9/27/13	10/1/13 22:34	
Chromium, Total	6010C	18.7		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:50	
Cobalt, Total	6010C	9.2		mg/Kg	5.6	0.06	1	9/27/13	10/2/13 02:50	
Copper, Total	6010C	16.9		mg/Kg	2.2	0.8	1	9/27/13	10/2/13 02:50	
Iron, Total	6010C	20600		mg/Kg	110	60	10	9/27/13	10/1/13 22:34	
Lead, Total	6010C	18.2		mg/Kg	5.6	0.3	1	9/27/13	10/2/13 02:50	
Magnesium, Total	6010C	5350		mg/Kg	110	2	1	9/27/13	10/2/13 02:50	
Manganese, Total	6010C	666		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:50	
Mercury, Total	7471B	0.022	J	mg/Kg	0.038	0.006	1	9/23/13	9/23/13 15:42	
Nickel, Total	6010C	16.1		mg/Kg	4.5	0.10	1	9/27/13	10/2/13 02:50	
Potassium, Total	6010C	1350		mg/Kg	220	20	1	9/27/13	10/2/13 02:50	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/27/13	10/2/13 02:50	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/27/13	10/2/13 02:50	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/27/13	10/2/13 02:50	
Vanadium, Total	6010C	32.9		mg/Kg	5.6	0.06	1	9/27/13	10/2/13 02:50	
Zinc, Total	6010C	53.9		mg/Kg	2.2	0.08	1	9/27/13	10/2/13 02:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 16:33

Sample Name: E5344B01D (0-2)  
 Lab Code: R1306810-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\msvoa12\Data\092013\T9915.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.22

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	7.1 U	7.1	4.1	
71-43-2	Benzene	7.1 U	7.1	0.42	
75-27-4	Bromodichloromethane	7.1 U	7.1	0.87	
75-25-2	Bromoform	7.1 U	7.1	1.4	
74-83-9	Bromomethane	7.1 U	7.1	2.0	
78-93-3	2-Butanone (MEK)	7.1 U	7.1	3.3	
75-15-0	Carbon Disulfide	7.1 U	7.1	1.8	
56-23-5	Carbon Tetrachloride	7.1 U	7.1	1.4	
108-90-7	Chlorobenzene	7.1 U	7.1	0.42	
75-00-3	Chloroethane	7.1 U	7.1	4.1	
67-66-3	Chloroform	7.1 U	7.1	1.8	
74-87-3	Chloromethane	7.1 U	7.1	0.57	
124-48-1	Dibromochloromethane	7.1 U	7.1	1.1	
75-34-3	1,1-Dichloroethane	7.1 U	7.1	1.8	
107-06-2	1,2-Dichloroethane	7.1 U	7.1	0.87	
75-35-4	1,1-Dichloroethene	7.1 U	7.1	1.9	
156-59-2	cis-1,2-Dichloroethene	7.1 U	7.1	1.4	
156-60-5	trans-1,2-Dichloroethene	7.1 U	7.1	1.3	
78-87-5	1,2-Dichloropropane	7.1 U	7.1	1.4	
10061-01-5	cis-1,3-Dichloropropene	7.1 U	7.1	1.3	
10061-02-6	trans-1,3-Dichloropropene	7.1 U	7.1	0.29	
100-41-4	Ethylbenzene	7.1 U	7.1	0.33	
591-78-6	2-Hexanone	7.1 U	7.1	1.8	
75-09-2	Methylene Chloride	7.1 U	7.1	0.82	
108-10-1	4-Methyl-2-pentanone (MIBK)	7.1 U	7.1	1.4	
100-42-5	Styrene	7.1 U	7.1	0.43	
79-34-5	1,1,2,2-Tetrachloroethane	7.1 U	7.1	1.2	
127-18-4	Tetrachloroethene	7.1 U	7.1	1.3	
108-88-3	Toluene	7.1 U	7.1	1.5	
71-55-6	1,1,1-Trichloroethane	7.1 U	7.1	1.1	
79-00-5	1,1,2-Trichloroethane	7.1 U	7.1	1.1	
79-01-6	Trichloroethene	7.1 U	7.1	1.5	
75-01-4	Vinyl Chloride	7.1 U	7.1	2.7	
95-47-6	o-Xylene	7.1 U	7.1	0.69	
179601-23-1	m,p-Xylenes	14 U	14	1.6	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/20/13 16:33

**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1306810-014

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 85.7

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUDATA\msvoa12\Data\092013\T9915.D\

**Analysis Lot:** 359420  
**Instrument Name:** R-MS-12  
**Dilution Factor:** 1.22

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	7.1 U	7.1	1.4	
1330-20-7	Xylenes, Total	21 U	21	2.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	51-136	9/20/13 16:33	
Toluene-d8	106	66-138	9/20/13 16:33	
Dibromofluoromethane	101	63-138	9/20/13 16:33	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 18:13

Sample Name: E5344B01D (0-2)  
 Lab Code: R1306810-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ774.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	39	
95-50-1	1,2-Dichlorobenzene	390	U	390	43	
541-73-1	1,3-Dichlorobenzene	390	U	390	59	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	68	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	52	
105-67-9	2,4-Dimethylphenol	390	U	390	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	83	
606-20-2	2,6-Dinitrotoluene	390	U	390	64	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	39	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	69	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	390	U	390	55	
208-96-8	Acenaphthylene	390	U	390	52	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	60	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	94	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 18:13

Sample Name: E5344B01D (0-2)  
 Lab Code: R1306810-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\092313\AQ774.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	73	
207-08-9	Benzo(k)fluoranthene	390	U	390	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	53	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	53	
85-68-7	Butyl Benzyl Phthalate	390	U	390	59	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	54	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	74	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	50	
131-11-3	Dimethyl Phthalate	390	U	390	55	
206-44-0	Fluoranthene	390	U	390	62	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	59	
87-68-3	Hexachlorobutadiene	390	U	390	43	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	54	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	64	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	44	
86-30-6	N-Nitrosodiphenylamine	390	U	390	60	
91-20-3	Naphthalene	390	U	390	39	
98-95-3	Nitrobenzene	390	U	390	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	390	U	390	52	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0910  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 18:13

**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1306810-014

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 85.7

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ774.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/23/13 18:13	
2-Fluorobiphenyl	65	47-126	9/23/13 18:13	
2-Fluorophenol	56	16-129	9/23/13 18:13	
Nitrobenzene-d5	72	39-136	9/23/13 18:13	
Phenol-d6	60	10-145	9/23/13 18:13	
p-Terphenyl-d14	81	35-152	9/23/13 18:13	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1306810-014  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10662

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>1DOT US30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)									
Project Manager <b>Karen Buckner/Shevni Johnson/Debra Tiebout</b>		Report CC		PRESERVATIVE									
Company/Address <b>Ecology + Environment</b>		33 W. Monroe St #1470		NUMBER OF CONTAINERS									
Chicago, IL 60603		Phone # <b>312-578-9243</b>		GCMS VOA 8280 • 824 • CLP									
Sampler's Signature <i>Jeff Hughes</i>		Email <b>hughes@ec.com</b>		GCMS SVOA 8270 • 825									
Sampler's Printed Name <b>Jeff Hughes</b>		Sampler's Printed Name <b>Jeff Hughes</b>		PCBs 8081 • 808									
				PESTICIDES 8021 • 801/802									
				GC VOA 8270 • 825									
				METALS, TOTAL (List in comments below)									
				METALS, DISSOLVED (List in comments below)									
				VOCs									
				SVOCs									
				Total TAl Metals									
				Total TSP Metals									
				pH									
				% Solids									
				REMARKS/ ALTERNATE DESCRIPTION									
				JA 9/16/13									
				MS/MSD									

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO:	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE <b>same</b>		Extra <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>R1306810</b>	
STATE WHERE SAMPLES WERE COLLECTED <b>IL</b>		RECEIVED BY <i>J. Hughes</i>		RECEIVED BY		RECEIVED BY	
Signature <i>J. Hughes</i>		Signature <i>J. Hughes</i>		Signature		Signature	
Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name		Printed Name	
Firm <b>ALS</b>		Firm <b>ALS</b>		Firm		Firm	
Date/Time <b>9/16/13 1710</b>		Date/Time <b>9/17/13 0950</b>		Date/Time		Date/Time	

see R1306809 for TCURs



October 24, 2013

Service Request No: R1307503

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1307503**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 50



## REPORT QUALIFIERS AND DEFINITIONS

- |  |  |
|--|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|--|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307503  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Pre-Prep Date: 10/16/13

Sample Name: E5344B01 (0-2)  
 Lab Code: R1307503-010

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.064	mg/L	0.010	1	10/18/13	10/22/13 10:51	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5344B01 (0-2)  
**Lab Code:** R1307503-010  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307503  
 Date Collected: 9/16/13 0910  
 Date Received: 9/17/13  
 Pre-Prep Date: 10/16/13

Sample Name: E5344B01D (0-2)  
 Lab Code: R1307503-011

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.111	mg/L	0.010	1	10/18/13	10/22/13 10:57	

ALS ENVIRONMENTAL

Analyst Summary Report

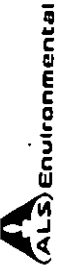
**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5344B01D (0-2)  
**Lab Code:** R1307503-011  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10662

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
1DOT US 30		EE-004335-0001-01770			
Project Manager		Report CC		PRESERVATIVE	
Karen Banker / Sherril Johnson / Dean Tiebout		JHughes + env.com			
Company/Address		Sampler's Signature		NUMBER OF CONTAINERS	
Ecology + Environment 33 W Monroe ST #1470 Chicago IL 60603		Jeff Hughes			
Phone #		DATE		SAMPLING TIME	
312-578-9243		9/16/13		0910	
Matrix		DATE		SAMPLING TIME	
Soil		9/16/13		0910	
Soil		9/16/13		0945	
Soil		9/16/13		0950	
Soil		9/16/13		1020	
Soil		9/16/13		1030	
Soil		9/16/13		1100	
Soil		9/16/13		1105	
Soil					
Soil					
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	
E5344B01(0-2)	E5344B01	9/16/13	0910	Soil	4
E5344B01(0-2)	E5344B01	9/16/13	0910	Soil	4
E5345B04(0-2)	E5345B04	9/16/13	0945	Soil	4
E5345B04(4-6)	E5345B04	9/16/13	0950	Soil	4
E5345B03(2-4)	E5345B03	9/16/13	1020	Soil	4
E5345B03(6-8)	E5345B03	9/16/13	1030	Soil	4
E5345B02(2-4)	E5345B02	9/16/13	1100	Soil	4
E5345B02(4-6)	E5345B02	9/16/13	1105	Soil	4
E5345B01	E5345B01				
E5345B01	E5345B01				

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 3 day		I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		PO # BILL TO: R130793 R130689 R1306810 CA RECEIVED BY 9/16/13	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE END		Edia <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		RECEIVED BY	
STATE WHERE SAMPLES WERE COLLECTED IL		SIGNATURE		SIGNATURE		SIGNATURE	
RELINQUISHED BY		PRINTED NAME		PRINTED NAME		PRINTED NAME	
Signature: J. Hughes		John Seward		John Seward		John Seward	
Signature: J. Hughes		ALS		ALS		ALS	
Date/Time: 9/16/13 1710		Date/Time: 0950		Date/Time:		Date/Time:	

see R1306810 for totals  
9/16/13 5:47 PM



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.585934° Longitude: -88.176100°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.585934° Longitude: -88.176100°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5345B01, E5345B02, E5345B03, E5345B04 were sampled within the construction zone adjacent to ISGS #2141-45 (Vacant Lot). Refer to PSI Report for ISGS #2141-45 (Vacant Lot) including Table 4-4, and Figures 4-1A, 4-1B, and 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306809, R1306810, and R1307503.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

10/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN

SITE	ISGS #2141-45 (Vacant Lot)										Comparison Criteria						
	E5345B01		E5345B02		E5345B03		E5345B04		MACs	Most Stringent	Within an MSA	Within Chicago	TACO				
<b>BORING</b>																	
<b>SAMPLE</b>	E5345B01 (0-2)		E5345B02 (2-4)		E5345B03 (2-4)		E5345B04 (0-2)		E5345B04 (4-6)								
<b>MATRIX</b>	Soil		Soil		Soil		Soil		Soil								
<b>DEPTH (meters)</b>	2.4-3.1		1.2-1.8		1.8-2.4		0.0-0.6		1.2-1.8								
<b>pH</b>	8.64		8.34		8.43		8.38		8.27								
<b>VOCs (µg/kg)</b>																	
Acetone	ND	U	4.8	4.1	J	3.1	J	ND	U	2.6	J	ND	U	25,000	--	--	
Toluene	3.9	J	2.3	4.4	J	2.8	J	1.0	J	0.96	J	3.7	J	12,000	--	--	
<b>SVOCs (µg/kg)</b>																	
Benzo(a)pyrene	71	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	90	2,100	1,300.
Chrysene	77	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	88,000	--	--
Di-n-butyl Phthalate	ND	U	ND	U	100	J	ND	U	ND	U	ND	U	ND	U	2,300,000	--	--
Fluoranthene	130	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	3,100,000	--	--
Pyrene	89	J	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	2,300,000	--	--
<b>Inorganics (mg/kg)</b>																	
Aluminum	13,500		1,930	2,320		2,370		1,940		1,490		1,640		1,810		--	--
Arsenic	10.1		7.7	8.9		6.29		5.0		6.3		3.9		4.0		11.3	13
Barium	156		13.6	20.8		15.7		12.3		10.9		11.6		10.2		1,500	--
Beryllium	0.76		0.10	0.14		0.10		0.10		0.06		0.08		0.08		22	--
Cadmium	0.44		ND	U		ND		ND		ND		ND		ND		5	--
Calcium	8,900		123,000	117,000		124,000		123,000		153,000		145,000		159,000		--	--
Chromium	18.2		9.5	9.7		10.6		9.9		10.5		10.8		13.2		21	--
Cobalt	10.5		3.0	3.8		3.8		3.1		2.6		3.0		2.5		20	--
Copper	18.5		17.0	15.7		13.5		13.9		13.4		10.9		9.4		2,900	--
Iron	22,300		12,900	14,200		11,800		9,860		9,120		8,400		8,090		15,000	15,900
Lead	33.8		5.6	6.4		6.4		5.2		5.1		3.3		3.1		107	--
Magnesium	6,540		78,600	74,300		79,000		80,700		95,700		90,400		98,200		325,000	--
Manganese	913		290	380		353		360		260		428		344		630	636
Mercury	0.020		0.009	0.006		J		ND		ND		ND		ND		1	--
Nickel	17.5		7.2	8.8		9.0		7.1		5.5		6.3		5.8		100	--
Potassium	1,190		540	680		530		560		490		530		570		--	--
Vanadium	32.7		10.1	8.7		8.7		7.5		6.4		7.1		7.3		550	--
Zinc	78.4		33.8	35.9		32.8		36.7		30.5		26.6		24.4		5,100	--
<b>TCLP Metals (mg/L)</b>																	
Aluminum	ND	U	ND	U		ND		ND		0.30		ND		ND		--	--
Calcium	227		907	789		822		352		715		452		456		--	--
Iron	ND	U	0.41	1.55		3.93		ND		0.89		ND		0.26		--	5
Magnesium	116		518	465		440		137		380		127		152		--	--
Manganese	0.200		L	4.08		L		L		L		L		L		--	0.15
<b>SPLP Metals (mg/L)</b>																	
Manganese	0.068		0.102	0.151		L		ND		U		0.037		0.032		--	0.031
																--	0.15





October 07, 2013

Service Request No: R1306809

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306809**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 105

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306809

<u>Lab ID</u>	<u>Client ID</u>
R1306809-001	E5345B01 (0-2)
R1306809-002	E5345B01 (8-10)
R1306809-003	E5328B03 (2-4)
R1306809-004	E5328B03 (6-8)
R1306809-005	E5328B05 (0-2)
R1306809-006	E5328B05 (4-6)
R1306809-007	E5328B02 (2-4)
R1306809-008	E5328B02 (6-8)
R1306809-009	E5328B06 (0-2)
R1306809-010	E5328B06 (4-6)
R1306809-011	E5336B06 (0-2)
R1306809-012	E5336B05 (0-2)
R1306809-013	E5344B01 (0-2)
R1306809-014	E5344B01D (0-2)
R1306809-015	E5345B04 (0-2)
R1306809-016	E5345B04 (4-6)
R1306809-017	E5345B03 (2-4)
R1306809-018	E5345B03 (6-8)
R1306809-019	E5345B02 (2-4)
R1306809-020	E5345B02 (4-6)

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306809-001

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1133  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.22	pH Units		1	NA	9/24/13 15:55	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1133  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B01 (0-2)  
 Lab Code: R1306809-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 21:48	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 21:48	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 21:48	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 21:48	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 21:48	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 21:48	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Calcium	6010C	227		mg/L	10	10	9/25/13	9/29/13 14:53	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 21:48	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Magnesium	6010C	116		mg/L	10	10	9/25/13	9/29/13 14:53	
Manganese	6010C	0.200		mg/L	0.010	1	9/25/13	10/2/13 21:48	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:20	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/3/13 23:19	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 21:48	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 21:48	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 21:48	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:48	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306809-001  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1306809-002

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1140  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.64	pH Units		1	NA	9/24/13 15:55	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B01 (8-10)  
 Lab Code: R1306809-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 21:55	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 21:55	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 21:55	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 21:55	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 21:55	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 21:55	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Calcium	6010C	907		mg/L	20	20	9/25/13	10/3/13 01:04	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 21:55	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Iron	6010C	0.41		mg/L	0.10	1	9/25/13	10/2/13 21:55	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Magnesium	6010C	518		mg/L	10	10	9/25/13	9/29/13 15:02	
Manganese	6010C	5.02		mg/L	0.010	1	9/25/13	10/2/13 21:55	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:22	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/3/13 23:26	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 21:55	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 21:55	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 21:55	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 21:55	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1306809-002  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306809-015

**Service Request:** R1306809  
**Date Collected:** 9/16/13 0945  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.38	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 0945  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B04 (0-2)  
 Lab Code: R1306809-015

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:45	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:45	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:45	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:45	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:45	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:45	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Calcium	6010C	452		mg/L	10	10	9/25/13	9/29/13 17:19	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:45	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Magnesium	6010C	127		mg/L	10	10	9/25/13	9/29/13 17:19	
Manganese	6010C	1.30		mg/L	0.010	1	9/25/13	10/2/13 23:45	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:46	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 01:00	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:45	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:45	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:45	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:45	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306809-015  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306809-016

**Service Request:** R1306809  
**Date Collected:** 9/16/13 0950  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.27	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 0950  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B04 (4-6)  
 Lab Code: R1306809-016

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:52	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:52	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:52	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:52	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:52	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:52	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Calcium	6010C	456		mg/L	10	10	9/25/13	9/29/13 17:27	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:52	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Iron	6010C	0.26		mg/L	0.10	1	9/25/13	10/2/13 23:52	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Magnesium	6010C	152		mg/L	10	10	9/25/13	9/29/13 17:27	
Manganese	6010C	1.40		mg/L	0.010	1	9/25/13	10/2/13 23:52	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:51	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 01:06	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:52	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:52	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:52	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:52	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306809-016  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1306809-017

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1020  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.42	pH Units		1	NA	9/24/13 15:55	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1020  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B03 (2-4)  
 Lab Code: R1306809-017

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:58	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:58	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:58	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:58	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:58	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:58	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Calcium	6010C	352		mg/L	10	10	9/25/13	9/29/13 17:35	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:58	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Magnesium	6010C	137		mg/L	10	10	9/25/13	9/29/13 17:35	
Manganese	6010C	1.33		mg/L	0.010	1	9/25/13	10/2/13 23:58	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:53	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 01:25	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:58	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:58	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:58	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:58	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1306809-017  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306809-018

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1030  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.43		pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1030  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B03 (6-8)  
 Lab Code: R1306809-018

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA-1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.30		mg/L	0.20	1	9/25/13	10/3/13 00:05	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/3/13 00:05	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/3/13 00:05	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/3/13 00:05	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/3/13 00:05	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/3/13 00:05	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Calcium	6010C	715		mg/L	20	20	9/25/13	10/3/13 01:16	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/3/13 00:05	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Iron	6010C	0.89		mg/L	0.10	1	9/25/13	10/3/13 00:05	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Magnesium	6010C	380		mg/L	10	10	9/25/13	9/29/13 17:44	
Manganese	6010C	4.28		mg/L	0.010	1	9/25/13	10/3/13 00:05	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:55	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 01:31	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/3/13 00:05	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/3/13 00:05	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/3/13 00:05	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/3/13 00:05	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306809-018  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13  
 Date Received: 9/17/13  
 Date Analyzed: 9/24/13

Replicate Sample Summary  
 General Chemistry Parameters

Sample Name: E5345B03 (6-8)  
 Lab Code: R1306809-018

Units: pH Units  
 Basis: As Received

Analyte Name	Method	MRL	Sample Result	E5345B03 (6-8)DUP Duplicate Sample		RPD	RPD Limit
				R1306809-018DUP Result	Average		
pH	9045D	-	8.43	8.44	8.44	<1	0.10

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306809  
**Date Collected:** 9/16/13  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/24/13 - 10/4/13

**Replicate Sample Summary  
 Inorganic Parameters**

**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306809-018

**Units:** mg/L  
**Basis:** As Received

Analyte Name	Method	MRL	Sample Result	E5345B03 (6-8)DUP Duplicate Sample		RPD	RPD Limit
				R1306809-018DUP Result	Average		
Aluminum	6010C	0.20	0.30	0.20 U	NC	NC	20
Antimony	6010C	0.060	0.060 U	0.060 U	NC	NC	20
Arsenic	6010C	0.50	0.50 U	0.50 U	NC	NC	20
Barium	6010C	1.0	1.0 U	1.0 U	NC	NC	20
Beryllium	6010C	0.0030	0.0030 U	0.0030 U	NC	NC	20
Boron	6010C	1.0	1.0 U	1.0 U	NC	NC	20
Cadmium	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Calcium	6010C	20	715	743	729	4	20
Chromium	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Cobalt	6010C	0.050	0.050 U	0.050 U	NC	NC	20
Copper	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Iron	6010C	0.10	0.89	1.10	0.993	21 *	20
Lead	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Magnesium	6010C	10	380	421	400	10	20
Manganese	6010C	0.010	4.28	3.51	3.90	20	20
Mercury	7470A	0.00030	0.00030 U	0.00030 U	NC	NC	20
Nickel	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Potassium	6010C	5.0	5.0 U	5.0 U	NC	NC	20
Selenium	6010C	0.50	0.50 U	0.50 U	NC	NC	20
Silver	6010C	0.10	0.10 U	0.10 U	NC	NC	20
Thallium	6010C	0.010	0.010 U	0.010 U	NC	NC	20
Vanadium	6010C	0.050	0.050 U	0.050 U	NC	NC	20
Zinc	6010C	0.10	0.10 U	0.10 U	NC	NC	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306809-019

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1100  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.31	pH Units		1	NA	9/24/13 15:55	





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1100  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B02 (2-4)  
 Lab Code: R1306809-019

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/28/13 01:32	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 01:32	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 01:32	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 01:32	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 01:32	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/1/13 00:42	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Calcium	6010C	789		mg/L	20	20	9/25/13	10/2/13 09:54	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 01:32	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Iron	6010C	1.55		mg/L	0.10	1	9/25/13	9/28/13 01:32	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Magnesium	6010C	465		mg/L	1.0	1	9/25/13	9/28/13 01:32	
Manganese	6010C	4.08		mg/L	0.010	1	9/25/13	9/28/13 01:32	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:32	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 20:17	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 01:32	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 01:32	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 01:32	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:32	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306809-019  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5345B02 (4-6)  
Lab Code: R1306809-020

Service Request: R1306809  
Date Collected: 9/16/13 1105  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.34	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1105  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5345B02 (4-6)  
 Lab Code: R1306809-020

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/28/13 01:38	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 01:38	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 01:38	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 01:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 01:38	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/1/13 00:55	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Calcium	6010C	822		mg/L	20	20	9/25/13	10/2/13 10:02	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 01:38	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Iron	6010C	3.93		mg/L	0.10	1	9/25/13	9/28/13 01:38	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Magnesium	6010C	440		mg/L	1.0	1	9/25/13	9/28/13 01:38	
Manganese	6010C	4.95		mg/L	0.010	1	9/25/13	9/28/13 01:38	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:34	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 20:23	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 01:38	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 01:38	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 01:38	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 01:38	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1306809-020  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 07, 2013

Service Request No: R1306810

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI  
TCLP's/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306810**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 354



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306810-001

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1133  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	83.5	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B01 (0-2)  
 Lab Code: R1306810-001

Service Request: R1306810  
 Date Collected: 9/16/13 1133  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 83.5

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	13500		mg/Kg	12	4	1	9/27/13	10/2/13 00:44	
Antimony, Total	6010C	1.1	BJ	mg/Kg	6.9	0.3	1	9/27/13	10/2/13 00:44	
Arsenic, Total	6010C	10.1		mg/Kg	1.2	0.5	1	9/27/13	10/2/13 00:44	
Barium, Total	6010C	156		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 00:44	
Beryllium, Total	6010C	0.76		mg/Kg	0.35	0.03	1	9/27/13	10/2/13 00:44	
Boron, Total	6010C	14	BJ	mg/Kg	23	5	1	9/27/13	10/2/13 00:44	
Cadmium, Total	6010C	0.44	J	mg/Kg	0.58	0.07	1	9/27/13	10/2/13 00:44	
Calcium, Total	6010C	8900		mg/Kg	1200	400	10	9/27/13	10/1/13 21:03	
Chromium, Total	6010C	18.2		mg/Kg	1.2	0.2	1	9/27/13	10/2/13 00:44	
Cobalt, Total	6010C	10.5		mg/Kg	5.8	0.07	1	9/27/13	10/2/13 00:44	
Copper, Total	6010C	18.5		mg/Kg	2.3	0.8	1	9/27/13	10/2/13 00:44	
Iron, Total	6010C	22300		mg/Kg	120	70	10	9/27/13	10/1/13 21:03	
Lead, Total	6010C	33.8		mg/Kg	5.8	0.3	1	9/27/13	10/2/13 00:44	
Magnesium, Total	6010C	6540		mg/Kg	120	2	1	9/27/13	10/2/13 00:44	
Manganese, Total	6010C	913		mg/Kg	1.2	0.2	1	9/27/13	10/2/13 00:44	
Mercury, Total	7471B	0.020	J	mg/Kg	0.036	0.006	1	9/23/13	9/23/13 15:17	
Nickel, Total	6010C	17.5		mg/Kg	4.6	0.10	1	9/27/13	10/2/13 00:44	
Potassium, Total	6010C	1190		mg/Kg	230	20	1	9/27/13	10/2/13 00:44	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/27/13	10/2/13 00:44	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/27/13	10/2/13 00:44	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/27/13	10/2/13 00:44	
Vanadium, Total	6010C	32.7		mg/Kg	5.8	0.06	1	9/27/13	10/2/13 00:44	
Zinc, Total	6010C	78.4		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 00:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1133  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/18/13 22:47

**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306810-001

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 83.5

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUDATA\msvoa12\Data\091813\T9868.D\

**Analysis Lot:** 359021  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .98

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.9 U	5.9	3.3	
71-43-2	Benzene	5.9 U	5.9	0.35	
75-27-4	Bromodichloromethane	5.9 U	5.9	0.72	
75-25-2	Bromoform	5.9 U	5.9	1.1	
74-83-9	Bromomethane	5.9 U	5.9	1.7	
78-93-3	2-Butanone (MEK)	5.9 U	5.9	2.7	
75-15-0	Carbon Disulfide	5.9 U	5.9	1.5	
56-23-5	Carbon Tetrachloride	5.9 U	5.9	1.1	
108-90-7	Chlorobenzene	5.9 U	5.9	0.35	
75-00-3	Chloroethane	5.9 U	5.9	3.4	
67-66-3	Chloroform	5.9 U	5.9	1.5	
74-87-3	Chloromethane	5.9 U	5.9	0.47	
124-48-1	Dibromochloromethane	5.9 U	5.9	0.86	
75-34-3	1,1-Dichloroethane	5.9 U	5.9	1.5	
107-06-2	1,2-Dichloroethane	5.9 U	5.9	0.72	
75-35-4	1,1-Dichloroethene	5.9 U	5.9	1.6	
156-59-2	cis-1,2-Dichloroethene	5.9 U	5.9	1.2	
156-60-5	trans-1,2-Dichloroethene	5.9 U	5.9	1.1	
78-87-5	1,2-Dichloropropane	5.9 U	5.9	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.9 U	5.9	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.9 U	5.9	0.24	
100-41-4	Ethylbenzene	5.9 U	5.9	0.27	
591-78-6	2-Hexanone	5.9 U	5.9	1.5	
75-09-2	Methylene Chloride	5.9 U	5.9	0.67	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.9 U	5.9	1.2	
100-42-5	Styrene	5.9 U	5.9	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	5.9 U	5.9	0.96	
127-18-4	Tetrachloroethene	5.9 U	5.9	1.1	
108-88-3	Toluene	3.9 J	5.9	1.2	
71-55-6	1,1,1-Trichloroethane	5.9 U	5.9	0.86	
79-00-5	1,1,2-Trichloroethane	5.9 U	5.9	0.86	
79-01-6	Trichloroethene	5.9 U	5.9	1.2	
75-01-4	Vinyl Chloride	5.9 U	5.9	2.2	
95-47-6	o-Xylene	5.9 U	5.9	0.57	
179601-23-1	m,p-Xylenes	12 U	12	1.3	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1133  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/18/13 22:47

**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306810-001

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 83.5

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\091813\T9868.D\

**Analysis Lot:** 359021  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .98

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.9 U	5.9	1.2	
1330-20-7	Xylenes, Total	18 U	18	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	51-136	9/18/13 22:47	
Toluene-d8	105	66-138	9/18/13 22:47	
Dibromofluoromethane	98	63-138	9/18/13 22:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1133  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 21:30

Sample Name: E5345B01 (0-2)  
 Lab Code: R1306810-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT096.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	40	
95-50-1	1,2-Dichlorobenzene	400	U	400	44	
541-73-1	1,3-Dichlorobenzene	400	U	400	60	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	69	
88-06-2	2,4,6-Trichlorophenol	400	U	400	58	
120-83-2	2,4-Dichlorophenol	400	U	400	53	
105-67-9	2,4-Dimethylphenol	400	U	400	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	85	
606-20-2	2,6-Dinitrotoluene	400	U	400	66	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	40	
95-48-7	2-Methylphenol	400	U	400	52	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	400	U	400	59	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	72	
	3- and 4-Methylphenol Coelution	400	U	400	60	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	71	
59-50-7	4-Chloro-3-methylphenol	400	U	400	44	
106-47-8	4-Chloroaniline	400	U	400	77	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	56	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	400	U	400	57	
208-96-8	Acenaphthylene	400	U	400	53	
120-12-7	Anthracene	400	U	400	62	
56-55-3	Benz(a)anthracene	400	U	400	61	
50-32-8	Benzo(a)pyrene	71	J	400	66	
205-99-2	Benzo(b)fluoranthene	400	U	400	96	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1133  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 21:30

Sample Name: E5345B01 (0-2)  
 Lab Code: R1306810-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT096.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400 U	400	75	
207-08-9	Benzo(k)fluoranthene	400 U	400	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	400 U	400	48	
111-91-1	Bis(2-chloroethoxy)methane	400 U	400	55	
111-44-4	Bis(2-chloroethyl) Ether	400 U	400	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	400 U	400	55	
85-68-7	Butyl Benzyl Phthalate	400 U	400	61	
86-74-8	Carbazole	400 U	400	55	
218-01-9	Chrysene	77 J	400	56	
84-74-2	Di-n-butyl Phthalate	400 U	400	110	
117-84-0	Di-n-octyl Phthalate	400 U	400	76	
53-70-3	Dibenz(a,h)anthracene	400 U	400	110	
132-64-9	Dibenzofuran	400 U	400	44	
84-66-2	Diethyl Phthalate	400 U	400	52	
131-11-3	Dimethyl Phthalate	400 U	400	57	
206-44-0	Fluoranthene	130 J	400	63	
86-73-7	Fluorene	400 U	400	50	
118-74-1	Hexachlorobenzene	400 U	400	61	
87-68-3	Hexachlorobutadiene	400 U	400	44	
77-47-4	Hexachlorocyclopentadiene	400 U	400	63	
67-72-1	Hexachloroethane	400 U	400	55	
193-39-5	Indeno(1,2,3-cd)pyrene	400 U	400	66	
78-59-1	Isophorone	400 U	400	53	
621-64-7	N-Nitrosodi-n-propylamine	400 U	400	45	
86-30-6	N-Nitrosodiphenylamine	400 U	400	62	
91-20-3	Naphthalene	400 U	400	40	
98-95-3	Nitrobenzene	400 U	400	42	
87-86-5	Pentachlorophenol (PCP)	2000 U	2000	330	
85-01-8	Phenanthrene	400 U	400	54	
108-95-2	Phenol	400 U	400	44	
129-00-0	Pyrene	89 J	400	77	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1133  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/24/13 21:30

**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306810-001

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 83.5

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\092413\CT096.D\

**Analysis Lot:** 360067  
**Extraction Lot:** 191738  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/24/13 21:30	
2-Fluorobiphenyl	71	47-126	9/24/13 21:30	
2-Fluorophenol	55	16-129	9/24/13 21:30	
Nitrobenzene-d5	68	39-136	9/24/13 21:30	
Phenol-d6	61	10-145	9/24/13 21:30	
p-Terphenyl-d14	47	35-152	9/24/13 21:30	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1306810-001  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1306810-002

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1140  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.2	Percent	1.0	1	NA	9/23/13 13:22	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1306810-002

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1140  
**Date Received:** 9/17/13

**Basis:** Dry  
**Percent Solids:** 95.2

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1930		mg/Kg	10	3	1	9/27/13	10/2/13 00:50	
Antimony, Total	6010C	1.2	BJ	mg/Kg	6.2	0.3	1	9/27/13	10/2/13 00:50	
Arsenic, Total	6010C	7.7		mg/Kg	1.0	0.5	1	9/27/13	10/2/13 00:50	
Barium, Total	6010C	13.6		mg/Kg	2.1	0.08	1	9/27/13	10/2/13 00:50	
Beryllium, Total	6010C	0.10	J	mg/Kg	0.31	0.03	1	9/27/13	10/2/13 00:50	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/27/13	10/2/13 00:50	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/27/13	10/2/13 00:50	
Calcium, Total	6010C	123000		mg/Kg	5200	1600	50	9/27/13	10/3/13 09:24	
Chromium, Total	6010C	9.5		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 00:50	
Cobalt, Total	6010C	3.0	J	mg/Kg	5.2	0.06	1	9/27/13	10/2/13 00:50	
Copper, Total	6010C	17.0		mg/Kg	2.1	0.7	1	9/27/13	10/2/13 00:50	
Iron, Total	6010C	12900		mg/Kg	100	60	10	9/27/13	10/1/13 21:09	
Lead, Total	6010C	5.6		mg/Kg	5.2	0.3	1	9/27/13	10/2/13 00:50	
Magnesium, Total	6010C	78600		mg/Kg	1000	20	10	9/27/13	10/1/13 21:09	
Manganese, Total	6010C	290		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 00:50	
Mercury, Total	7471B	0.009	J	mg/Kg	0.032	0.006	1	9/23/13	9/23/13 15:19	
Nickel, Total	6010C	7.2		mg/Kg	4.2	0.09	1	9/27/13	10/2/13 00:50	
Potassium, Total	6010C	540		mg/Kg	210	20	1	9/27/13	10/2/13 00:50	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/27/13	10/2/13 00:50	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/27/13	10/2/13 00:50	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 00:50	
Vanadium, Total	6010C	10.1		mg/Kg	5.2	0.06	1	9/27/13	10/2/13 00:50	
Zinc, Total	6010C	33.8		mg/Kg	2.1	0.08	1	9/27/13	10/2/13 00:50	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 14:11

Sample Name: E5345B01 (8-10)  
 Lab Code: R1306810-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9883.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .84

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.8		4.4	2.5	
71-43-2	Benzene	4.4	U	4.4	0.26	
75-27-4	Bromodichloromethane	4.4	U	4.4	0.54	
75-25-2	Bromoform	4.4	U	4.4	0.83	
74-83-9	Bromomethane	4.4	U	4.4	1.3	
78-93-3	2-Butanone (MEK)	4.4	U	4.4	2.1	
75-15-0	Carbon Disulfide	4.4	U	4.4	1.1	
56-23-5	Carbon Tetrachloride	4.4	U	4.4	0.82	
108-90-7	Chlorobenzene	4.4	U	4.4	0.26	
75-00-3	Chloroethane	4.4	U	4.4	2.6	
67-66-3	Chloroform	4.4	U	4.4	1.2	
74-87-3	Chloromethane	4.4	U	4.4	0.36	
124-48-1	Dibromochloromethane	4.4	U	4.4	0.65	
75-34-3	1,1-Dichloroethane	4.4	U	4.4	1.2	
107-06-2	1,2-Dichloroethane	4.4	U	4.4	0.54	
75-35-4	1,1-Dichloroethene	4.4	U	4.4	1.2	
156-59-2	cis-1,2-Dichloroethene	4.4	U	4.4	0.84	
156-60-5	trans-1,2-Dichloroethene	4.4	U	4.4	0.76	
78-87-5	1,2-Dichloropropane	4.4	U	4.4	0.86	
10061-01-5	cis-1,3-Dichloropropene	4.4	U	4.4	0.80	
10061-02-6	trans-1,3-Dichloropropene	4.4	U	4.4	0.18	
100-41-4	Ethylbenzene	4.4	U	4.4	0.21	
591-78-6	2-Hexanone	4.4	U	4.4	1.1	
75-09-2	Methylene Chloride	4.4	U	4.4	0.51	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.4	U	4.4	0.87	
100-42-5	Styrene	4.4	U	4.4	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.4	U	4.4	0.72	
127-18-4	Tetrachloroethene	4.4	U	4.4	0.78	
108-88-3	Toluene	2.3	J	4.4	0.89	
71-55-6	1,1,1-Trichloroethane	4.4	U	4.4	0.65	
79-00-5	1,1,2-Trichloroethane	4.4	U	4.4	0.65	
79-01-6	Trichloroethene	4.4	U	4.4	0.90	
75-01-4	Vinyl Chloride	4.4	U	4.4	1.7	
95-47-6	o-Xylene	4.4	U	4.4	0.43	
179601-23-1	m,p-Xylenes	8.8	U	8.8	0.97	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 14:11

Sample Name: E5345B01 (8-10)  
 Lab Code: R1306810-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091913\T9883.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .84

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.4 U	4.4	0.83	
1330-20-7	Xylenes, Total	13 U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	51-136	9/19/13 14:11	
Toluene-d8	104	66-138	9/19/13 14:11	
Dibromofluoromethane	96	63-138	9/19/13 14:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT\_US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 22:07

Sample Name: E5345B01 (8-10)  
 Lab Code: R1306810-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUATA\5973A\DATA\092413\CT097.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	74	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	62	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	
205-99-2	Benzo(b)fluoranthene	350 U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 22:07

Sample Name: E5345B01 (8-10)  
 Lab Code: R1306810-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUATA\5973A\DATA\092413\CT097.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350 U	350	66	
207-08-9	Benzo(k)fluoranthene	350 U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350 U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350 U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350 U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350 U	350	48	
85-68-7	Butyl Benzyl Phthalate	350 U	350	53	
86-74-8	Carbazole	350 U	350	48	
218-01-9	Chrysene	350 U	350	49	
84-74-2	Di-n-butyl Phthalate	350 U	350	96	
117-84-0	Di-n-octyl Phthalate	350 U	350	67	
53-70-3	Dibenz(a,h)anthracene	350 U	350	94	
132-64-9	Dibenzofuran	350 U	350	38	
84-66-2	Diethyl Phthalate	350 U	350	45	
131-11-3	Dimethyl Phthalate	350 U	350	50	
206-44-0	Fluoranthene	350 U	350	56	
86-73-7	Fluorene	350 U	350	44	
118-74-1	Hexachlorobenzene	350 U	350	53	
87-68-3	Hexachlorobutadiene	350 U	350	39	
77-47-4	Hexachlorocyclopentadiene	350 U	350	56	
67-72-1	Hexachloroethane	350 U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350 U	350	58	
78-59-1	Isophorone	350 U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350 U	350	40	
86-30-6	N-Nitrosodiphenylamine	350 U	350	54	
91-20-3	Naphthalene	350 U	350	35	
98-95-3	Nitrobenzene	350 U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800 U	1800	290	
85-01-8	Phenanthrene	350 U	350	47	
108-95-2	Phenol	350 U	350	39	
129-00-0	Pyrene	350 U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO
Sample Matrix: Soil

Service Request: R1306810
Date Collected: 9/16/13 1140
Date Received: 9/17/13
Date Extracted: 9/18/13
Date Analyzed: 9/24/13 22:07

Sample Name: E5345B01 (8-10)
Lab Code: R1306810-002

Units: µg/Kg
Basis: Dry
Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D
Prep Method: EPA 3541
Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT097.D\

Analysis Lot: 360067
Extraction Lot: 191738
Instrument Name: R-MS-51
Dilution Factor: 1

Table with 5 columns: Surrogate Name, %Rec, Control Limits, Date Analyzed, Q. Rows include 2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, Phenol-d6, and p-Terphenyl-d14.



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1306810-002  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306810-015

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0945  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.3	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B04 (0-2)  
 Lab Code: R1306810-015

Service Request: R1306810  
 Date Collected: 9/16/13 0945  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 94.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1640		mg/Kg	10	3	1	9/27/13	10/2/13 03:00	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.1	0.2	1	9/27/13	10/2/13 03:00	
Arsenic, Total	6010C	3.9		mg/Kg	1.0	0.4	1	9/27/13	10/2/13 03:00	
Barium, Total	6010C	11.6		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:00	
Beryllium, Total	6010C	0.08	J	mg/Kg	0.30	0.03	1	9/27/13	10/2/13 03:00	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/27/13	10/2/13 03:00	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.07	1	9/27/13	10/2/13 03:00	
Calcium, Total	6010C	145000		mg/Kg	5000	1500	50	9/27/13	10/3/13 09:42	
Chromium, Total	6010C	10.8		mg/Kg	1.0	0.10	1	9/27/13	10/2/13 03:00	
Cobalt, Total	6010C	3.0	J	mg/Kg	5.0	0.06	1	9/27/13	10/2/13 03:00	
Copper, Total	6010C	10.9		mg/Kg	2.0	0.7	1	9/27/13	10/2/13 03:00	
Iron, Total	6010C	8400		mg/Kg	100	60	10	9/27/13	10/1/13 22:40	
Lead, Total	6010C	3.3	J	mg/Kg	5.0	0.3	1	9/27/13	10/2/13 03:00	
Magnesium, Total	6010C	90400		mg/Kg	1000	20	10	9/27/13	10/1/13 22:40	
Manganese, Total	6010C	428		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:00	
Mercury, Total	7471B	0.032	U	mg/Kg	0.032	0.006	1	9/23/13	9/23/13 15:44	
Nickel, Total	6010C	6.3		mg/Kg	4.0	0.09	1	9/27/13	10/2/13 03:00	
Potassium, Total	6010C	530		mg/Kg	200	20	1	9/27/13	10/2/13 03:00	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/27/13	10/2/13 03:00	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/27/13	10/2/13 03:00	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 03:00	
Vanadium, Total	6010C	7.1		mg/Kg	5.0	0.05	1	9/27/13	10/2/13 03:00	
Zinc, Total	6010C	26.6		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0945  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 21:00

Sample Name: E5345B04 (0-2)  
 Lab Code: R1306810-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091913\T9896.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .86

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.6	U	4.6	2.6	
71-43-2	Benzene	4.6	U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6	U	4.6	0.56	
75-25-2	Bromoform	4.6	U	4.6	0.85	
74-83-9	Bromomethane	4.6	U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6	U	4.6	2.1	
75-15-0	Carbon Disulfide	4.6	U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6	U	4.6	0.84	
108-90-7	Chlorobenzene	4.6	U	4.6	0.27	
75-00-3	Chloroethane	4.6	U	4.6	2.7	
67-66-3	Chloroform	4.6	U	4.6	1.2	
74-87-3	Chloromethane	4.6	U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6	U	4.6	0.67	
75-34-3	1,1-Dichloroethane	4.6	U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6	U	4.6	0.56	
75-35-4	1,1-Dichloroethene	4.6	U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6	U	4.6	0.87	
156-60-5	trans-1,2-Dichloroethene	4.6	U	4.6	0.79	
78-87-5	1,2-Dichloropropane	4.6	U	4.6	0.89	
10061-01-5	cis-1,3-Dichloropropene	4.6	U	4.6	0.83	
10061-02-6	trans-1,3-Dichloropropene	4.6	U	4.6	0.19	
100-41-4	Ethylbenzene	4.6	U	4.6	0.21	
591-78-6	2-Hexanone	4.6	U	4.6	1.2	
75-09-2	Methylene Chloride	4.6	U	4.6	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6	U	4.6	0.90	
100-42-5	Styrene	4.6	U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6	U	4.6	0.74	
127-18-4	Tetrachloroethene	4.6	U	4.6	0.81	
108-88-3	Toluene	3.7	J	4.6	0.92	
71-55-6	1,1,1-Trichloroethane	4.6	U	4.6	0.67	
79-00-5	1,1,2-Trichloroethane	4.6	U	4.6	0.67	
79-01-6	Trichloroethene	4.6	U	4.6	0.93	
75-01-4	Vinyl Chloride	4.6	U	4.6	1.7	
95-47-6	o-Xylene	4.6	U	4.6	0.44	
179601-23-1	m,p-Xylenes	9.1	U	9.1	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B04 (0-2)  
 Lab Code: R1306810-015

Service Request: R1306810  
 Date Collected: 9/16/13 0945  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 21:00  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091913\T9896.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .86

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.86	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/19/13 21:00	
Toluene-d8	105	66-138	9/19/13 21:00	
Dibromofluoromethane	102	63-138	9/19/13 21:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0945  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 18:47

**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306810-015

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUATA\5973D\DATA\092313\AQ775.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	54	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	59	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0945  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 18:47

**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306810-015

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973D\DATA\092313\AQ775.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350 U	350	66	
207-08-9	Benzo(k)fluoranthene	350 U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350 U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350 U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350 U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350 U	350	49	
85-68-7	Butyl Benzyl Phthalate	350 U	350	54	
86-74-8	Carbazole	350 U	350	49	
218-01-9	Chrysene	350 U	350	49	
84-74-2	Di-n-butyl Phthalate	350 U	350	96	
117-84-0	Di-n-octyl Phthalate	350 U	350	68	
53-70-3	Dibenz(a,h)anthracene	350 U	350	95	
132-64-9	Dibenzofuran	350 U	350	39	
84-66-2	Diethyl Phthalate	350 U	350	46	
131-11-3	Dimethyl Phthalate	350 U	350	50	
206-44-0	Fluoranthene	350 U	350	56	
86-73-7	Fluorene	350 U	350	44	
118-74-1	Hexachlorobenzene	350 U	350	54	
87-68-3	Hexachlorobutadiene	350 U	350	39	
77-47-4	Hexachlorocyclopentadiene	350 U	350	56	
67-72-1	Hexachloroethane	350 U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350 U	350	58	
78-59-1	Isophorone	350 U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350 U	350	40	
86-30-6	N-Nitrosodiphenylamine	350 U	350	55	
91-20-3	Naphthalene	350 U	350	35	
98-95-3	Nitrobenzene	350 U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800 U	1800	290	
85-01-8	Phenanthrene	350 U	350	47	
108-95-2	Phenol	350 U	350	39	
129-00-0	Pyrene	350 U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0945  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 18:47

Sample Name: E5345B04 (0-2)  
 Lab Code: R1306810-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ775.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	55	41-151	9/23/13 18:47	
2-Fluorobiphenyl	59	47-126	9/23/13 18:47	
2-Fluorophenol	45	16-129	9/23/13 18:47	
Nitrobenzene-d5	62	39-136	9/23/13 18:47	
Phenol-d6	52	10-145	9/23/13 18:47	
p-Terphenyl-d14	77	35-152	9/23/13 18:47	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1306810-015  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306810-016

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0950  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.6	Percent	1.0	1	NA	9/18/13 08:48	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306810-016

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0950  
**Date Received:** 9/17/13

**Basis:** Dry  
**Percent Solids:** 94.6

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1810		mg/Kg	10	3	1	9/27/13	10/2/13 03:09	
Antimony, Total	6010C	1.1	BJ	mg/Kg	6.1	0.3	1	9/27/13	10/2/13 03:09	
Arsenic, Total	6010C	4.0		mg/Kg	1.0	0.5	1	9/27/13	10/2/13 03:09	
Barium, Total	6010C	10.2		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:09	
Beryllium, Total	6010C	0.08	J	mg/Kg	0.30	0.03	1	9/27/13	10/2/13 03:09	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/27/13	10/2/13 03:09	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/27/13	10/2/13 03:09	
Calcium, Total	6010C	159000		mg/Kg	5100	1500	50	9/27/13	10/3/13 09:48	
Chromium, Total	6010C	13.2		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:09	
Cobalt, Total	6010C	2.5	J	mg/Kg	5.1	0.06	1	9/27/13	10/2/13 03:09	
Copper, Total	6010C	9.4		mg/Kg	2.0	0.7	1	9/27/13	10/2/13 03:09	
Iron, Total	6010C	8090		mg/Kg	100	60	10	9/27/13	10/1/13 22:46	
Lead, Total	6010C	3.1	J	mg/Kg	5.1	0.3	1	9/27/13	10/2/13 03:09	
Magnesium, Total	6010C	98200		mg/Kg	1000	20	10	9/27/13	10/1/13 22:46	
Manganese, Total	6010C	344		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:09	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/23/13	9/23/13 15:45	
Nickel, Total	6010C	5.8		mg/Kg	4.1	0.09	1	9/27/13	10/2/13 03:09	
Potassium, Total	6010C	570		mg/Kg	200	20	1	9/27/13	10/2/13 03:09	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/27/13	10/2/13 03:09	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/27/13	10/2/13 03:09	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 03:09	
Vanadium, Total	6010C	7.3		mg/Kg	5.1	0.05	1	9/27/13	10/2/13 03:09	
Zinc, Total	6010C	24.4		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0950  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 21:32

Sample Name: E5345B04 (4-6)  
 Lab Code: R1306810-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9897.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.5	U	4.5	2.6	
71-43-2	Benzene	4.5	U	4.5	0.27	
75-27-4	Bromodichloromethane	4.5	U	4.5	0.55	
75-25-2	Bromoform	4.5	U	4.5	0.84	
74-83-9	Bromomethane	4.5	U	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5	U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5	U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5	U	4.5	0.83	
108-90-7	Chlorobenzene	4.5	U	4.5	0.27	
75-00-3	Chloroethane	4.5	U	4.5	2.6	
67-66-3	Chloroform	4.5	U	4.5	1.2	
74-87-3	Chloromethane	4.5	U	4.5	0.36	
124-48-1	Dibromochloromethane	4.5	U	4.5	0.66	
75-34-3	1,1-Dichloroethane	4.5	U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5	U	4.5	0.55	
75-35-4	1,1-Dichloroethene	4.5	U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5	U	4.5	0.86	
156-60-5	trans-1,2-Dichloroethene	4.5	U	4.5	0.78	
78-87-5	1,2-Dichloropropane	4.5	U	4.5	0.88	
10061-01-5	cis-1,3-Dichloropropene	4.5	U	4.5	0.81	
10061-02-6	trans-1,3-Dichloropropene	4.5	U	4.5	0.18	
100-41-4	Ethylbenzene	4.5	U	4.5	0.21	
591-78-6	2-Hexanone	4.5	U	4.5	1.1	
75-09-2	Methylene Chloride	4.5	U	4.5	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5	U	4.5	0.89	
100-42-5	Styrene	4.5	U	4.5	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	4.5	0.73	
127-18-4	Tetrachloroethene	4.5	U	4.5	0.80	
108-88-3	Toluene	2.3	J	4.5	0.90	
71-55-6	1,1,1-Trichloroethane	4.5	U	4.5	0.66	
79-00-5	1,1,2-Trichloroethane	4.5	U	4.5	0.66	
79-01-6	Trichloroethene	4.5	U	4.5	0.91	
75-01-4	Vinyl Chloride	4.5	U	4.5	1.7	
95-47-6	o-Xylene	4.5	U	4.5	0.44	
179601-23-1	m,p-Xylenes	9.0	U	9.0	0.98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0950  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 21:32

Sample Name: E5345B04 (4-6)  
 Lab Code: R1306810-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\msvoa12\Data\091913\T9897.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5 U	4.5	0.85	
1330-20-7	Xylenes, Total	13 U	13	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	51-136	9/19/13 21:32	
Toluene-d8	105	66-138	9/19/13 21:32	
Dibromofluoromethane	100	63-138	9/19/13 21:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0950  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 19:19

Sample Name: E5345B04 (4-6)  
 Lab Code: R1306810-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ776.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 0950  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 19:19

Sample Name: E5345B04 (4-6)  
 Lab Code: R1306810-016

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ776.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 0950  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 19:19

**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306810-016

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.6

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ776.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	60	41-151	9/23/13 19:19	
2-Fluorobiphenyl	64	47-126	9/23/13 19:19	
2-Fluorophenol	50	16-129	9/23/13 19:19	
Nitrobenzene-d5	70	39-136	9/23/13 19:19	
Phenol-d6	59	10-145	9/23/13 19:19	
p-Terphenyl-d14	81	35-152	9/23/13 19:19	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1306810-016  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5345B03 (2-4)  
Lab Code: R1306810-017

Service Request: R1306810  
Date Collected: 9/16/13 1020  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.3	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B03 (2-4)  
 Lab Code: R1306810-017

Service Request: R1306810  
 Date Collected: 9/16/13 1020  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 95.3

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1940	mg/Kg	10	3	1	9/27/13	10/2/13 03:18	
Antimony, Total	6010C	0.9 BJ	mg/Kg	6.2	0.3	1	9/27/13	10/2/13 03:18	
Arsenic, Total	6010C	5.0	mg/Kg	1.0	0.5	1	9/27/13	10/2/13 03:18	
Barium, Total	6010C	12.3	mg/Kg	2.1	0.08	1	9/27/13	10/2/13 03:18	
Beryllium, Total	6010C	0.10 J	mg/Kg	0.31	0.03	1	9/27/13	10/2/13 03:18	
Boron, Total	6010C	21 U	mg/Kg	21	4	1	9/27/13	10/2/13 03:18	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/27/13	10/2/13 03:18	
Calcium, Total	6010C	123000	mg/Kg	5100	1500	50	9/27/13	10/3/13 09:54	
Chromium, Total	6010C	9.9	mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:18	
Cobalt, Total	6010C	3.1 J	mg/Kg	5.1	0.06	1	9/27/13	10/2/13 03:18	
Copper, Total	6010C	13.9	mg/Kg	2.1	0.7	1	9/27/13	10/2/13 03:18	
Iron, Total	6010C	9860	mg/Kg	100	60	10	9/27/13	10/1/13 22:52	
Lead, Total	6010C	5.2	mg/Kg	5.1	0.3	1	9/27/13	10/2/13 03:18	
Magnesium, Total	6010C	80700	mg/Kg	1000	20	10	9/27/13	10/1/13 22:52	
Manganese, Total	6010C	360	mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:18	
Mercury, Total	7471B	0.032 U	mg/Kg	0.032	0.006	1	9/23/13	9/23/13 15:47	
Nickel, Total	6010C	7.1	mg/Kg	4.1	0.09	1	9/27/13	10/2/13 03:18	
Potassium, Total	6010C	560	mg/Kg	210	20	1	9/27/13	10/2/13 03:18	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/27/13	10/2/13 03:18	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	0.09	1	9/27/13	10/2/13 03:18	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 03:18	
Vanadium, Total	6010C	7.5	mg/Kg	5.1	0.06	1	9/27/13	10/2/13 03:18	
Zinc, Total	6010C	36.7	mg/Kg	2.1	0.08	1	9/27/13	10/2/13 03:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1020  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 22:03

Sample Name: E5345B03 (2-4)  
 Lab Code: R1306810-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9898.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.4 U	4.4	2.5	
71-43-2	Benzene	4.4 U	4.4	0.26	
75-27-4	Bromodichloromethane	4.4 U	4.4	0.54	
75-25-2	Bromoform	4.4 U	4.4	0.81	
74-83-9	Bromomethane	4.4 U	4.4	1.3	
78-93-3	2-Butanone (MEK)	4.4 U	4.4	2.0	
75-15-0	Carbon Disulfide	4.4 U	4.4	1.1	
56-23-5	Carbon Tetrachloride	4.4 U	4.4	0.81	
108-90-7	Chlorobenzene	4.4 U	4.4	0.26	
75-00-3	Chloroethane	4.4 U	4.4	2.5	
67-66-3	Chloroform	4.4 U	4.4	1.1	
74-87-3	Chloromethane	4.4 U	4.4	0.35	
124-48-1	Dibromochloromethane	4.4 U	4.4	0.64	
75-34-3	1,1-Dichloroethane	4.4 U	4.4	1.1	
107-06-2	1,2-Dichloroethane	4.4 U	4.4	0.54	
75-35-4	1,1-Dichloroethene	4.4 U	4.4	1.2	
156-59-2	cis-1,2-Dichloroethene	4.4 U	4.4	0.83	
156-60-5	trans-1,2-Dichloroethene	4.4 U	4.4	0.75	
78-87-5	1,2-Dichloropropane	4.4 U	4.4	0.85	
10061-01-5	cis-1,3-Dichloropropene	4.4 U	4.4	0.79	
10061-02-6	trans-1,3-Dichloropropene	4.4 U	4.4	0.18	
100-41-4	Ethylbenzene	4.4 U	4.4	0.21	
591-78-6	2-Hexanone	4.4 U	4.4	1.1	
75-09-2	Methylene Chloride	4.4 U	4.4	0.50	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.4 U	4.4	0.86	
100-42-5	Styrene	4.4 U	4.4	0.27	
79-34-5	1,1,2,2-Tetrachloroethane	4.4 U	4.4	0.71	
127-18-4	Tetrachloroethene	4.4 U	4.4	0.77	
108-88-3	Toluene	1.0 J	4.4	0.88	
71-55-6	1,1,1-Trichloroethane	4.4 U	4.4	0.64	
79-00-5	1,1,2-Trichloroethane	4.4 U	4.4	0.64	
79-01-6	Trichloroethene	4.4 U	4.4	0.88	
75-01-4	Vinyl Chloride	4.4 U	4.4	1.7	
95-47-6	o-Xylene	4.4 U	4.4	0.42	
179601-23-1	m,p-Xylenes	8.7 U	8.7	0.95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1020  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 22:03

Sample Name: E5345B03 (2-4)  
 Lab Code: R1306810-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9898.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.4	U	4.4	0.82	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	51-136	9/19/13 22:03	
Toluene-d8	105	66-138	9/19/13 22:03	
Dibromofluoromethane	101	63-138	9/19/13 22:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1020  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 19:52

Sample Name: E5345B03 (2-4)  
 Lab Code: R1306810-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUATA\5973D\DATA\092313\AQ777.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	74	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	36	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	63	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	62	
59-50-7	4-Chloro-3-methylphenol	350 U	350	38	
106-47-8	4-Chloroaniline	350 U	350	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	
205-99-2	Benzo(b)fluoranthene	350 U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1020  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 19:52

**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1306810-017

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ777.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	95	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	55	
67-72-1	Hexachloroethane	350	U	350	48	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	46	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	38	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1020  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 19:52

**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1306810-017

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ777.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	52	41-151	9/23/13 19:52	
2-Fluorobiphenyl	65	47-126	9/23/13 19:52	
2-Fluorophenol	48	16-129	9/23/13 19:52	
Nitrobenzene-d5	70	39-136	9/23/13 19:52	
Phenol-d6	58	10-145	9/23/13 19:52	
p-Terphenyl-d14	81	35-152	9/23/13 19:52	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1306810-017  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5345B03 (6-8)  
Lab Code: R1306810-018

Service Request: R1306810  
Date Collected: 9/16/13 1030  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.4	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B03 (6-8)  
 Lab Code: R1306810-018

Service Request: R1306810  
 Date Collected: 9/16/13 1030  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 95.4

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1490	mg/Kg	10	3	1	9/27/13	10/2/13 03:28	
Antimony, Total	6010C	1.2 BJ	mg/Kg	6.1	0.3	1	9/27/13	10/2/13 03:28	
Arsenic, Total	6010C	6.3	mg/Kg	1.0	0.5	1	9/27/13	10/2/13 03:28	
Barium, Total	6010C	10.9	mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:28	
Beryllium, Total	6010C	0.06 J	mg/Kg	0.31	0.03	1	9/27/13	10/2/13 03:28	
Boron, Total	6010C	20 U	mg/Kg	20	4	1	9/27/13	10/2/13 03:28	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/27/13	10/2/13 03:28	
Calcium, Total	6010C	153000	mg/Kg	5100	1500	50	9/27/13	10/3/13 09:59	
Chromium, Total	6010C	10.5	mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:28	
Cobalt, Total	6010C	2.6 J	mg/Kg	5.1	0.06	1	9/27/13	10/2/13 03:28	
Copper, Total	6010C	13.4	mg/Kg	2.0	0.7	1	9/27/13	10/2/13 03:28	
Iron, Total	6010C	9120	mg/Kg	100	60	10	9/27/13	10/1/13 22:58	
Lead, Total	6010C	5.1	mg/Kg	5.1	0.3	1	9/27/13	10/2/13 03:28	
Magnesium, Total	6010C	95700	mg/Kg	1000	20	10	9/27/13	10/1/13 22:58	
Manganese, Total	6010C	260	mg/Kg	1.0	0.2	1	9/27/13	10/2/13 03:28	
Mercury, Total	7471B	0.032 U	mg/Kg	0.032	0.006	1	9/23/13	9/23/13 15:48	
Nickel, Total	6010C	5.5	mg/Kg	4.1	0.09	1	9/27/13	10/2/13 03:28	
Potassium, Total	6010C	490	mg/Kg	200	20	1	9/27/13	10/2/13 03:28	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/27/13	10/2/13 03:28	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	0.09	1	9/27/13	10/2/13 03:28	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 03:28	
Vanadium, Total	6010C	6.4	mg/Kg	5.1	0.05	1	9/27/13	10/2/13 03:28	
Zinc, Total	6010C	30.5	mg/Kg	2.0	0.08	1	9/27/13	10/2/13 03:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B03 (6-8)  
 Lab Code: R1306810-018

Service Request: R1306810  
 Date Collected: 9/16/13 1030  
 Date Received: 9/17/13  
 Date Analyzed: 9/18/13 23:19  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091813\T9869.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .78

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	2.6 J	4.1	2.3	
71-43-2	Benzene	4.1 U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1 U	4.1	0.50	
75-25-2	Bromoform	4.1 U	4.1	0.77	
74-83-9	Bromomethane	4.1 U	4.1	1.2	
78-93-3	2-Butanone (MEK)	4.1 U	4.1	1.9	
75-15-0	Carbon Disulfide	4.1 U	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1 U	4.1	0.76	
108-90-7	Chlorobenzene	4.1 U	4.1	0.24	
75-00-3	Chloroethane	4.1 U	4.1	2.4	
67-66-3	Chloroform	4.1 U	4.1	1.1	
74-87-3	Chloromethane	4.1 U	4.1	0.33	
124-48-1	Dibromochloromethane	4.1 U	4.1	0.60	
75-34-3	1,1-Dichloroethane	4.1 U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1 U	4.1	0.50	
75-35-4	1,1-Dichloroethene	4.1 U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1 U	4.1	0.78	
156-60-5	trans-1,2-Dichloroethene	4.1 U	4.1	0.71	
78-87-5	1,2-Dichloropropane	4.1 U	4.1	0.80	
10061-01-5	cis-1,3-Dichloropropene	4.1 U	4.1	0.74	
10061-02-6	trans-1,3-Dichloropropene	4.1 U	4.1	0.17	
100-41-4	Ethylbenzene	4.1 U	4.1	0.19	
591-78-6	2-Hexanone	4.1 U	4.1	0.99	
75-09-2	Methylene Chloride	4.1 U	4.1	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1 U	4.1	0.81	
100-42-5	Styrene	4.1 U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1 U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1 U	4.1	0.72	
108-88-3	Toluene	0.96 J	4.1	0.82	
71-55-6	1,1,1-Trichloroethane	4.1 U	4.1	0.60	
79-00-5	1,1,2-Trichloroethane	4.1 U	4.1	0.60	
79-01-6	Trichloroethene	4.1 U	4.1	0.83	
75-01-4	Vinyl Chloride	4.1 U	4.1	1.6	
95-47-6	o-Xylene	4.1 U	4.1	0.40	
179601-23-1	m,p-Xylenes	8.2 U	8.2	0.90	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1030  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/18/13 23:19

**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306810-018

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.4

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\091813\T9869.D\

**Analysis Lot:** 359021  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .78

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.1 U	4.1	0.77	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	51-136	9/18/13 23:19	
Toluene-d8	106	66-138	9/18/13 23:19	
Dibromofluoromethane	101	63-138	9/18/13 23:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1030  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 20:25

**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306810-018

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.4

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ778.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	74	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	36	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	45	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	63	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	62	
59-50-7	4-Chloro-3-methylphenol	350 U	350	38	
106-47-8	4-Chloroaniline	350 U	350	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	
205-99-2	Benzo(b)fluoranthene	350 U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1030  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 20:25

Sample Name: E5345B03 (6-8)  
 Lab Code: R1306810-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\092313\AQ778.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350 U	350	66	
207-08-9	Benzo(k)fluoranthene	350 U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350 U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350 U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350 U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350 U	350	48	
85-68-7	Butyl Benzyl Phthalate	350 U	350	53	
86-74-8	Carbazole	350 U	350	48	
218-01-9	Chrysene	350 U	350	49	
84-74-2	Di-n-butyl Phthalate	350 U	350	95	
117-84-0	Di-n-octyl Phthalate	350 U	350	67	
53-70-3	Dibenz(a,h)anthracene	350 U	350	94	
132-64-9	Dibenzofuran	350 U	350	38	
84-66-2	Diethyl Phthalate	350 U	350	45	
131-11-3	Dimethyl Phthalate	350 U	350	50	
206-44-0	Fluoranthene	350 U	350	56	
86-73-7	Fluorene	350 U	350	44	
118-74-1	Hexachlorobenzene	350 U	350	53	
87-68-3	Hexachlorobutadiene	350 U	350	39	
77-47-4	Hexachlorocyclopentadiene	350 U	350	55	
67-72-1	Hexachloroethane	350 U	350	48	
193-39-5	Indeno(1,2,3-cd)pyrene	350 U	350	58	
78-59-1	Isophorone	350 U	350	46	
621-64-7	N-Nitrosodi-n-propylamine	350 U	350	40	
86-30-6	N-Nitrosodiphenylamine	350 U	350	54	
91-20-3	Naphthalene	350 U	350	35	
98-95-3	Nitrobenzene	350 U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800 U	1800	290	
85-01-8	Phenanthrene	350 U	350	47	
108-95-2	Phenol	350 U	350	38	
129-00-0	Pyrene	350 U	350	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1030  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 20:25

**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306810-018

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.4

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973D\DATA\092313\AQ778.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	60	41-151	9/23/13 20:25	
2-Fluorobiphenyl	68	47-126	9/23/13 20:25	
2-Fluorophenol	55	16-129	9/23/13 20:25	
Nitrobenzene-d5	72	39-136	9/23/13 20:25	
Phenol-d6	64	10-145	9/23/13 20:25	
p-Terphenyl-d14	86	35-152	9/23/13 20:25	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1306810-018  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13  
 Date Received: 9/17/13  
 Date Analyzed: 9/18/13

Replicate Sample Summary  
 General Chemistry Parameters

Sample Name: E5345B03 (6-8)  
 Lab Code: R1306810-018

Units: Percent  
 Basis: As Received

Analyte Name	Method	MRL	Sample Result	E5345B03 (6-8)DUP Duplicate Sample		RPD	RPD Limit
				R1306810-018DUP Result	Average		
Solids, Total	160.3 Modified	1.0	95.4	95.4	95.4	<1	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13  
 Date Received: 9/17/13  
 Date Analyzed: 9/23/13 - 10/3/13

Replicate Sample Summary  
 Inorganic Parameters

Sample Name: E5345B03 (6-8)  
 Lab Code: R1306810-018

Units: mg/Kg  
 Basis: Dry

Analyte Name	Method	MRL	MDL	Sample Result	E5345B03 (6-8)DUP Duplicate Sample		RPD	RPD Limit
					R1306810-018DUP Result	Average		
Aluminum, Total	6010C	10	2.8	1490	1580	1530	6	20
Antimony, Total	6010C	6.0	0.2	1.2 BJ	1.3 J	1.24	14	20
Arsenic, Total	6010C	1.0	0.40	6.3	7.39	6.87	15	20
Barium, Total	6010C	2.0	0.08	10.9	12.5	11.7	14	20
Beryllium, Total	6010C	0.30	0.03	0.06 J	0.09 J	0.0705	44 *	20
Boron, Total	6010C	20	4	20 U	20 U	NC	NC	20
Cadmium, Total	6010C	0.50	0.06	0.50 U	0.50 U	NC	NC	20
Calcium, Total	6010C	5000	1500	153000	137000	145000	11	20
Chromium, Total	6010C	1.0	0.10	10.5	10.1	10.3	3	20
Cobalt, Total	6010C	5.0	0.06	2.6 J	2.8 J	2.70	8	20
Copper, Total	6010C	2.0	0.7	13.4	16.6	15.0	21 *	20
Iron, Total	6010C	100	53	9120	11400	10300	22 *	20
Lead, Total	6010C	5.0	0.2	5.1	6.0	5.55	16	20
Magnesium, Total	6010C	1000	20	95700	87900	91800	9	20
Manganese, Total	6010C	1.0	0.11	260	274	267	5	20
Mercury, Total	7471B	0.032	0.006	0.032 U	0.006 J	NC	NC	35
Nickel, Total	6010C	4.0	0.09	5.5	6.1	5.79	9	20
Potassium, Total	6010C	200	20	490	530	509	9	20
Selenium, Total	6010C	1.0	0.29	1.0 U	1.0 U	NC	NC	20
Silver, Total	6010C	1.0	0.08	1.0 U	1.0 U	NC	NC	20
Thallium, Total	6010C	1.0	0.36	1.0 U	1.0 U	NC	NC	20
Vanadium, Total	6010C	5.0	0.05	6.4	6.9	6.67	8	20
Zinc, Total	6010C	2.0	0.08	30.5	37.4	34.0	20	20

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5345B02 (2-4)  
Lab Code: R1306810-019

Service Request: R1306810  
Date Collected: 9/16/13 1100  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.3	Percent	1.0	1	NA	9/18/13 08:48	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306810-019

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1100  
**Date Received:** 9/17/13

**Basis:** Dry  
**Percent Solids:** 94.3

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2320		mg/Kg	10	3	1	9/27/13	10/2/13 04:31	
Antimony, Total	6010C	1.3	BJ	mg/Kg	6.3	0.3	1	9/27/13	10/2/13 04:31	
Arsenic, Total	6010C	8.9		mg/Kg	1.0	0.5	1	9/27/13	10/2/13 04:31	
Barium, Total	6010C	20.8		mg/Kg	2.1	0.08	1	9/27/13	10/2/13 04:31	
Beryllium, Total	6010C	0.14	J	mg/Kg	0.31	0.03	1	9/27/13	10/2/13 04:31	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/27/13	10/2/13 04:31	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/27/13	10/2/13 04:31	
Calcium, Total	6010C	117000		mg/Kg	5200	1600	50	9/27/13	10/3/13 10:41	
Chromium, Total	6010C	9.7		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 04:31	
Cobalt, Total	6010C	3.8	J	mg/Kg	5.2	0.06	1	9/27/13	10/2/13 04:31	
Copper, Total	6010C	15.7		mg/Kg	2.1	0.7	1	9/27/13	10/2/13 04:31	
Iron, Total	6010C	14200		mg/Kg	100	60	10	9/27/13	10/1/13 23:39	
Lead, Total	6010C	6.4		mg/Kg	5.2	0.3	1	9/27/13	10/2/13 04:31	
Magnesium, Total	6010C	74300		mg/Kg	1000	20	10	9/27/13	10/1/13 23:39	
Manganese, Total	6010C	380		mg/Kg	1.0	0.2	1	9/27/13	10/2/13 04:31	
Mercury, Total	7471B	0.006	J	mg/Kg	0.035	0.006	1	9/23/13	9/23/13 15:57	
Nickel, Total	6010C	8.8		mg/Kg	4.2	0.09	1	9/27/13	10/2/13 04:31	
Potassium, Total	6010C	680		mg/Kg	210	20	1	9/27/13	10/2/13 04:31	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 04:31	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/27/13	10/2/13 04:31	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/27/13	10/2/13 04:31	
Vanadium, Total	6010C	8.7		mg/Kg	5.2	0.06	1	9/27/13	10/2/13 04:31	
Zinc, Total	6010C	35.9		mg/Kg	2.1	0.08	1	9/27/13	10/2/13 04:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1100  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 22:35

Sample Name: E5345B02 (2-4)  
 Lab Code: R1306810-019

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9899.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.11

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.1	J	5.9	3.4	
71-43-2	Benzene	5.9	U	5.9	0.35	
75-27-4	Bromodichloromethane	5.9	U	5.9	0.72	
75-25-2	Bromoform	5.9	U	5.9	1.1	
74-83-9	Bromomethane	5.9	U	5.9	1.7	
78-93-3	2-Butanone (MEK)	5.9	U	5.9	2.7	
75-15-0	Carbon Disulfide	5.9	U	5.9	1.5	
56-23-5	Carbon Tetrachloride	5.9	U	5.9	1.1	
108-90-7	Chlorobenzene	5.9	U	5.9	0.35	
75-00-3	Chloroethane	5.9	U	5.9	3.4	
67-66-3	Chloroform	5.9	U	5.9	1.5	
74-87-3	Chloromethane	5.9	U	5.9	0.48	
124-48-1	Dibromochloromethane	5.9	U	5.9	0.86	
75-34-3	1,1-Dichloroethane	5.9	U	5.9	1.5	
107-06-2	1,2-Dichloroethane	5.9	U	5.9	0.72	
75-35-4	1,1-Dichloroethene	5.9	U	5.9	1.6	
156-59-2	cis-1,2-Dichloroethene	5.9	U	5.9	1.2	
156-60-5	trans-1,2-Dichloroethene	5.9	U	5.9	1.1	
78-87-5	1,2-Dichloropropane	5.9	U	5.9	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.9	U	5.9	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.9	U	5.9	0.24	
100-41-4	Ethylbenzene	5.9	U	5.9	0.28	
591-78-6	2-Hexanone	5.9	U	5.9	1.5	
75-09-2	Methylene Chloride	5.9	U	5.9	0.68	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.9	U	5.9	1.2	
100-42-5	Styrene	5.9	U	5.9	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	5.9	U	5.9	0.96	
127-18-4	Tetrachloroethene	5.9	U	5.9	1.1	
108-88-3	Toluene	4.4	J	5.9	1.2	
71-55-6	1,1,1-Trichloroethane	5.9	U	5.9	0.86	
79-00-5	1,1,2-Trichloroethane	5.9	U	5.9	0.86	
79-01-6	Trichloroethene	5.9	U	5.9	1.2	
75-01-4	Vinyl Chloride	5.9	U	5.9	2.2	
95-47-6	o-Xylene	5.9	U	5.9	0.57	
179601-23-1	m,p-Xylenes	12	U	12	1.3	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1100  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/19/13 22:35

**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306810-019

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\091913\T9899.D\

**Analysis Lot:** 359162  
**Instrument Name:** R-MS-12  
**Dilution Factor:** 1.11

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.9 U	5.9	1.2	
1330-20-7	Xylenes, Total	18 U	18	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	51-136	9/19/13 22:35	
Toluene-d8	106	66-138	9/19/13 22:35	
Dibromofluoromethane	102	63-138	9/19/13 22:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1100  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 22:03

Sample Name: E5345B02 (2-4)  
 Lab Code: R1306810-019

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\092313\AQ781.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	54	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	59	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	85	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1100  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 22:03

**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306810-019

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUATA\5973D\DATA\092313\AQ781.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1100  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 22:03

**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306810-019

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973D\DATA\092313\AQ781.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	51	41-151	9/23/13 22:03	
2-Fluorobiphenyl	66	47-126	9/23/13 22:03	
2-Fluorophenol	46	16-129	9/23/13 22:03	
Nitrobenzene-d5	70	39-136	9/23/13 22:03	
Phenol-d6	56	10-145	9/23/13 22:03	
p-Terphenyl-d14	75	35-152	9/23/13 22:03	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1306810-019  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5345B02 (4-6)  
Lab Code: R1306810-020

Service Request: R1306810  
Date Collected: 9/16/13 1105  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.6	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5345B02 (4-6)  
 Lab Code: R1306810-020

Service Request: R1306810  
 Date Collected: 9/16/13 1105  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 95.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2370		mg/Kg	10	2.8	1	9/27/13	10/2/13 04:40	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.0	0.2	1	9/27/13	10/2/13 04:40	
Arsenic, Total	6010C	6.29		mg/Kg	1.0	0.40	1	9/27/13	10/2/13 04:40	
Barium, Total	6010C	15.7		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 04:40	
Beryllium, Total	6010C	0.10	J	mg/Kg	0.30	0.03	1	9/27/13	10/2/13 04:40	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/27/13	10/2/13 04:40	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.06	1	9/27/13	10/2/13 04:40	
Calcium, Total	6010C	124000		mg/Kg	5000	1500	50	9/27/13	10/3/13 10:47	
Chromium, Total	6010C	10.6		mg/Kg	1.0	0.10	1	9/27/13	10/2/13 04:40	
Cobalt, Total	6010C	3.8	J	mg/Kg	5.0	0.06	1	9/27/13	10/2/13 04:40	
Copper, Total	6010C	13.5		mg/Kg	2.0	0.7	1	9/27/13	10/2/13 04:40	
Iron, Total	6010C	11800		mg/Kg	100	53	10	9/27/13	10/1/13 23:45	
Lead, Total	6010C	6.4		mg/Kg	5.0	0.2	1	9/27/13	10/2/13 04:40	
Magnesium, Total	6010C	79000		mg/Kg	1000	20	10	9/27/13	10/1/13 23:45	
Manganese, Total	6010C	353		mg/Kg	1.0	0.11	1	9/27/13	10/2/13 04:40	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/23/13	9/23/13 15:58	
Nickel, Total	6010C	9.0		mg/Kg	4.0	0.09	1	9/27/13	10/2/13 04:40	
Potassium, Total	6010C	530		mg/Kg	200	20	1	9/27/13	10/2/13 04:40	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.29	1	9/27/13	10/2/13 04:40	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/27/13	10/2/13 04:40	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.36	1	9/27/13	10/2/13 04:40	
Vanadium, Total	6010C	8.7		mg/Kg	5.0	0.05	1	9/27/13	10/2/13 04:40	
Zinc, Total	6010C	32.8		mg/Kg	2.0	0.08	1	9/27/13	10/2/13 04:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1105  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 13:28

Sample Name: E5345B02 (4-6)  
 Lab Code: R1306810-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA7\DATA\091913\K5112.D\

Analysis Lot: 359426  
 Instrument Name: R-MS-07  
 Dilution Factor: .79

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.1 J	4.1	2.4	
71-43-2	Benzene	4.1 U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1 U	4.1	0.51	
75-25-2	Bromoform	4.1 U	4.1	0.77	
74-83-9	Bromomethane	4.1 U	4.1	1.2	
78-93-3	2-Butanone (MEK)	4.1 U	4.1	1.9	
75-15-0	Carbon Disulfide	4.1 U	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1 U	4.1	0.77	
108-90-7	Chlorobenzene	4.1 U	4.1	0.24	
75-00-3	Chloroethane	4.1 U	4.1	2.4	
67-66-3	Chloroform	4.1 U	4.1	1.1	
74-87-3	Chloromethane	4.1 U	4.1	0.34	
124-48-1	Dibromochloromethane	4.1 U	4.1	0.61	
75-34-3	1,1-Dichloroethane	4.1 U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1 U	4.1	0.51	
75-35-4	1,1-Dichloroethene	4.1 U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1 U	4.1	0.79	
156-60-5	trans-1,2-Dichloroethene	4.1 U	4.1	0.72	
78-87-5	1,2-Dichloropropane	4.1 U	4.1	0.81	
10061-01-5	cis-1,3-Dichloropropene	4.1 U	4.1	0.75	
10061-02-6	trans-1,3-Dichloropropene	4.1 U	4.1	0.17	
100-41-4	Ethylbenzene	4.1 U	4.1	0.20	
591-78-6	2-Hexanone	4.1 U	4.1	1.0	
75-09-2	Methylene Chloride	4.1 U	4.1	0.48	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1 U	4.1	0.81	
100-42-5	Styrene	4.1 U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1 U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1 U	4.1	0.73	
108-88-3	Toluene	2.8 J	4.1	0.83	
71-55-6	1,1,1-Trichloroethane	4.1 U	4.1	0.61	
79-00-5	1,1,2-Trichloroethane	4.1 U	4.1	0.61	
79-01-6	Trichloroethene	4.1 U	4.1	0.84	
75-01-4	Vinyl Chloride	4.1 U	4.1	1.6	
95-47-6	o-Xylene	4.1 U	4.1	0.40	
179601-23-1	m,p-Xylenes	8.3 U	8.3	0.91	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1105  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/19/13 13:28

**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1306810-020

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.6

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUDATA\MSVOA7\DATA\091913\K5112.D\

**Analysis Lot:** 359426  
**Instrument Name:** R-MS-07  
**Dilution Factor:** .79

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.1 U	4.1	0.78	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/19/13 13:28	
Toluene-d8	104	66-138	9/19/13 13:28	
Dibromofluoromethane	98	63-138	9/19/13 13:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1105  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/24/13 17:57

**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1306810-020

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.6

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUDATA\5973D\DATA\092413\AQ792.D\

**Analysis Lot:** 360088  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	74	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	36	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	45	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	63	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	62	
59-50-7	4-Chloro-3-methylphenol	350 U	350	38	
106-47-8	4-Chloroaniline	350 U	350	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	250	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	54	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	58	
205-99-2	Benzo(b)fluoranthene	350 U	350	84	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1105  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 17:57

Sample Name: E5345B02 (4-6)  
 Lab Code: R1306810-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\092413\AQ792.D\

Analysis Lot: 360088  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	100	J	350	95	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	93	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	55	
67-72-1	Hexachloroethane	350	U	350	48	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	57	
78-59-1	Isophorone	350	U	350	46	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	38	
129-00-0	Pyrene	350	U	350	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1105  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 17:57

Sample Name: E5345B02 (4-6)  
 Lab Code: R1306810-020

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\092413\AQ792.D\

Analysis Lot: 360088  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/24/13 17:57	
2-Fluorobiphenyl	76	47-126	9/24/13 17:57	
2-Fluorophenol	59	16-129	9/24/13 17:57	
Nitrobenzene-d5	83	39-136	9/24/13 17:57	
Phenol-d6	68	10-145	9/24/13 17:57	
p-Terphenyl-d14	82	35-152	9/24/13 17:57	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1306810-020  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10663

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>1007 US30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Kevin Bunker / Sherrie Johns</b>		Report Of <b>Dean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment</b>				PRELIMINARY ANALYSIS	
<b>33 W Monroe ST #1410</b>				GCMS VOAS • 8260 • 824 • CLP	
<b>Chicago, IL 60603</b>				GCMS SVAS • 8270 • 825	
Phone # <b>312-578-9243</b>		Email <b>Jhughes@ene.com</b>		GC VOAS • 8011 • 801802	
Sample's Shipper <b>J. Hughes</b>		Sampler's Printed Name <b>Jeff Hughes</b>		PESTICIDES • 8011 • 801802	
				PCBS • 8082 • 808	
				METALS, TOTAL (List in comments below)	
				METALS, DISSOLVED (List in comments below)	
				VOCs	
				5VOCs	
				Total TAL Metals	
				TCLP/SP/PP Metals	
				PH	
				% Solids	
				REMARKS/ ALTERNATE DESCRIPTION	
				Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
-001		9/16/13		1133	
-002		9/16/13		1140	
-003		9/16/13		1335	
-004		9/16/13		1340	
-005		9/16/13		1403	
-006		9/16/13		1413	
-007		9/16/13		1436	
-008		9/16/13		1440	
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE <b>STND</b>		Evalu <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No RELINQUISHED BY:	
STATE WHERE SAMPLES WERE COLLECTED <b>IL</b>		RECEIVED BY		R1306810 Ecology And Environment, Incorporated US30 Plainfield PSI, T.C.L.P.'s	
RELINQUISHED BY		RECEIVED BY		Signature	
Signature <i>J. Hughes</i>		Signature <i>[Signature]</i>		Printed Name	
Printed Name <b>Jeff Hughes</b>		Printed Name <b>John Sand</b>		Firm	
Firm <b>E+E</b>		Firm <b>ALS</b>		Date/Time	
Date/Time <b>9/17/13</b>		Date/Time <b>0950</b>		Date/Time	

See R1306809 for TCLPs





October 24, 2013

Service Request No: R1307503

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1307503**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 50





REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State/Agency, ID #, and State/Agency ID #. Rows include NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, and Virginia #460167.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307503  
 Date Collected: 9/16/13 11:33  
 Date Received: 9/17/13  
 Pre-Prep Date: 10/16/13

Sample Name: E5345B01 (0-2)  
 Lab Code: R1307503-001

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.068		mg/L	0.010	1	10/18/13	10/22/13 09:20	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B01 (0-2)  
**Lab Code:** R1307503-001  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307503  
 Date Collected: 9/16/13 1140  
 Date Received: 9/17/13  
 Pre-Prep Date: 10/16/13

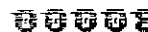
Sample Name: E5345B01 (8-10)  
 Lab Code: R1307503-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.102		mg/L	0.010	1	10/18/13	10/22/13	09:26



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B01 (8-10)  
**Lab Code:** R1307503-002  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307503  
Date Collected: 9/16/13 0945  
Date Received: 9/17/13  
Pre-Prep Date: 10/16/13

Sample Name: E5345B04 (0-2)  
Lab Code: R1307503-012

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution	Date	Date	Note
					Factor	Extracted	Analyzed	
Manganese	6010C	0.038	mg/L	0.010	1	10/18/13	10/22/13 11:03	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B04 (0-2)  
**Lab Code:** R1307503-012  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307503  
Date Collected: 9/16/13 0950  
Date Received: 9/17/13  
Pre-Prep Date: 10/16/13

Sample Name: E5345B04 (4-6)  
Lab Code: R1307503-013

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.031	mg/L	0.010	1	10/18/13	10/22/13 11:10	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B04 (4-6)  
**Lab Code:** R1307503-013  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307503  
Date Collected: 9/16/13 1020  
Date Received: 9/17/13  
Pre-Prep Date: 10/16/13

Sample Name: E5345B03 (2-4)  
Lab Code: R1307503-014

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.037		mg/L	0.010	1	10/18/13	10/22/13 11:28	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B03 (2-4)  
**Lab Code:** R1307503-014  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307503  
**Date Collected:** 9/16/13 1030  
**Date Received:** 9/17/13  
**Pre-Prep Date:** 10/16/13

**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1307503-015

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.032		mg/L	0.010	1	10/18/13	10/22/13	11:34

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B03 (6-8)  
**Lab Code:** R1307503-015  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307503  
Date Collected: 9/16/13 1100  
Date Received: 9/17/13  
Pre-Prep Date: 10/16/13

Sample Name: E5345B02 (2-4)  
Lab Code: R1307503-016

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.151	mg/L	0.010	1	10/18/13	10/22/13 11:40	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B02 (2-4)  
**Lab Code:** R1307503-016  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307503  
**Date Collected:** 9/16/13 1105  
**Date Received:** 9/17/13  
**Pre-Prep Date:** 10/16/13

**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1307503-017

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/18/13	10/22/13	11:46

ALS ENVIRONMENTAL

Analyst Summary Report

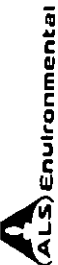
**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5345B02 (4-6)  
**Lab Code:** R1307503-017  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

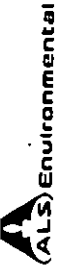


# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10663

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>INDT U's 307</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Buker / Sherril Jahn</b>		Report Of <b>Dean Tieboet</b>		PRESERVATIVE	
Company/Address <b>Ecology - Environment</b>		33 W Monroe ST #1410		NUMBER OF CONTAINERS	
Chicago, IL 60603		Email <b>shushkes@ene.com</b>		GCMS VYAS • 8280 • 624 • CLP • 8270 • 625	
Phone # <b>312-578-9243</b>		Sampler's Signature <b>J. Hughes</b>		GCMS SVYAS • 8270 • 625	
Sampler's Name <b>J. Hughes</b>		Sampler's Phone Number <b>312-578-9243</b>		GC VYAS • 8021 • 601/802	
FOR OFFICE USE ONLY LAB ID		DATE		PESTICIDES • 6081 • 608	
CLIENT SAMPLE ID	SAMPLING TIME	DATE	MATRIX	PCBS • 6082 • 608	
<b>E53345B01(0-2)</b>	<b>1133</b>	<b>9/16/13</b>	<b>Soil</b>	METALS TOTAL (List in comments below)	
<b>E53345B01(8-10)</b>	<b>1140</b>	<b>9/16/13</b>	<b>Soil</b>	METALS DISSOLVED (List in comments below)	
<b>E53328B03(2-4)</b>	<b>1335</b>	<b>9/16/13</b>	<b>Soil</b>	VOCs	
<b>E53328B05(6-8)</b>	<b>1340</b>	<b>9/16/13</b>	<b>Soil</b>	5VOCs	
<b>E53328B05(0-2)</b>	<b>1403</b>	<b>9/16/13</b>	<b>Soil</b>	Total T.A.L. Metals	
<b>E5328B05(4-6)</b>	<b>1413</b>	<b>9/16/13</b>	<b>Soil</b>	TCLP / SPLP Metals	
<b>E5328B02(2-4)</b>	<b>1436</b>	<b>9/16/13</b>	<b>Soil</b>	PH	
<b>E5328B02(6-8)</b>	<b>1440</b>	<b>9/16/13</b>	<b>Soil</b>	7% Solids	
SPECIAL INSTRUCTIONS/COMMENTS Metals		RECEIVED BY <b>JL</b>		REMARKS/ ALTERNATE DESCRIPTION	
See PROBLE for Totals SPL only as 10/18/13		RECEIVED BY <b>JL</b>		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other	
STATE WHERE SAMPLES WERE COLLECTED <b>IL</b>		RECEIVED BY <b>JL</b>		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____	
RELINQUISHED BY <b>JL</b>		RECEIVED BY <b>JL</b>		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data	
Signature <b>JL</b>		Signature <b>JL</b>		INVOICE INFORMATION R1306809 Ecology And Environment, Incorporated US30 Plainfield PS	
Printed Name <b>JL</b>		Printed Name <b>JL</b>		BILL TO: <b>R1307503</b>	
Firm <b>ALS</b>		Firm <b>ALS</b>		Signature <b>JL</b>	
Date/Time <b>9/17/13 0950</b>		Date/Time <b>9/17/13 0950</b>		RELINQUISHED BY Edata <input checked="" type="checkbox"/> Yes	
Signature <b>JL</b>		Signature <b>JL</b>		R1307503 Ecology And Environment, Incorporated IDOT US30 Plainfield PS	
Printed Name <b>JL</b>		Printed Name <b>JL</b>		Barcode	
Firm <b>ALS</b>		Firm <b>ALS</b>		Barcode	
Date/Time <b>9/17/13 0950</b>		Date/Time <b>9/17/13 0950</b>		Barcode	





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10662

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
IDOT US 30		EE-004335-0001-01770			
Project Manager		Report CC		PRESERVATIVE	
Karen Bauer / Sherril Johnson / Dean Tiebout					
Company/Address		Sampler's Signature		NUMBER OF CONTAINERS	
Ecology + Environment 33 W Monroe ST #1470 Chicago IL 60603		Jeff Hughes			
Phone #		DATE		SAMPLING TIME	
312-578-9243		9/16/13		0910	
Email		FOR OFFICE USE ONLY LAB ID		MATRIX	
shushes@enc.com		E5344B01(0-2)		Soil	
Shushes + enc.com		E5344B01(0-2)		Soil	
Jeff Hughes		E5345B04(0-2)		Soil	
		E5345B04(4-6)		Soil	
		E5345B03(2-4)		Soil	
		E5345B03(6-8)		Soil	
		E5345B02(2-4)		Soil	
		E5345B02(4-6)		Soil	
		E5345B01		Soil	
		E5345B01		Soil	
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS	
Metals		RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 3 day		I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE END		Edia <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
IL		JL		R1306810 CA	
RELINQUISHED BY		RELINQUISHED BY		RECEIVED BY	
Signature: Jeff Hughes		Signature: JL		Signature: R1306810 CA	
Printed Name: Jeff Hughes		Printed Name: JL		Printed Name: R1306810 CA	
Firm: ALS		Firm: ALS		Firm: ALS	
Date/Time: 9/16/13 1710		Date/Time: 9/17/13 0950		Date/Time: 9/18/13	

see R1306810 for totals  
9/18/13 5:47 PM



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):

15408 Joliet Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.601204° Longitude: -88.199583°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.601204° Longitude: -88.199583°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5308B04 was sampled within the construction zone adjacent to ISGS #2141A-8 (Plainfield Cemetery). Refer to PSI Report for ISGS #2141A-8 (Plainfield Cemetery) including Table 4-4, and Figure 4-7.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306303, R1306304, and R1306844.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

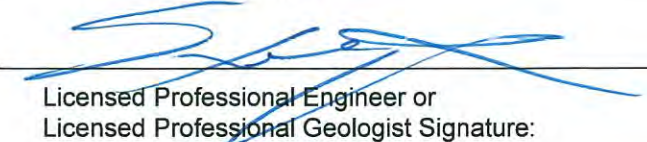
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14

Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-8 (Plainfield Cemetery)		Comparison Criteria			
	E5308B04		MACs			TACO
BORING	E5308B04		Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	E5308B04 (2-4)	E5308B04 (8-10)				
MATRIX	Soil	Soil				
DEPTH (meters)	0.6-1.2	2.4-3.1				
pH	7.83	8.88				
<b>VOCs (µg/kg)</b>						
Acetone	3.5 J	2.6 J	25,000	--	--	--
Ethylbenzene	ND U	0.20 J	13,000	--	--	--
<b>SVOCs (None Detected)</b>						
<b>Inorganics (mg/kg)</b>						
Aluminum	14,300	1,040	--	--	--	--
Arsenic	11.0	4.4	11.3	13	--	--
Barium	141	13.1	1,500	--	--	--
Beryllium	0.77	0.07 J	22	--	--	--
Calcium	2,430	170,000	--	--	--	--
Chromium	18.9	3.2	21	--	--	--
Cobalt	10.4	1.8 J	20	--	--	--
Copper	17.8	11.1 B	2,900	--	--	--
Iron	25,200 †m	6,850	15,000	15,900	--	--
Lead	16.4	3.8 J	107	--	--	--
Magnesium	3,800	100,000	325,000	--	--	--
Manganese	851 †m	418	630	636	--	--
Mercury	0.049	ND U	1	--	--	--
Nickel	20.0	6.2	100	--	--	--
Potassium	850	430	--	--	--	--
Silver	ND U	0.3 J	4	--	--	--
Vanadium	33.8	5.2	550	--	--	--
Zinc	56.8	14.7	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	1.55	ND U	--	--	--	--
Calcium	47.6	316	--	--	--	--
Iron	0.82	0.19	--	--	--	5
Magnesium	15.6	163	--	--	--	--
Manganese	0.029	1.04 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	NA	ND U	--	--	--	0.15





September 19, 2013

Service Request No: R1306303

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306303**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For:*

Page 1 of 300



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State Accredited, State ID #, and State ID #. Rows include: NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5308B04 (2-4)  
Lab Code: R1306303-014

Service Request: R1306303  
Date Collected: 8/29/13 1250  
Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.6	Percent	1.0	1	NA	9/5/13 13:35	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13

Basis: Dry  
 Percent Solids: 84.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14300		mg/Kg	11	4	1	9/ 5/13	9/13/13 23:33	
Antimony, Total	6010C	0.3	BJ	mg/Kg	6.9	0.3	1	9/ 5/13	9/13/13 23:33	
Arsenic, Total	6010C	11.0		mg/Kg	1.1	0.5	1	9/ 5/13	9/13/13 23:33	
Barium, Total	6010C	141		mg/Kg	2.3	0.09	1	9/ 5/13	9/13/13 23:33	
Beryllium, Total	6010C	0.77		mg/Kg	0.34	0.03	1	9/ 5/13	9/13/13 23:33	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/ 5/13	9/13/13 23:33	
Cadmium, Total	6010C	0.57	U	mg/Kg	0.57	0.07	1	9/ 5/13	9/13/13 23:33	
Calcium, Total	6010C	2430		mg/Kg	110	40	1	9/ 5/13	9/13/13 23:33	
Chromium, Total	6010C	18.9		mg/Kg	1.1	0.2	1	9/ 5/13	9/13/13 23:33	
Cobalt, Total	6010C	10.4		mg/Kg	5.7	0.07	1	9/ 5/13	9/13/13 23:33	
Copper, Total	6010C	17.8		mg/Kg	2.3	0.8	1	9/ 5/13	9/13/13 23:33	
Iron, Total	6010C	25200		mg/Kg	110	70	10	9/ 5/13	9/11/13 22:26	
Lead, Total	6010C	16.4		mg/Kg	5.7	0.3	1	9/ 5/13	9/13/13 23:33	
Magnesium, Total	6010C	3800		mg/Kg	1100	20	10	9/ 5/13	9/11/13 22:26	
Manganese, Total	6010C	851		mg/Kg	11	2	10	9/ 5/13	9/11/13 22:26	
Mercury, Total	7471B	0.049		mg/Kg	0.038	0.006	1	9/ 9/13	9/9/13 17:23	
Nickel, Total	6010C	20.0		mg/Kg	4.6	0.10	1	9/ 5/13	9/13/13 23:33	
Potassium, Total	6010C	850		mg/Kg	230	20	1	9/ 5/13	9/13/13 23:33	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 5/13	9/13/13 23:33	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.10	1	9/ 5/13	9/13/13 23:33	
Thallium, Total	6010C	2.3	U	mg/Kg	2.3	0.9	2	9/ 5/13	9/17/13 11:33	
Vanadium, Total	6010C	33.8		mg/Kg	5.7	0.06	1	9/ 5/13	9/13/13 23:33	
Zinc, Total	6010C	56.8		mg/Kg	2.3	0.09	1	9/ 5/13	9/13/13 23:33	

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Date Analyzed: 9/4/13 20:42

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\090413\K4898.D\

Analysis Lot: 357059  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.5 J	4.6	2.6	
71-43-2	Benzene	4.6 U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6 U	4.6	0.56	
75-25-2	Bromoform	4.6 U	4.6	0.85	
74-83-9	Bromomethane	4.6 U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6 U	4.6	2.1	
75-15-0	Carbon Disulfide	4.6 U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6 U	4.6	0.84	
108-90-7	Chlorobenzene	4.6 U	4.6	0.27	
75-00-3	Chloroethane	4.6 U	4.6	2.7	
67-66-3	Chloroform	4.6 U	4.6	1.2	
74-87-3	Chloromethane	4.6 U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6 U	4.6	0.67	
75-34-3	1,1-Dichloroethane	4.6 U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6 U	4.6	0.56	
75-35-4	1,1-Dichloroethene	4.6 U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6 U	4.6	0.87	
156-60-5	trans-1,2-Dichloroethene	4.6 U	4.6	0.79	
78-87-5	1,2-Dichloropropane	4.6 U	4.6	0.89	
10061-01-5	cis-1,3-Dichloropropene	4.6 U	4.6	0.82	
10061-02-6	trans-1,3-Dichloropropene	4.6 U	4.6	0.19	
100-41-4	Ethylbenzene	4.6 U	4.6	0.21	
591-78-6	2-Hexanone	4.6 U	4.6	1.2	
75-09-2	Methylene Chloride	4.6 U	4.6	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6 U	4.6	0.90	
100-42-5	Styrene	4.6 U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6 U	4.6	0.74	
127-18-4	Tetrachloroethene	4.6 U	4.6	0.81	
108-88-3	Toluene	4.6 U	4.6	0.92	
71-55-6	1,1,1-Trichloroethane	4.6 U	4.6	0.67	
79-00-5	1,1,2-Trichloroethane	4.6 U	4.6	0.67	
79-01-6	Trichloroethene	4.6 U	4.6	0.92	
75-01-4	Vinyl Chloride	4.6 U	4.6	1.7	
95-47-6	o-Xylene	4.6 U	4.6	0.44	
179601-23-1	m,p-Xylenes	9.1 U	9.1	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Date Analyzed: 9/4/13 20:42

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\090413\K4898.D\

Analysis Lot: 357059  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.77

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6	U	4.6	0.86	
1330-20-7	Xylenes, Total	14	U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	28-150	9/4/13 20:42	
Toluene-d8	104	66-138	9/4/13 20:42	
Dibromofluoromethane	100	63-138	9/4/13 20:42	



## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 21:18

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

## Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ461.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 21:18

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090513\AQ461.D

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	75	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/5/13 21:18

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306303-014

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090513\AQ461.D\

Analysis Lot: 357144  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	79	41-151	9/5/13 21:18	
2-Fluorobiphenyl	64	47-126	9/5/13 21:18	
2-Fluorophenol	62	16-129	9/5/13 21:18	
Nitrobenzene-d5	70	39-136	9/5/13 21:18	
Phenol-d6	63	10-145	9/5/13 21:18	
p-Terphenyl-d14	61	35-152	9/5/13 21:18	

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Analyst Summary Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Name: E5308B04 (2-4)  
Lab Code: R1306303-014  
Matrix: Soil

Service Request: R1306303

Date Collected: 8/29/13

Date Received: 8/30/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5308B04 (8-10)  
Lab Code: R1306303-015

Service Request: R1306303  
Date Collected: 8/29/13 1300  
Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	96.0	Percent	1.0	1	NA	9/5/13 13:35	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13

Basis: Dry  
 Percent Solids: 96.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1040		mg/Kg	10	3	1	9/ 5/13	9/13/13 23:52	
Antimony, Total	6010C	0.3	BJ	mg/Kg	6.1	0.3	1	9/ 5/13	9/13/13 23:52	
Arsenic, Total	6010C	4.4		mg/Kg	1.0	0.4	1	9/ 5/13	9/13/13 23:52	
Barium, Total	6010C	13.1		mg/Kg	2.0	0.08	1	9/16/13	9/17/13 09:55	
Beryllium, Total	6010C	0.07	J	mg/Kg	0.30	0.03	1	9/ 5/13	9/13/13 23:52	
Boron, Total	6010C	7	BJ	mg/Kg	20	4	1	9/ 5/13	9/13/13 23:52	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/ 5/13	9/13/13 23:52	
Calcium, Total	6010C	170000		mg/Kg	1000	300	10	9/ 5/13	9/11/13 22:32	
Chromium, Total	6010C	3.2		mg/Kg	1.0	0.2	1	9/ 5/13	9/13/13 23:52	
Cobalt, Total	6010C	1.8	BJ	mg/Kg	5.1	0.06	1	9/ 5/13	9/13/13 23:52	
Copper, Total	6010C	11.1	B	mg/Kg	2.0	0.7	1	9/ 5/13	9/13/13 23:52	
Iron, Total	6010C	6850		mg/Kg	100	60	10	9/ 5/13	9/11/13 22:32	
Lead, Total	6010C	3.8	J	mg/Kg	5.1	0.3	1	9/ 5/13	9/13/13 23:52	
Magnesium, Total	6010C	100000		mg/Kg	1000	20	10	9/ 5/13	9/11/13 22:32	
Manganese, Total	6010C	418		mg/Kg	10	2	10	9/ 5/13	9/11/13 22:32	
Mercury, Total	7471B	0.034	U	mg/Kg	0.034	0.006	1	9/ 9/13	9/9/13 17:25	
Nickel, Total	6010C	6.2		mg/Kg	4.0	0.09	1	9/ 5/13	9/13/13 23:52	
Potassium, Total	6010C	430		mg/Kg	200	20	1	9/ 5/13	9/13/13 23:52	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/ 5/13	9/13/13 23:52	
Silver, Total	6010C	0.3	J	mg/Kg	1.0	0.08	1	9/ 5/13	9/13/13 23:52	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/ 5/13	9/13/13 23:52	
Vanadium, Total	6010C	5.2		mg/Kg	5.1	0.05	1	9/ 5/13	9/13/13 23:52	
Zinc, Total	6010C	14.7		mg/Kg	2.0	0.08	1	9/ 5/13	9/13/13 23:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Date Analyzed: 9/4/13 21:19

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090413\K4899.D\

Analysis Lot: 357059  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.75

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	2.6	J	3.9	2.2	
71-43-2	Benzene	3.9	U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9	U	3.9	0.48	
75-25-2	Bromoform	3.9	U	3.9	0.73	
74-83-9	Bromomethane	3.9	U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9	U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9	U	3.9	0.97	
56-23-5	Carbon Tetrachloride	3.9	U	3.9	0.72	
108-90-7	Chlorobenzene	3.9	U	3.9	0.23	
75-00-3	Chloroethane	3.9	U	3.9	2.3	
67-66-3	Chloroform	3.9	U	3.9	0.99	
74-87-3	Chloromethane	3.9	U	3.9	0.32	
124-48-1	Dibromochloromethane	3.9	U	3.9	0.58	
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.98	
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9	U	3.9	1.0	
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.75	
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.68	
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.76	
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.71	
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.16	
100-41-4	Ethylbenzene	0.20	J	3.9	0.18	
591-78-6	2-Hexanone	3.9	U	3.9	0.95	
75-09-2	Methylene Chloride	3.9	U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	0.77	
100-42-5	Styrene	3.9	U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.64	
127-18-4	Tetrachloroethene	3.9	U	3.9	0.69	
108-88-3	Toluene	3.9	U	3.9	0.79	
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.58	
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	0.58	
79-01-6	Trichloroethene	3.9	U	3.9	0.79	
75-01-4	Vinyl Chloride	3.9	U	3.9	1.5	
95-47-6	o-Xylene	3.9	U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.8	U	7.8	0.86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Date Analyzed: 9/4/13 21:19

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\090413\K4899.D\

Analysis Lot: 357059  
 Instrument Name: R-MS-07  
 Dilution Factor: 0.75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9 U	3.9	0.74	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	28-150	9/4/13 21:19	
Toluene-d8	103	66-138	9/4/13 21:19	
Dibromofluoromethane	103	63-138	9/4/13 21:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 14:31

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.0

Semivolatle Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ474.D

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340	U	340	35	
95-50-1	1,2-Dichlorobenzene	340	U	340	39	
541-73-1	1,3-Dichlorobenzene	340	U	340	53	
106-46-7	1,4-Dichlorobenzene	340	U	340	40	
95-95-4	2,4,5-Trichlorophenol	340	U	340	61	
88-06-2	2,4,6-Trichlorophenol	340	U	340	51	
120-83-2	2,4-Dichlorophenol	340	U	340	46	
105-67-9	2,4-Dimethylphenol	340	U	340	38	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	340	U	340	74	
606-20-2	2,6-Dinitrotoluene	340	U	340	57	
91-58-7	2-Chloronaphthalene	340	U	340	36	
95-57-8	2-Chlorophenol	340	U	340	36	
91-57-6	2-Methylnaphthalene	340	U	340	35	
95-48-7	2-Methylphenol	340	U	340	45	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	340	U	340	52	
91-94-1	3,3'-Dichlorobenzidine	340	U	340	63	
	3- and 4-Methylphenol Coelution	340	U	340	52	
99-09-2	3-Nitroaniline	1800	U	1800	320	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	340	U	340	62	
59-50-7	4-Chloro-3-methylphenol	340	U	340	38	
106-47-8	4-Chloroaniline	340	U	340	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	340	U	340	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	250	
83-32-9	Acenaphthene	340	U	340	50	
208-96-8	Acenaphthylene	340	U	340	46	
120-12-7	Anthracene	340	U	340	54	
56-55-3	Benz(a)anthracene	340	U	340	53	
50-32-8	Benzo(a)pyrene	340	U	340	58	
205-99-2	Benzo(b)fluoranthene	340	U	340	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 14:31

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090613\AQ474.D

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	U	340	65	
207-08-9	Benzo(k)fluoranthene	340	U	340	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	42	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	48	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	48	
85-68-7	Butyl Benzyl Phthalate	340	U	340	53	
86-74-8	Carbazole	340	U	340	48	
218-01-9	Chrysene	340	U	340	49	
84-74-2	Di-n-butyl Phthalate	170	BJ	340	95	
117-84-0	Di-n-octyl Phthalate	340	U	340	66	
53-70-3	Dibenz(a,h)anthracene	340	U	340	93	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	340	U	340	45	
131-11-3	Dimethyl Phthalate	340	U	340	50	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	44	
118-74-1	Hexachlorobenzene	340	U	340	53	
87-68-3	Hexachlorobutadiene	340	U	340	39	
77-47-4	Hexachlorocyclopentadiene	340	U	340	55	
67-72-1	Hexachloroethane	340	U	340	48	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	57	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	39	
86-30-6	N-Nitrosodiphenylamine	340	U	340	54	
91-20-3	Naphthalene	340	U	340	35	
98-95-3	Nitrobenzene	340	U	340	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	340	U	340	47	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306303  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Date Extracted: 9/4/13  
 Date Analyzed: 9/6/13 14:31

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306303-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ474.D\

Analysis Lot: 357426  
 Extraction Lot: 190720  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/6/13 14:31	
2-Fluorobiphenyl	59	47-126	9/6/13 14:31	
2-Fluorophenol	52	16-129	9/6/13 14:31	
Nitrobenzene-d5	59	39-136	9/6/13 14:31	
Phenol-d6	52	10-145	9/6/13 14:31	
p-Terphenyl-d14	76	35-152	9/6/13 14:31	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US 30/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5308B04 (8-10)  
**Lab Code:** R1306303-015  
**Matrix:** Soil

**Service Request:** R1306303

**Date Collected:** 8/29/13

**Date Received:** 8/30/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	ZMIAO







September 19, 2013

Service Request No: R1306304

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US 30/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306304**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 104

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5308B04 (2-4)  
Lab Code: R1306304-014

Service Request: R1306304  
Date Collected: 8/29/13 1250  
Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.83	pH Units		1	NA	9/10/13 13:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/29/13 1250  
 Date Received: 8/30/13  
 Pre-Prep Date: 9/4/13

Sample Name: E5308B04 (2-4)  
 Lab Code: R1306304-014

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	1.55	mg/L	0.20	1	9/9/13	9/15/13 13:55	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/9/13	9/15/13 13:55	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/9/13	9/15/13 13:55	
Barium	6010C	1.0 U	mg/L	1.0	1	9/9/13	9/15/13 13:55	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/9/13	9/15/13 13:55	
Boron	6010C	1.0 U	mg/L	1.0	1	9/9/13	9/15/13 13:55	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Calcium	6010C	47.6	mg/L	1.0	1	9/9/13	9/15/13 13:55	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/9/13	9/15/13 13:55	
Copper	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Iron	6010C	0.82	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Lead	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Magnesium	6010C	15.6	mg/L	1.0	1	9/9/13	9/15/13 13:55	
Manganese	6010C	0.029	mg/L	0.010	1	9/9/13	9/15/13 13:55	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/9/13	9/9/13 20:03	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/9/13	9/15/13 13:55	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/9/13	9/15/13 13:55	
Silver	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/9/13	9/15/13 13:55	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/9/13	9/15/13 13:55	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/9/13	9/15/13 13:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5308B04 (8-10)  
Lab Code: R1306304-015

Service Request: R1306304  
Date Collected: 8/29/13 1300  
Date Received: 8/30/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.88	pH Units		1	NA	9/10/13 13:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US 30/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306304  
 Date Collected: 8/29/13 1300  
 Date Received: 8/30/13  
 Pre-Prep Date: 9/4/13

Sample Name: E5308B04 (8-10)  
 Lab Code: R1306304-015

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/9/13	9/15/13 14:02	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/9/13	9/15/13 14:02	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/15/13 14:02	
Barium	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/15/13 14:02	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/9/13	9/15/13 14:02	
Boron	6010C	1.0	U	mg/L	1.0	1	9/9/13	9/15/13 14:02	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Calcium	6010C	316		mg/L	10	10	9/9/13	9/11/13 18:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/15/13 14:02	
Copper	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Iron	6010C	0.19		mg/L	0.10	1	9/9/13	9/15/13 14:02	
Lead	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Magnesium	6010C	163		mg/L	1.0	1	9/9/13	9/15/13 14:02	
Manganese	6010C	1.04		mg/L	0.010	1	9/9/13	9/15/13 14:02	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/9/13	9/9/13 20:05	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/9/13	9/15/13 14:02	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/9/13	9/15/13 14:02	
Silver	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/9/13	9/15/13 14:02	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/9/13	9/15/13 14:02	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/9/13	9/15/13 14:02	





October 07, 2013

Service Request No: R1306844

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

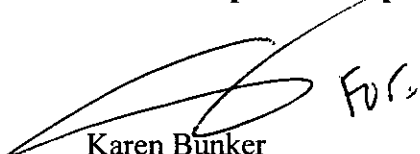
Enclosed are the results of the sample(s) submitted to our laboratory between August 29, 2013 and August 30, 2013. For your reference, these analyses have been assigned our service request number **R1306844**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 45



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306844  
**Date Collected:** 8/29/13 1300  
**Date Received:** 8/30/13  
**Pre-Prep Date:** 9/25/13

**Sample Name:** E5308B04 (8-10)  
**Lab Code:** R1306844-012

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	9/30/13	10/3/13 11:50	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5308B04 (8-10)  
**Lab Code:** R1306844-012  
**Matrix:** Soil

**Service Request:** R1306844

**Date Collected:** 8/29/13

**Date Received:** 8/30/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
23144 Renwick Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.600696° Longitude: -88.189088°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.600696° Longitude: -88.189088°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5309B02, E5309B03, E5309B04, E5309B05, E5309B06, and E5309B08 were sampled within the construction zone adjacent to ISGS #2141A-9 (Lake Renwick Heron Rookery Nature Preserve). Refer to PSI Report for ISGS #2141A-9 (Lake Renwick Heron Rookery Nature Preserve) including Table 4-4, and Figures 4-4, 4-5, 4-6, and 4-7.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1307116, R1306449, R1306451, R1307107, R1306381, and R1306382.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

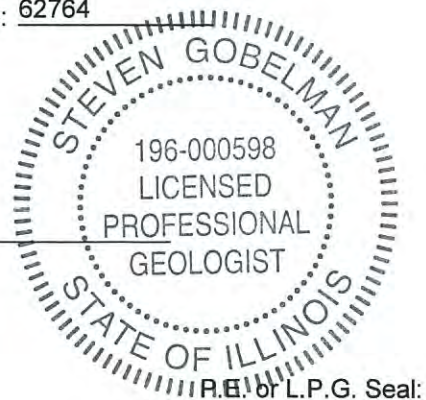
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-9 (Lake Renwick Heron Rookery Nature Preserve)								Comparison Criteria						
	E5309B02 E5309B02 (4-6) Soil	E5309B03 E5309B03 (2-4) Soil	E5309B04 E5309B04 (4-6) Soil	E5309B05 E5309B05 (2-4) Soil	E5309B06 E5309B06 (2-4) Soil	E5309B08 E5309B08 (2-4) Soil	MACs	MACs	MACs	MACs	TACO				
DEPTH (meters)	1.2-1.8	0.6-1.2	1.2-1.8	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	Most Stringent	Within an MSA	Within Chicago	SCGIER
pH	8.60	7.70	8.72	8.12	7.54	7.82									
<b>VOCs (µg/kg)</b>															
Acetone	ND U	ND U	3.3 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	25,000	--	--	--
Toluene	ND U	ND U	2.3 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	ND U	12,000	--	--	--
<b>SVOCs (µg/kg)</b>															
Di-n-butyl Phthalate	180 J	ND U	100 J	180 J	ND U	ND U	ND U	ND U	ND U	ND U	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>															
Aluminum	1,620	12,600	1,220	12,300	15,300	15,700									
Arsenic	5.01	6.5	4.5	8.2	9.8	9.9						11.3	13		
Barium	12.1	148	13.4	178	198	158						1,500			
Beryllium	0.09 J	0.69	0.10 J	0.67	0.90	0.79						22			
Boron	4 J	ND U	7 J	9 J	14 J	16 J						40			
Cadmium	ND U	0.08 J	ND U	ND U	ND U	ND U						5			
Calcium	145,000	2,730	155,000	1,300	3,580	3,430						--			
Chromium	4.26	16.4	3.8	16.9	20.7	19.7						21			
Cobalt	3.5 J	8.9	3.9 J	13.6	10.6	10.3						20			
Copper	10.4	12.1	8.5	9.4	17.8	15.5						2,900			
Iron	8,550	18,000 †m	9,100	19,200 †m	24,900 †m	23,000 †m						15,000	15,900		
Lead	4.1 J	14.0	5.7	17.3	22.8	18.2						107			
Magnesium	84,500	2,430	89,800	2,640	3,460	4,200						325,000			
Manganese	533	878 †m	642 †m	1,480 †m	1,030 †m	838 †m						630	636		
Mercury	0.008 J	0.023 J	ND U	0.022 J	0.043	0.042						1			
Nickel	8.8	12.8	7.7	15.3	19.1	17.7						100			
Potassium	500	1,260	360	910	1,700	870						--			
Selenium	ND U	0.9 J	ND U	0.9 J	ND U	ND U						1			
Silver	0.34 J	ND U	0.3 J	ND U	ND U	ND U						4			
Vanadium	7.2	29.2	6.1	31.7	36.6	35.5						550			
Zinc	27.4	59.1	18.4	53.4	79.2	56.8						5,100			
<b>TCLP Metals (mg/L)</b>															
Aluminum	ND U	0.31	ND U	0.37	0.51	0.43						--	--	--	--
Calcium	374	56.4	372	198	196	79.0						--	--	--	--
Iron	ND U	ND U	0.26	0.19	0.27	0.17						--	--	--	5
Magnesium	218	11.6	522	104	87.7	34.0						--	--	--	--
Manganese	1.88 L	0.020	5.08 L	0.298 L	0.221 L	0.058						--	--	--	0.15
Potassium	ND U	ND U	ND U	ND U	5.2	ND U						--	--	--	--
<b>SPLP Metals (mg/L)</b>															
Manganese	ND U	NA	0.022	0.043	0.098	NA						--	--	--	0.15





September 25, 2013

Service Request No: R1306381

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306381**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 110

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B08 (2-4)  
**Lab Code:** R1306381-001

**Service Request:** R1306381  
**Date Collected:** 8/30/13 0855  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.82	pH Units		1	NA	9/11/13 14:10	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306381-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.43		mg/L	0.20	1	9/11/13	9/18/13 03:02	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 03:02	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:02	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:02	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 03:02	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:02	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Calcium	6010C	79.0		mg/L	5.0	5	9/11/13	9/18/13 20:33	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:02	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Iron	6010C	0.17		mg/L	0.10	1	9/11/13	9/18/13 03:02	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Magnesium	6010C	34.0		mg/L	1.0	1	9/11/13	9/18/13 03:02	
Manganese	6010C	0.058		mg/L	0.010	1	9/11/13	9/18/13 03:02	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:31	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 03:02	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:02	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 03:02	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:02	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:02	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B08 (2-4)  
**Lab Code:** R1306381-001  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B05 (2-4)  
**Lab Code:** R1306381-010

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1450  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.12		pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306381-010

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.37		mg/L	0.20	1	9/11/13	9/18/13 04:48	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 04:48	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:48	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:48	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 04:48	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:48	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Calcium	6010C	198		mg/L	10	10	9/11/13	9/17/13 22:36	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:48	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Iron	6010C	0.19		mg/L	0.10	1	9/11/13	9/18/13 04:48	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Magnesium	6010C	104		mg/L	1.0	1	9/11/13	9/18/13 04:48	
Manganese	6010C	0.298		mg/L	0.010	1	9/11/13	9/18/13 04:48	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:49	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 04:48	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:48	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 04:48	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:48	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:48	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B05 (2-4)  
**Lab Code:** R1306381-010  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B04 (4-6)  
**Lab Code:** R1306381-011

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 1520  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.72	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1520  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306381-011

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 05:02	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:02	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:02	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:02	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:02	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:02	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Calcium	6010C	372		mg/L	20	20	9/11/13	9/18/13 21:39	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:02	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Iron	6010C	0.26		mg/L	0.10	1	9/11/13	9/18/13 05:02	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Magnesium	6010C	522		mg/L	10	10	9/11/13	9/17/13 22:42	
Manganese	6010C	5.08		mg/L	0.010	1	9/11/13	9/18/13 05:02	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:51	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:02	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:02	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:02	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:02	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:02	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B04 (4-6)  
**Lab Code:** R1306381-011  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1306381-015

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1200  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.54	pH Units		1	NA	9/11/13 14:10	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 1200  
**Date Received:** 9/ 4/13  
**Pre-Prep Date:** 9/10/13

**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1306381-015

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.51		mg/L	0.20	1	9/11/13	9/18/13 05:38	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:38	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:38	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:38	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:38	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Calcium	6010C	196		mg/L	10	10	9/11/13	9/17/13 23:26	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:38	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Iron	6010C	0.27		mg/L	0.10	1	9/11/13	9/18/13 05:38	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Magnesium	6010C	87.7		mg/L	1.0	1	9/11/13	9/18/13 05:38	
Manganese	6010C	0.221		mg/L	0.010	1	9/11/13	9/18/13 05:38	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:57	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Potassium	6010C	5.2		mg/L	5.0	1	9/11/13	9/18/13 05:38	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:38	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:38	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:38	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:38	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1306381-015  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10459

8753,09

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
IDOT US 30		EE-004325-0001-01770		PRESERVATIVE	
Project Manager		Report CC		NUMBER OF CONTAINERS	
Fayen Baker / Peter Johnson		Dean Teichert		GCMS VOAS • 8260 • 624 • CLP	
Company/Address		Ecology, Environment		GCMS SVOAS • 8270 • 825	
33 W Monroe St Suite 1416		Chicago IL 60613		GCMS SVOAS • 8021 • 801/802	
Phone #		Email		GCMS SVOAS • 8081 • 808	
312 596 1243		johnson@ecology.com		GCMS SVOAS • 8081 • 808	
Sampler's Signature		Sampler's Printed Name		GCMS SVOAS • 8081 • 808	
[Signature]		Scott Cooper		GCMS SVOAS • 8081 • 808	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	REMARKS/ALTERNATE DESCRIPTION
ES30B02(6-2)	009	9-3-13	1415	Soil	X
ES30B05(2-4)	010	9-3-13	1450	Soil	X
ES30B04(4-6)	011	9-3-13	1520	Soil	X
ES30B01(0-2)	012	9-3-13	1545	Soil	X
<del>ES30B03(0-2)</del>					

SPECIAL INSTRUCTIONS/COMMENTS	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
Metals	RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day	I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Data	PO # BILL TO:
See OAPP <input type="checkbox"/>	REQUESTED REPORT DATE	Edits Yes <input type="checkbox"/> No <input type="checkbox"/>	R1306381 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI
STATE WHERE SAMPLES WERE COLLECTED	RECEIVED BY	RELINQUISHED BY	Barcode
IL	[Signature]	[Signature]	
Relinquished Name	Printed Name	Printed Name	
Scott Cooper	John Swain		
Firm	Firm	Firm	
EC	EC		
Date/Time	Date/Time	Date/Time	
9-3-13 1700	9/13 1200		

→ TCEP Met + PH only  
→ SPL on Hold





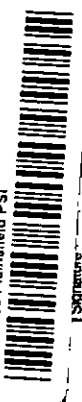
# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10458

10458

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
FDOT US30		EE-004335-0001-01770			
Project Manager		Report CC		PRESERVATIVE	
Katie Bunker/Christi Johnson		Dean Trebort			
Company/Address		Sample Collected Name		METALS TOTAL (List in comments below)	
Ecology; Environment 33 W Monroe St Suite 1710 Chicago IL 60603		John Cene. c.			
Phone #		DATE		METALS DISSOLVED (List in comments below)	
312 578 9413		9-3-13			
Sample's Signature		SAMPLING TIME		METALS (List in comments below)	
		10:55			
FOR OFFICE USE ONLY LAB ID		DATE		PCBs (0021, 0022, 008)	
013		9-3-13			
014		9-3-13			
018		9-3-13			
016		9-3-13			
018		9-3-13			
018		9-3-13			
CLIENT SAMPLE ID		MATRIX		GC VOLS (0260, 024, 025)	
ES3CMB04(6-8)		So-1			
ES3CMB02(0-2)		So-1			
ES309B06(2-4)		So-1			
ES3CMB02(4-6)		So-1			
ES3CMB01(2-4)		So-1			
ES3CMB01(2-4)		So-1			
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS	
Mobis		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 3 day		I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata Yes	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY	
IL					
RELINQUISHED BY		Signature		Signature	
		Printed Name		Printed Name	
W.S. Corp		Firm		Firm	
Date/Time 9-3-13/1700		Date/Time 9-3-13/1020		Date/Time	
Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time	

R1306381  
Ecology And Environment, Incorporated  
IDOT US30 Plainfield PSI





September 25, 2013

Service Request No: R1306382

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306382**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 312

## CASE NARRATIVE

This report contains analytical results for the following samples:  
Service Request Number: R1306382

<u>Lab ID</u>	<u>Client ID</u>
R1306382-001	E5309B08 (2-4)
R1306382-002	E5311B01 (6-8)
R1306382-003	E5311B03 (4-6)
R1306382-004	E5311B02 (2-4)
R1306382-005	E5311B05 (4-6)
R1306382-006	E5312B02 (0-2)
R1306382-007	E5312B01 (2-4)
R1306382-008	E5311B04 (10-12)
R1306382-009	E5310B02 (6-8)
R1306382-010	E5309B05 (2-4)
R1306382-011	E5309B04 (4-6)
R1306382-012	E5310B01 (0-2)
R1306382-013	E53CMB04 (6-8)
R1306382-014	E53CMB03 (0-2)
R1306382-015	E5309B06 (2-4)
R1306382-016	E53CMB02 (4-6)
R1306382-017	E53CMB01 (2-4)
R1306382-018	E53CMB01D (2-4)
R1306382-019	E5309B07 (0-1.5)
R1306382-020	E53WLB01 (2-4)
R1306382-021	E53WLB01 (12-14)

00004 REV

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5309B08 (2-4)  
Lab Code: R1306382-001

Service Request: R1306382  
Date Collected: 8/30/13 0855  
Date Received: 8/31/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.1	Percent	1.0	1	NA	9/4/13 09:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13

Basis: Dry  
 Percent Solids: 86.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	15700		mg/Kg	11	4	1	9/ 9/13	9/14/13 01:28	
Antimony, Total	6010C	0.5	BJ	mg/Kg	6.6	0.3	1	9/ 9/13	9/14/13 01:28	
Arsenic, Total	6010C	9.9		mg/Kg	1.1	0.5	1	9/ 9/13	9/14/13 01:28	
Barium, Total	6010C	158		mg/Kg	2.2	0.09	1	9/ 9/13	9/14/13 01:28	
Beryllium, Total	6010C	0.79		mg/Kg	0.33	0.03	1	9/ 9/13	9/14/13 01:28	
Boron, Total	6010C	16	J	mg/Kg	22	4	1	9/ 9/13	9/17/13 21:42	
Cadmium, Total	6010C	0.55	U	mg/Kg	0.55	0.07	1	9/ 9/13	9/14/13 01:28	
Calcium, Total	6010C	3430		mg/Kg	110	40	1	9/ 9/13	9/14/13 01:28	
Chromium, Total	6010C	19.7		mg/Kg	1.1	0.2	1	9/ 9/13	9/14/13 01:28	
Cobalt, Total	6010C	10.3		mg/Kg	5.5	0.06	1	9/ 9/13	9/14/13 01:28	
Copper, Total	6010C	15.5		mg/Kg	2.2	0.7	1	9/ 9/13	9/14/13 01:28	
Iron, Total	6010C	23000		mg/Kg	110	60	10	9/ 9/13	9/13/13 17:22	
Lead, Total	6010C	18.2		mg/Kg	5.5	0.3	1	9/ 9/13	9/14/13 01:28	
Magnesium, Total	6010C	4200		mg/Kg	110	2	1	9/ 9/13	9/14/13 01:28	
Manganese, Total	6010C	838		mg/Kg	11	2	10	9/ 9/13	9/13/13 17:22	
Mercury, Total	7471B	0.042		mg/Kg	0.038	0.006	1	9/ 9/13	9/9/13 17:50	
Nickel, Total	6010C	17.7		mg/Kg	4.4	0.10	1	9/ 9/13	9/14/13 01:28	
Potassium, Total	6010C	870		mg/Kg	220	20	1	9/ 9/13	9/14/13 01:28	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 9/13	9/14/13 01:28	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/ 9/13	9/14/13 01:28	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 9/13	9/14/13 01:28	
Vanadium, Total	6010C	35.5		mg/Kg	5.5	0.06	1	9/ 9/13	9/14/13 01:28	
Zinc, Total	6010C	56.8		mg/Kg	2.2	0.08	1	9/ 9/13	9/14/13 01:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 13:23

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9527.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.1	U	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.96	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.95	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.98	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	1.0	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.1	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.90	
108-88-3	Toluene	5.1	U	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 13:23

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\090513\T9527.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.97	
1330-20-7	Xylenes, Total	15	U	15	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	28-150	9/5/13 13:23	
Toluene-d8	106	66-138	9/5/13 13:23	
Dibromofluoromethane	100	63-138	9/5/13 13:23	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 17:13

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090613\AQ480.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	39	
95-50-1	1,2-Dichlorobenzene	380	U	380	43	
541-73-1	1,3-Dichlorobenzene	380	U	380	59	
106-46-7	1,4-Dichlorobenzene	380	U	380	44	
95-95-4	2,4,5-Trichlorophenol	380	U	380	67	
88-06-2	2,4,6-Trichlorophenol	380	U	380	56	
120-83-2	2,4-Dichlorophenol	380	U	380	52	
105-67-9	2,4-Dimethylphenol	380	U	380	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	380	U	380	82	
606-20-2	2,6-Dinitrotoluene	380	U	380	64	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	41	
91-57-6	2-Methylnaphthalene	380	U	380	39	
95-48-7	2-Methylphenol	380	U	380	50	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	380	U	380	57	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	70	
	3- and 4-Methylphenol Coelution	380	U	380	58	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	69	
59-50-7	4-Chloro-3-methylphenol	380	U	380	43	
106-47-8	4-Chloroaniline	380	U	380	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	55	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	380	U	380	55	
208-96-8	Acenaphthylene	380	U	380	52	
120-12-7	Anthracene	380	U	380	60	
56-55-3	Benz(a)anthracene	380	U	380	60	
50-32-8	Benzo(a)pyrene	380	U	380	64	
205-99-2	Benzo(b)fluoranthene	380	U	380	93	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 17:13

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\090613\AQ480.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	73	
207-08-9	Benzo(k)fluoranthene	380	U	380	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	46	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	59	
86-74-8	Carbazole	380	U	380	53	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	74	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	380	U	380	62	
86-73-7	Fluorene	380	U	380	49	
118-74-1	Hexachlorobenzene	380	U	380	59	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	61	
67-72-1	Hexachloroethane	380	U	380	54	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	64	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	43	
129-00-0	Pyrene	380	U	380	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 0855  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 17:13

Sample Name: E5309B08 (2-4)  
 Lab Code: R1306382-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\090613\AQ480.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	41-151	9/6/13 17:13	
2-Fluorobiphenyl	69	47-126	9/6/13 17:13	
2-Fluorophenol	61	16-129	9/6/13 17:13	
Nitrobenzene-d5	72	39-136	9/6/13 17:13	
Phenol-d6	60	10-145	9/6/13 17:13	
p-Terphenyl-d14	61	35-152	9/6/13 17:13	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B08 (2-4)  
**Lab Code:** R1306382-001  
**Matrix:** Soil

**Service Request:** R1306382

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B05 (2-4)  
**Lab Code:** R1306382-010

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1450  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.4	Percent	1.0	1	NA	9/5/13 13:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 79.4

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12300		mg/Kg	12	4	1	9/ 9/13	9/14/13 02:39	
Antimony, Total	6010C	0.3	BJ	mg/Kg	7.4	0.3	1	9/ 9/13	9/14/13 02:39	
Arsenic, Total	6010C	8.2		mg/Kg	1.2	0.5	1	9/ 9/13	9/14/13 02:39	
Barium, Total	6010C	178		mg/Kg	2.5	0.10	1	9/ 9/13	9/14/13 02:39	
Beryllium, Total	6010C	0.67		mg/Kg	0.37	0.04	1	9/ 9/13	9/14/13 02:39	
Boron, Total	6010C	9	J	mg/Kg	25	5	1	9/ 9/13	9/17/13 22:53	
Cadmium, Total	6010C	0.62	U	mg/Kg	0.62	0.08	1	9/ 9/13	9/14/13 02:39	
Calcium, Total	6010C	1300		mg/Kg	120	40	1	9/ 9/13	9/14/13 02:39	
Chromium, Total	6010C	16.9		mg/Kg	1.2	0.2	1	9/ 9/13	9/14/13 02:39	
Cobalt, Total	6010C	13.6		mg/Kg	6.2	0.07	1	9/ 9/13	9/14/13 02:39	
Copper, Total	6010C	9.4		mg/Kg	2.5	0.8	1	9/ 9/13	9/14/13 02:39	
Iron, Total	6010C	19200		mg/Kg	120	70	10	9/ 9/13	9/13/13 18:31	
Lead, Total	6010C	17.3		mg/Kg	6.2	0.3	1	9/ 9/13	9/14/13 02:39	
Magnesium, Total	6010C	2640		mg/Kg	120	2	1	9/ 9/13	9/14/13 02:39	
Manganese, Total	6010C	1480		mg/Kg	12	2	10	9/ 9/13	9/13/13 18:31	
Mercury, Total	7471B	0.022	J	mg/Kg	0.038	0.007	1	9/ 9/13	9/9/13 18:08	
Nickel, Total	6010C	15.3		mg/Kg	4.9	0.2	1	9/ 9/13	9/14/13 02:39	
Potassium, Total	6010C	910		mg/Kg	250	20	1	9/ 9/13	9/14/13 02:39	
Selenium, Total	6010C	0.9	J	mg/Kg	1.2	0.4	1	9/ 9/13	9/14/13 02:39	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/ 9/13	9/14/13 02:39	
Thallium, Total	6010C	6.2	U	mg/Kg	6.2	2.2	5	9/ 9/13	9/17/13 15:41	
Vanadium, Total	6010C	31.7		mg/Kg	6.2	0.07	1	9/ 9/13	9/14/13 02:39	
Zinc, Total	6010C	53.4		mg/Kg	2.5	0.09	1	9/ 9/13	9/14/13 02:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 18:40

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA12\DATA\090513\T9537.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .6

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.8	U	3.8	2.2	
71-43-2	Benzene	3.8	U	3.8	0.22	
75-27-4	Bromodichloromethane	3.8	U	3.8	0.47	
75-25-2	Bromoform	3.8	U	3.8	0.71	
74-83-9	Bromomethane	3.8	U	3.8	1.1	
78-93-3	2-Butanone (MEK)	3.8	U	3.8	1.8	
75-15-0	Carbon Disulfide	3.8	U	3.8	0.94	
56-23-5	Carbon Tetrachloride	3.8	U	3.8	0.70	
108-90-7	Chlorobenzene	3.8	U	3.8	0.22	
75-00-3	Chloroethane	3.8	U	3.8	2.2	
67-66-3	Chloroform	3.8	U	3.8	0.96	
74-87-3	Chloromethane	3.8	U	3.8	0.31	
124-48-1	Dibromochloromethane	3.8	U	3.8	0.56	
75-34-3	1,1-Dichloroethane	3.8	U	3.8	0.95	
107-06-2	1,2-Dichloroethane	3.8	U	3.8	0.47	
75-35-4	1,1-Dichloroethene	3.8	U	3.8	0.97	
156-59-2	cis-1,2-Dichloroethene	3.8	U	3.8	0.72	
156-60-5	trans-1,2-Dichloroethene	3.8	U	3.8	0.65	
78-87-5	1,2-Dichloropropane	3.8	U	3.8	0.74	
10061-01-5	cis-1,3-Dichloropropene	3.8	U	3.8	0.69	
10061-02-6	trans-1,3-Dichloropropene	3.8	U	3.8	0.16	
100-41-4	Ethylbenzene	3.8	U	3.8	0.18	
591-78-6	2-Hexanone	3.8	U	3.8	0.92	
75-09-2	Methylene Chloride	3.8	U	3.8	0.44	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.8	U	3.8	0.75	
100-42-5	Styrene	3.8	U	3.8	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	3.8	U	3.8	0.62	
127-18-4	Tetrachloroethene	3.8	U	3.8	0.67	
108-88-3	Toluene	3.8	U	3.8	0.76	
71-55-6	1,1,1-Trichloroethane	3.8	U	3.8	0.56	
79-00-5	1,1,2-Trichloroethane	3.8	U	3.8	0.56	
79-01-6	Trichloroethene	3.8	U	3.8	0.77	
75-01-4	Vinyl Chloride	3.8	U	3.8	1.4	
95-47-6	o-Xylene	3.8	U	3.8	0.37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 18:40

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA12\DATA\090513\T9537.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .6

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	7.6 U	7.6	0.83	
1634-04-4	Methyl tert-Butyl Ether	3.8 U	3.8	0.72	
1330-20-7	Xylenes, Total	11 U	11	1.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	28-150	9/5/13 18:40	
Toluene-d8	106	66-138	9/5/13 18:40	
Dibromofluoromethane	99	63-138	9/5/13 18:40	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:13

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS850.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	420	U	420	42	
95-50-1	1,2-Dichlorobenzene	420	U	420	47	
541-73-1	1,3-Dichlorobenzene	420	U	420	63	
106-46-7	1,4-Dichlorobenzene	420	U	420	48	
95-95-4	2,4,5-Trichlorophenol	420	U	420	73	
88-06-2	2,4,6-Trichlorophenol	420	U	420	61	
120-83-2	2,4-Dichlorophenol	420	U	420	56	
105-67-9	2,4-Dimethylphenol	420	U	420	46	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	420	U	420	89	
606-20-2	2,6-Dinitrotoluene	420	U	420	69	
91-58-7	2-Chloronaphthalene	420	U	420	44	
95-57-8	2-Chlorophenol	420	U	420	44	
91-57-6	2-Methylnaphthalene	420	U	420	42	
95-48-7	2-Methylphenol	420	U	420	55	
88-74-4	2-Nitroaniline	2100	U	2100	350	
88-75-5	2-Nitrophenol	420	U	420	62	
91-94-1	3,3'-Dichlorobenzidine	420	U	420	76	
	3- and 4-Methylphenol Coelution	420	U	420	63	
99-09-2	3-Nitroaniline	2100	U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	610	
101-55-3	4-Bromophenyl Phenyl Ether	420	U	420	75	
59-50-7	4-Chloro-3-methylphenol	420	U	420	46	
106-47-8	4-Chloroaniline	420	U	420	81	
7005-72-3	4-Chlorophenyl Phenyl Ether	420	U	420	59	
100-01-6	4-Nitroaniline	2100	U	2100	460	
100-02-7	4-Nitrophenol	2100	U	2100	310	
83-32-9	Acenaphthene	420	U	420	60	
208-96-8	Acenaphthylene	420	U	420	56	
120-12-7	Anthracene	420	U	420	65	
56-55-3	Benz(a)anthracene	420	U	420	64	
50-32-8	Benzo(a)pyrene	420	U	420	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:13

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS850.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	420	U	420	110	
191-24-2	Benzo(g,h,i)perylene	420	U	420	79	
207-08-9	Benzo(k)fluoranthene	420	U	420	75	
108-60-1	2,2'-Oxybis(1-chloropropane)	420	U	420	50	
111-91-1	Bis(2-chloroethoxy)methane	420	U	420	58	
111-44-4	Bis(2-chloroethyl) Ether	420	U	420	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	420	U	420	58	
85-68-7	Butyl Benzyl Phthalate	420	U	420	64	
86-74-8	Carbazole	420	U	420	58	
218-01-9	Chrysene	420	U	420	59	
84-74-2	Di-n-butyl Phthalate	180	J	420	120	
117-84-0	Di-n-octyl Phthalate	420	U	420	80	
53-70-3	Dibenz(a,h)anthracene	420	U	420	120	
132-64-9	Dibenzofuran	420	U	420	46	
84-66-2	Diethyl Phthalate	420	U	420	54	
131-11-3	Dimethyl Phthalate	420	U	420	60	
206-44-0	Fluoranthene	420	U	420	67	
86-73-7	Fluorene	420	U	420	53	
118-74-1	Hexachlorobenzene	420	U	420	64	
87-68-3	Hexachlorobutadiene	420	U	420	46	
77-47-4	Hexachlorocyclopentadiene	420	U	420	66	
67-72-1	Hexachloroethane	420	U	420	58	
193-39-5	Indeno(1,2,3-cd)pyrene	420	U	420	69	
78-59-1	Isophorone	420	U	420	56	
621-64-7	N-Nitrosodi-n-propylamine	420	U	420	48	
86-30-6	N-Nitrosodiphenylamine	420	U	420	65	
91-20-3	Naphthalene	420	U	420	42	
98-95-3	Nitrobenzene	420	U	420	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	350	
85-01-8	Phenanthrene	420	U	420	56	
108-95-2	Phenol	420	U	420	46	
129-00-0	Pyrene	420	U	420	81	

*09/24/13 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:13

Sample Name: E5309B05 (2-4)  
 Lab Code: R1306382-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS850.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	41-151	9/9/13 21:13	
2-Fluorobiphenyl	69	47-126	9/9/13 21:13	
2-Fluorophenol	62	16-129	9/9/13 21:13	
Nitrobenzene-d5	68	39-136	9/9/13 21:13	
Phenol-d6	67	10-145	9/9/13 21:13	
p-Terphenyl-d14	60	35-152	9/9/13 21:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Service Request: R1306382  
 Date Collected: 9/3/13 1520  
 Date Received: 9/4/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.4	Percent	1.0	1	NA	9/5/13 13:35	

*00087 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Service Request: R1306382  
 Date Collected: 9/3/13 1520  
 Date Received: 9/4/13

Basis: Dry  
 Percent Solids: 94.4

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1220		mg/Kg	10	3	1	9/9/13	9/14/13 02:46	
Antimony, Total	6010C	6.1	U	mg/Kg	6.1	0.2	1	9/9/13	9/14/13 02:46	
Arsenic, Total	6010C	4.5		mg/Kg	1.0	0.4	1	9/9/13	9/14/13 02:46	
Barium, Total	6010C	13.4		mg/Kg	2.0	0.08	1	9/9/13	9/14/13 02:46	
Beryllium, Total	6010C	0.10	J	mg/Kg	0.30	0.03	1	9/9/13	9/14/13 02:46	
Boron, Total	6010C	7	J	mg/Kg	20	4	1	9/9/13	9/17/13 23:00	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.07	1	9/9/13	9/14/13 02:46	
Calcium, Total	6010C	155000		mg/Kg	1000	300	10	9/9/13	9/13/13 18:38	
Chromium, Total	6010C	3.8		mg/Kg	1.0	0.10	1	9/9/13	9/14/13 02:46	
Cobalt, Total	6010C	3.9	J	mg/Kg	5.0	0.06	1	9/9/13	9/14/13 02:46	
Copper, Total	6010C	8.5		mg/Kg	2.0	0.7	1	9/9/13	9/14/13 02:46	
Iron, Total	6010C	9100		mg/Kg	100	60	10	9/9/13	9/13/13 18:38	
Lead, Total	6010C	5.7		mg/Kg	5.0	0.3	1	9/9/13	9/14/13 02:46	
Magnesium, Total	6010C	89800		mg/Kg	1000	20	10	9/9/13	9/13/13 18:38	
Manganese, Total	6010C	642		mg/Kg	10	2	10	9/9/13	9/13/13 18:38	
Mercury, Total	7471B	0.035	U	mg/Kg	0.035	0.006	1	9/9/13	9/9/13 18:09	
Nickel, Total	6010C	7.7		mg/Kg	4.0	0.09	1	9/9/13	9/14/13 02:46	
Potassium, Total	6010C	360		mg/Kg	200	20	1	9/9/13	9/14/13 02:46	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/9/13	9/14/13 02:46	
Silver, Total	6010C	0.3	J	mg/Kg	1.0	0.08	1	9/9/13	9/14/13 02:46	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/9/13	9/14/13 02:46	
Vanadium, Total	6010C	6.1		mg/Kg	5.0	0.05	1	9/9/13	9/14/13 02:46	
Zinc, Total	6010C	18.4		mg/Kg	2.0	0.08	1	9/9/13	9/14/13 02:46	

*00088 rev*

## ALS Group USA, Corp. dba ALS Environmental

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1520  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 19:11

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.4

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA12\DATA\090513\T9538.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.3 J	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.60	
75-25-2	Bromoform	4.9 U	4.9	0.91	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.90	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.8	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.39	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.84	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.96	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.79	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.86	
108-88-3	Toluene	2.3 J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.72	
79-01-6	Trichloroethene	4.9 U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.8	
95-47-6	o-Xylene	4.9 U	4.9	0.47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1520  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 19:11

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUATA\MSVOA12\DATA\090513\T9538.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	9.7 U	9.7	1.1	
1634-04-4	Methyl tert-Butyl Ether	4.9 U	4.9	0.92	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/5/13 19:11	
Toluene-d8	107	66-138	9/5/13 19:11	
Dibromofluoromethane	100	63-138	9/5/13 19:11	

*00090 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1520  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:51

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS851.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	59	



## ALS Group USA, Corp. dba ALS Environmental

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1520  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:51

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.4

## Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS851.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	350 U	350	85	
191-24-2	Benzo(g,h,i)perylene	350 U	350	66	
207-08-9	Benzo(k)fluoranthene	350 U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350 U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350 U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350 U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350 U	350	49	
85-68-7	Butyl Benzyl Phthalate	350 U	350	54	
86-74-8	Carbazole	350 U	350	49	
218-01-9	Chrysene	350 U	350	49	
84-74-2	Di-n-butyl Phthalate	100 J	350	96	
117-84-0	Di-n-octyl Phthalate	350 U	350	67	
53-70-3	Dibenz(a,h)anthracene	350 U	350	95	
132-64-9	Dibenzofuran	350 U	350	39	
84-66-2	Diethyl Phthalate	350 U	350	46	
131-11-3	Dimethyl Phthalate	350 U	350	50	
206-44-0	Fluoranthene	350 U	350	56	
86-73-7	Fluorene	350 U	350	44	
118-74-1	Hexachlorobenzene	350 U	350	54	
87-68-3	Hexachlorobutadiene	350 U	350	39	
77-47-4	Hexachlorocyclopentadiene	350 U	350	56	
67-72-1	Hexachloroethane	350 U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350 U	350	58	
78-59-1	Isophorone	350 U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350 U	350	40	
86-30-6	N-Nitrosodiphenylamine	350 U	350	55	
91-20-3	Naphthalene	350 U	350	35	
98-95-3	Nitrobenzene	350 U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800 U	1800	290	
85-01-8	Phenanthrene	350 U	350	47	
108-95-2	Phenol	350 U	350	39	
129-00-0	Pyrene	350 U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1520  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 21:51

Sample Name: E5309B04 (4-6)  
 Lab Code: R1306382-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS851.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	62	41-151	9/9/13 21:51	
2-Fluorobiphenyl	75	47-126	9/9/13 21:51	
2-Fluorophenol	55	16-129	9/9/13 21:51	
Nitrobenzene-d5	71	39-136	9/9/13 21:51	
Phenol-d6	64	10-145	9/9/13 21:51	
p-Terphenyl-d14	66	35-152	9/9/13 21:51	

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Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1306382-015

**Service Request:** R1306382  
**Date Collected:** 9/ 3/13 1200  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	80.3	Percent	1.0	1	NA	9/5/13 13:35	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Service Request: R1306382  
 Date Collected: 9/ 3/13 1200  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 80.3

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	15300	mg/Kg	12	4	1	9/9/13	9/14/13 03:12	
Antimony, Total	6010C	7.1 U	mg/Kg	7.1	0.3	1	9/9/13	9/14/13 03:12	
Arsenic, Total	6010C	9.8	mg/Kg	1.2	0.5	1	9/9/13	9/14/13 03:12	
Barium, Total	6010C	198	mg/Kg	2.4	0.09	1	9/9/13	9/14/13 03:12	
Beryllium, Total	6010C	0.90	mg/Kg	0.36	0.03	1	9/9/13	9/14/13 03:12	
Boron, Total	6010C	14 J	mg/Kg	24	5	1	9/9/13	9/17/13 23:26	
Cadmium, Total	6010C	0.59 U	mg/Kg	0.59	0.08	1	9/9/13	9/14/13 03:12	
Calcium, Total	6010C	3580	mg/Kg	120	40	1	9/9/13	9/14/13 03:12	
Chromium, Total	6010C	20.7	mg/Kg	1.2	0.2	1	9/9/13	9/14/13 03:12	
Cobalt, Total	6010C	10.6	mg/Kg	5.9	0.07	1	9/9/13	9/14/13 03:12	
Copper, Total	6010C	17.8	mg/Kg	2.4	0.8	1	9/9/13	9/14/13 03:12	
Iron, Total	6010C	24900	mg/Kg	120	70	10	9/9/13	9/13/13 19:03	
Lead, Total	6010C	22.8	mg/Kg	5.9	0.3	1	9/9/13	9/14/13 03:12	
Magnesium, Total	6010C	3460	mg/Kg	120	2	1	9/9/13	9/14/13 03:12	
Manganese, Total	6010C	1030	mg/Kg	12	2	10	9/9/13	9/13/13 19:03	
Mercury, Total	7471B	0.043	mg/Kg	0.041	0.007	1	9/9/13	9/9/13 18:16	
Nickel, Total	6010C	19.1	mg/Kg	4.7	0.10	1	9/9/13	9/14/13 03:12	
Potassium, Total	6010C	1700	mg/Kg	240	20	1	9/9/13	9/14/13 03:12	
Selenium, Total	6010C	1.2 U	mg/Kg	1.2	0.4	1	9/9/13	9/14/13 03:12	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	0.10	1	9/9/13	9/14/13 03:12	
Thallium, Total	6010C	1.2 U	mg/Kg	1.2	0.5	1	9/9/13	9/14/13 03:12	
Vanadium, Total	6010C	36.6	mg/Kg	5.9	0.06	1	9/9/13	9/14/13 03:12	
Zinc, Total	6010C	79.2	mg/Kg	2.4	0.09	1	9/9/13	9/14/13 03:12	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1200  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 19:45

Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4921.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .62

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.9	U	3.9	2.2	
71-43-2	Benzene	3.9	U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9	U	3.9	0.48	
75-25-2	Bromoform	3.9	U	3.9	0.72	
74-83-9	Bromomethane	3.9	U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9	U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9	U	3.9	0.96	
56-23-5	Carbon Tetrachloride	3.9	U	3.9	0.72	
108-90-7	Chlorobenzene	3.9	U	3.9	0.23	
75-00-3	Chloroethane	3.9	U	3.9	2.3	
67-66-3	Chloroform	3.9	U	3.9	0.98	
74-87-3	Chloromethane	3.9	U	3.9	0.31	
124-48-1	Dibromochloromethane	3.9	U	3.9	0.57	
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.97	
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9	U	3.9	0.99	
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.74	
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.67	
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.75	
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.70	
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.16	
100-41-4	Ethylbenzene	3.9	U	3.9	0.18	
591-78-6	2-Hexanone	3.9	U	3.9	0.94	
75-09-2	Methylene Chloride	3.9	U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	0.76	
100-42-5	Styrene	3.9	U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.63	
127-18-4	Tetrachloroethene	3.9	U	3.9	0.68	
108-88-3	Toluene	3.9	U	3.9	0.78	
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.57	
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	0.57	
79-01-6	Trichloroethene	3.9	U	3.9	0.78	
75-01-4	Vinyl Chloride	3.9	U	3.9	1.5	
95-47-6	o-Xylene	3.9	U	3.9	0.38	

*0072 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1200  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 19:45

Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090513\K4921.D\

Analysis Lot: 357060  
 Instrument Name: R-MS-07  
 Dilution Factor: .62

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	7.7 U	7.7	0.85	
1634-04-4	Methyl tert-Butyl Ether	3.9 U	3.9	0.73	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	28-150	9/5/13 19:45	
Toluene-d8	101	66-138	9/5/13 19:45	
Dibromofluoromethane	102	63-138	9/5/13 19:45	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1200  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:17

Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS855.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410	U	410	42	
95-50-1	1,2-Dichlorobenzene	410	U	410	46	
541-73-1	1,3-Dichlorobenzene	410	U	410	63	
106-46-7	1,4-Dichlorobenzene	410	U	410	48	
95-95-4	2,4,5-Trichlorophenol	410	U	410	72	
88-06-2	2,4,6-Trichlorophenol	410	U	410	61	
120-83-2	2,4-Dichlorophenol	410	U	410	55	
105-67-9	2,4-Dimethylphenol	410	U	410	46	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	410	U	410	88	
606-20-2	2,6-Dinitrotoluene	410	U	410	69	
91-58-7	2-Chloronaphthalene	410	U	410	43	
95-57-8	2-Chlorophenol	410	U	410	43	
91-57-6	2-Methylnaphthalene	410	U	410	42	
95-48-7	2-Methylphenol	410	U	410	54	
88-74-4	2-Nitroaniline	2100	U	2100	350	
88-75-5	2-Nitrophenol	410	U	410	62	
91-94-1	3,3'-Dichlorobenzidine	410	U	410	75	
	3- and 4-Methylphenol Coelution	410	U	410	63	
99-09-2	3-Nitroaniline	2100	U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	600	
101-55-3	4-Bromophenyl Phenyl Ether	410	U	410	74	
59-50-7	4-Chloro-3-methylphenol	410	U	410	46	
106-47-8	4-Chloroaniline	410	U	410	80	
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U	410	58	
100-01-6	4-Nitroaniline	2100	U	2100	450	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	410	U	410	59	
208-96-8	Acenaphthylene	410	U	410	55	
120-12-7	Anthracene	410	U	410	65	
56-55-3	Benz(a)anthracene	410	U	410	64	
50-32-8	Benzo(a)pyrene	410	U	410	69	

00123 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1200  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:17

Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS855.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	410	U	410	100	
191-24-2	Benzo(g,h,i)perylene	410	U	410	78	
207-08-9	Benzo(k)fluoranthene	410	U	410	74	
108-60-1	2,2'-Oxybis(1-chloropropane)	410	U	410	50	
111-91-1	Bis(2-chloroethoxy)methane	410	U	410	57	
111-44-4	Bis(2-chloroethyl) Ether	410	U	410	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	410	U	410	57	
85-68-7	Butyl Benzyl Phthalate	410	U	410	63	
86-74-8	Carbazole	410	U	410	57	
218-01-9	Chrysene	410	U	410	58	
84-74-2	Di-n-butyl Phthalate	410	U	410	120	
117-84-0	Di-n-octyl Phthalate	410	U	410	79	
53-70-3	Dibenz(a,h)anthracene	410	U	410	120	
132-64-9	Dibenzofuran	410	U	410	45	
84-66-2	Diethyl Phthalate	410	U	410	54	
131-11-3	Dimethyl Phthalate	410	U	410	59	
206-44-0	Fluoranthene	410	U	410	66	
86-73-7	Fluorene	410	U	410	52	
118-74-1	Hexachlorobenzene	410	U	410	63	
87-68-3	Hexachlorobutadiene	410	U	410	46	
77-47-4	Hexachlorocyclopentadiene	410	U	410	66	
67-72-1	Hexachloroethane	410	U	410	57	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	410	68	
78-59-1	Isophorone	410	U	410	55	
621-64-7	N-Nitrosodi-n-propylamine	410	U	410	47	
86-30-6	N-Nitrosodiphenylamine	410	U	410	64	
91-20-3	Naphthalene	410	U	410	42	
98-95-3	Nitrobenzene	410	U	410	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	410	U	410	56	
108-95-2	Phenol	410	U	410	46	
129-00-0	Pyrene	410	U	410	80	

00/24rev



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1200  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/10/13 00:17

Sample Name: E5309B06 (2-4)  
 Lab Code: R1306382-015

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS855.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	41-151	9/10/13 00:17	
2-Fluorobiphenyl	70	47-126	9/10/13 00:17	
2-Fluorophenol	58	16-129	9/10/13 00:17	
Nitrobenzene-d5	68	39-136	9/10/13 00:17	
Phenol-d6	65	10-145	9/10/13 00:17	
p-Terphenyl-d14	62	35-152	9/10/13 00:17	

*00125 rev*



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455 E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)												PRESERVATIVE		PRELIMINARY TESTS		REMARKS/ALTERNATE DESCRIPTION	
Client Sample ID		FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	GCMS VOA	GCMS SVOA	GC VOA	PESTICIDES	PCBs	METALS TOTAL	METALS DISSOLVED	VOCA	SVC	Total TRM	TRM	pH	% Solids			
E5309808(2-4)	001	8-30-13	0855	Soil	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
E5311301(6-8)	002	8-30-13	1000	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
E5311601	003	8-30-13	1105	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
E5311303(4-6)	004	8-30-13	1140	Soil	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
E5311304(10-12)	005	8-30-13	1330	Soil	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		i. Results Only ii. Results + OC Summaries (LCS, DUP, MS/MSD as required) iii. Results + OC and Calibration Summaries iv. Data Validation Report with Raw Data		PO # BILL TO:	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edits Yes		R1306382 5	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		Ecology And Environment, Incorporated US30 Plainfield P.S.I.	
Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]
Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]	Printed Name: [Name]
Firm: [Firm]	Firm: [Firm]	Firm: [Firm]	Firm: [Firm]	Firm: [Firm]	Firm: [Firm]	Firm: [Firm]	Firm: [Firm]
Date/Time: 8-30-13/1630	Date/Time: [Date/Time]	Date/Time: [Date/Time]	Date/Time: [Date/Time]	Date/Time: [Date/Time]	Date/Time: [Date/Time]	Date/Time: [Date/Time]	Date/Time: [Date/Time]

→ Soil To be via / SWA / Met only  
→ SLUR on hold





September 25, 2013

Service Request No: R1306449

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:


Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306449**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For:*

Page 1 of 240

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1306449-012

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 0940  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.3	Percent	1.0	1	NA	9/6/13 12:08	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1306449-012

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 0940  
**Date Received:** 9/ 5/13

**Basis:** Dry  
**Percent Solids:** 95.3

**Inorganic Parameters**

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1620	mg/Kg	10	2.8	1	9/11/13	9/19/13 10:54	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	0.2	1	9/11/13	9/19/13 10:54	
Arsenic, Total	6010C	5.01	mg/Kg	1.0	0.40	1	9/11/13	9/19/13 10:54	
Barium, Total	6010C	12.1	mg/Kg	2.0	0.08	1	9/11/13	9/19/13 10:54	
Beryllium, Total	6010C	0.09 J	mg/Kg	0.30	0.03	1	9/11/13	9/19/13 10:54	
Boron, Total	6010C	4 J	mg/Kg	20	4	1	9/11/13	9/19/13 10:54	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	0.06	1	9/11/13	9/19/13 10:54	
Calcium, Total	6010C	145000	mg/Kg	1000	290	10	9/11/13	9/18/13 10:54	
Chromium, Total	6010C	4.26	mg/Kg	1.0	0.10	1	9/11/13	9/19/13 10:54	
Cobalt, Total	6010C	3.5 J	mg/Kg	5.0	0.06	1	9/11/13	9/19/13 10:54	
Copper, Total	6010C	10.4	mg/Kg	2.0	0.7	1	9/11/13	9/19/13 10:54	
Iron, Total	6010C	8550	mg/Kg	100	53	10	9/11/13	9/18/13 10:54	
Lead, Total	6010C	4.1 J	mg/Kg	5.0	0.2	1	9/11/13	9/19/13 10:54	
Magnesium, Total	6010C	84500	mg/Kg	1000	20	10	9/11/13	9/18/13 10:54	
Manganese, Total	6010C	533	mg/Kg	1.0	0.11	1	9/11/13	9/19/13 10:54	
Mercury, Total	7471B	0.008 J	mg/Kg	0.034	0.006	1	9/12/13	9/12/13 18:55	
Nickel, Total	6010C	8.8	mg/Kg	4.0	0.09	1	9/11/13	9/19/13 10:54	
Potassium, Total	6010C	500	mg/Kg	200	20	1	9/11/13	9/19/13 10:54	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.29	1	9/11/13	9/19/13 10:54	
Silver, Total	6010C	0.34 J	mg/Kg	1.0	0.08	1	9/11/13	9/19/13 10:54	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.36	1	9/11/13	9/19/13 10:54	
Vanadium, Total	6010C	7.2	mg/Kg	5.0	0.05	1	9/11/13	9/19/13 10:54	
Zinc, Total	6010C	27.4	mg/Kg	2.0	0.08	1	9/11/13	9/19/13 10:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 0940  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 19:06

Sample Name: E5309B02 (4-6)  
 Lab Code: R1306449-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9563.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .97

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.1	U	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.95	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.94	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.97	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	0.99	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.0	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.90	
108-88-3	Toluene	5.1	U	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.49	
179601-23-1	m,p-Xylenes	10	U	10	1.2	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 0940  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 19:06

Sample Name: E5309B02 (4-6)  
 Lab Code: R1306449-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9563.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .97

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.96	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	28-150	9/6/13 19:06	
Toluene-d8	104	66-138	9/6/13 19:06	
Dibromofluoromethane	96	63-138	9/6/13 19:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 0940  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:05

Sample Name: E5309B02 (4-6)  
 Lab Code: R1306449-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS914.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	74	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	36	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	63	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	62	
59-50-7	4-Chloro-3-methylphenol	350	U	350	38	
106-47-8	4-Chloroaniline	350	U	350	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	58	
205-99-2	Benzo(b)fluoranthene	350	U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 0940  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:05

Sample Name: E5309B02 (4-6)  
 Lab Code: R1306449-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS914.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	180	J	350	95	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	55	
67-72-1	Hexachloroethane	350	U	350	48	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	46	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	38	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 0940  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:05

Sample Name: E5309B02 (4-6)  
 Lab Code: R1306449-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS914.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/12/13 15:05	
2-Fluorobiphenyl	87	47-126	9/12/13 15:05	
2-Fluorophenol	63	16-129	9/12/13 15:05	
Nitrobenzene-d5	81	39-136	9/12/13 15:05	
Phenol-d6	71	10-145	9/12/13 15:05	
p-Terphenyl-d14	76	35-152	9/12/13 15:05	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1306449-012  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B03 (2-4)  
**Lab Code:** R1306449-013

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1015  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.0	Percent	1.0	1	NA	9/6/13 12:08	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B03 (2-4)  
**Lab Code:** R1306449-013

**Service Request:** R1306449  
**Date Collected:** 9/4/13 1015  
**Date Received:** 9/5/13

**Basis:** Dry  
**Percent Solids:** 79.0

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12600		mg/Kg	12	4	1	9/11/13	9/19/13 11:01	
Antimony, Total	6010C	7.3	U	mg/Kg	7.3	0.3	1	9/11/13	9/19/13 11:01	
Arsenic, Total	6010C	6.5		mg/Kg	1.2	0.5	1	9/11/13	9/19/13 11:01	
Barium, Total	6010C	148		mg/Kg	2.4	0.09	1	9/11/13	9/19/13 11:01	
Beryllium, Total	6010C	0.69		mg/Kg	0.37	0.04	1	9/11/13	9/19/13 11:01	
Boron, Total	6010C	24	U	mg/Kg	24	5	1	9/11/13	9/19/13 11:01	
Cadmium, Total	6010C	0.08	J	mg/Kg	0.61	0.08	1	9/11/13	9/19/13 11:01	
Calcium, Total	6010C	2730		mg/Kg	120	40	1	9/11/13	9/19/13 11:01	
Chromium, Total	6010C	16.4		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 11:01	
Cobalt, Total	6010C	8.9		mg/Kg	6.1	0.07	1	9/11/13	9/19/13 11:01	
Copper, Total	6010C	12.1		mg/Kg	2.4	0.8	1	9/11/13	9/19/13 11:01	
Iron, Total	6010C	18000		mg/Kg	120	70	10	9/11/13	9/18/13 11:00	
Lead, Total	6010C	14.0		mg/Kg	6.1	0.3	1	9/11/13	9/19/13 11:01	
Magnesium, Total	6010C	2430		mg/Kg	120	2	1	9/11/13	9/19/13 11:01	
Manganese, Total	6010C	878		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 11:01	
Mercury, Total	7471B	0.023	J	mg/Kg	0.040	0.007	1	9/12/13	9/12/13 18:57	
Nickel, Total	6010C	12.8		mg/Kg	4.9	0.2	1	9/11/13	9/19/13 11:01	
Potassium, Total	6010C	1260		mg/Kg	240	20	1	9/11/13	9/19/13 11:01	
Selenium, Total	6010C	0.9	J	mg/Kg	1.2	0.4	1	9/11/13	9/19/13 11:01	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/11/13	9/19/13 11:01	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/11/13	9/20/13 11:58	
Vanadium, Total	6010C	29.2		mg/Kg	6.1	0.06	1	9/11/13	9/19/13 11:01	
Zinc, Total	6010C	59.1		mg/Kg	2.4	0.09	1	9/11/13	9/19/13 11:01	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 19:38

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306449-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9564.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .95

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	6.0	U	6.0	3.4	
71-43-2	Benzene	6.0	U	6.0	0.35	
75-27-4	Bromodichloromethane	6.0	U	6.0	0.74	
75-25-2	Bromoform	6.0	U	6.0	1.2	
74-83-9	Bromomethane	6.0	U	6.0	1.7	
78-93-3	2-Butanone (MEK)	6.0	U	6.0	2.8	
75-15-0	Carbon Disulfide	6.0	U	6.0	1.5	
56-23-5	Carbon Tetrachloride	6.0	U	6.0	1.2	
108-90-7	Chlorobenzene	6.0	U	6.0	0.35	
75-00-3	Chloroethane	6.0	U	6.0	3.5	
67-66-3	Chloroform	6.0	U	6.0	1.6	
74-87-3	Chloromethane	6.0	U	6.0	0.49	
124-48-1	Dibromochloromethane	6.0	U	6.0	0.88	
75-34-3	1,1-Dichloroethane	6.0	U	6.0	1.6	
107-06-2	1,2-Dichloroethane	6.0	U	6.0	0.74	
75-35-4	1,1-Dichloroethene	6.0	U	6.0	1.6	
156-59-2	cis-1,2-Dichloroethene	6.0	U	6.0	1.2	
156-60-5	trans-1,2-Dichloroethene	6.0	U	6.0	1.1	
78-87-5	1,2-Dichloropropane	6.0	U	6.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	6.0	U	6.0	1.1	
10061-02-6	trans-1,3-Dichloropropene	6.0	U	6.0	0.25	
100-41-4	Ethylbenzene	6.0	U	6.0	0.28	
591-78-6	2-Hexanone	6.0	U	6.0	1.5	
75-09-2	Methylene Chloride	6.0	U	6.0	0.69	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.0	U	6.0	1.2	
100-42-5	Styrene	6.0	U	6.0	0.37	
79-34-5	1,1,2,2-Tetrachloroethane	6.0	U	6.0	0.98	
127-18-4	Tetrachloroethene	6.0	U	6.0	1.1	
108-88-3	Toluene	6.0	U	6.0	1.3	
71-55-6	1,1,1-Trichloroethane	6.0	U	6.0	0.88	
79-00-5	1,1,2-Trichloroethane	6.0	U	6.0	0.88	
79-01-6	Trichloroethene	6.0	U	6.0	1.3	
75-01-4	Vinyl Chloride	6.0	U	6.0	2.3	
95-47-6	o-Xylene	6.0	U	6.0	0.58	
179601-23-1	m,p-Xylenes	12	U	12	1.4	



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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 19:38

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306449-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9564.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .95

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.0	U	6.0	1.2	
1330-20-7	Xylenes, Total	18	U	18	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	28-150	9/6/13 19:38	
Toluene-d8	104	66-138	9/6/13 19:38	
Dibromofluoromethane	97	63-138	9/6/13 19:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:43

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306449-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS915.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	420	U	420	42	
95-50-1	1,2-Dichlorobenzene	420	U	420	47	
541-73-1	1,3-Dichlorobenzene	420	U	420	64	
106-46-7	1,4-Dichlorobenzene	420	U	420	48	
95-95-4	2,4,5-Trichlorophenol	420	U	420	73	
88-06-2	2,4,6-Trichlorophenol	420	U	420	62	
120-83-2	2,4-Dichlorophenol	420	U	420	56	
105-67-9	2,4-Dimethylphenol	420	U	420	47	
51-28-5	2,4-Dinitrophenol	2200	U	2200	180	
121-14-2	2,4-Dinitrotoluene	420	U	420	90	
606-20-2	2,6-Dinitrotoluene	420	U	420	70	
91-58-7	2-Chloronaphthalene	420	U	420	44	
95-57-8	2-Chlorophenol	420	U	420	44	
91-57-6	2-Methylnaphthalene	420	U	420	42	
95-48-7	2-Methylphenol	420	U	420	55	
88-74-4	2-Nitroaniline	2200	U	2200	350	
88-75-5	2-Nitrophenol	420	U	420	63	
91-94-1	3,3'-Dichlorobenzidine	420	U	420	76	
	3- and 4-Methylphenol Coelution	420	U	420	64	
99-09-2	3-Nitroaniline	2200	U	2200	390	
534-52-1	4,6-Dinitro-2-methylphenol	2200	U	2200	610	
101-55-3	4-Bromophenyl Phenyl Ether	420	U	420	75	
59-50-7	4-Chloro-3-methylphenol	420	U	420	46	
106-47-8	4-Chloroaniline	420	U	420	81	
7005-72-3	4-Chlorophenyl Phenyl Ether	420	U	420	59	
100-01-6	4-Nitroaniline	2200	U	2200	460	
100-02-7	4-Nitrophenol	2200	U	2200	310	
83-32-9	Acenaphthene	420	U	420	60	
208-96-8	Acenaphthylene	420	U	420	56	
120-12-7	Anthracene	420	U	420	66	
56-55-3	Benz(a)anthracene	420	U	420	65	
50-32-8	Benzo(a)pyrene	420	U	420	70	
205-99-2	Benzo(b)fluoranthene	420	U	420	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:43

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306449-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS915.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	420	U	420	79	
207-08-9	Benzo(k)fluoranthene	420	U	420	75	
108-60-1	2,2'-Oxybis(1-chloropropane)	420	U	420	51	
111-91-1	Bis(2-chloroethoxy)methane	420	U	420	58	
111-44-4	Bis(2-chloroethyl) Ether	420	U	420	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	420	U	420	58	
85-68-7	Butyl Benzyl Phthalate	420	U	420	64	
86-74-8	Carbazole	420	U	420	58	
218-01-9	Chrysene	420	U	420	59	
84-74-2	Di-n-butyl Phthalate	420	U	420	120	
117-84-0	Di-n-octyl Phthalate	420	U	420	80	
53-70-3	Dibenz(a,h)anthracene	420	U	420	120	
132-64-9	Dibenzofuran	420	U	420	46	
84-66-2	Diethyl Phthalate	420	U	420	55	
131-11-3	Dimethyl Phthalate	420	U	420	60	
206-44-0	Fluoranthene	420	U	420	67	
86-73-7	Fluorene	420	U	420	53	
118-74-1	Hexachlorobenzene	420	U	420	64	
87-68-3	Hexachlorobutadiene	420	U	420	47	
77-47-4	Hexachlorocyclopentadiene	420	U	420	67	
67-72-1	Hexachloroethane	420	U	420	58	
193-39-5	Indeno(1,2,3-cd)pyrene	420	U	420	69	
78-59-1	Isophorone	420	U	420	56	
621-64-7	N-Nitrosodi-n-propylamine	420	U	420	48	
86-30-6	N-Nitrosodiphenylamine	420	U	420	65	
91-20-3	Naphthalene	420	U	420	42	
98-95-3	Nitrobenzene	420	U	420	45	
87-86-5	Pentachlorophenol (PCP)	2200	U	2200	350	
85-01-8	Phenanthrene	420	U	420	57	
108-95-2	Phenol	420	U	420	46	
129-00-0	Pyrene	420	U	420	81	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 15:43

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306449-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS915.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	65	41-151	9/12/13 15:43	
2-Fluorobiphenyl	71	47-126	9/12/13 15:43	
2-Fluorophenol	57	16-129	9/12/13 15:43	
Nitrobenzene-d5	67	39-136	9/12/13 15:43	
Phenol-d6	61	10-145	9/12/13 15:43	
p-Terphenyl-d14	65	35-152	9/12/13 15:43	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B03 (2-4)  
**Lab Code:** R1306449-013  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	JWU





September 25, 2013

Service Request No: R1306451

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306451**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1306451-012

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 0940  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.60	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 0940  
**Date Received:** 9/ 5/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1306451-012

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 03:27	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 03:27	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:27	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:27	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 03:27	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:27	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Calcium	6010C	374		mg/L	10	10	9/12/13	9/18/13 22:15	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:27	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Magnesium	6010C	218		mg/L	1.0	1	9/12/13	9/19/13 03:27	
Manganese	6010C	1.88		mg/L	0.010	1	9/12/13	9/19/13 03:27	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:05	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 03:27	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:27	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 03:27	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:27	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5309B03 (2-4)  
**Lab Code:** R1306451-013

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1015  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.70	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1015  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E5309B03 (2-4)  
 Lab Code: R1306451-013

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.31		mg/L	0.20	1	9/12/13	9/19/13 03:35	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 03:35	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:35	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:35	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 03:35	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:35	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Calcium	6010C	56.4		mg/L	1.0	1	9/12/13	9/19/13 03:35	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:35	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Magnesium	6010C	11.6		mg/L	1.0	1	9/12/13	9/19/13 03:35	
Manganese	6010C	0.020		mg/L	0.010	1	9/12/13	9/19/13 03:35	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:07	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 03:35	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:35	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 03:35	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:35	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:35	





October 10, 2013

Service Request No: R1307107

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1307107**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

 *K.B.*

Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307107  
 Date Collected: 9/ 3/13 1450  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/29/13

Sample Name: E5309B05 (2-4)  
 Lab Code: R1307107-006

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.043	mg/L	0.010	1	10/ 1/13	10/9/13 12:19	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B05 (2-4)  
**Lab Code:** R1307107-006  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 9/ 3/13 1520  
Date Received: 9/ 4/13  
Pre-Prep Date: 9/29/13

Sample Name: E5309B04 (4-6)  
Lab Code: R1307107-007

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.022	mg/L	0.010	1	10/ 1/13	10/9/13 12:25	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B04 (4-6)  
**Lab Code:** R1307107-007  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307107  
**Date Collected:** 9/ 3/13 1200  
**Date Received:** 9/ 4/13  
**Pre-Prep Date:** 9/29/13

**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1307107-009

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.098	mg/L	0.010	1	10/ 1/13	10/9/13 12:37	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B06 (2-4)  
**Lab Code:** R1307107-009  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455 E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative):										PRESERVATIVE		REMARKS/ALTERNATE DESCRIPTION			
Project Manager		Report CC		METALS, TOTAL (List in comments below)		METALS, DISSOLVED (List in comments below)		GC VOAS		GCMS VOAS		GCMS SVOAS		PCBS		PESTICIDES		PRESERVATIVE KEY	
Company/Address		Email		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GMS VOAS		GMS SVOAS		PREPARATIVE	
IDOT 145 20		E6-004335-0001 01770																	
Karen Banker/Phoebe Johnson		Dea. Ticebent																	
Ecology - Environment		33 W Monroe St																	
Chicago IL 60603		312 578 9243																	
Sample's Signature		Sample's Print Name																	
[Signature]		Johnson, Phoebe																	
Client Sample ID		Date		Sampling Time		Matrix													
E5309B08(2-4)		8-30-13		0855		So.1													
E5311B01(6-8)		8-30-13		1000		So.1													
E5311G01		8-30-13		1045		Water													
E5317B01		8-30-13		1105		Water													
E5311B03(4-6)		8-30-13		1170		So.1													
E5311B04(10-12)		8-30-13		1370		So.1													
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION													
Metals		RUSH (SURCHARGES APPLY)		I. Results Only		PO #													
TCUP + PH only. SPCP on Hold		1 day 2 day 3 day		II. Results + QC Summaries (LCS, DUP, MSM/SD as required)		BILL TO:													
SPCP only		4 day 5 day		III. Results + QC and Calibration Summaries		R130707A													
See QAPP		REQUESTED REPORT DATE		IV. Data Validation Report with Raw Data		R1306881													
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY		Ecology And Environment, Incorporated													
IL		Signature [Signature]		Signature [Signature]		US30 Plainfield PSI													
Signature [Signature]		Printed Name [Name]		Printed Name [Name]		5													
Printed Name [Name]		Firm [Firm]		Firm [Firm]		Ecology And Environment, Incorporated													
Firm [Firm]		Date/Time [Date/Time]		Date/Time [Date/Time]		IDOT US30 Plainfield PSI													
Date/Time [Date/Time]		Date/Time [Date/Time]		Date/Time [Date/Time]		R1307107													
6-20-13/1630		8/5/13/0955		8/5/13/0955		5													





October 15, 2013

Service Request No: R1307116

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

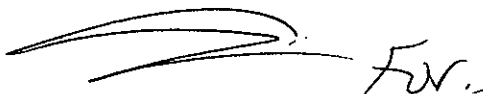
Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1307116**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 41



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 0940  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5309B02 (4-6)  
Lab Code: R1307116-010

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 1/13	10/11/13 02:10	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5309B02 (4-6)  
**Lab Code:** R1307116-010  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15710-15812 Joliet Rd. and 15084-15819 Collins Dr.

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.595862° Longitude: -88.190631°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.595862° Longitude: -88.190631°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5310B01 and E5310B02 were sampled within the construction zone adjacent to ISGS #2141A-10 (Residences). Refer to PSI Report for ISGS #2141A-10 (Residences) including Table 4-4, and Figure 4-5.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306381, R1306382 and R1307107.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

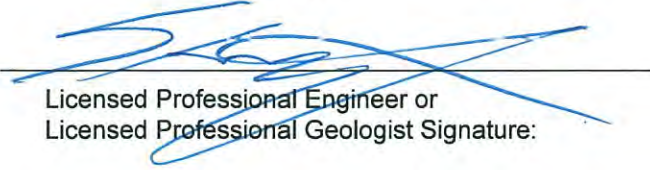
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-10 (Residences)		Comparison Criteria			
	E5310B01	E5310B02	MACs			TACO
BORING	E5310B01 (0-2)	E5310B02 (6-8)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	Soil	Soil				
MATRIX	0.0-0.6	1.8-2.4				
DEPTH (meters)	7.20	8.77				
pH						
<b>VOCs (µg/kg)</b>						
Toluene	1.4 J	ND U	12,000	--	--	--
<b>SVOCs (None Detected)</b>						
<b>Inorganics (mg/kg)</b>						
Aluminum	14,300	2,580	--	--	--	--
Arsenic	11.2	4.4	11.3	13	--	--
Barium	81.2	14.7	1,500	--	--	--
Beryllium	0.73	0.18 J	22	--	--	--
Boron	14 J	7 J	40	--	--	--
Calcium	1,910	70,000	--	--	--	--
Chromium	18.7	5.8	21	--	--	--
Cobalt	9.2	3.0 J	20	--	--	--
Copper	20.5	16.1	2,900	--	--	--
Iron	26,300 †m	9,810	15,000	15,900	--	--
Lead	17.7	7.8	107	--	--	--
Magnesium	3,760	39,900	325,000	--	--	--
Manganese	662 †m	297	630	636	--	--
Mercury	0.052	0.012 J	0.89	--	--	--
Nickel	20.8	9.6	100	--	--	--
Potassium	940	580	--	--	--	--
Vanadium	30.8	8.2	550	--	--	--
Zinc	63.4	33.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	0.50	0.96	--	--	--	--
Calcium	47.3	389	--	--	--	--
Iron	0.19	0.95	--	--	--	5
Magnesium	23.9	194	--	--	--	--
Manganese	0.022	1.77 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	NA	0.011	--	--	--	0.15





September 25, 2013

Service Request No: R1306381

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306381**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 110



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State/Agency Accredited ID, State/Agency Accredited ID, and State/Agency Accredited ID. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois, Virginia.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5310B02 (6-8)  
**Lab Code:** R1306381-009

**Service Request:** R1306381  
**Date Collected:** 9/3/13 1415  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.77	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306381-009

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.96		mg/L	0.20	1	9/11/13	9/18/13 04:34	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 04:34	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:34	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:34	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 04:34	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:34	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Calcium	6010C	389		mg/L	10	10	9/11/13	9/17/13 22:30	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:34	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Iron	6010C	0.95		mg/L	0.10	1	9/11/13	9/18/13 04:34	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Magnesium	6010C	194		mg/L	1.0	1	9/11/13	9/18/13 04:34	
Manganese	6010C	1.77		mg/L	0.010	1	9/11/13	9/18/13 04:34	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:48	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 04:34	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:34	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 04:34	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:34	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:34	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5310B02 (6-8)  
**Lab Code:** R1306381-009  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5310B01 (0-2)  
**Lab Code:** R1306381-012

**Service Request:** R1306381  
**Date Collected:** 9/ 3/13 1545  
**Date Received:** 9/ 4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.20	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 9/ 3/13 1545  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306381-012

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.50		mg/L	0.20	1	9/11/13	9/18/13 05:08	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 05:08	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:08	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:08	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 05:08	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 05:08	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Calcium	6010C	47.3		mg/L	2.0	2	9/11/13	9/18/13 21:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:08	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Iron	6010C	0.19		mg/L	0.10	1	9/11/13	9/18/13 05:08	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Magnesium	6010C	23.9		mg/L	1.0	1	9/11/13	9/18/13 05:08	
Manganese	6010C	0.022		mg/L	0.010	1	9/11/13	9/18/13 05:08	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:53	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 05:08	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 05:08	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 05:08	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 05:08	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 05:08	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5310B01 (0-2)  
**Lab Code:** R1306381-012  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455

E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>DOT HS 30</b>		Project Number <b>ES-004335-0001 01770</b>		
Project Manager <b>Karen Bunker / Steve Johnson</b>		Report CC <b>Dea. T. Tschert</b>		
Company/Address <b>Ecology - Environment 33 W Monroe St Chicago IL 60603</b>		Email <b>johnson@ecy.com</b>		
Phone <b>312 574 9213</b>		Sample's Priority Number <b>3001</b>		
Sampler's Signature <i>[Signature]</i>		Sampler's Name <b>Scott Cooper</b>		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
ES309B08(2-4)	001	8-30-13	0855	Soil
ES311B01(6-8)	002	8-30-13	1000	Soil
ES311G01		8-30-13	1045	Water
ES317B01		8-30-13	1105	Water
ES311B03(4-6)	003	8-30-13	1140	Soil
ES311B04(10-12)	008	8-30-13	1320	Soil

ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	
MEALS TOTAL (List in comments below)	PCBs 8082 • 608	GC VOAS 8270 • 825	GCMS VOAS 8280 • 824 • CLP
MEALS DISSOLVED (List in comments below)	PESTICIDES 8081 • 801/802	GC SVAS 8270 • 825	GCMS SVAS 8280 • 824 • CLP
VOC			
Svoc			
Total Tar Weights			
TCU/PAH Weights			
pH			
% Solids			
REMARKS/ALTERNATE DESCRIPTION	Trip Blank		

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day → 2 day → 3 day 4 day → 5 day	
STATE WHERE SAMPLES WERE COLLECTED		REQUESTED REPORT DATE	
RELINQUISHED BY <i>[Signature]</i>	RECEIVED BY <i>[Signature]</i>	RECEIVED BY	
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature
Printed Name <b>Scott Cooper</b>	Printed Name <b>David White</b>	Printed Name	Printed Name
Firm <b>EC</b>	Firm <b>ALS</b>	Firm	Firm
Date/Time <b>8-30-13/1630</b>	Date/Time <b>8/31/13/0955</b>	Date/Time	Date/Time

SPECIAL INSTRUCTIONS/COMMENTS		REPORT REQUIREMENTS	
TCUP + pH only. SPEC on Hand		I. Results Only	
		II. Results + OC Summaries (LCS, DUP, MSMSD as required)	
		III. Results + OC and Calibration Summaries	
		IV. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		Edits <input type="checkbox"/> Yes <input type="checkbox"/> No	
		REINQUISHED	
		Signature	
		Printed Name	
		Firm	
		Date/Time	

INVOICE INFORMATION		R1306381 5	
PO #		Ecology and Environment, Incorporated USDO Plainfield PSI	
BILL TO:			



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10459

8753,09

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)			
IDOT US 30		EE-004325-0001-01770		PRESERVATIVE			
Project Manager		Report CC		NUMBER OF CONTAINERS			
Fayen Baker / Peter Johnson		Dean Teichert		GCMS VOA's • 8260 • 624 • CLP • 8270 • 825 • 8021 • 801/802			
Company/Address		Ecology, Environment		GCMS SVOA's • 8081 • 808			
33 W Monroe St Suite 1416		Chicago IL 60613		PESTICIDES • 8081 • 808			
Phone #		312 596 1243		METALS, TOTAL (List in comments below)			
Sample's Signature		Johnston Inc. Co		METALS, DISSOLVED (List in comments below)			
Sample's Printed Name		Scott Cooper		PCBS • 8081 • 808			
Sample's Email		Scott.Cooper		GC VOA's • 8270 • 825			
FOR OFFICE USE ONLY LAB ID <td colspan="2">DATE <td colspan="2">SAMPLING TIME <td colspan="2">MATRIX </td></td></td>		DATE <td colspan="2">SAMPLING TIME <td colspan="2">MATRIX </td></td>		SAMPLING TIME <td colspan="2">MATRIX </td>		MATRIX	
E5310B02(6-2)		9-3-13		1415		Soil	
E5309B05(2-4)		9-3-13		1450		Soil	
E5309B04(4-6)		9-3-13		1520		Soil	
E5310B01(0-2)		9-3-13		1545		Soil	
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day		I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Data		PO # BILL TO:	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edita Yes		R1306381 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		Barcode	
RELINQUISHED BY		Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time		Date/Time	
9-3-13 1700		9/13 1200		9-3-13		9-3-13	

→ TCEP Met + PH only  
→ SPL on Hold



September 25, 2013

Service Request No: R1306382

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306382**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 312



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State/Agency, ID #, and Certification #. Rows include: NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5310B02 (6-8)  
Lab Code: R1306382-009

Service Request: R1306382  
Date Collected: 9/ 3/13 1415  
Date Received: 9/ 4/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	93.4	Percent	1.0	1	NA	9/5/13 13:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Service Request: R1306382  
 Date Collected: 9/3/13 1415  
 Date Received: 9/4/13

Basis: Dry  
 Percent Solids: 93.4

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2580	mg/Kg	10	3	1	9/9/13	9/14/13 02:33	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/9/13	9/14/13 02:33	
Arsenic, Total	6010C	4.4	mg/Kg	1.0	0.5	1	9/9/13	9/14/13 02:33	
Barium, Total	6010C	14.7	mg/Kg	2.0	0.08	1	9/9/13	9/14/13 02:33	
Beryllium, Total	6010C	0.18 J	mg/Kg	0.31	0.03	1	9/9/13	9/14/13 02:33	
Boron, Total	6010C	7 J	mg/Kg	20	4	1	9/9/13	9/17/13 22:46	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/9/13	9/14/13 02:33	
Calcium, Total	6010C	70000	mg/Kg	1000	300	10	9/9/13	9/13/13 18:25	
Chromium, Total	6010C	5.8	mg/Kg	1.0	0.2	1	9/9/13	9/14/13 02:33	
Cobalt, Total	6010C	3.0 J	mg/Kg	5.1	0.06	1	9/9/13	9/14/13 02:33	
Copper, Total	6010C	16.1	mg/Kg	2.0	0.7	1	9/9/13	9/14/13 02:33	
Iron, Total	6010C	9810	mg/Kg	100	60	10	9/9/13	9/13/13 18:25	
Lead, Total	6010C	7.8	mg/Kg	5.1	0.3	1	9/9/13	9/14/13 02:33	
Magnesium, Total	6010C	39900	mg/Kg	100	2	1	9/9/13	9/14/13 02:33	
Manganese, Total	6010C	297	mg/Kg	10	2	10	9/9/13	9/13/13 18:25	
Mercury, Total	7471B	0.012 J	mg/Kg	0.033	0.006	1	9/9/13	9/9/13 18:06	
Nickel, Total	6010C	9.6	mg/Kg	4.1	0.09	1	9/9/13	9/14/13 02:33	
Potassium, Total	6010C	580	mg/Kg	200	20	1	9/9/13	9/14/13 02:33	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/9/13	9/14/13 02:33	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	0.09	1	9/9/13	9/14/13 02:33	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/9/13	9/14/13 02:33	
Vanadium, Total	6010C	8.2	mg/Kg	5.1	0.05	1	9/9/13	9/14/13 02:33	
Zinc, Total	6010C	33.9	mg/Kg	2.0	0.08	1	9/9/13	9/14/13 02:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 18:08

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\090513\T9536.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.1 U	4.1	2.4	
71-43-2	Benzene	4.1 U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1 U	4.1	0.51	
75-25-2	Bromoform	4.1 U	4.1	0.77	
74-83-9	Bromomethane	4.1 U	4.1	1.2	
78-93-3	2-Butanone (MEK)	4.1 U	4.1	1.9	
75-15-0	Carbon Disulfide	4.1 U	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1 U	4.1	0.76	
108-90-7	Chlorobenzene	4.1 U	4.1	0.24	
75-00-3	Chloroethane	4.1 U	4.1	2.4	
67-66-3	Chloroform	4.1 U	4.1	1.1	
74-87-3	Chloromethane	4.1 U	4.1	0.33	
124-48-1	Dibromochloromethane	4.1 U	4.1	0.61	
75-34-3	1,1-Dichloroethane	4.1 U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1 U	4.1	0.51	
75-35-4	1,1-Dichloroethene	4.1 U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1 U	4.1	0.79	
156-60-5	trans-1,2-Dichloroethene	4.1 U	4.1	0.71	
78-87-5	1,2-Dichloropropane	4.1 U	4.1	0.80	
10061-01-5	cis-1,3-Dichloropropene	4.1 U	4.1	0.75	
10061-02-6	trans-1,3-Dichloropropene	4.1 U	4.1	0.17	
100-41-4	Ethylbenzene	4.1 U	4.1	0.19	
591-78-6	2-Hexanone	4.1 U	4.1	1.0	
75-09-2	Methylene Chloride	4.1 U	4.1	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1 U	4.1	0.81	
100-42-5	Styrene	4.1 U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1 U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1 U	4.1	0.73	
108-88-3	Toluene	4.1 U	4.1	0.83	
71-55-6	1,1,1-Trichloroethane	4.1 U	4.1	0.61	
79-00-5	1,1,2-Trichloroethane	4.1 U	4.1	0.61	
79-01-6	Trichloroethene	4.1 U	4.1	0.84	
75-01-4	Vinyl Chloride	4.1 U	4.1	1.6	
95-47-6	o-Xylene	4.1 U	4.1	0.40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1415  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 18:08

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\090513\T9536.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	8.2 U	8.2	0.90	
1634-04-4	Methyl tert-Butyl Ether	4.1 U	4.1	0.78	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	28-150	9/5/13 18:08	
Toluene-d8	107	66-138	9/5/13 18:08	
Dibromofluoromethane	100	63-138	9/5/13 18:08	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 20:36

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS849.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	36	
95-50-1	1,2-Dichlorobenzene	350 U	350	40	
541-73-1	1,3-Dichlorobenzene	350 U	350	54	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	48	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	76	
606-20-2	2,6-Dinitrotoluene	350 U	350	59	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	36	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	65	
	3- and 4-Methylphenol Coelution	350 U	350	54	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	64	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	390	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	51	
208-96-8	Acenaphthylene	350 U	350	48	
120-12-7	Anthracene	350 U	350	56	
56-55-3	Benz(a)anthracene	350 U	350	55	
50-32-8	Benzo(a)pyrene	350 U	350	59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 20:36

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUATA\5973A\DATA\090913\CS849.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	350	U	350	86	
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	96	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	40	
77-47-4	Hexachlorocyclopentadiene	350	U	350	57	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	59	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	41	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 20:36

Sample Name: E5310B02 (6-8)  
 Lab Code: R1306382-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS849.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	56	41-151	9/9/13 20:36	
2-Fluorobiphenyl	66	47-126	9/9/13 20:36	
2-Fluorophenol	49	16-129	9/9/13 20:36	
Nitrobenzene-d5	63	39-136	9/9/13 20:36	
Phenol-d6	57	10-145	9/9/13 20:36	
p-Terphenyl-d14	57	35-152	9/9/13 20:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5310B01 (0-2)  
**Lab Code:** R1306382-012

**Service Request:** R1306382  
**Date Collected:** 9/3/13 1545  
**Date Received:** 9/4/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.8	Percent	1.0	1	NA	9/5/13 13:35	

*0095 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Service Request: R1306382  
 Date Collected: 9/ 3/13 1545  
 Date Received: 9/ 4/13

Basis: Dry  
 Percent Solids: 86.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14300		mg/Kg	11	4	1	9/ 9/13	9/14/13 02:53	
Antimony, Total	6010C	0.6	BJ	mg/Kg	6.6	0.3	1	9/ 9/13	9/14/13 02:53	
Arsenic, Total	6010C	11.2		mg/Kg	1.1	0.5	1	9/ 9/13	9/14/13 02:53	
Barium, Total	6010C	81.2		mg/Kg	2.2	0.09	1	9/ 9/13	9/14/13 02:53	
Beryllium, Total	6010C	0.73		mg/Kg	0.33	0.03	1	9/ 9/13	9/14/13 02:53	
Boron, Total	6010C	14	J	mg/Kg	22	4	1	9/ 9/13	9/17/13 23:06	
Cadmium, Total	6010C	0.55	U	mg/Kg	0.55	0.07	1	9/ 9/13	9/14/13 02:53	
Calcium, Total	6010C	1910		mg/Kg	110	40	1	9/ 9/13	9/14/13 02:53	
Chromium, Total	6010C	18.7		mg/Kg	1.1	0.2	1	9/ 9/13	9/14/13 02:53	
Cobalt, Total	6010C	9.2		mg/Kg	5.5	0.06	1	9/ 9/13	9/14/13 02:53	
Copper, Total	6010C	20.5		mg/Kg	2.2	0.7	1	9/ 9/13	9/14/13 02:53	
Iron, Total	6010C	26300		mg/Kg	110	60	10	9/ 9/13	9/13/13 18:44	
Lead, Total	6010C	17.7		mg/Kg	5.5	0.3	1	9/ 9/13	9/14/13 02:53	
Magnesium, Total	6010C	3760		mg/Kg	110	2	1	9/ 9/13	9/14/13 02:53	
Manganese, Total	6010C	662		mg/Kg	11	2	10	9/ 9/13	9/13/13 18:44	
Mercury, Total	7471B	0.052		mg/Kg	0.036	0.006	1	9/ 9/13	9/9/13 18:11	
Nickel, Total	6010C	20.8		mg/Kg	4.4	0.10	1	9/ 9/13	9/14/13 02:53	
Potassium, Total	6010C	940		mg/Kg	220	20	1	9/ 9/13	9/14/13 02:53	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 9/13	9/14/13 02:53	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/ 9/13	9/14/13 02:53	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/ 9/13	9/14/13 02:53	
Vanadium, Total	6010C	30.8		mg/Kg	5.5	0.06	1	9/ 9/13	9/14/13 02:53	
Zinc, Total	6010C	63.4		mg/Kg	2.2	0.08	1	9/ 9/13	9/14/13 02:53	

00096 rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1545  
 Date Received: 9/4/13  
 Date Analyzed: 9/5/13 19:43

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\090513\T9539.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.1 U	5.1	2.9	
71-43-2	Benzene	5.1 U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1 U	5.1	0.62	
75-25-2	Bromoform	5.1 U	5.1	0.95	
74-83-9	Bromomethane	5.1 U	5.1	1.4	
78-93-3	2-Butanone (MEK)	5.1 U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1 U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1 U	5.1	0.94	
108-90-7	Chlorobenzene	5.1 U	5.1	0.30	
75-00-3	Chloroethane	5.1 U	5.1	3.0	
67-66-3	Chloroform	5.1 U	5.1	1.3	
74-87-3	Chloromethane	5.1 U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1 U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1 U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1 U	5.1	0.62	
75-35-4	1,1-Dichloroethene	5.1 U	5.1	1.3	
156-59-2	cis-1,2-Dichloroethene	5.1 U	5.1	0.97	
156-60-5	trans-1,2-Dichloroethene	5.1 U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1 U	5.1	0.99	
10061-01-5	cis-1,3-Dichloropropene	5.1 U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1 U	5.1	0.21	
100-41-4	Ethylbenzene	5.1 U	5.1	0.24	
591-78-6	2-Hexanone	5.1 U	5.1	1.3	
75-09-2	Methylene Chloride	5.1 U	5.1	0.58	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1 U	5.1	1.0	
100-42-5	Styrene	5.1 U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1 U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1 U	5.1	0.90	
108-88-3	Toluene	1.4 J	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1 U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1 U	5.1	0.75	
79-01-6	Trichloroethene	5.1 U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1 U	5.1	1.9	
95-47-6	o-Xylene	5.1 U	5.1	0.49	

*0097 rev*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1545  
 Date Received: 9/ 4/13  
 Date Analyzed: 9/5/13 19:43

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQDATA\MSVOA12\DATA\090513\T9539.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
179601-23-1	m,p-Xylenes	10 U	10	1.2	
1634-04-4	Methyl tert-Butyl Ether	5.1 U	5.1	0.96	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	28-150	9/5/13 19:43	
Toluene-d8	107	66-138	9/5/13 19:43	
Dibromofluoromethane	101	63-138	9/5/13 19:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/ 3/13 1545  
 Date Received: 9/ 4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 22:27

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS852.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	39	
95-50-1	1,2-Dichlorobenzene	380	U	380	43	
541-73-1	1,3-Dichlorobenzene	380	U	380	58	
106-46-7	1,4-Dichlorobenzene	380	U	380	44	
95-95-4	2,4,5-Trichlorophenol	380	U	380	67	
88-06-2	2,4,6-Trichlorophenol	380	U	380	56	
120-83-2	2,4-Dichlorophenol	380	U	380	51	
105-67-9	2,4-Dimethylphenol	380	U	380	42	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	380	U	380	82	
606-20-2	2,6-Dinitrotoluene	380	U	380	64	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	40	
91-57-6	2-Methylnaphthalene	380	U	380	39	
95-48-7	2-Methylphenol	380	U	380	50	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	380	U	380	57	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	70	
	3- and 4-Methylphenol Coelution	380	U	380	58	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	68	
59-50-7	4-Chloro-3-methylphenol	380	U	380	42	
106-47-8	4-Chloroaniline	380	U	380	74	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	54	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	380	U	380	55	
208-96-8	Acenaphthylene	380	U	380	51	
120-12-7	Anthracene	380	U	380	60	
56-55-3	Benz(a)anthracene	380	U	380	59	
50-32-8	Benzo(a)pyrene	380	U	380	64	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1545  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 22:27

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS852.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
205-99-2	Benzo(b)fluoranthene	380	U	380	92	
191-24-2	Benzo(g,h,i)perylene	380	U	380	72	
207-08-9	Benzo(k)fluoranthene	380	U	380	68	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	46	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	58	
86-74-8	Carbazole	380	U	380	53	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	73	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	380	U	380	61	
86-73-7	Fluorene	380	U	380	48	
118-74-1	Hexachlorobenzene	380	U	380	58	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	61	
67-72-1	Hexachloroethane	380	U	380	53	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	63	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	42	
129-00-0	Pyrene	380	U	380	74	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 9/3/13 1545  
 Date Received: 9/4/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 22:27

Sample Name: E5310B01 (0-2)  
 Lab Code: R1306382-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS852.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	73	41-151	9/9/13 22:27	
2-Fluorobiphenyl	70	47-126	9/9/13 22:27	
2-Fluorophenol	59	16-129	9/9/13 22:27	
Nitrobenzene-d5	66	39-136	9/9/13 22:27	
Phenol-d6	64	10-145	9/9/13 22:27	
p-Terphenyl-d14	61	35-152	9/9/13 22:27	

00107 rev



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455 E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>PROT 145 20</b>		Project Number <b>EC-064335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Loren Bunker Johnson</b>		Request CC <b>Dea. Tiebert</b>		PRESERVATIVE	
Company/Address <b>Ecology Environment 33 W Monroe St Chicago IL 60603</b>		Email <b>sjohnson@ecne.com</b>		NUMBER OF CONTAINERS	
Phone <b>312 574 9273</b>		Sample's Project Name <b>SOIL COPPER</b>		GCMS VOAS • 8290 • 824 • CLP	
Sample's Signature <i>[Signature]</i>		DATE		GCMS SVDA • 8270 • 825	
FOR OFFICE USE ONLY LAB ID		SAMPLING TIME		PESTICIDES • 8021 • 801/802	
CLIENT SAMPLE ID	DATE	TIME	MATRIX	PCBs • 8082 • 808	
E5309808(2-4)	8-30-13	0855	Soil	METALS TOTAL (List in comments below)	
E5311301(6-8)	8-30-13	1000	Soil	METALS DISSOLVED (List in comments below)	
E5311601	8-30-13	1045	Water	VOCs	
E5317301	8-30-13	1105	Water	Svcs	
E5311303(4-6)	8-30-13	1140	Soil	Total TRM Wk/L	
E5311304(10-12)	8-30-13	1330	Soil	TRM TRM Wk/L	
				pH	
				% Solids	
				REMARKS/ ALTERNATE DESCRIPTION	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS i. Results Only ii. Results + QC Summaries (LCS, DUP, MS/MSD as required) iii. Results + QC and Calibration Summaries iv. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		RECEIVED BY <i>[Signature]</i>		INVOICE INFORMATION PO # BILL TO:	
STATE WHERE SAMPLES WERE COLLECTED		RELINQUISHED BY <i>[Signature]</i>		R1306382 Ecology And Environment, Incorporated US30 Plainfield P.S.I.	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature	
Printed Name <b>SOIL COPPER</b>		Printed Name <b>ALS</b>		Printed Name	
Firm <b>EC</b>		Firm <b>8/31/13/0955</b>		Firm	
Date/Time <b>8-30-13/1630</b>		Date/Time		Date/Time	

→ Soil To be via SWIA / Met only  
→ SLUR on hold



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10459

ES309

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>EDOT US 30</b>		Project Number <b>GE-004325-001-0172</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)											
Project Manager <b>Fayen Baker/Neil Johnson</b>		Report CC <b>Dean Teichert</b>		PRESERVATIVE		METALS, TOTAL (List in comments below)								PRESERVATIVE KEY	
Company/Address <b>Ecology, Environment 33 W Monroe St Suite 1460 Chicago IL 60663</b>		Email <b>Johnston@enc-co-</b>		METALS, DISSOLVED (List in comments below)		GCMS VOAs		GCMS SVOAs		METALS, TOTAL (List in comments below)		PRESERVATIVE KEY			
Phone # <b>312 596 1243</b>		Sampler's Signature <b>[Signature]</b>		PCBs		GCMS VOAs		GCMS SVOAs		METALS, DISSOLVED (List in comments below)		PRESERVATIVE KEY			
Sampler's Name <b>Scott Cooper</b>		Sampled/Printed Name <b>Scott Cooper</b>		PESTICIDES		GCMS VOAs		GCMS SVOAs		METALS, DISSOLVED (List in comments below)		PRESERVATIVE KEY			
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX									
ES30B02(6-8)		9-3-13		1415		So-1		X		X		X			
ES30B05(2-4)		9-3-13		1450		So-1		X		X		X			
ES30B04(4-6)		9-3-13		1520		So-1		X		X		X			
ES30B01(0-2)		9-3-13		1545		So-1		X		X		X			
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October 10, 2013

Service Request No: R1307107

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1307107**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

 *K.B.*

Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307107  
 Date Collected: 9/ 3/13 1415  
 Date Received: 9/ 4/13  
 Pre-Prep Date: 9/29/13

Sample Name: E5310B02 (6-8)  
 Lab Code: R1307107-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.011	mg/L	0.010	1	10/ 1/13	10/9/13 12:01	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5310B02 (6-8)  
**Lab Code:** R1307107-005  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 9/3/13

**Date Received:** 9/4/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15824 Joliet Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.594482° Longitude: -88.189330°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.594482° Longitude: -88.189330°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5311B01, E5311B03, E5311B04, E5311B05 were sampled within the construction zone adjacent to ISGS #2141A-11 (Lakeview Motel). Refer to PSI Report for ISGS #2141A-11 (Lakeview Motel) including Table 4-4, and Figure 4-5.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306381, R1306382, and R1307107.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

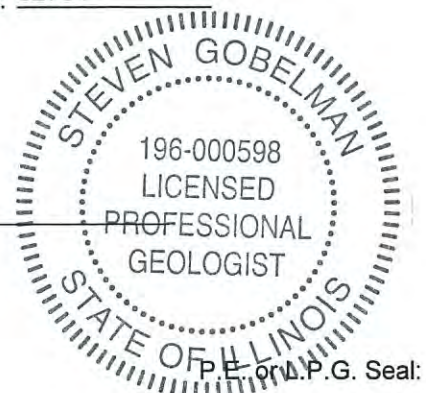
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/17  
 Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-11 (Lakeview Motel)				Comparison Criteria			
	E5311B01	E5311B03	E5311B04	E5311B05	MACs			TACO
<b>BORING</b>	E5311B01 (6-8)	E5311B03 (4-6)	E5311B04 (10-12)	E5311B05 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
<b>SAMPLE</b>	Soil	Soil	Soil	Soil				
<b>MATRIX</b>	1.8-2.4	1.2-1.8	3.1-3.7	1.2-1.8				
<b>DEPTH (meters)</b>	8.46	8.50	8.57	8.55				
<b>pH</b>								
<b>VOCs (µg/kg)</b>								
Acetone	ND U	12	ND U	ND U	25,000	--	--	--
Toluene	ND U	1.3 J	ND U	ND U	12,000	--	--	--
<b>SVOCs (None Detected)</b>								
<b>Inorganics (mg/kg)</b>								
Aluminum	1,450	1,580	1,580	1,390	--	--	--	--
Arsenic	10.6	4.1	4.5	2.77	11.3	13	--	--
Barium	15.5	13.1	13.0	8.4	1,500	--	--	--
Beryllium	0.10 J	0.08 J	0.06 J	0.09 J	22	--	--	--
Boron	11 J	7 J	7 J	7 J	40	--	--	--
Calcium	121,000	139,000	135,000	123,000	--	--	--	--
Chromium	5.5	4.4	4.2	4.16	21	--	--	--
Cobalt	3.1 J	2.6 J	3.0 J	2.0 J	20	--	--	--
Copper	18.1	11.7	10.6	8.1	2,900	--	--	--
Iron	16,500 †m	9,160	9,480	6,960	15,000	15,900	--	--
Lead	7.8	5.7	5.1	3.7 J	107	--	--	--
Magnesium	72,700	65,000	76,100	71,300	325,000	--	--	--
Manganese	385	395	390	386	630	636	--	--
Mercury	0.014 J	ND U	ND U	ND U	0.89	--	--	--
Nickel	8.6	6.0	7.3	5.2	100	--	--	--
Potassium	380	390	380	430	--	--	--	--
Silver	ND U	0.2 J	0.2 J	0.16 J	4.4	--	--	--
Vanadium	10.6	7.1	6.8	5.8	550	--	--	--
Zinc	57.2	24.5	28.5	22.3	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>								
Boron	ND U	1.6	ND U	ND U	--	--	--	2
Calcium	901	892	1,060	985	--	--	--	--
Iron	0.25	ND U	0.69	1.17	--	--	--	5
Magnesium	542	534	465	509	--	--	--	--
Manganese	4.99 L	5.05 L	4.66 L	5.25 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>								
Manganese	0.030	ND U	ND U	ND U	--	--	--	0.15



September 25, 2013

Service Request No: R1306381

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306381**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 110



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State/Agency, ID #, and State/Agency ID #. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois, Virginia.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5311B01 (6-8)  
**Lab Code:** R1306381-002

**Service Request:** R1306381  
**Date Collected:** 8/30/13 1000  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.46	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306381-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 03:09	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 03:09	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:09	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:09	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 03:09	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:09	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Calcium	6010C	901		mg/L	20	20	9/11/13	9/18/13 20:40	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:09	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Iron	6010C	0.25		mg/L	0.10	1	9/11/13	9/18/13 03:09	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Magnesium	6010C	542		mg/L	10	10	9/11/13	9/17/13 21:36	
Manganese	6010C	4.99		mg/L	0.010	1	9/11/13	9/18/13 03:09	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:33	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 03:09	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:09	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 03:09	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:09	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:09	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PS1/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B01 (6-8)  
**Lab Code:** R1306381-002  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5311B03 (4-6)  
**Lab Code:** R1306381-003

**Service Request:** R1306381  
**Date Collected:** 8/30/13 1140  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.50	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/450001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306381-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 03:20	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 03:20	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:20	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:20	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 03:20	
Boron	6010C	1.6		mg/L	1.0	1	9/11/13	9/18/13 03:20	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Calcium	6010C	892		mg/L	20	20	9/11/13	9/18/13 20:46	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:20	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Iron	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Magnesium	6010C	534		mg/L	10	10	9/11/13	9/17/13 21:42	
Manganese	6010C	5.05		mg/L	0.010	1	9/11/13	9/18/13 03:20	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:34	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 03:20	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:20	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 03:20	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:20	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:20	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B03 (4-6)  
**Lab Code:** R1306381-003  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5311B05 (4-6)  
Lab Code: R1306381-005

Service Request: R1306381  
Date Collected: 8/30/13 1415  
Date Received: 8/31/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.55	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306381-005

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 03:58	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 03:58	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:58	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:58	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 03:58	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 03:58	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Calcium	6010C	985		mg/L	50	50	9/11/13	9/18/13 21:00	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:58	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Iron	6010C	1.17		mg/L	0.10	1	9/11/13	9/18/13 03:58	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Magnesium	6010C	509		mg/L	10	10	9/11/13	9/17/13 22:06	
Manganese	6010C	5.25		mg/L	0.010	1	9/11/13	9/18/13 03:58	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:38	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 03:58	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 03:58	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 03:58	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 03:58	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 03:58	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B05 (4-6)  
**Lab Code:** R1306381-005  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5311B04 (10-12)  
**Lab Code:** R1306381-008

**Service Request:** R1306381  
**Date Collected:** 8/30/13 1320  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.57	pH Units		1	NA	9/11/13 14:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306381  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/10/13

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306381-008

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/11/13	9/18/13 04:25	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/11/13	9/18/13 04:25	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:25	
Barium	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:25	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/11/13	9/18/13 04:25	
Boron	6010C	1.0	U	mg/L	1.0	1	9/11/13	9/18/13 04:25	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Calcium	6010C	1060		mg/L	50	50	9/11/13	9/18/13 21:32	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:25	
Copper	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Iron	6010C	0.69		mg/L	0.10	1	9/11/13	9/18/13 04:25	
Lead	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Magnesium	6010C	465		mg/L	1.0	1	9/11/13	9/18/13 04:25	
Manganese	6010C	4.66		mg/L	0.010	1	9/11/13	9/18/13 04:25	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:46	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/11/13	9/18/13 04:25	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/11/13	9/18/13 04:25	
Silver	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/11/13	9/18/13 04:25	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/11/13	9/18/13 04:25	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/11/13	9/18/13 04:25	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B04 (10-12)  
**Lab Code:** R1306381-008  
**Matrix:** Soil

**Service Request:** R1306381

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455

E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
DOT 145 30		EG-004335-0001 01770			
Project Manager		Report CC		PRESERVATIVE	
Karen Bunker / Steve Johnson		Dea. T. Teichert			
Company/Address		Email		PRESERVATIVE	
Ecology - Environment		johnson@ecy.com			
33 W Monroe St		Sant 145 30			
Chicago IL 60603					
Phone		Sample's Project Number		NUMBER OF CONTAINERS	
312 574 9213		3021 601/602			
Sampler's Signature		DATE		SAMPLING TIME	
[Signature]		8-30-13		0855	
		8-30-13		1000	
		8-30-13		1045	
		8-30-13		1105	
		8-30-13		1140	
		8-30-13		1320	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		MATRIX	
E5309B08(2-4)		001		Soil	
E5311B01(6-8)		002		Soil	
E5311G01				Water	
E5317B01				Water	
E5311B03(4-6)		003		Soil	
E5311B04(10-12)		008		Soil	
SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS	
Metals		RUSH (SURCHARGES APPLY)		I. Results Only	
TCUP + PH only. SPEC on Hand		1 day → 2 day → 3 day		II. Results + OC Summaries (LCS, DUP, MSMSD as required)	
		4 day → 5 day		III. Results + OC and Calibration Summaries	
		REQUESTED REPORT DATE		IV. Data Validation Report with Raw Data	
		RECEIVED BY		Edita Yes	
		RECEIVED BY		RELINQUISHED	
RELINQUISHED BY		RELINQUISHED BY		Signature	
[Signature]		[Signature]		Signature	
Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time	
8-20-13/1630		8/31/13/0955			
STATE WHERE SAMPLES WERE COLLECTED		INVOICE INFORMATION		PO #	
IL		Ecology and Environment, Incorporated		BILL TO:	
R1306381		USDO Plainfield PSI			
Barcode		Barcode			





September 25, 2013

Service Request No: R1306382

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1306382**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 312

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5311B01 (6-8)  
**Lab Code:** R1306382-002

**Service Request:** R1306382  
**Date Collected:** 8/30/13 1000  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.9	Percent	1.0	1	NA	9/4/13 09:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13

Basis: Dry  
 Percent Solids: 94.9

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1450	mg/Kg	10	3	1	9/9/13	9/14/13 01:35	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/9/13	9/14/13 01:35	
Arsenic, Total	6010C	10.6	mg/Kg	1.0	0.5	1	9/9/13	9/14/13 01:35	
Barium, Total	6010C	15.5	mg/Kg	2.0	0.08	1	9/9/13	9/14/13 01:35	
Beryllium, Total	6010C	0.10 J	mg/Kg	0.30	0.03	1	9/9/13	9/14/13 01:35	
Boron, Total	6010C	11 J	mg/Kg	20	4	1	9/9/13	9/17/13 21:48	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/9/13	9/14/13 01:35	
Calcium, Total	6010C	121000	mg/Kg	1000	300	10	9/9/13	9/13/13 17:28	
Chromium, Total	6010C	5.5	mg/Kg	1.0	0.2	1	9/9/13	9/14/13 01:35	
Cobalt, Total	6010C	3.1 J	mg/Kg	5.1	0.06	1	9/9/13	9/14/13 01:35	
Copper, Total	6010C	18.1	mg/Kg	2.0	0.7	1	9/9/13	9/14/13 01:35	
Iron, Total	6010C	16500	mg/Kg	100	60	10	9/9/13	9/13/13 17:28	
Lead, Total	6010C	7.8	mg/Kg	5.1	0.3	1	9/9/13	9/14/13 01:35	
Magnesium, Total	6010C	72700	mg/Kg	1000	20	10	9/9/13	9/13/13 17:28	
Manganese, Total	6010C	385	mg/Kg	10	2	10	9/9/13	9/13/13 17:28	
Mercury, Total	7471B	0.014 J	mg/Kg	0.032	0.006	1	9/9/13	9/9/13 17:51	
Nickel, Total	6010C	8.6	mg/Kg	4.1	0.09	1	9/9/13	9/14/13 01:35	
Potassium, Total	6010C	380	mg/Kg	200	20	1	9/9/13	9/14/13 01:35	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/9/13	9/14/13 01:35	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	0.09	1	9/9/13	9/14/13 01:35	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/9/13	9/14/13 01:35	
Vanadium, Total	6010C	10.6	mg/Kg	5.1	0.05	1	9/9/13	9/14/13 01:35	
Zinc, Total	6010C	57.2	mg/Kg	2.0	0.08	1	9/9/13	9/14/13 01:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 13:54

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9528.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .91

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.8	U	4.8	2.7	
71-43-2	Benzene	4.8	U	4.8	0.28	
75-27-4	Bromodichloromethane	4.8	U	4.8	0.59	
75-25-2	Bromoform	4.8	U	4.8	0.90	
74-83-9	Bromomethane	4.8	U	4.8	1.4	
78-93-3	2-Butanone (MEK)	4.8	U	4.8	2.2	
75-15-0	Carbon Disulfide	4.8	U	4.8	1.2	
56-23-5	Carbon Tetrachloride	4.8	U	4.8	0.89	
108-90-7	Chlorobenzene	4.8	U	4.8	0.28	
75-00-3	Chloroethane	4.8	U	4.8	2.8	
67-66-3	Chloroform	4.8	U	4.8	1.3	
74-87-3	Chloromethane	4.8	U	4.8	0.39	
124-48-1	Dibromochloromethane	4.8	U	4.8	0.70	
75-34-3	1,1-Dichloroethane	4.8	U	4.8	1.2	
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.59	
75-35-4	1,1-Dichloroethene	4.8	U	4.8	1.3	
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.92	
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.83	
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.94	
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.87	
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.20	
100-41-4	Ethylbenzene	4.8	U	4.8	0.23	
591-78-6	2-Hexanone	4.8	U	4.8	1.2	
75-09-2	Methylene Chloride	4.8	U	4.8	0.55	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.8	U	4.8	0.94	
100-42-5	Styrene	4.8	U	4.8	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.78	
127-18-4	Tetrachloroethene	4.8	U	4.8	0.85	
108-88-3	Toluene	4.8	U	4.8	0.96	
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.70	
79-00-5	1,1,2-Trichloroethane	4.8	U	4.8	0.70	
79-01-6	Trichloroethene	4.8	U	4.8	0.97	
75-01-4	Vinyl Chloride	4.8	U	4.8	1.8	
95-47-6	o-Xylene	4.8	U	4.8	0.47	
179601-23-1	m,p-Xylenes	9.6	U	9.6	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 13:54

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9528.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .91

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.8	U	4.8	0.91	
1330-20-7	Xylenes, Total	14	U	14	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	28-150	9/5/13 13:54	
Toluene-d8	107	66-138	9/5/13 13:54	
Dibromofluoromethane	100	63-138	9/5/13 13:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 18:50

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ483.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	58	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 18:50

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\090613\AQ483.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1000  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 18:50

Sample Name: E5311B01 (6-8)  
 Lab Code: R1306382-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ483.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	53	41-151	9/6/13 18:50	
2-Fluorobiphenyl	65	47-126	9/6/13 18:50	
2-Fluorophenol	50	16-129	9/6/13 18:50	
Nitrobenzene-d5	71	39-136	9/6/13 18:50	
Phenol-d6	54	10-145	9/6/13 18:50	
p-Terphenyl-d14	57	35-152	9/6/13 18:50	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B01 (6-8)  
**Lab Code:** R1306382-002  
**Matrix:** Soil

**Service Request:** R1306382

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5311B03 (4-6)  
**Lab Code:** R1306382-003

**Service Request:** R1306382  
**Date Collected:** 8/30/13 1140  
**Date Received:** 8/31/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	92.2	Percent	1.0	1	NA	9/4/13 09:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13

Basis: Dry  
 Percent Solids: 92.2

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1580	mg/Kg	10	3	1	9/9/13	9/14/13 01:41	
Antimony, Total	6010C	6.2 U	mg/Kg	6.2	0.3	1	9/9/13	9/14/13 01:41	
Arsenic, Total	6010C	4.1	mg/Kg	1.0	0.5	1	9/9/13	9/14/13 01:41	
Barium, Total	6010C	13.1	mg/Kg	2.1	0.08	1	9/9/13	9/14/13 01:41	
Beryllium, Total	6010C	0.08 J	mg/Kg	0.31	0.03	1	9/9/13	9/14/13 01:41	
Boron, Total	6010C	7 J	mg/Kg	21	4	1	9/9/13	9/17/13 21:55	
Cadmium, Total	6010C	0.52 U	mg/Kg	0.52	0.07	1	9/9/13	9/14/13 01:41	
Calcium, Total	6010C	139000	mg/Kg	1000	300	10	9/9/13	9/13/13 17:34	
Chromium, Total	6010C	4.4	mg/Kg	1.0	0.2	1	9/9/13	9/14/13 01:41	
Cobalt, Total	6010C	2.6 J	mg/Kg	5.2	0.06	1	9/9/13	9/14/13 01:41	
Copper, Total	6010C	11.7	mg/Kg	2.1	0.7	1	9/9/13	9/14/13 01:41	
Iron, Total	6010C	9160	mg/Kg	100	60	10	9/9/13	9/13/13 17:34	
Lead, Total	6010C	5.7	mg/Kg	5.2	0.3	1	9/9/13	9/14/13 01:41	
Magnesium, Total	6010C	65000	mg/Kg	1000	20	10	9/9/13	9/13/13 17:34	
Manganese, Total	6010C	395	mg/Kg	10	2	10	9/9/13	9/13/13 17:34	
Mercury, Total	7471B	0.034 U	mg/Kg	0.034	0.006	1	9/9/13	9/9/13 17:53	
Nickel, Total	6010C	6.0	mg/Kg	4.1	0.09	1	9/9/13	9/14/13 01:41	
Potassium, Total	6010C	390	mg/Kg	210	20	1	9/9/13	9/14/13 01:41	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/9/13	9/14/13 01:41	
Silver, Total	6010C	0.2 J	mg/Kg	1.0	0.09	1	9/9/13	9/14/13 01:41	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/9/13	9/14/13 01:41	
Vanadium, Total	6010C	7.1	mg/Kg	5.2	0.06	1	9/9/13	9/14/13 01:41	
Zinc, Total	6010C	24.5	mg/Kg	2.1	0.08	1	9/9/13	9/14/13 01:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 16:01

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\MSVOA12\DATA\090513\T9532.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	12		4.3	2.5	
71-43-2	Benzene	4.3	U	4.3	0.25	
75-27-4	Bromodichloromethane	4.3	U	4.3	0.53	
75-25-2	Bromoform	4.3	U	4.3	0.80	
74-83-9	Bromomethane	4.3	U	4.3	1.2	
78-93-3	2-Butanone (MEK)	4.3	U	4.3	2.0	
75-15-0	Carbon Disulfide	4.3	U	4.3	1.1	
56-23-5	Carbon Tetrachloride	4.3	U	4.3	0.79	
108-90-7	Chlorobenzene	4.3	U	4.3	0.25	
75-00-3	Chloroethane	4.3	U	4.3	2.5	
67-66-3	Chloroform	4.3	U	4.3	1.1	
74-87-3	Chloromethane	4.3	U	4.3	0.35	
124-48-1	Dibromochloromethane	4.3	U	4.3	0.63	
75-34-3	1,1-Dichloroethane	4.3	U	4.3	1.1	
107-06-2	1,2-Dichloroethane	4.3	U	4.3	0.53	
75-35-4	1,1-Dichloroethene	4.3	U	4.3	1.1	
156-59-2	cis-1,2-Dichloroethene	4.3	U	4.3	0.82	
156-60-5	trans-1,2-Dichloroethene	4.3	U	4.3	0.74	
78-87-5	1,2-Dichloropropane	4.3	U	4.3	0.84	
10061-01-5	cis-1,3-Dichloropropene	4.3	U	4.3	0.78	
10061-02-6	trans-1,3-Dichloropropene	4.3	U	4.3	0.18	
100-41-4	Ethylbenzene	4.3	U	4.3	0.20	
591-78-6	2-Hexanone	4.3	U	4.3	1.1	
75-09-2	Methylene Chloride	4.3	U	4.3	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	0.84	
100-42-5	Styrene	4.3	U	4.3	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.3	U	4.3	0.70	
127-18-4	Tetrachloroethene	4.3	U	4.3	0.76	
108-88-3	Toluene	1.3	J	4.3	0.86	
71-55-6	1,1,1-Trichloroethane	4.3	U	4.3	0.63	
79-00-5	1,1,2-Trichloroethane	4.3	U	4.3	0.63	
79-01-6	Trichloroethene	4.3	U	4.3	0.87	
75-01-4	Vinyl Chloride	4.3	U	4.3	1.6	
95-47-6	o-Xylene	4.3	U	4.3	0.42	
179601-23-1	m,p-Xylenes	8.6	U	8.6	0.94	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 16:01

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9532.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.3 U	4.3	0.81	
1330-20-7	Xylenes, Total	13 U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/5/13 16:01	
Toluene-d8	107	66-138	9/5/13 16:01	
Dibromofluoromethane	99	63-138	9/5/13 16:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 19:22

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ484.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	36	
95-50-1	1,2-Dichlorobenzene	360	U	360	40	
541-73-1	1,3-Dichlorobenzene	360	U	360	55	
106-46-7	1,4-Dichlorobenzene	360	U	360	41	
95-95-4	2,4,5-Trichlorophenol	360	U	360	63	
88-06-2	2,4,6-Trichlorophenol	360	U	360	53	
120-83-2	2,4-Dichlorophenol	360	U	360	48	
105-67-9	2,4-Dimethylphenol	360	U	360	40	
51-28-5	2,4-Dinitrophenol	1800	U	1800	160	
121-14-2	2,4-Dinitrotoluene	360	U	360	77	
606-20-2	2,6-Dinitrotoluene	360	U	360	60	
91-58-7	2-Chloronaphthalene	360	U	360	38	
95-57-8	2-Chlorophenol	360	U	360	38	
91-57-6	2-Methylnaphthalene	360	U	360	36	
95-48-7	2-Methylphenol	360	U	360	47	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	360	U	360	54	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	66	
	3- and 4-Methylphenol Coelution	360	U	360	55	
99-09-2	3-Nitroaniline	1800	U	1800	340	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	530	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	64	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	70	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	51	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	360	U	360	52	
208-96-8	Acenaphthylene	360	U	360	48	
120-12-7	Anthracene	360	U	360	56	
56-55-3	Benz(a)anthracene	360	U	360	56	
50-32-8	Benzo(a)pyrene	360	U	360	60	
205-99-2	Benzo(b)fluoranthene	360	U	360	87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 19:22

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\090613\AQ484.D

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	68	
207-08-9	Benzo(k)fluoranthene	360	U	360	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	43	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	50	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	50	
85-68-7	Butyl Benzyl Phthalate	360	U	360	55	
86-74-8	Carbazole	360	U	360	50	
218-01-9	Chrysene	360	U	360	51	
84-74-2	Di-n-butyl Phthalate	360	U	360	99	
117-84-0	Di-n-octyl Phthalate	360	U	360	69	
53-70-3	Dibenz(a,h)anthracene	360	U	360	97	
132-64-9	Dibenzofuran	360	U	360	40	
84-66-2	Diethyl Phthalate	360	U	360	47	
131-11-3	Dimethyl Phthalate	360	U	360	52	
206-44-0	Fluoranthene	360	U	360	58	
86-73-7	Fluorene	360	U	360	45	
118-74-1	Hexachlorobenzene	360	U	360	55	
87-68-3	Hexachlorobutadiene	360	U	360	40	
77-47-4	Hexachlorocyclopentadiene	360	U	360	57	
67-72-1	Hexachloroethane	360	U	360	50	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	60	
78-59-1	Isophorone	360	U	360	48	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	41	
86-30-6	N-Nitrosodiphenylamine	360	U	360	56	
91-20-3	Naphthalene	360	U	360	36	
98-95-3	Nitrobenzene	360	U	360	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	360	U	360	49	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1140  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 19:22

Sample Name: E5311B03 (4-6)  
 Lab Code: R1306382-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ484.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	56	41-151	9/6/13 19:22	
2-Fluorobiphenyl	61	47-126	9/6/13 19:22	
2-Fluorophenol	48	16-129	9/6/13 19:22	
Nitrobenzene-d5	65	39-136	9/6/13 19:22	
Phenol-d6	50	10-145	9/6/13 19:22	
p-Terphenyl-d14	55	35-152	9/6/13 19:22	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-0JTTO  
**Sample Name:** E5311B03 (4-6)  
**Lab Code:** R1306382-003  
**Matrix:** Soil

**Service Request:** R1306382

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMLAO



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5311B05 (4-6)  
Lab Code: R1306382-005

Service Request: R1306382  
Date Collected: 8/30/13 1415  
Date Received: 8/31/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	96.3	Percent	1.0	1	NA	9/4/13 09:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13

Basis: Dry  
 Percent Solids: 96.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1390		mg/Kg	10	2.8	1	9/9/13	9/14/13 01:54	
Antimony, Total	6010C	6.0	U	mg/Kg	6.0	0.2	1	9/9/13	9/14/13 01:54	
Arsenic, Total	6010C	2.77		mg/Kg	1.0	0.40	1	9/9/13	9/14/13 01:54	
Barium, Total	6010C	8.4		mg/Kg	2.0	0.08	1	9/9/13	9/14/13 01:54	
Beryllium, Total	6010C	0.09	J	mg/Kg	0.30	0.03	1	9/9/13	9/14/13 01:54	
Boron, Total	6010C	7	J	mg/Kg	20	4	1	9/9/13	9/17/13 22:08	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.06	1	9/9/13	9/14/13 01:54	
Calcium, Total	6010C	123000		mg/Kg	1000	290	10	9/9/13	9/13/13 17:47	
Chromium, Total	6010C	4.16		mg/Kg	1.0	0.10	1	9/9/13	9/14/13 01:54	
Cobalt, Total	6010C	2.0	J	mg/Kg	5.0	0.06	1	9/9/13	9/14/13 01:54	
Copper, Total	6010C	8.1		mg/Kg	2.0	0.7	1	9/9/13	9/14/13 01:54	
Iron, Total	6010C	6960		mg/Kg	100	53	10	9/9/13	9/13/13 17:47	
Lead, Total	6010C	3.7	J	mg/Kg	5.0	0.2	1	9/9/13	9/14/13 01:54	
Magnesium, Total	6010C	71300		mg/Kg	1000	20	10	9/9/13	9/13/13 17:47	
Manganese, Total	6010C	386		mg/Kg	10	1.1	10	9/9/13	9/13/13 17:47	
Mercury, Total	7471B	0.032	U	mg/Kg	0.032	0.006	1	9/9/13	9/9/13 17:56	
Nickel, Total	6010C	5.2		mg/Kg	4.0	0.09	1	9/9/13	9/14/13 01:54	
Potassium, Total	6010C	430		mg/Kg	200	20	1	9/9/13	9/14/13 01:54	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.29	1	9/9/13	9/14/13 01:54	
Silver, Total	6010C	0.16	J	mg/Kg	1.0	0.08	1	9/9/13	9/14/13 01:54	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.36	1	9/9/13	9/14/13 01:54	
Vanadium, Total	6010C	5.8		mg/Kg	5.0	0.05	1	9/9/13	9/14/13 01:54	
Zinc, Total	6010C	22.3		mg/Kg	2.0	0.08	1	9/9/13	9/14/13 01:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 15:29

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9531.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .78

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.0	U	4.0	2.3	
71-43-2	Benzene	4.0	U	4.0	0.24	
75-27-4	Bromodichloromethane	4.0	U	4.0	0.50	
75-25-2	Bromoform	4.0	U	4.0	0.76	
74-83-9	Bromomethane	4.0	U	4.0	1.2	
78-93-3	2-Butanone (MEK)	4.0	U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0	U	4.0	1.1	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	0.75	
108-90-7	Chlorobenzene	4.0	U	4.0	0.24	
75-00-3	Chloroethane	4.0	U	4.0	2.4	
67-66-3	Chloroform	4.0	U	4.0	1.1	
74-87-3	Chloromethane	4.0	U	4.0	0.33	
124-48-1	Dibromochloromethane	4.0	U	4.0	0.60	
75-34-3	1,1-Dichloroethane	4.0	U	4.0	1.1	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.50	
75-35-4	1,1-Dichloroethene	4.0	U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	0.77	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.70	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.79	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.73	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.17	
100-41-4	Ethylbenzene	4.0	U	4.0	0.19	
591-78-6	2-Hexanone	4.0	U	4.0	0.99	
75-09-2	Methylene Chloride	4.0	U	4.0	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0	U	4.0	0.80	
100-42-5	Styrene	4.0	U	4.0	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.66	
127-18-4	Tetrachloroethene	4.0	U	4.0	0.72	
108-88-3	Toluene	4.0	U	4.0	0.81	
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.60	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	0.60	
79-01-6	Trichloroethene	4.0	U	4.0	0.82	
75-01-4	Vinyl Chloride	4.0	U	4.0	1.5	
95-47-6	o-Xylene	4.0	U	4.0	0.39	
179601-23-1	m,p-Xylenes	8.1	U	8.1	0.89	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 15:29

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9531.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .78

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0	U	4.0	0.77	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	28-150	9/5/13 15:29	
Toluene-d8	102	66-138	9/5/13 15:29	
Dibromofluoromethane	104	63-138	9/5/13 15:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 20:27

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ486.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340	U	340	35	
95-50-1	1,2-Dichlorobenzene	340	U	340	39	
541-73-1	1,3-Dichlorobenzene	340	U	340	52	
106-46-7	1,4-Dichlorobenzene	340	U	340	40	
95-95-4	2,4,5-Trichlorophenol	340	U	340	60	
88-06-2	2,4,6-Trichlorophenol	340	U	340	51	
120-83-2	2,4-Dichlorophenol	340	U	340	46	
105-67-9	2,4-Dimethylphenol	340	U	340	38	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	340	U	340	74	
606-20-2	2,6-Dinitrotoluene	340	U	340	57	
91-58-7	2-Chloronaphthalene	340	U	340	36	
95-57-8	2-Chlorophenol	340	U	340	36	
91-57-6	2-Methylnaphthalene	340	U	340	35	
95-48-7	2-Methylphenol	340	U	340	45	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	340	U	340	51	
91-94-1	3,3'-Dichlorobenzidine	340	U	340	63	
	3- and 4-Methylphenol Coelution	340	U	340	52	
99-09-2	3-Nitroaniline	1800	U	1800	320	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	500	
101-55-3	4-Bromophenyl Phenyl Ether	340	U	340	62	
59-50-7	4-Chloro-3-methylphenol	340	U	340	38	
106-47-8	4-Chloroaniline	340	U	340	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	340	U	340	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	250	
83-32-9	Acenaphthene	340	U	340	49	
208-96-8	Acenaphthylene	340	U	340	46	
120-12-7	Anthracene	340	U	340	54	
56-55-3	Benz(a)anthracene	340	U	340	53	
50-32-8	Benzo(a)pyrene	340	U	340	58	
205-99-2	Benzo(b)fluoranthene	340	U	340	83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 20:27

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ486.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	U	340	65	
207-08-9	Benzo(k)fluoranthene	340	U	340	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	42	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	48	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	48	
85-68-7	Butyl Benzyl Phthalate	340	U	340	53	
86-74-8	Carbazole	340	U	340	48	
218-01-9	Chrysene	340	U	340	48	
84-74-2	Di-n-butyl Phthalate	340	U	340	94	
117-84-0	Di-n-octyl Phthalate	340	U	340	66	
53-70-3	Dibenz(a,h)anthracene	340	U	340	93	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	340	U	340	45	
131-11-3	Dimethyl Phthalate	340	U	340	49	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	43	
118-74-1	Hexachlorobenzene	340	U	340	53	
87-68-3	Hexachlorobutadiene	340	U	340	38	
77-47-4	Hexachlorocyclopentadiene	340	U	340	55	
67-72-1	Hexachloroethane	340	U	340	48	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	57	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	39	
86-30-6	N-Nitrosodiphenylamine	340	U	340	54	
91-20-3	Naphthalene	340	U	340	35	
98-95-3	Nitrobenzene	340	U	340	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	340	U	340	47	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1415  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/6/13 20:27

Sample Name: E5311B05 (4-6)  
 Lab Code: R1306382-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\090613\AQ486.D\

Analysis Lot: 357426  
 Extraction Lot: 190992  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	55	41-151	9/6/13 20:27	
2-Fluorobiphenyl	70	47-126	9/6/13 20:27	
2-Fluorophenol	52	16-129	9/6/13 20:27	
Nitrobenzene-d5	74	39-136	9/6/13 20:27	
Phenol-d6	58	10-145	9/6/13 20:27	
p-Terphenyl-d14	63	35-152	9/6/13 20:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.4	Percent	1.0	1	NA	9/4/13 09:26	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13

Basis: Dry  
 Percent Solids: 95.4

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1580		mg/Kg	10	3	1	9/ 9/13	9/14/13 02:14	
Antimony, Total	6010C	6.0	U	mg/Kg	6.0	0.2	1	9/ 9/13	9/14/13 02:14	
Arsenic, Total	6010C	4.5		mg/Kg	1.0	0.4	1	9/ 9/13	9/14/13 02:14	
Barium, Total	6010C	13.0		mg/Kg	2.0	0.08	1	9/ 9/13	9/14/13 02:14	
Beryllium, Total	6010C	0.06	J	mg/Kg	0.30	0.03	1	9/ 9/13	9/14/13 02:14	
Boron, Total	6010C	7	J	mg/Kg	20	4	1	9/ 9/13	9/17/13 22:27	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.07	1	9/ 9/13	9/14/13 02:14	
Calcium, Total	6010C	135000		mg/Kg	1000	300	10	9/ 9/13	9/13/13 18:19	
Chromium, Total	6010C	4.2		mg/Kg	1.0	0.10	1	9/ 9/13	9/14/13 02:14	
Cobalt, Total	6010C	3.0	J	mg/Kg	5.0	0.06	1	9/ 9/13	9/14/13 02:14	
Copper, Total	6010C	10.6		mg/Kg	2.0	0.7	1	9/ 9/13	9/14/13 02:14	
Iron, Total	6010C	9480		mg/Kg	100	60	10	9/ 9/13	9/13/13 18:19	
Lead, Total	6010C	5.1		mg/Kg	5.0	0.3	1	9/ 9/13	9/14/13 02:14	
Magnesium, Total	6010C	76100		mg/Kg	1000	20	10	9/ 9/13	9/13/13 18:19	
Manganese, Total	6010C	390		mg/Kg	10	2	10	9/ 9/13	9/13/13 18:19	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/ 9/13	9/9/13 18:01	
Nickel, Total	6010C	7.3		mg/Kg	4.0	0.09	1	9/ 9/13	9/14/13 02:14	
Potassium, Total	6010C	380		mg/Kg	200	20	1	9/ 9/13	9/14/13 02:14	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/ 9/13	9/14/13 02:14	
Silver, Total	6010C	0.2	J	mg/Kg	1.0	0.08	1	9/ 9/13	9/14/13 02:14	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/ 9/13	9/14/13 02:14	
Vanadium, Total	6010C	6.8		mg/Kg	5.0	0.05	1	9/ 9/13	9/14/13 02:14	
Zinc, Total	6010C	28.5		mg/Kg	2.0	0.08	1	9/ 9/13	9/14/13 02:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 17:36

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA12\DATA\090513\T9535.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .81

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.2	U	4.2	2.4	
71-43-2	Benzene	4.2	U	4.2	0.25	
75-27-4	Bromodichloromethane	4.2	U	4.2	0.52	
75-25-2	Bromoform	4.2	U	4.2	0.79	
74-83-9	Bromomethane	4.2	U	4.2	1.2	
78-93-3	2-Butanone (MEK)	4.2	U	4.2	2.0	
75-15-0	Carbon Disulfide	4.2	U	4.2	1.1	
56-23-5	Carbon Tetrachloride	4.2	U	4.2	0.79	
108-90-7	Chlorobenzene	4.2	U	4.2	0.25	
75-00-3	Chloroethane	4.2	U	4.2	2.5	
67-66-3	Chloroform	4.2	U	4.2	1.1	
74-87-3	Chloromethane	4.2	U	4.2	0.34	
124-48-1	Dibromochloromethane	4.2	U	4.2	0.62	
75-34-3	1,1-Dichloroethane	4.2	U	4.2	1.1	
107-06-2	1,2-Dichloroethane	4.2	U	4.2	0.52	
75-35-4	1,1-Dichloroethene	4.2	U	4.2	1.1	
156-59-2	cis-1,2-Dichloroethene	4.2	U	4.2	0.81	
156-60-5	trans-1,2-Dichloroethene	4.2	U	4.2	0.74	
78-87-5	1,2-Dichloropropane	4.2	U	4.2	0.83	
10061-01-5	cis-1,3-Dichloropropene	4.2	U	4.2	0.77	
10061-02-6	trans-1,3-Dichloropropene	4.2	U	4.2	0.17	
100-41-4	Ethylbenzene	4.2	U	4.2	0.20	
591-78-6	2-Hexanone	4.2	U	4.2	1.1	
75-09-2	Methylene Chloride	4.2	U	4.2	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	0.84	
100-42-5	Styrene	4.2	U	4.2	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U	4.2	0.69	
127-18-4	Tetrachloroethene	4.2	U	4.2	0.75	
108-88-3	Toluene	4.2	U	4.2	0.85	
71-55-6	1,1,1-Trichloroethane	4.2	U	4.2	0.62	
79-00-5	1,1,2-Trichloroethane	4.2	U	4.2	0.62	
79-01-6	Trichloroethene	4.2	U	4.2	0.86	
75-01-4	Vinyl Chloride	4.2	U	4.2	1.6	
95-47-6	o-Xylene	4.2	U	4.2	0.41	
179601-23-1	m,p-Xylenes	8.5	U	8.5	0.93	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Date Analyzed: 9/5/13 17:36

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA12\DATA\090513\T9535.D\

Analysis Lot: 356989  
 Instrument Name: R-MS-12  
 Dilution Factor: .81

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.2	U	4.2	0.80	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	28-150	9/5/13 17:36	
Toluene-d8	103	66-138	9/5/13 17:36	
Dibromofluoromethane	97	63-138	9/5/13 17:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 19:58

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\090913\CS848.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	74	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	36	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	45	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	63	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	62	
59-50-7	4-Chloro-3-methylphenol	350	U	350	38	
106-47-8	4-Chloroaniline	350	U	350	67	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	58	
205-99-2	Benzo(b)fluoranthene	350	U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 19:58

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\090913\CS848.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	95	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	55	
67-72-1	Hexachloroethane	350	U	350	48	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	46	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	38	
129-00-0	Pyrene	350	U	350	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306382  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Date Extracted: 9/5/13  
 Date Analyzed: 9/9/13 19:58

Sample Name: E5311B04 (10-12)  
 Lab Code: R1306382-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\090913\CS848.D\

Analysis Lot: 357640  
 Extraction Lot: 190992  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	52	41-151	9/9/13 19:58	
2-Fluorobiphenyl	66	47-126	9/9/13 19:58	
2-Fluorophenol	47	16-129	9/9/13 19:58	
Nitrobenzene-d5	63	39-136	9/9/13 19:58	
Phenol-d6	57	10-145	9/9/13 19:58	
p-Terphenyl-d14	53	35-152	9/9/13 19:58	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455 E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <i>Plot 145 20</i>		Project Number <i>EC-064335-0001-01770</i>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																	
Project Manager <i>Loren Bunker Johnson</i>		Request CC <i>Dea Tiebert</i>		PRESERVATIVE		NUMBER OF CONTAINERS		GCMS VOA • 8290 • 824 • CLP • 8270 • 825		GC VOA • 8021 • 801/802		PESTICIDES • 8081 • 808		PCBs • 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		PRESERVATIVE KEY	
Company/Address <i>Ecology Environment 33 W Monroe St Chicago IL 60603</i>		Email <i>sjohnson@ecne.com</i>		DATE		SAMPLING TIME		MATRIX		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		REMARKS/ALTERNATE DESCRIPTION		PRESERVATIVE KEY	
				8-30-13		0855		Soil		E5309808(2-4)		8-30-13		0855		Soil		pH		0	
				8-30-13		1000		Water		E5311301(6-8)		8-30-13		1045		Water		Total TRM Wkly		1	
				8-30-13		1105		Water		E5311601		8-30-13		1105		Water		Trip Blank		2	
				8-30-13		1140		Soil		E5311303(4-6)		8-30-13		1140		Soil		SVC		3	
				8-30-13		1330		Soil		E5311304(10-12)		8-30-13		1330		Soil		VOC		4	









October 10, 2013

Service Request No: R1307107

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between August 31, 2013 and September 4, 2013. For your reference, these analyses have been assigned our service request number **R1307107**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



*K.B.*

Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 8/30/13 1000  
Date Received: 8/31/13  
Pre-Prep Date: 9/29/13

Sample Name: E5311B01 (6-8)  
Lab Code: R1307107-001

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.030	mg/L	0.010	1	10/1/13	10/9/13 11:13	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B01 (6-8)  
**Lab Code:** R1307107-001  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 8/30/13 1140  
Date Received: 8/31/13  
Pre-Prep Date: 9/29/13

Sample Name: E5311B03 (4-6)  
Lab Code: R1307107-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 1/13	10/9/13 11:43	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B03 (4-6)  
**Lab Code:** R1307107-002  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307107  
Date Collected: 8/30/13 1415  
Date Received: 8/31/13  
Pre-Prep Date: 9/29/13

Sample Name: E5311B05 (4-6)  
Lab Code: R1307107-003

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/1/13	10/9/13 11:49	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B05 (4-6)  
**Lab Code:** R1307107-003  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307107  
 Date Collected: 8/30/13 1320  
 Date Received: 8/31/13  
 Pre-Prep Date: 9/29/13

Sample Name: E5311B04 (10-12)  
 Lab Code: R1307107-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/1/13	10/9/13 11:55	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5311B04 (10-12)  
**Lab Code:** R1307107-004  
**Matrix:** Soil

**Service Request:** R1307107

**Date Collected:** 8/30/13

**Date Received:** 8/31/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10455 E753-05

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative):										PRESERVATIVE		REMARKS/ALTERNATE DESCRIPTION			
IDOT 145 20		E6-004335-0001 01770																	
Project Manager		Report CC																	
Karen Banker/Phoebe Johnson		Dea- Ticket																	
Company/Address		Ecology - Environment																	
33 W Monroe St		Suite 1420																	
Chicago IL 60603																			
Phone		Email																	
312 578 9243		SJohnson@eue.com																	
Sampler's Signature		Sampler's Printed Name																	
<i>[Signature]</i>		Scott Cooper																	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	GCMS VOAS 8260 • 624 • CLP	GCMS SVOAS 8270 • 625	GC VOAS 8270 • 625	PCBS 8082 • 608	PESTICIDES 8021 • 801/802	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOC	SvOC	Total Tar Wt/L	TCUP/SvOC Wt/L	PH	% Solids	Preservative Key	REMARKS/ALTERNATE DESCRIPTION
E5309B08(2-4)		8-30-13	0855	So.1								X	X	X	X	X		0	
E5311B01(6-8)		8-30-13	1000	So.1								X	X	X	X	X		1	
E5311G01		8-30-13	1045	Water								X	X	X	X	X		2	
E5317B01		8-30-13	1105	Water								X	X	X	X	X		3	
E5311B03(4-6)		8-30-13	1170	So.1								X	X	X	X	X		4	
E5311B04(10-12)		8-30-13	1370	So.1								X	X	X	X	X		5	Trip Blank

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		I. Results Only II. Results + QC Summaries (LCS, DUP, MSM/SD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO # BILL TO: P307071	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Ecota Yes <input type="checkbox"/> No <input type="checkbox"/>		R1306881 Ecology And Environment, Incorporated US30 Plainfield PSI	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED		R1307107 Ecology And Environment, Incorporated IDOT US30 Plainfield PSI	
IL		Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: 8/31/13/0955		Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>[Date/Time]</i>		Signature: <i>[Signature]</i> Printed Name: <i>[Name]</i> Firm: <i>[Firm]</i> Date/Time: <i>[Date/Time]</i>	

TCUP + PH only. SVOC on Hold 8/26/13  
SVOC only



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10456

6753-06

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)										PRESERVATIVE		REMARKS/ ALTERNATE DESCRIPTION			
DOT US 30		EC 204335-0001-0172																	
Project Manager		Report CC																	
Karen Bunker/Shear-Johnson		Dean Trebort																	
Company/Address		Ecology, Environment																	
33 W Monroe St Suite 1870		Chicago IL 60603																	
Phone #		Email																	
312-576-9243		johnson@ec-en.com																	
Sampler's Signature		Sampler's Printed Name																	
[Signature]		Scott Cooper																	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX											
E5311B02(2-1)		001		8-20-13		1350		So-1 Y											
E5311B05(4-6)		003		8-20-13		1415		So-1 Y											
E5312B02(0-2)		006		8-20-13		1455		So-1 Y											
E5312B01(2-4)		007		8-20-13		1520		So-1 Y											
														GCMS VOAs • 8260 • 624 • CLP					
														GCMS SVOAs • 8270 • 625					
														GC VOAs • 8021 • 801/602					
														PESTICIDES • 8081 • 608					
														PCBS • 8082 • 608					
														METALS, TOTAL (List in comments below)					
														METALS, DISSOLVED (List in comments below)					
														VOC					
														SVC					
														Total the Milk					
														TECHNICAL					
														PH of S.L.I.					

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO # BILL TO: K1307107	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata Yes No		K1306387 Ecology And Environment, Incorporated 100 US30 Plainsfield Pl.	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RELINQUISHED BY		RECEIVED BY	
IL		[Signature]		[Signature]		[Signature]	
RELINQUISHED BY		Signature		Printed Name		Printed Name	
[Signature]		Daniel Ward		AL3		Firm	
Printed Name		Firm		Date/Time		Date/Time	
Firm		8/30/13/0955		8/30/13/0955		8/30/13/0955	
Date/Time		Date/Time		Date/Time		Date/Time	
8/30/13/0955		8/30/13/0955		8/30/13/0955		8/30/13/0955	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
23000 block of Renwick Road

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.593547° Longitude: -88.186010°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805141 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.593547° Longitude: -88.186010°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5313B01, E5313B03, E5313B04, E5313B06 were sampled within the construction zone adjacent to ISGS #2141A-13 (Vacant Land). Refer to PSI Report for ISGS #2141A-13 (Vacant Land) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306449, R1306451, and R1307116.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

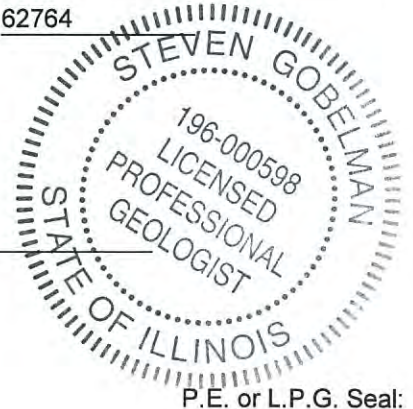
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN

SITE	IGS #2141A-13 (Vacant Land)				Comparison Criteria				
	E5313B01	E5313B03	E5313B04	E5313B06	MACs	Most Stringent	Within an MSA	Within Chicago	TACO
<b>BORING</b>	E5313B01 (2-4)	E5313B03 (0-2)	E5313B04 (2-4)	E5313B06 (2-4)	E5313B06 (4-6)				
<b>SAMPLE</b>	Soil	Soil	Soil	Soil	Soil				
<b>MATRIX</b>	0.6-1.2	0.0-0.6	0.6-1.2	0.6-1.2	1.2-1.8				
<b>DEPTH (meters)</b>	7.40	7.76	7.45	7.65	8.13				
<b>pH</b>	8.47								
<b>VOCs (µg/kg)</b>	ND U	ND U	ND U	ND U	ND U	12,000			
<b>SVOCs (µg/kg)</b>	ND U	ND U	ND U	ND U	ND U	12,000			
Benz(a)anthracene	ND U	ND U	ND U	65 J	ND U	900	1,800	1,100	
Benz(a)pyrene	ND U	ND U	ND U	71 J	ND U	90	2,100	1,300	
Chrysene	ND U	ND U	57 J	72 J	ND U	88,000			
Di-n-butyl Phthalate	ND U	120 J	ND U	ND U	130 J	2,300,000			
Fluoranthene	ND U	64 J	89 J	130 J	ND U	3,100,000			
Phenanthrene	ND U	ND U	ND U	76 J	ND U	210,000			
Pyrene	ND U	ND U	ND U	110 J	ND U	2,300,000			
<b>Inorganics (mg/kg)</b>									
Aluminum	1,620	8,620	15,300	13,400	14,000	6,710			
Antimony	0.3 J	ND U	0.6 J	1.5 J	0.3 J	ND U	5		
Arsenic	8.5	6.7	8.5	8.8	8.5	7.1	11.3	13	
Barium	163	78.5	141	129	123	41.9	1,500		
Beryllium	0.65	0.46	0.75	0.79	0.79	0.36	22		
Boron	ND U	ND U	ND U	ND U	ND U	ND U	40		
Cadmium	0.26 J	0.10 J	0.43 J	0.50 J	0.16 J	ND U	5.2		
Calcium	4,130	59,800	18,100	10,900	2,830	107,000			
Chromium	16.0	12.1	20.2	19.7	18.3	10.3	21		
Cobalt	10.4	6.0	9.4	10.5	12.3	4.5 J	20		
Copper	15.0	14.8	18.6	22.9	14.7	14.8	2,900		
Iron	17,500 f/m	15,700 †	22,800 f/m	21,200 f/m	21,100 f/m	15,900 †	15,000	15,900	
Lead	21.8	18.5	36.5 J	188 J †	17.2	9.7	107		
Magnesium	3,050	35,500	10,900	8,000	3,100	62,500	325,000		
Manganese	925 f/m	660 f/m	865 J f/m	371 J	784 f/m	359	630	636	
Mercury	0.030 J	0.031 J	0.049	0.035 J	0.036 J	0.023 J	0.89		
Nickel	13.6	11.2	19.1	18.3	16.8	11.6	100		
Potassium	940	930	1,140	1,440	1,180	730			
Selenium	1.1 J	ND U	0.8 J	ND U	ND U	ND U	1.3		
Silver	ND U	ND U	ND U	ND U	ND U	ND U	4.4		
Vanadium	28.9	21.2	32.1	32.3	34.0	18.2	550		
Zinc	60.6	56.2	81.8 J	209 J	53.0	37.6	5,100		
<b>TCLP Metals (mg/L)</b>									
Aluminum	0.37	ND U	ND U	ND U	ND U	ND U			
Calcium	86.5	1,000	341	348	71.4	867			
Iron	0.18	0.19	ND U	ND U	ND U	ND U			5
Lead	ND U	ND U	ND U	ND U	ND U	ND U			0.0075
Magnesium	34.1	486	173	169	15.7	526			
Manganese	0.053	5.24 L	0.237 L	0.284 L	0.017	3.56 L			0.15
Zinc	ND U	ND U	ND U	0.10	ND U	ND U			5
<b>SPLP Metals (mg/L)</b>									
Manganese	NA	ND U	0.067	0.057	NA	0.019			0.15



September 25, 2013

Service Request No: R1306449

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:


Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306449**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For:*

Page 1 of 240

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B01 (8-10)  
**Lab Code:** R1306449-001

**Service Request:** R1306449  
**Date Collected:** 9/4/13 1115  
**Date Received:** 9/5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.2	Percent	1.0	1	NA	9/6/13 12:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Service Request: R1306449  
 Date Collected: 9/4/13 1115  
 Date Received: 9/5/13

Basis: Dry  
 Percent Solids: 95.2

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1620	mg/Kg	10	3	1	9/11/13	9/19/13 08:51	
Antimony, Total	6010C	6.2 U	mg/Kg	6.2	0.3	1	9/11/13	9/19/13 08:51	
Arsenic, Total	6010C	4.6	mg/Kg	1.0	0.5	1	9/11/13	9/19/13 08:51	
Barium, Total	6010C	10.1	mg/Kg	2.1	0.08	1	9/11/13	9/19/13 08:51	
Beryllium, Total	6010C	0.08 J	mg/Kg	0.31	0.03	1	9/11/13	9/19/13 08:51	
Boron, Total	6010C	5 J	mg/Kg	21	4	1	9/11/13	9/19/13 08:51	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/11/13	9/19/13 08:51	
Calcium, Total	6010C	162000	mg/Kg	1000	300	10	9/11/13	9/18/13 09:08	
Chromium, Total	6010C	4.4	mg/Kg	1.0	0.2	1	9/11/13	9/19/13 08:51	
Cobalt, Total	6010C	5.5	mg/Kg	5.1	0.06	1	9/11/13	9/19/13 08:51	
Copper, Total	6010C	8.1	mg/Kg	2.1	0.7	1	9/11/13	9/19/13 08:51	
Iron, Total	6010C	8690	mg/Kg	100	60	10	9/11/13	9/18/13 09:08	
Lead, Total	6010C	5.4	mg/Kg	5.1	0.3	1	9/11/13	9/19/13 08:51	
Magnesium, Total	6010C	86400	mg/Kg	1000	20	10	9/11/13	9/18/13 09:08	
Manganese, Total	6010C	586	mg/Kg	1.0	0.2	1	9/11/13	9/19/13 08:51	
Mercury, Total	7471B	0.034 U	mg/Kg	0.034	0.006	1	9/12/13	9/12/13 18:30	
Nickel, Total	6010C	9.0	mg/Kg	4.1	0.09	1	9/11/13	9/19/13 08:51	
Potassium, Total	6010C	410	mg/Kg	210	20	1	9/11/13	9/19/13 08:51	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/11/13	9/19/13 08:51	
Silver, Total	6010C	0.4 J	mg/Kg	1.0	0.09	1	9/11/13	9/19/13 08:51	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/11/13	9/19/13 08:51	
Vanadium, Total	6010C	6.6	mg/Kg	5.1	0.06	1	9/11/13	9/19/13 08:51	
Zinc, Total	6010C	27.4	mg/Kg	2.1	0.08	1	9/11/13	9/19/13 08:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1115  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 21:45

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9568.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .55

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	2.9 U	2.9	1.7	
71-43-2	Benzene	2.9 U	2.9	0.17	
75-27-4	Bromodichloromethane	2.9 U	2.9	0.36	
75-25-2	Bromoform	2.9 U	2.9	0.54	
74-83-9	Bromomethane	2.9 U	2.9	0.80	
78-93-3	2-Butanone (MEK)	2.9 U	2.9	1.4	
75-15-0	Carbon Disulfide	2.9 U	2.9	0.72	
56-23-5	Carbon Tetrachloride	2.9 U	2.9	0.54	
108-90-7	Chlorobenzene	2.9 U	2.9	0.17	
75-00-3	Chloroethane	2.9 U	2.9	1.7	
67-66-3	Chloroform	2.9 U	2.9	0.73	
74-87-3	Chloromethane	2.9 U	2.9	0.24	
124-48-1	Dibromochloromethane	2.9 U	2.9	0.43	
75-34-3	1,1-Dichloroethane	2.9 U	2.9	0.73	
107-06-2	1,2-Dichloroethane	2.9 U	2.9	0.36	
75-35-4	1,1-Dichloroethene	2.9 U	2.9	0.74	
156-59-2	cis-1,2-Dichloroethene	2.9 U	2.9	0.55	
156-60-5	trans-1,2-Dichloroethene	2.9 U	2.9	0.50	
78-87-5	1,2-Dichloropropane	2.9 U	2.9	0.57	
10061-01-5	cis-1,3-Dichloropropene	2.9 U	2.9	0.52	
10061-02-6	trans-1,3-Dichloropropene	2.9 U	2.9	0.12	
100-41-4	Ethylbenzene	2.9 U	2.9	0.14	
591-78-6	2-Hexanone	2.9 U	2.9	0.70	
75-09-2	Methylene Chloride	2.9 U	2.9	0.33	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.9 U	2.9	0.57	
100-42-5	Styrene	2.9 U	2.9	0.18	
79-34-5	1,1,2,2-Tetrachloroethane	2.9 U	2.9	0.47	
127-18-4	Tetrachloroethene	2.9 U	2.9	0.51	
108-88-3	Toluene	2.9 U	2.9	0.58	
71-55-6	1,1,1-Trichloroethane	2.9 U	2.9	0.43	
79-00-5	1,1,2-Trichloroethane	2.9 U	2.9	0.43	
79-01-6	Trichloroethene	2.9 U	2.9	0.59	
75-01-4	Vinyl Chloride	2.9 U	2.9	1.1	
95-47-6	o-Xylene	2.9 U	2.9	0.28	
179601-23-1	m,p-Xylenes	5.8 U	5.8	0.63	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1115  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 21:45

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9568.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .55

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	2.9 U	2.9	0.55	
1330-20-7	Xylenes, Total	8.7 U	8.7	0.91	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	28-150	9/6/13 21:45	
Toluene-d8	106	66-138	9/6/13 21:45	
Dibromofluoromethane	101	63-138	9/6/13 21:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1115  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 18:23

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS896.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	74	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	62	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	58	
205-99-2	Benzo(b)fluoranthene	350	U	350	84	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1115  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 18:23

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatle Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDDATA\5973A\DATA\091113\CS896.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	130	J	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1115  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 18:23

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306449-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091113\CS896.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/11/13 18:23	
2-Fluorobiphenyl	77	47-126	9/11/13 18:23	
2-Fluorophenol	59	16-129	9/11/13 18:23	
Nitrobenzene-d5	76	39-136	9/11/13 18:23	
Phenol-d6	65	10-145	9/11/13 18:23	
p-Terphenyl-d14	89	35-152	9/11/13 18:23	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B01 (8-10)  
**Lab Code:** R1306449-001  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B06 (2-4)  
**Lab Code:** R1306449-002

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1300  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.7	Percent	1.0	1	NA	9/6/13 12:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Service Request: R1306449  
 Date Collected: 9/ 4/13 1300  
 Date Received: 9/ 5/13

Basis: Dry  
 Percent Solids: 82.7

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14000		mg/Kg	12	4	1	9/11/13	9/19/13 09:36	
Antimony, Total	6010C	0.3	J	mg/Kg	7.0	0.3	1	9/11/13	9/19/13 09:36	
Arsenic, Total	6010C	8.5		mg/Kg	1.2	0.5	1	9/11/13	9/19/13 09:36	
Barium, Total	6010C	123		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 09:36	
Beryllium, Total	6010C	0.79		mg/Kg	0.35	0.03	1	9/11/13	9/19/13 09:36	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/11/13	9/19/13 09:36	
Cadmium, Total	6010C	0.16	J	mg/Kg	0.59	0.08	1	9/11/13	9/19/13 09:36	
Calcium, Total	6010C	2830		mg/Kg	120	40	1	9/11/13	9/19/13 09:36	
Chromium, Total	6010C	18.3		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 09:36	
Cobalt, Total	6010C	12.3		mg/Kg	5.9	0.07	1	9/11/13	9/19/13 09:36	
Copper, Total	6010C	14.7		mg/Kg	2.3	0.8	1	9/11/13	9/19/13 09:36	
Iron, Total	6010C	21100		mg/Kg	120	70	10	9/11/13	9/18/13 09:39	
Lead, Total	6010C	17.2		mg/Kg	5.9	0.3	1	9/11/13	9/19/13 09:36	
Magnesium, Total	6010C	3100		mg/Kg	120	2	1	9/11/13	9/19/13 09:36	
Manganese, Total	6010C	784		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 09:36	
Mercury, Total	7471B	0.036	J	mg/Kg	0.037	0.006	1	9/12/13	9/12/13 18:35	
Nickel, Total	6010C	16.8		mg/Kg	4.7	0.10	1	9/11/13	9/19/13 09:36	
Potassium, Total	6010C	1180		mg/Kg	230	20	1	9/11/13	9/19/13 09:36	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/11/13	9/19/13 09:36	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/11/13	9/19/13 09:36	
Thallium, Total	6010C	5.9	U	mg/Kg	5.9	2.1	5	9/11/13	9/19/13 11:42	
Vanadium, Total	6010C	34.0		mg/Kg	5.9	0.06	1	9/11/13	9/19/13 09:36	
Zinc, Total	6010C	53.0		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 09:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1300  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 13:51

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9553.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.6	U	5.6	3.2	
71-43-2	Benzene	5.6	U	5.6	0.33	
75-27-4	Bromodichloromethane	5.6	U	5.6	0.68	
75-25-2	Bromoform	5.6	U	5.6	1.1	
74-83-9	Bromomethane	5.6	U	5.6	1.6	
78-93-3	2-Butanone (MEK)	5.6	U	5.6	2.6	
75-15-0	Carbon Disulfide	5.6	U	5.6	1.4	
56-23-5	Carbon Tetrachloride	5.6	U	5.6	1.1	
108-90-7	Chlorobenzene	5.6	U	5.6	0.33	
75-00-3	Chloroethane	5.6	U	5.6	3.2	
67-66-3	Chloroform	5.6	U	5.6	1.5	
74-87-3	Chloromethane	5.6	U	5.6	0.45	
124-48-1	Dibromochloromethane	5.6	U	5.6	0.82	
75-34-3	1,1-Dichloroethane	5.6	U	5.6	1.4	
107-06-2	1,2-Dichloroethane	5.6	U	5.6	0.68	
75-35-4	1,1-Dichloroethene	5.6	U	5.6	1.5	
156-59-2	cis-1,2-Dichloroethene	5.6	U	5.6	1.1	
156-60-5	trans-1,2-Dichloroethene	5.6	U	5.6	0.96	
78-87-5	1,2-Dichloropropane	5.6	U	5.6	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.6	U	5.6	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.6	U	5.6	0.23	
100-41-4	Ethylbenzene	5.6	U	5.6	0.26	
591-78-6	2-Hexanone	5.6	U	5.6	1.4	
75-09-2	Methylene Chloride	5.6	U	5.6	0.64	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.6	U	5.6	1.1	
100-42-5	Styrene	5.6	U	5.6	0.34	
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U	5.6	0.91	
127-18-4	Tetrachloroethene	5.6	U	5.6	0.98	
108-88-3	Toluene	1.3	J	5.6	1.2	
71-55-6	1,1,1-Trichloroethane	5.6	U	5.6	0.82	
79-00-5	1,1,2-Trichloroethane	5.6	U	5.6	0.82	
79-01-6	Trichloroethene	5.6	U	5.6	1.2	
75-01-4	Vinyl Chloride	5.6	U	5.6	2.1	
95-47-6	o-Xylene	5.6	U	5.6	0.54	
179601-23-1	m,p-Xylenes	11	U	11	1.3	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1300  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 13:51

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9553.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.6 U	5.6	1.1	
1330-20-7	Xylenes, Total	17 U	17	1.8	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/6/13 13:51	
Toluene-d8	107	66-138	9/6/13 13:51	
Dibromofluoromethane	100	63-138	9/6/13 13:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1300  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 20:14

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS899.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	40	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	70	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	40	
95-48-7	2-Methylphenol	400	U	400	52	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	73	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	44	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	290	
83-32-9	Acenaphthene	400	U	400	57	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	
205-99-2	Benzo(b)fluoranthene	400	U	400	97	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1300  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 20:14

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS899.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	48	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	55	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	55	
85-68-7	Butyl Benzyl Phthalate	400	U	400	61	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	56	
84-74-2	Di-n-butyl Phthalate	130	J	400	110	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	52	
131-11-3	Dimethyl Phthalate	400	U	400	57	
206-44-0	Fluoranthene	400	U	400	64	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	61	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	66	
78-59-1	Isophorone	400	U	400	53	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	40	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	54	
108-95-2	Phenol	400	U	400	44	
129-00-0	Pyrene	400	U	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1300  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 20:14

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306449-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS899.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	41-151	9/11/13 20:14	
2-Fluorobiphenyl	67	47-126	9/11/13 20:14	
2-Fluorophenol	56	16-129	9/11/13 20:14	
Nitrobenzene-d5	65	39-136	9/11/13 20:14	
Phenol-d6	60	10-145	9/11/13 20:14	
p-Terphenyl-d14	73	35-152	9/11/13 20:14	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B06 (2-4)  
**Lab Code:** R1306449-002  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B06 (4-6)  
**Lab Code:** R1306449-003

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1305  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	90.6	Percent	1.0	1	NA	9/6/13 12:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B06 (4-6)  
 Lab Code: R1306449-003

Service Request: R1306449  
 Date Collected: 9/4/13 1305  
 Date Received: 9/5/13

Basis: Dry  
 Percent Solids: 90.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	6710		mg/Kg	11	3	1	9/11/13	9/19/13 09:43	
Antimony, Total	6010C	6.4	U	mg/Kg	6.4	0.3	1	9/11/13	9/19/13 09:43	
Arsenic, Total	6010C	7.1		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 09:43	
Barium, Total	6010C	41.9		mg/Kg	2.1	0.08	1	9/11/13	9/19/13 09:43	
Beryllium, Total	6010C	0.36		mg/Kg	0.32	0.03	1	9/11/13	9/19/13 09:43	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/11/13	9/19/13 09:43	
Cadmium, Total	6010C	0.53	U	mg/Kg	0.53	0.07	1	9/11/13	9/19/13 09:43	
Calcium, Total	6010C	107000		mg/Kg	1100	400	10	9/11/13	9/18/13 09:45	
Chromium, Total	6010C	10.3		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 09:43	
Cobalt, Total	6010C	4.5	J	mg/Kg	5.3	0.06	1	9/11/13	9/19/13 09:43	
Copper, Total	6010C	14.8		mg/Kg	2.1	0.7	1	9/11/13	9/19/13 09:43	
Iron, Total	6010C	15900		mg/Kg	110	60	10	9/11/13	9/18/13 09:45	
Lead, Total	6010C	9.7		mg/Kg	5.3	0.3	1	9/11/13	9/19/13 09:43	
Magnesium, Total	6010C	62500		mg/Kg	1100	20	10	9/11/13	9/18/13 09:45	
Manganese, Total	6010C	359		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 09:43	
Mercury, Total	7471B	0.023	J	mg/Kg	0.034	0.006	1	9/12/13	9/12/13 18:37	
Nickel, Total	6010C	11.6		mg/Kg	4.2	0.09	1	9/11/13	9/19/13 09:43	
Potassium, Total	6010C	730		mg/Kg	210	20	1	9/11/13	9/19/13 09:43	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 09:43	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/11/13	9/19/13 09:43	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 09:43	
Vanadium, Total	6010C	18.2		mg/Kg	5.3	0.06	1	9/11/13	9/19/13 09:43	
Zinc, Total	6010C	37.6		mg/Kg	2.1	0.08	1	9/11/13	9/19/13 09:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1305  
 Date Received: 9/5/13  
 Date Analyzed: 9/6/13 14:22

Sample Name: E5313B06 (4-6)  
 Lab Code: R1306449-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9554.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.06

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.8	U	5.8	3.3	
71-43-2	Benzene	5.8	U	5.8	0.34	
75-27-4	Bromodichloromethane	5.8	U	5.8	0.72	
75-25-2	Bromoform	5.8	U	5.8	1.1	
74-83-9	Bromomethane	5.8	U	5.8	1.7	
78-93-3	2-Butanone (MEK)	5.8	U	5.8	2.7	
75-15-0	Carbon Disulfide	5.8	U	5.8	1.5	
56-23-5	Carbon Tetrachloride	5.8	U	5.8	1.1	
108-90-7	Chlorobenzene	5.8	U	5.8	0.34	
75-00-3	Chloroethane	5.8	U	5.8	3.4	
67-66-3	Chloroform	5.8	U	5.8	1.5	
74-87-3	Chloromethane	5.8	U	5.8	0.47	
124-48-1	Dibromochloromethane	5.8	U	5.8	0.86	
75-34-3	1,1-Dichloroethane	5.8	U	5.8	1.5	
107-06-2	1,2-Dichloroethane	5.8	U	5.8	0.72	
75-35-4	1,1-Dichloroethene	5.8	U	5.8	1.5	
156-59-2	cis-1,2-Dichloroethene	5.8	U	5.8	1.2	
156-60-5	trans-1,2-Dichloroethene	5.8	U	5.8	1.1	
78-87-5	1,2-Dichloropropane	5.8	U	5.8	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.8	U	5.8	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.8	U	5.8	0.24	
100-41-4	Ethylbenzene	5.8	U	5.8	0.27	
591-78-6	2-Hexanone	5.8	U	5.8	1.5	
75-09-2	Methylene Chloride	5.8	U	5.8	0.67	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.8	U	5.8	1.2	
100-42-5	Styrene	5.8	U	5.8	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U	5.8	0.95	
127-18-4	Tetrachloroethene	5.8	U	5.8	1.1	
108-88-3	Toluene	5.8	U	5.8	1.2	
71-55-6	1,1,1-Trichloroethane	5.8	U	5.8	0.86	
79-00-5	1,1,2-Trichloroethane	5.8	U	5.8	0.86	
79-01-6	Trichloroethene	5.8	U	5.8	1.2	
75-01-4	Vinyl Chloride	5.8	U	5.8	2.2	
95-47-6	o-Xylene	5.8	U	5.8	0.57	
179601-23-1	m,p-Xylenes	12	U	12	1.3	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1305  
 Date Received: 9/5/13  
 Date Analyzed: 9/6/13 14:22

Sample Name: E5313B06 (4-6)  
 Lab Code: R1306449-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9554.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.06

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.8 U	5.8	1.1	
1330-20-7	Xylenes, Total	18 U	18	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	28-150	9/6/13 14:22	
Toluene-d8	107	66-138	9/6/13 14:22	
Dibromofluoromethane	100	63-138	9/6/13 14:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1305  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 20:51

Sample Name: E5313B06 (4-6)  
 Lab Code: R1306449-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS900.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	37	
95-50-1	1,2-Dichlorobenzene	360	U	360	41	
541-73-1	1,3-Dichlorobenzene	360	U	360	56	
106-46-7	1,4-Dichlorobenzene	360	U	360	42	
95-95-4	2,4,5-Trichlorophenol	360	U	360	64	
88-06-2	2,4,6-Trichlorophenol	360	U	360	54	
120-83-2	2,4-Dichlorophenol	360	U	360	49	
105-67-9	2,4-Dimethylphenol	360	U	360	41	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	360	U	360	78	
606-20-2	2,6-Dinitrotoluene	360	U	360	61	
91-58-7	2-Chloronaphthalene	360	U	360	38	
95-57-8	2-Chlorophenol	360	U	360	39	
91-57-6	2-Methylnaphthalene	360	U	360	37	
95-48-7	2-Methylphenol	360	U	360	48	
88-74-4	2-Nitroaniline	1900	U	1900	310	
88-75-5	2-Nitrophenol	360	U	360	55	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	67	
	3- and 4-Methylphenol Coelution	360	U	360	56	
99-09-2	3-Nitroaniline	1900	U	1900	340	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	530	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	66	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	71	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	52	
100-01-6	4-Nitroaniline	1900	U	1900	400	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	360	U	360	52	
208-96-8	Acenaphthylene	360	U	360	49	
120-12-7	Anthracene	360	U	360	57	
56-55-3	Benz(a)anthracene	360	U	360	57	
50-32-8	Benzo(a)pyrene	360	U	360	61	
205-99-2	Benzo(b)fluoranthene	360	U	360	89	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1305  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 20:51

Sample Name: E5313B06 (4-6)  
 Lab Code: R1306449-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091113\CS900.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	69	
207-08-9	Benzo(k)fluoranthene	360	U	360	66	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	44	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	51	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	37	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	51	
85-68-7	Butyl Benzyl Phthalate	360	U	360	56	
86-74-8	Carbazole	360	U	360	51	
218-01-9	Chrysene	360	U	360	51	
84-74-2	Di-n-butyl Phthalate	170	J	360	100	
117-84-0	Di-n-octyl Phthalate	360	U	360	70	
53-70-3	Dibenz(a,h)anthracene	360	U	360	99	
132-64-9	Dibenzofuran	360	U	360	40	
84-66-2	Diethyl Phthalate	360	U	360	48	
131-11-3	Dimethyl Phthalate	360	U	360	52	
206-44-0	Fluoranthene	360	U	360	59	
86-73-7	Fluorene	360	U	360	46	
118-74-1	Hexachlorobenzene	360	U	360	56	
87-68-3	Hexachlorobutadiene	360	U	360	41	
77-47-4	Hexachlorocyclopentadiene	360	U	360	58	
67-72-1	Hexachloroethane	360	U	360	51	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	61	
78-59-1	Isophorone	360	U	360	49	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	42	
86-30-6	N-Nitrosodiphenylamine	360	U	360	57	
91-20-3	Naphthalene	360	U	360	37	
98-95-3	Nitrobenzene	360	U	360	39	
87-86-5	Pentachlorophenol (PCP)	1900	U	1900	310	
85-01-8	Phenanthrene	360	U	360	49	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	71	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1305  
**Date Received:** 9/ 5/13  
**Date Extracted:** 9/10/13  
**Date Analyzed:** 9/11/13 20:51

**Sample Name:** E5313B06 (4-6)  
**Lab Code:** R1306449-003

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 90.6

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUDATA\5973A\DATA\091113\CS900.D\

**Analysis Lot:** 358061  
**Extraction Lot:** 191276  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	58	41-151	9/11/13 20:51	
2-Fluorobiphenyl	65	47-126	9/11/13 20:51	
2-Fluorophenol	50	16-129	9/11/13 20:51	
Nitrobenzene-d5	63	39-136	9/11/13 20:51	
Phenol-d6	53	10-145	9/11/13 20:51	
p-Terphenyl-d14	70	35-152	9/11/13 20:51	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B06 (4-6)  
**Lab Code:** R1306449-003  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.0	Percent	1.0	1	NA	9/6/13 12:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/450001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Service Request: R1306449  
 Date Collected: 9/4/13 1430  
 Date Received: 9/5/13

Basis: Dry  
 Percent Solids: 84.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	8620		mg/Kg	11	4	1	9/11/13	9/19/13 09:56	
Antimony, Total	6010C	6.8	U	mg/Kg	6.8	0.3	1	9/11/13	9/19/13 09:56	
Arsenic, Total	6010C	6.7		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 09:56	
Barium, Total	6010C	78.5		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 09:56	
Beryllium, Total	6010C	0.46		mg/Kg	0.34	0.03	1	9/11/13	9/19/13 09:56	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/11/13	9/19/13 09:56	
Cadmium, Total	6010C	0.10	J	mg/Kg	0.57	0.07	1	9/11/13	9/19/13 09:56	
Calcium, Total	6010C	59800		mg/Kg	1100	400	10	9/11/13	9/18/13 09:58	
Chromium, Total	6010C	12.1		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 09:56	
Cobalt, Total	6010C	6.0		mg/Kg	5.7	0.07	1	9/11/13	9/19/13 09:56	
Copper, Total	6010C	14.8		mg/Kg	2.3	0.8	1	9/11/13	9/19/13 09:56	
Iron, Total	6010C	15700		mg/Kg	110	60	10	9/11/13	9/18/13 09:58	
Lead, Total	6010C	18.5		mg/Kg	5.7	0.3	1	9/11/13	9/19/13 09:56	
Magnesium, Total	6010C	35500		mg/Kg	1100	20	10	9/11/13	9/18/13 09:58	
Manganese, Total	6010C	660		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 09:56	
Mercury, Total	7471B	0.031	J	mg/Kg	0.036	0.006	1	9/12/13	9/12/13 18:43	
Nickel, Total	6010C	11.2		mg/Kg	4.5	0.10	1	9/11/13	9/19/13 09:56	
Potassium, Total	6010C	930		mg/Kg	230	20	1	9/11/13	9/19/13 09:56	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 09:56	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/11/13	9/19/13 09:56	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/11/13	9/19/13 09:56	
Vanadium, Total	6010C	21.2		mg/Kg	5.7	0.06	1	9/11/13	9/19/13 09:56	
Zinc, Total	6010C	56.2		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 09:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 15:25

Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9556.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .78

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.6 U	4.6	2.7	
71-43-2	Benzene	4.6 U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6 U	4.6	0.57	
75-25-2	Bromoform	4.6 U	4.6	0.87	
74-83-9	Bromomethane	4.6 U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6 U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6 U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6 U	4.6	0.86	
108-90-7	Chlorobenzene	4.6 U	4.6	0.27	
75-00-3	Chloroethane	4.6 U	4.6	2.7	
67-66-3	Chloroform	4.6 U	4.6	1.2	
74-87-3	Chloromethane	4.6 U	4.6	0.38	
124-48-1	Dibromochloromethane	4.6 U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6 U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6 U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6 U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6 U	4.6	0.89	
156-60-5	trans-1,2-Dichloroethene	4.6 U	4.6	0.80	
78-87-5	1,2-Dichloropropane	4.6 U	4.6	0.91	
10061-01-5	cis-1,3-Dichloropropene	4.6 U	4.6	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.6 U	4.6	0.19	
100-41-4	Ethylbenzene	4.6 U	4.6	0.22	
591-78-6	2-Hexanone	4.6 U	4.6	1.2	
75-09-2	Methylene Chloride	4.6 U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6 U	4.6	0.91	
100-42-5	Styrene	4.6 U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6 U	4.6	0.76	
127-18-4	Tetrachloroethene	4.6 U	4.6	0.82	
108-88-3	Toluene	4.6 U	4.6	0.93	
71-55-6	1,1,1-Trichloroethane	4.6 U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6 U	4.6	0.68	
79-01-6	Trichloroethene	4.6 U	4.6	0.94	
75-01-4	Vinyl Chloride	4.6 U	4.6	1.8	
95-47-6	o-Xylene	4.6 U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.3 U	9.3	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 15:25

Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9556.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .78

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.88	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	78	51-136	9/6/13 15:25	
Toluene-d8	106	66-138	9/6/13 15:25	
Dibromofluoromethane	103	63-138	9/6/13 15:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005  
 Run Type: Reanalysis

Service Request: R1306449  
 Date Collected: 9/4/13 1430  
 Date Received: 9/5/13  
 Date Analyzed: 9/17/13 14:22  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091713\K5068.D\

Analysis Lot: 358732  
 Instrument Name: R-MS-07  
 Dilution Factor: .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.2	U	5.2	3.0	
71-43-2	Benzene	5.2	U	5.2	0.31	
75-27-4	Bromodichloromethane	5.2	U	5.2	0.64	
75-25-2	Bromoform	5.2	U	5.2	0.97	
74-83-9	Bromomethane	5.2	U	5.2	1.5	
78-93-3	2-Butanone (MEK)	5.2	U	5.2	2.4	
75-15-0	Carbon Disulfide	5.2	U	5.2	1.3	
56-23-5	Carbon Tetrachloride	5.2	U	5.2	0.96	
108-90-7	Chlorobenzene	5.2	U	5.2	0.31	
75-00-3	Chloroethane	5.2	U	5.2	3.0	
67-66-3	Chloroform	5.2	U	5.2	1.4	
74-87-3	Chloromethane	5.2	U	5.2	0.42	
124-48-1	Dibromochloromethane	5.2	U	5.2	0.76	
75-34-3	1,1-Dichloroethane	5.2	U	5.2	1.3	
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.64	
75-35-4	1,1-Dichloroethene	5.2	U	5.2	1.4	
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.99	
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.90	
78-87-5	1,2-Dichloropropane	5.2	U	5.2	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.94	
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.21	
100-41-4	Ethylbenzene	5.2	U	5.2	0.24	
591-78-6	2-Hexanone	5.2	U	5.2	1.3	
75-09-2	Methylene Chloride	5.2	U	5.2	0.60	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	1.1	
100-42-5	Styrene	5.2	U	5.2	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.84	
127-18-4	Tetrachloroethene	5.2	U	5.2	0.92	
108-88-3	Toluene	5.2	U	5.2	1.1	
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.76	
79-00-5	1,1,2-Trichloroethane	5.2	U	5.2	0.76	
79-01-6	Trichloroethene	5.2	U	5.2	1.1	
75-01-4	Vinyl Chloride	5.2	U	5.2	2.0	
95-47-6	o-Xylene	5.2	U	5.2	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005  
 Run Type: Reanalysis

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/17/13 14:22  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091713\K5068.D\

Analysis Lot: 358732  
 Instrument Name: R-MS-07  
 Dilution Factor: .87

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.2 U	5.2	0.98	
1330-20-7	Xylenes, Total	16 U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	51-136	9/17/13 14:22	
Toluene-d8	104	66-138	9/17/13 14:22	
Dibromofluoromethane	102	63-138	9/17/13 14:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 21:28

Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS901.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	58	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	66	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	42	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	52	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	59	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	72	
	3- and 4-Methylphenol Coelution	390	U	390	60	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	71	
59-50-7	4-Chloro-3-methylphenol	390	U	390	44	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	56	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	57	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	62	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	66	
205-99-2	Benzo(b)fluoranthene	390	U	390	95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 21:28

Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\S973A\DATA\091113\CS901.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	75	
207-08-9	Benzo(k)fluoranthene	390	U	390	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	48	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	55	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	55	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	55	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	120	J	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	76	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	57	
206-44-0	Fluoranthene	64	J	390	63	
86-73-7	Fluorene	390	U	390	50	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	53	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	62	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	44	
129-00-0	Pyrene	390	U	390	77	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1430  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 21:28

Sample Name: E5313B03 (0-2)  
 Lab Code: R1306449-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS901.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	64	41-151	9/11/13 21:28	
2-Fluorobiphenyl	64	47-126	9/11/13 21:28	
2-Fluorophenol	50	16-129	9/11/13 21:28	
Nitrobenzene-d5	63	39-136	9/11/13 21:28	
Phenol-d6	55	10-145	9/11/13 21:28	
p-Terphenyl-d14	69	35-152	9/11/13 21:28	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B03 (0-2)  
**Lab Code:** R1306449-005  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1306449-006

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.8	Percent	1.0	1	NA	9/6/13 12:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13

Basis: Dry  
 Percent Solids: 85.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	15300		mg/Kg	11	4	1	9/11/13	9/19/13 10:02	
Antimony, Total	6010C	0.6	J	mg/Kg	6.7	0.3	1	9/11/13	9/19/13 10:02	
Arsenic, Total	6010C	8.5		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 10:02	
Barium, Total	6010C	141		mg/Kg	2.2	0.09	1	9/11/13	9/19/13 10:02	
Beryllium, Total	6010C	0.75		mg/Kg	0.33	0.03	1	9/11/13	9/19/13 10:02	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/11/13	9/19/13 10:02	
Cadmium, Total	6010C	0.43	J	mg/Kg	0.56	0.07	1	9/11/13	9/19/13 10:02	
Calcium, Total	6010C	18100		mg/Kg	1100	400	10	9/11/13	9/18/13 10:04	
Chromium, Total	6010C	20.2		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:02	
Cobalt, Total	6010C	9.4		mg/Kg	5.6	0.06	1	9/11/13	9/19/13 10:02	
Copper, Total	6010C	18.6		mg/Kg	2.2	0.7	1	9/11/13	9/19/13 10:02	
Iron, Total	6010C	22800		mg/Kg	110	60	10	9/11/13	9/18/13 10:04	
Lead, Total	6010C	36.5		mg/Kg	5.6	0.3	1	9/11/13	9/19/13 10:02	
Magnesium, Total	6010C	10900		mg/Kg	1100	20	10	9/11/13	9/18/13 10:04	
Manganese, Total	6010C	865		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:02	
Mercury, Total	7471B	0.049		mg/Kg	0.037	0.006	1	9/12/13	9/12/13 18:45	
Nickel, Total	6010C	19.1		mg/Kg	4.4	0.10	1	9/11/13	9/19/13 10:02	
Potassium, Total	6010C	1140		mg/Kg	220	20	1	9/11/13	9/19/13 10:02	
Selenium, Total	6010C	0.8	J	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 10:02	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/11/13	9/19/13 10:02	
Thallium, Total	6010C	5.6	U	mg/Kg	5.6	2.0	5	9/11/13	9/19/13 11:48	
Vanadium, Total	6010C	32.1		mg/Kg	5.6	0.06	1	9/11/13	9/19/13 10:02	
Zinc, Total	6010C	81.8		mg/Kg	2.2	0.08	1	9/11/13	9/19/13 10:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 15:57

Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9557.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.4 U	5.4	3.1	
71-43-2	Benzene	5.4 U	5.4	0.32	
75-27-4	Bromodichloromethane	5.4 U	5.4	0.66	
75-25-2	Bromoform	5.4 U	5.4	1.0	
74-83-9	Bromomethane	5.4 U	5.4	1.5	
78-93-3	2-Butanone (MEK)	5.4 U	5.4	2.5	
75-15-0	Carbon Disulfide	5.4 U	5.4	1.4	
56-23-5	Carbon Tetrachloride	5.4 U	5.4	0.99	
108-90-7	Chlorobenzene	5.4 U	5.4	0.32	
75-00-3	Chloroethane	5.4 U	5.4	3.1	
67-66-3	Chloroform	5.4 U	5.4	1.4	
74-87-3	Chloromethane	5.4 U	5.4	0.43	
124-48-1	Dibromochloromethane	5.4 U	5.4	0.79	
75-34-3	1,1-Dichloroethane	5.4 U	5.4	1.4	
107-06-2	1,2-Dichloroethane	5.4 U	5.4	0.66	
75-35-4	1,1-Dichloroethene	5.4 U	5.4	1.4	
156-59-2	cis-1,2-Dichloroethene	5.4 U	5.4	1.1	
156-60-5	trans-1,2-Dichloroethene	5.4 U	5.4	0.93	
78-87-5	1,2-Dichloropropane	5.4 U	5.4	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.4 U	5.4	0.97	
10061-02-6	trans-1,3-Dichloropropene	5.4 U	5.4	0.22	
100-41-4	Ethylbenzene	5.4 U	5.4	0.25	
591-78-6	2-Hexanone	5.4 U	5.4	1.3	
75-09-2	Methylene Chloride	5.4 U	5.4	0.62	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.4 U	5.4	1.1	
100-42-5	Styrene	5.4 U	5.4	0.33	
79-34-5	1,1,2,2-Tetrachloroethane	5.4 U	5.4	0.87	
127-18-4	Tetrachloroethene	5.4 U	5.4	0.95	
108-88-3	Toluene	5.4 U	5.4	1.1	
71-55-6	1,1,1-Trichloroethane	5.4 U	5.4	0.79	
79-00-5	1,1,2-Trichloroethane	5.4 U	5.4	0.79	
79-01-6	Trichloroethene	5.4 U	5.4	1.1	
75-01-4	Vinyl Chloride	5.4 U	5.4	2.0	
95-47-6	o-Xylene	5.4 U	5.4	0.52	
179601-23-1	m,p-Xylenes	11 U	11	1.2	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1455  
 Date Received: 9/5/13  
 Date Analyzed: 9/6/13 15:57

Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9557.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .92

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.4 U	5.4	1.1	
1330-20-7	Xylenes, Total	16 U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	63	28-150	9/6/13 15:57	
Toluene-d8	103	66-138	9/6/13 15:57	
Dibromofluoromethane	106	63-138	9/6/13 15:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006  
 Run Type: Reanalysis

Service Request: R1306449  
 Date Collected: 9/4/13 1455  
 Date Received: 9/5/13  
 Date Analyzed: 9/9/13 15:21  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9585.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .96

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	5.6 U	5.6	3.2	
71-43-2	Benzene	5.6 U	5.6	0.33	
75-27-4	Bromodichloromethane	5.6 U	5.6	0.69	
75-25-2	Bromoform	5.6 U	5.6	1.1	
74-83-9	Bromomethane	5.6 U	5.6	1.6	
78-93-3	2-Butanone (MEK)	5.6 U	5.6	2.6	
75-15-0	Carbon Disulfide	5.6 U	5.6	1.4	
56-23-5	Carbon Tetrachloride	5.6 U	5.6	1.1	
108-90-7	Chlorobenzene	5.6 U	5.6	0.33	
75-00-3	Chloroethane	5.6 U	5.6	3.3	
67-66-3	Chloroform	5.6 U	5.6	1.5	
74-87-3	Chloromethane	5.6 U	5.6	0.45	
124-48-1	Dibromochloromethane	5.6 U	5.6	0.82	
75-34-3	1,1-Dichloroethane	5.6 U	5.6	1.4	
107-06-2	1,2-Dichloroethane	5.6 U	5.6	0.69	
75-35-4	1,1-Dichloroethene	5.6 U	5.6	1.5	
156-59-2	cis-1,2-Dichloroethene	5.6 U	5.6	1.1	
156-60-5	trans-1,2-Dichloroethene	5.6 U	5.6	0.97	
78-87-5	1,2-Dichloropropane	5.6 U	5.6	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.6 U	5.6	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.6 U	5.6	0.23	
100-41-4	Ethylbenzene	5.6 U	5.6	0.26	
591-78-6	2-Hexanone	5.6 U	5.6	1.4	
75-09-2	Methylene Chloride	5.6 U	5.6	0.64	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.6 U	5.6	1.1	
100-42-5	Styrene	5.6 U	5.6	0.34	
79-34-5	1,1,2,2-Tetrachloroethane	5.6 U	5.6	0.91	
127-18-4	Tetrachloroethene	5.6 U	5.6	0.99	
108-88-3	Toluene	5.6 U	5.6	1.2	
71-55-6	1,1,1-Trichloroethane	5.6 U	5.6	0.82	
79-00-5	1,1,2-Trichloroethane	5.6 U	5.6	0.82	
79-01-6	Trichloroethene	5.6 U	5.6	1.2	
75-01-4	Vinyl Chloride	5.6 U	5.6	2.1	
95-47-6	o-Xylene	5.6 U	5.6	0.54	
179601-23-1	m,p-Xylenes	11 U	11	1.3	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006  
 Run Type: Reanalysis

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/9/13 15:21  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9585.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .96

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.6 U	5.6	1.1	
1330-20-7	Xylenes, Total	17 U	17	1.8	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	63	28-150	9/9/13 15:21	
Toluene-d8	100	66-138	9/9/13 15:21	
Dibromofluoromethane	101	63-138	9/9/13 15:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 13:13

Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091213\CS911.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	39	
95-50-1	1,2-Dichlorobenzene	380	U	380	43	
541-73-1	1,3-Dichlorobenzene	380	U	380	59	
106-46-7	1,4-Dichlorobenzene	380	U	380	45	
95-95-4	2,4,5-Trichlorophenol	380	U	380	68	
88-06-2	2,4,6-Trichlorophenol	380	U	380	57	
120-83-2	2,4-Dichlorophenol	380	U	380	52	
105-67-9	2,4-Dimethylphenol	380	U	380	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	380	U	380	83	
606-20-2	2,6-Dinitrotoluene	380	U	380	64	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	41	
91-57-6	2-Methylnaphthalene	380	U	380	39	
95-48-7	2-Methylphenol	380	U	380	51	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	380	U	380	58	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	70	
	3- and 4-Methylphenol Coelution	380	U	380	59	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	69	
59-50-7	4-Chloro-3-methylphenol	380	U	380	43	
106-47-8	4-Chloroaniline	380	U	380	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	55	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	380	U	380	55	
208-96-8	Acenaphthylene	380	U	380	52	
120-12-7	Anthracene	380	U	380	61	
56-55-3	Benz(a)anthracene	380	U	380	60	
50-32-8	Benzo(a)pyrene	380	U	380	64	
205-99-2	Benzo(b)fluoranthene	380	U	380	94	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1455  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 13:13

Sample Name: E5313B04 (2-4)  
 Lab Code: R1306449-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS911.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	73	
207-08-9	Benzo(k)fluoranthene	380	U	380	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	47	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	59	
86-74-8	Carbazole	380	U	380	54	
218-01-9	Chrysene	57	J	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	74	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	43	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	89	J	380	62	
86-73-7	Fluorene	380	U	380	49	
118-74-1	Hexachlorobenzene	380	U	380	59	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	62	
67-72-1	Hexachloroethane	380	U	380	54	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	64	
78-59-1	Isophorone	380	U	380	52	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	43	
129-00-0	Pyrene	380	U	380	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13  
**Date Extracted:** 9/10/13  
**Date Analyzed:** 9/12/13 13:13

**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1306449-006

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 85.8

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091213\CS911.D\

**Analysis Lot:** 358270  
**Extraction Lot:** 191276  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	65	41-151	9/12/13 13:13	
2-Fluorobiphenyl	73	47-126	9/12/13 13:13	
2-Fluorophenol	53	16-129	9/12/13 13:13	
Nitrobenzene-d5	69	39-136	9/12/13 13:13	
Phenol-d6	59	10-145	9/12/13 13:13	
p-Terphenyl-d14	66	35-152	9/12/13 13:13	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1306449-006  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	89.4	Percent	1.0	1	NA	9/6/13 12:08	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13

Basis: Dry  
 Percent Solids: 89.4

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	13400		mg/Kg	11	4	1	9/11/13	9/19/13 10:09	
Antimony, Total	6010C	1.5	J	mg/Kg	6.6	0.3	1	9/11/13	9/19/13 10:09	
Arsenic, Total	6010C	8.8		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 10:09	
Barium, Total	6010C	129		mg/Kg	2.2	0.09	1	9/11/13	9/19/13 10:09	
Beryllium, Total	6010C	0.79		mg/Kg	0.33	0.03	1	9/11/13	9/19/13 10:09	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/11/13	9/19/13 10:09	
Cadmium, Total	6010C	0.50	J	mg/Kg	0.55	0.07	1	9/11/13	9/19/13 10:09	
Calcium, Total	6010C	10900		mg/Kg	1100	400	10	9/11/13	9/18/13 10:23	
Chromium, Total	6010C	19.7		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:09	
Cobalt, Total	6010C	10.5		mg/Kg	5.5	0.06	1	9/11/13	9/19/13 10:09	
Copper, Total	6010C	22.9		mg/Kg	2.2	0.7	1	9/11/13	9/19/13 10:09	
Iron, Total	6010C	21200		mg/Kg	110	60	10	9/11/13	9/18/13 10:23	
Lead, Total	6010C	188		mg/Kg	5.5	0.3	1	9/11/13	9/19/13 10:09	
Magnesium, Total	6010C	8000		mg/Kg	1100	20	10	9/11/13	9/18/13 10:23	
Manganese, Total	6010C	371		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:09	
Mercury, Total	7471B	0.035	J	mg/Kg	0.036	0.006	1	9/12/13	9/12/13 18:47	
Nickel, Total	6010C	18.3		mg/Kg	4.4	0.10	1	9/11/13	9/19/13 10:09	
Potassium, Total	6010C	1440		mg/Kg	220	20	1	9/11/13	9/19/13 10:09	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 10:09	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/11/13	9/19/13 10:09	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 10:09	
Vanadium, Total	6010C	32.3		mg/Kg	5.5	0.06	1	9/11/13	9/19/13 10:09	
Zinc, Total	6010C	209		mg/Kg	2.2	0.08	1	9/11/13	9/19/13 10:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/9/13 15:52

Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 89.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9586.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .95

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.3	U	5.3	3.0	
71-43-2	Benzene	5.3	U	5.3	0.31	
75-27-4	Bromodichloromethane	5.3	U	5.3	0.65	
75-25-2	Bromoform	5.3	U	5.3	0.99	
74-83-9	Bromomethane	5.3	U	5.3	1.5	
78-93-3	2-Butanone (MEK)	5.3	U	5.3	2.5	
75-15-0	Carbon Disulfide	5.3	U	5.3	1.4	
56-23-5	Carbon Tetrachloride	5.3	U	5.3	0.98	
108-90-7	Chlorobenzene	5.3	U	5.3	0.31	
75-00-3	Chloroethane	5.3	U	5.3	3.1	
67-66-3	Chloroform	5.3	U	5.3	1.4	
74-87-3	Chloromethane	5.3	U	5.3	0.43	
124-48-1	Dibromochloromethane	5.3	U	5.3	0.78	
75-34-3	1,1-Dichloroethane	5.3	U	5.3	1.4	
107-06-2	1,2-Dichloroethane	5.3	U	5.3	0.65	
75-35-4	1,1-Dichloroethene	5.3	U	5.3	1.4	
156-59-2	cis-1,2-Dichloroethene	5.3	U	5.3	1.1	
156-60-5	trans-1,2-Dichloroethene	5.3	U	5.3	0.92	
78-87-5	1,2-Dichloropropane	5.3	U	5.3	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.3	U	5.3	0.96	
10061-02-6	trans-1,3-Dichloropropene	5.3	U	5.3	0.22	
100-41-4	Ethylbenzene	5.3	U	5.3	0.25	
591-78-6	2-Hexanone	5.3	U	5.3	1.3	
75-09-2	Methylene Chloride	5.3	U	5.3	0.61	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.3	U	5.3	1.1	
100-42-5	Styrene	5.3	U	5.3	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.3	U	5.3	0.87	
127-18-4	Tetrachloroethene	5.3	U	5.3	0.94	
108-88-3	Toluene	5.3	U	5.3	1.1	
71-55-6	1,1,1-Trichloroethane	5.3	U	5.3	0.78	
79-00-5	1,1,2-Trichloroethane	5.3	U	5.3	0.78	
79-01-6	Trichloroethene	5.3	U	5.3	1.1	
75-01-4	Vinyl Chloride	5.3	U	5.3	2.0	
95-47-6	o-Xylene	5.3	U	5.3	0.52	
179601-23-1	m,p-Xylenes	11	U	11	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1455  
 Date Received: 9/5/13  
 Date Analyzed: 9/9/13 15:52

Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 89.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9586.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .95

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.3 U	5.3	1.0	
1330-20-7	Xylenes, Total	16 U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	28-150	9/9/13 15:52	
Toluene-d8	103	66-138	9/9/13 15:52	
Dibromofluoromethane	100	63-138	9/9/13 15:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:05

Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 89.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS902.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	370	U	370	37	
95-50-1	1,2-Dichlorobenzene	370	U	370	42	
541-73-1	1,3-Dichlorobenzene	370	U	370	56	
106-46-7	1,4-Dichlorobenzene	370	U	370	43	
95-95-4	2,4,5-Trichlorophenol	370	U	370	65	
88-06-2	2,4,6-Trichlorophenol	370	U	370	54	
120-83-2	2,4-Dichlorophenol	370	U	370	50	
105-67-9	2,4-Dimethylphenol	370	U	370	41	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	370	U	370	79	
606-20-2	2,6-Dinitrotoluene	370	U	370	62	
91-58-7	2-Chloronaphthalene	370	U	370	39	
95-57-8	2-Chlorophenol	370	U	370	39	
91-57-6	2-Methylnaphthalene	370	U	370	37	
95-48-7	2-Methylphenol	370	U	370	48	
88-74-4	2-Nitroaniline	1900	U	1900	310	
88-75-5	2-Nitrophenol	370	U	370	55	
91-94-1	3,3'-Dichlorobenzidine	370	U	370	68	
	3- and 4-Methylphenol Coelution	370	U	370	56	
99-09-2	3-Nitroaniline	1900	U	1900	350	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	540	
101-55-3	4-Bromophenyl Phenyl Ether	370	U	370	66	
59-50-7	4-Chloro-3-methylphenol	370	U	370	41	
106-47-8	4-Chloroaniline	370	U	370	72	
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U	370	53	
100-01-6	4-Nitroaniline	1900	U	1900	410	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	370	U	370	53	
208-96-8	Acenaphthylene	370	U	370	50	
120-12-7	Anthracene	370	U	370	58	
56-55-3	Benz(a)anthracene	65	J	370	57	
50-32-8	Benzo(a)pyrene	71	J	370	62	
205-99-2	Benzo(b)fluoranthene	370	U	370	90	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:05

Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 89.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS902.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	370	U	370	70	
207-08-9	Benzo(k)fluoranthene	370	U	370	66	
108-60-1	2,2'-Oxybis(1-chloropropane)	370	U	370	45	
111-91-1	Bis(2-chloroethoxy)methane	370	U	370	51	
111-44-4	Bis(2-chloroethyl) Ether	370	U	370	37	
117-81-7	Bis(2-ethylhexyl) Phthalate	370	U	370	51	
85-68-7	Butyl Benzyl Phthalate	370	U	370	57	
86-74-8	Carbazole	370	U	370	52	
218-01-9	Chrysene	72	J	370	52	
84-74-2	Di-n-butyl Phthalate	370	U	370	110	
117-84-0	Di-n-octyl Phthalate	370	U	370	71	
53-70-3	Dibenz(a,h)anthracene	370	U	370	100	
132-64-9	Dibenzofuran	370	U	370	41	
84-66-2	Diethyl Phthalate	370	U	370	48	
131-11-3	Dimethyl Phthalate	370	U	370	53	
206-44-0	Fluoranthene	130	J	370	59	
86-73-7	Fluorene	370	U	370	47	
118-74-1	Hexachlorobenzene	370	U	370	57	
87-68-3	Hexachlorobutadiene	370	U	370	41	
77-47-4	Hexachlorocyclopentadiene	370	U	370	59	
67-72-1	Hexachloroethane	370	U	370	52	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	370	61	
78-59-1	Isophorone	370	U	370	49	
621-64-7	N-Nitrosodi-n-propylamine	370	U	370	42	
86-30-6	N-Nitrosodiphenylamine	370	U	370	58	
91-20-3	Naphthalene	370	U	370	37	
98-95-3	Nitrobenzene	370	U	370	39	
87-86-5	Pentachlorophenol (PCP)	1900	U	1900	310	
85-01-8	Phenanthrene	76	J	370	50	
108-95-2	Phenol	370	U	370	41	
129-00-0	Pyrene	110	J	370	72	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1455  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:05

Sample Name: E5313B04D (2-4)  
 Lab Code: R1306449-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 89.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091113\CS902.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	64	41-151	9/11/13 22:05	
2-Fluorobiphenyl	67	47-126	9/11/13 22:05	
2-Fluorophenol	50	16-129	9/11/13 22:05	
Nitrobenzene-d5	65	39-136	9/11/13 22:05	
Phenol-d6	55	10-145	9/11/13 22:05	
p-Terphenyl-d14	75	35-152	9/11/13 22:05	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B04D (2-4)  
**Lab Code:** R1306449-007  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10461

ETS3-11

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)															
Project Manager <b>Karen Bunker/Sheer Johnson</b>		Report CC <b>Ryan Tiebout</b>		PRESERVATIVE		METALS, TOTAL (List in comments below)										PRESERVATIVE KEY			
Company/Address <b>Ecology - Environmental 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Johnson@ecv.com</b>		NUMBER OF CONTAINERS		METALS, DISSOLVED (List in comments below)										0. NONE			
Phone # <b>312 578 9243</b>		Sampler's Signature <i>[Signature]</i>		Sample Printed Name <b>S-JT Coor-</b>		PCBS 6082 • 608										1. HCL			
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		PESTICIDES 6081 • 608										2. HNO3	
ES313B01(670)		9-4-13		1115		Soil		GC VOAs 6021 • 601/602										3. H2SO4	
ES313G01		9-4-13		1130		Water		GCMS SVoAs 6270 • 625										4. NaOH	
ES313B03		9-4-13		1140		Water		GCMS SVoAs 6280 • 624 • CLP										5. Zn Acetate	
ES313B06(2-4)		9-4-13		1200		Soil		REMARKS/ ALTERNATE DESCRIPTION										6. MeOH	
ES313B06(4-6)		9-4-13		1305		Soil		Top Blk. K										7. NaHSO4	
ES313B02(0-2)		9-4-13		1340		Soil												8. Other	
ES313B03(0-2)		9-4-13		1430		Soil													
SPECIAL INSTRUCTIONS/COMMENTS Metals		RECEIVED BY		RECEIVED BY		RECEIVED BY		TURNAROUND REQUIREMENTS										INVOICE INFORMATION	
Total via Met/Wet only SPLP on Hold		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		I. Results Only										R1306449	
Date/Time 9-13/1700		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		II. Results + OC Summaries (LCS, DUP, MS/MSD as required)										Ecology And Environment, Incorporated IDOT US30 Plainfield PSI	
Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		III. Results + OC and Calibration Summaries										Barcode	
Date/Time 9-13/1700		Date/Time 9/13/17		Date/Time 9/13/17		Date/Time 9/13/17		IV. Data Validation Report with										RELINQUISHED BY	
See OAPP <input type="checkbox"/>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		RUSH (SURCHARGES APPLY)										Signature	
STATE WHERE SAMPLES WERE COLLECTED		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		1 day 2 day 3 day										Printed Name	
RELINQUISHED BY		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		Printed Name <b>S-JT Coor</b>		4 day 5 day										Printed Name	
RELINQUISHED BY		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		REQUESTED REPORT DATE										Firm	
RELINQUISHED BY		Date/Time <b>9/13/17</b>		Date/Time <b>9/13/17</b>		Date/Time <b>9/13/17</b>		RECEIVED BY										Date/Time	









September 25, 2013

Service Request No: R1306451

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306451**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B01 (8-10)  
**Lab Code:** R1306451-001

**Service Request:** R1306451  
**Date Collected:** 9/4/13 1115  
**Date Received:** 9/5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.47	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1115  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E5313B01 (8-10)  
 Lab Code: R1306451-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 01:17	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 01:17	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:17	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:17	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 01:17	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:17	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Calcium	6010C	1000		mg/L	10	10	9/12/13	9/18/13 20:56	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:17	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Iron	6010C	0.19		mg/L	0.10	1	9/12/13	9/19/13 01:17	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Magnesium	6010C	486		mg/L	1.0	1	9/12/13	9/19/13 01:17	
Manganese	6010C	5.24		mg/L	0.010	1	9/12/13	9/19/13 01:17	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:44	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 01:17	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:17	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 01:17	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:17	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B06 (2-4)  
**Lab Code:** R1306451-002

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1300  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.16	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1300  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E5313B06 (2-4)  
 Lab Code: R1306451-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20 U	mg/L	0.20	1	9/12/13	9/19/13 01:36	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/12/13	9/19/13 01:36	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/12/13	9/19/13 01:36	
Barium	6010C	1.0 U	mg/L	1.0	1	9/12/13	9/19/13 01:36	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/12/13	9/19/13 01:36	
Boron	6010C	1.0 U	mg/L	1.0	1	9/12/13	9/19/13 01:36	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Calcium	6010C	71.4	mg/L	1.0	1	9/12/13	9/19/13 01:36	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/12/13	9/19/13 01:36	
Copper	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Iron	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Lead	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Magnesium	6010C	15.7	mg/L	1.0	1	9/12/13	9/19/13 01:36	
Manganese	6010C	0.017	mg/L	0.010	1	9/12/13	9/19/13 01:36	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/13/13	9/13/13 10:45	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/12/13	9/19/13 01:36	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/12/13	9/19/13 01:36	
Silver	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/12/13	9/19/13 01:36	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/12/13	9/19/13 01:36	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 01:36	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B06 (4-6)  
**Lab Code:** R1306451-003

**Service Request:** R1306451  
**Date Collected:** 9/4/13 1305  
**Date Received:** 9/5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.13	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1305  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E5313B06 (4-6)  
 Lab Code: R1306451-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 01:44	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 01:44	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:44	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:44	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 01:44	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 01:44	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Calcium	6010C	867		mg/L	10	10	9/12/13	9/18/13 21:08	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:44	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Magnesium	6010C	526		mg/L	10	10	9/12/13	9/18/13 21:08	
Manganese	6010C	3.56		mg/L	0.010	1	9/12/13	9/19/13 01:44	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:47	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 01:44	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 01:44	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 01:44	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 01:44	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 01:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B03 (0-2)  
**Lab Code:** R1306451-005

**Service Request:** R1306451  
**Date Collected:** 9/4/13 1430  
**Date Received:** 9/5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.76	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1430  
**Date Received:** 9/ 5/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E5313B03 (0-2)  
**Lab Code:** R1306451-005

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 02:22	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 02:22	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:22	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:22	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 02:22	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:22	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Calcium	6010C	296		mg/L	10	10	9/12/13	9/18/13 21:32	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:22	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Magnesium	6010C	159		mg/L	1.0	1	9/12/13	9/19/13 02:22	
Manganese	6010C	0.420		mg/L	0.010	1	9/12/13	9/19/13 02:22	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:50	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 02:22	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:22	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:22	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 02:22	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:22	
Zinc	6010C	0.13		mg/L	0.10	1	9/12/13	9/19/13 02:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1306451-006

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.45	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1306451-006

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20 U	mg/L	0.20	1	9/12/13	9/19/13 02:32	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/12/13	9/19/13 02:32	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/12/13	9/19/13 02:32	
Barium	6010C	1.0 U	mg/L	1.0	1	9/12/13	9/19/13 02:32	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/12/13	9/19/13 02:32	
Boron	6010C	1.0 U	mg/L	1.0	1	9/12/13	9/19/13 02:32	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Calcium	6010C	341	mg/L	10	10	9/12/13	9/18/13 21:38	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/12/13	9/19/13 02:32	
Copper	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Iron	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Lead	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Magnesium	6010C	173	mg/L	1.0	1	9/12/13	9/19/13 02:32	
Manganese	6010C	0.237	mg/L	0.010	1	9/12/13	9/19/13 02:32	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/13/13	9/13/13 10:55	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/12/13	9/19/13 02:32	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/12/13	9/19/13 02:32	
Silver	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/12/13	9/19/13 02:32	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/12/13	9/19/13 02:32	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/12/13	9/19/13 02:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5313B04D (2-4)  
**Lab Code:** R1306451-007

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.65	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1455  
**Date Received:** 9/ 5/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E5313B04D (2-4)  
**Lab Code:** R1306451-007

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 02:42	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 02:42	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:42	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:42	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 02:42	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:42	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Calcium	6010C	348		mg/L	10	10	9/12/13	9/18/13 21:44	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:42	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Magnesium	6010C	169		mg/L	1.0	1	9/12/13	9/19/13 02:42	
Manganese	6010C	0.284		mg/L	0.010	1	9/12/13	9/19/13 02:42	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:57	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 02:42	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:42	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:42	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 02:42	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:42	
Zinc	6010C	0.10		mg/L	0.10	1	9/12/13	9/19/13 02:42	







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10462

E7S3-12

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE		PRELIMINARY TESTS		REMARKS/ALTERNATE DESCRIPTION			
Client Name	Company/Address	Report CC	Sample's Printed Name	Sample's Printed Name	Sample's Email	GCMS VOA's • 8260 • 824 • CLP	GCMS SVA's • 8270 • 825	GC VOA's • 8021 • 801/802	PESTICIDES • 8081 • 808	PCB's • 8082 • 808	METALS TOTAL (List in comments below)	METALS DISSOLVED (List in comments below)	Other
DDOT US30	Karin Bunker/Steve Johnson Ecology! Environment 33 W. Main St Chicago IL 60607	EC-004335-0001-0170	Steve Johnson	Steve Johnson	Steve.Johnson@ecol.com								
Client Signature	Client Phone #	Client Email	Client Address	Client City/State	Client Zip	Client Matrix	Client Sampling Time	Client Date	Client Matrix	Client Matrix	Client Matrix	Client Matrix	Client Matrix
ES313B04(2-4)	018	9-4-13	1455	Si.1	✓								
ES313B04D(2-4)	027	9-4-13	1455	Si.1	✓								
ES313B03(0-2)	011	9-4-13	1520	Si.1	✓								
ES313B03(4-6)	025	9-4-13	1525	Si.1	✓								
ES313B02(2-4)	010	9-4-13	1550	Si.1	✓								
SPECIAL INSTRUCTIONS/COMMENTS Metals See QAPP <input type="checkbox"/>													
STATE WHERE SAMPLES WERE COLLECTED RECEIVED BY: [Signature] Date/Time: 9-4-13/1700 RELINQUISHED BY: [Signature] Date/Time: 9-5-13/1020													
TURNAROUND REQUIREMENTS (RUSH SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day REQUESTED REPORT DATE:													
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSO as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes No RECEIVED BY: [Signature] Date/Time: 9-5-13/1020													
INVOICE INFORMATION PO # BILL TO:													



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10460

2753-10

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5390 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)												PRESERVATIVE	PRELIMINARY TESTS	REMARKS/ALTERNATE DESCRIPTION
Client Sample ID		FOR OFFICE USE ONLY LAB ID	DATE		SAMPLING TIME		MATRIX	NUMBER OF CONTAINERS	GC/MS VOAS	GC/MS SVOAS	GC VOAS	PESTICIDES	PCBS	METALS TOTAL	METALS DISSOLVED	METALS (List in comments below)	OTHER	REMARKS/ALTERNATE DESCRIPTION
EDOT WS30		EE-004335-0001-0170																
Project Manager: Karen Bunker Sherwin		Report CC: Debra T. Coburn																
Company/Address: Ecology and Environment		33 W Monroe St Suite 1460																
Chicago IL 60603		Phone # 312 576 9243																
Sampler's Signature: [Signature]		Sampler's Printed Name: John P. [Name]																
Client Sample ID		FOR OFFICE USE ONLY LAB ID	DATE		SAMPLING TIME		MATRIX	NUMBER OF CONTAINERS	GC/MS VOAS	GC/MS SVOAS	GC VOAS	PESTICIDES	PCBS	METALS TOTAL	METALS DISSOLVED	METALS (List in comments below)	OTHER	REMARKS/ALTERNATE DESCRIPTION
ES309B01 (0-2)		011	9-4-13		0845		So-1	4								Total TRC Metals		Total TRC Metals
ES309B02 (4-6)		017	9-4-13		0940		So-1	4								Total TRC Metals		Total TRC Metals
ES309B03 (2-4)		013	9-4-13		1015		So-1	4								Total TRC Metals		Total TRC Metals
ES313B05 (0-2)		014	9-4-13		1030		So-1	4								Total TRC Metals		Total TRC Metals
ES313B05 (4-6)		015	9-4-13		1035		So-1	4								Total TRC Metals		Total TRC Metals
ES313B01 (2-4)		016	9-4-13		1110		So-1	4								Total TRC Metals		Total TRC Metals
<p>SPECIAL INSTRUCTIONS/COMMENTS: Metals</p> <p>See OAPP <input type="checkbox"/></p> <p>STATE WHERE SAMPLES WERE COLLECTED: RECEIVED BY: RELINQUISHED BY:</p> <p>Signature: [Signature] Signature: [Signature]</p> <p>Printed Name: [Name] Printed Name: [Name]</p> <p>Firm: [Firm] Firm: [Firm]</p> <p>Date/Time: 9-4-13/1700 Date/Time: 9/5/13 1020</p>																		
<p>TURNAROUND REQUIREMENTS: RUSH (SURCHARGES APPLY)</p> <p>1 day _____ 2 day _____ 3 day _____</p> <p>4 day _____ 5 day _____</p> <p>REQUESTED REPORT DATE: _____</p>																		
<p>REPORT REQUIREMENTS:</p> <p>I. Results Only _____</p> <p>II. Results + OC Summaries (LCS, DUP, MSMSD as required) _____</p> <p>III. Results + OC and Calibration Summaries _____</p> <p>IV. Data Validation Report with Raw Data _____</p> <p>Edata: Yes _____ No _____</p>																		
<p>INVOICE INFORMATION:</p> <p>PO # _____</p> <p>BILL TO: _____</p> <p>RECEIVED BY: [Signature]</p>																		



October 15, 2013

Service Request No: R1307116

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

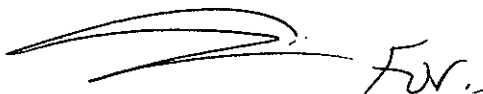
Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1307116**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 41

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1115  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5313B01 (8-10)  
Lab Code: R1307116-001

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 1/13	10/11/13 01:03	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B01 (8-10)  
**Lab Code:** R1307116-001  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1305  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5313B06 (4-6)  
Lab Code: R1307116-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.019	mg/L	0.010	1	10/ 1/13	10/11/13 01:09	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B06 (4-6)  
**Lab Code:** R1307116-002  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1430  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5313B03 (0-2)  
Lab Code: R1307116-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.097	mg/L	0.010	1	10/ 1/13	10/11/13 01:21	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B03 (0-2)  
**Lab Code:** R1307116-004  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1455  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5313B04 (2-4)  
Lab Code: R1307116-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.067	mg/L	0.010	1	10/ 1/13	10/11/13 01:27	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B04 (2-4)  
**Lab Code:** R1307116-005  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1455  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E5313B04D (2-4)  
Lab Code: R1307116-006

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.057	mg/L	0.010	1	10/ 1/13	10/11/13 01:34	

ALS ENVIRONMENTAL

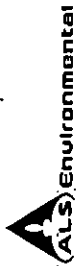
Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5313B04D (2-4)  
**Lab Code:** R1307116-006  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13  
**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10461 E153-11

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>DOT WS 30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Binkus/Sheri Johnson</b>		Report OC <b>Pean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology &amp; Environment</b>		33 W Monroe St Suite 1410		NUMBER OF CONTAINERS	
Chicago, IL 60603		Chicago, IL 60603		GCMS VOLA • 8260 • 824 • CLP	
Phone # <b>312 578 9243</b>		Email <b>Johnson@euc.com</b>		GCMS SVOLV • 8270 • 825	
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Scott Cooper</b>		PESTICIDES • 8081 • 808 • 8021 • 801/802	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
MATRIX		FOR OFFICE USE ONLY LAB ID			
<b>ES313B01 (870)</b>	<b>801</b>	<b>9-4-13</b>	<b>1115</b>	<b>Soil</b>	<b>7</b>
<b>ES313G01</b>		<b>9-4-13</b>	<b>1130</b>	<b>Water</b>	<b>4</b>
<b>ES313B03</b>		<b>9-4-13</b>	<b>1140</b>	<b>Water</b>	<b>1</b>
<b>ES313B06 (2-4)</b>	<b>002</b>	<b>9-4-13</b>	<b>1200</b>	<b>Soil</b>	<b>4</b>
<b>ES313B06 (4-6)</b>	<b>002 002</b>	<b>9-4-13</b>	<b>1305</b>	<b>Soil</b>	<b>4</b>
<b>ES313B02 (0-2)</b>	<b>003 003</b>	<b>9-4-13</b>	<b>1340</b>	<b>Soil</b>	<b>4</b>
<b>ES313B03 (0-2)</b>	<b>004 005</b>	<b>9-4-13</b>	<b>1430</b>	<b>Soil</b>	<b>4</b>
		<b>09/19/13</b>			
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LOS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		RECEIVED BY <i>[Signature]</i> Printed Name <b>Scott Cooper</b> Firm <b>Ecology &amp; Environment</b> Date/Time <b>9-10-13 1700</b>		INVOICE INFORMATION PO # BILL TO: <b>Ecology &amp; Environment, Incorporated DOT USD Plainsfield PSI</b> <b>R1306451 5</b> <b>Ecology &amp; Environment, Incorporated DOT USD Plainsfield PSI</b> <b>R1307116 5</b> <b>Ecology &amp; Environment, Incorporated DOT USD Plainsfield PSI</b>	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY <i>[Signature]</i> Printed Name <b>Scott Cooper</b> Firm <b>Ecology &amp; Environment</b> Date/Time <b>9-10-13 1020</b>		RELINQUISHED BY <i>[Signature]</i> Printed Name <b>Scott Cooper</b> Firm <b>Ecology &amp; Environment</b> Date/Time <b>9-10-13 1020</b>	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED E	
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>	
Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>		Printed Name <b>Scott Cooper</b>	
Firm <b>Ecology &amp; Environment</b>		Firm <b>Ecology &amp; Environment</b>		Firm <b>Ecology &amp; Environment</b>	
Date/Time <b>9-10-13 1700</b>		Date/Time <b>9-10-13 1020</b>		Date/Time <b>9-10-13 1020</b>	
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		REMARKS/ ALTERNATE DESCRIPTION		REMARKS/ ALTERNATE DESCRIPTION	
		Top Blank		Top Blank	









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
23299 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.593561° Longitude: -88.187726°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805056 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.593561° Longitude: -88.187726°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5315B01 was sampled within the construction zone adjacent to ISGS #2141A-15 (Lube Pros). Refer to PSI Report for ISGS #2141A-15 (Lube Pros) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306535, R1306536, and R1307206.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

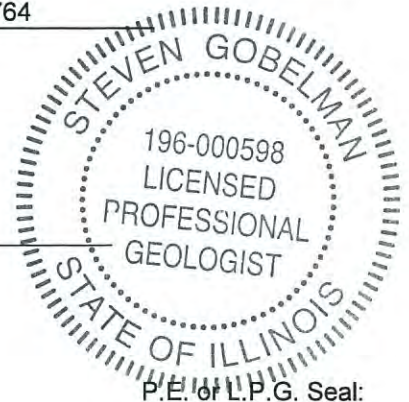
Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/16

Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

## CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-15 (Lube Pros)		Comparison Criteria			
BORING	E5315B01		MACs			TACO
SAMPLE	E5315B01 (0-2)	E5315B01 (8-10)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (meters)	0.0-0.6	2.4-3.1				
pH	7.12	8.19				
<b>VOCs (µg/kg)</b>						
Acetone	ND U	2.3 J	25,000	--	--	--
Toluene	1.2 J	1.0 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>						
Benzo(a)anthracene	92 J	ND U	900	1,800	1,100	--
Benzo(a)pyrene	98 J †	ND U	90	2,100	1,300	--
Benzo(b)fluoranthene	110 J	ND U	900	2,100	1,500	--
Benzo(k)fluoranthene	91 J	ND U	9,000	--	--	--
Bis(2-ethylhexyl) Phthalate	62 J	280 J	46,000	--	--	--
Chrysene	120 J	ND U	88,000	--	--	--
Di-n-butyl Phthalate	140 J	ND U	2,300,000	--	--	--
Fluoranthene	250 J	ND U	3,100,000	--	--	--
Phenanthrene	120 J	ND U	--	--	--	--
Pyrene	170 J	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>						
Aluminum	10,300	2,390	--	--	--	--
Antimony	0.5 J	ND U	5	--	--	--
Arsenic	7.9	3.8	11.3	13	--	--
Barium	139	10.0	1,500	--	--	--
Beryllium	0.63	0.10 J	22	--	--	--
Cadmium	0.31 J	ND U	5.2	--	--	--
Calcium	29,600	160,000	--	--	--	--
Chromium	16.1	7.0	21	--	--	--
Cobalt	8.8	3.2 J	20	--	--	--
Copper	36.9	8.4	2,900	--	--	--
Iron	17,400 †m	7,610	15,000	15,900	--	--
Lead	71.1	5.3	107	--	--	--
Magnesium	19,000	100,000	325,000	--	--	--
Manganese	703 †m	385	630	636	--	--
Mercury	0.040	0.006 J	0.89	--	--	--
Nickel	15.0	6.3	100	--	--	--
Potassium	1,270	640	--	--	--	--
Selenium	1.5 †	ND U	1.3	--	--	--
Silver	ND U	0.4 J	4.4	--	--	--
Vanadium	26.5	9.2	550	--	--	--
Zinc	143	20.0	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	0.74	0.27	--	--	--	--
Calcium	68.9	392	--	--	--	--
Iron	0.34	0.32	--	--	--	5
Magnesium	28.8	215	--	--	--	--
Manganese	0.028	2.02 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	NA	1.54 L	--	--	--	0.15



September 26, 2013

Service Request No: R1306536

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 278

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5315B01 (0-2)  
Lab Code: R1306536-007

Service Request: R1306536  
Date Collected: 9/ 5/13 1300  
Date Received: 9/ 6/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.2	Percent	1.0	1	NA	9/6/13 11:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5315B01 (0-2)  
 Lab Code: R1306536-007

Service Request: R1306536  
 Date Collected: 9/ 5/13 1300  
 Date Received: 9/ 6/13

Basis: Dry  
 Percent Solids: 79.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10300		mg/Kg	12	4	1	9/16/13	9/24/13 10:59	
Antimony, Total	6010C	0.5	J	mg/Kg	7.2	0.3	1	9/16/13	9/23/13 10:18	
Arsenic, Total	6010C	7.9		mg/Kg	1.2	0.5	1	9/16/13	9/23/13 10:18	
Barium, Total	6010C	139		mg/Kg	2.4	0.09	1	9/16/13	9/23/13 10:18	
Beryllium, Total	6010C	0.63		mg/Kg	0.36	0.04	1	9/16/13	9/23/13 10:18	
Boron, Total	6010C	24	U	mg/Kg	24	5	1	9/16/13	9/23/13 10:18	
Cadmium, Total	6010C	0.31	J	mg/Kg	0.60	0.08	1	9/16/13	9/23/13 10:18	
Calcium, Total	6010C	29600		mg/Kg	1200	400	10	9/16/13	9/22/13 12:58	
Chromium, Total	6010C	16.1		mg/Kg	1.2	0.2	1	9/16/13	9/23/13 10:18	
Cobalt, Total	6010C	8.8		mg/Kg	6.0	0.07	1	9/16/13	9/23/13 10:18	
Copper, Total	6010C	36.9		mg/Kg	2.4	0.8	1	9/16/13	9/23/13 10:18	
Iron, Total	6010C	17400		mg/Kg	120	70	10	9/16/13	9/22/13 12:58	
Lead, Total	6010C	71.1		mg/Kg	6.0	0.3	1	9/16/13	9/23/13 10:18	
Magnesium, Total	6010C	19000		mg/Kg	120	2	1	9/16/13	9/23/13 10:18	
Manganese, Total	6010C	703		mg/Kg	12	2	10	9/16/13	9/22/13 12:58	
Mercury, Total	7471B	0.040		mg/Kg	0.038	0.007	1	9/12/13	9/12/13 19:48	
Nickel, Total	6010C	15.0		mg/Kg	4.8	0.10	1	9/16/13	9/23/13 10:18	
Potassium, Total	6010C	1270		mg/Kg	240	20	1	9/16/13	9/23/13 10:18	
Selenium, Total	6010C	1.5		mg/Kg	1.2	0.4	1	9/16/13	9/23/13 10:18	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/16/13	9/23/13 10:18	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/16/13	9/23/13 10:18	
Vanadium, Total	6010C	26.5		mg/Kg	6.0	0.06	1	9/16/13	9/23/13 10:18	
Zinc, Total	6010C	143		mg/Kg	2.4	0.09	1	9/16/13	9/23/13 10:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1300  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 14:55

Sample Name: E5315B01 (0-2)  
 Lab Code: R1306536-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4947.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .64

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.0	U	4.0	2.3	
71-43-2	Benzene	4.0	U	4.0	0.24	
75-27-4	Bromodichloromethane	4.0	U	4.0	0.50	
75-25-2	Bromoform	4.0	U	4.0	0.76	
74-83-9	Bromomethane	4.0	U	4.0	1.2	
78-93-3	2-Butanone (MEK)	4.0	U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0	U	4.0	1.1	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	0.75	
108-90-7	Chlorobenzene	4.0	U	4.0	0.24	
75-00-3	Chloroethane	4.0	U	4.0	2.4	
67-66-3	Chloroform	4.0	U	4.0	1.1	
74-87-3	Chloromethane	4.0	U	4.0	0.33	
124-48-1	Dibromochloromethane	4.0	U	4.0	0.59	
75-34-3	1,1-Dichloroethane	4.0	U	4.0	1.1	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	0.50	
75-35-4	1,1-Dichloroethene	4.0	U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	0.77	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	0.70	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	0.79	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	0.73	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	0.17	
100-41-4	Ethylbenzene	4.0	U	4.0	0.19	
591-78-6	2-Hexanone	4.0	U	4.0	0.98	
75-09-2	Methylene Chloride	4.0	U	4.0	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0	U	4.0	0.80	
100-42-5	Styrene	4.0	U	4.0	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.66	
127-18-4	Tetrachloroethene	4.0	U	4.0	0.72	
108-88-3	Toluene	1.2	J	4.0	0.81	
71-55-6	1,1,1-Trichloroethane	4.0	U	4.0	0.59	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	0.59	
79-01-6	Trichloroethene	4.0	U	4.0	0.82	
75-01-4	Vinyl Chloride	4.0	U	4.0	1.5	
95-47-6	o-Xylene	4.0	U	4.0	0.39	
179601-23-1	m,p-Xylenes	8.1	U	8.1	0.89	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1300  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 14:55

Sample Name: E5315B01 (0-2)  
 Lab Code: R1306536-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4947.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .64

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0 U	4.0	0.76	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	51-136	9/9/13 14:55	
Toluene-d8	101	66-138	9/9/13 14:55	
Dibromofluoromethane	102	63-138	9/9/13 14:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1300  
 Date Received: 9/ 6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 18:27

Sample Name: E5315B01 (0-2)  
 Lab Code: R1306536-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS943.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	420	U	420	42	
95-50-1	1,2-Dichlorobenzene	420	U	420	47	
541-73-1	1,3-Dichlorobenzene	420	U	420	64	
106-46-7	1,4-Dichlorobenzene	420	U	420	48	
95-95-4	2,4,5-Trichlorophenol	420	U	420	73	
88-06-2	2,4,6-Trichlorophenol	420	U	420	61	
120-83-2	2,4-Dichlorophenol	420	U	420	56	
105-67-9	2,4-Dimethylphenol	420	U	420	46	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	420	U	420	89	
606-20-2	2,6-Dinitrotoluene	420	U	420	70	
91-58-7	2-Chloronaphthalene	420	U	420	44	
95-57-8	2-Chlorophenol	420	U	420	44	
91-57-6	2-Methylnaphthalene	420	U	420	42	
95-48-7	2-Methylphenol	420	U	420	55	
88-74-4	2-Nitroaniline	2100	U	2100	350	
88-75-5	2-Nitrophenol	420	U	420	62	
91-94-1	3,3'-Dichlorobenzidine	420	U	420	76	
	3- and 4-Methylphenol Coelution	420	U	420	64	
99-09-2	3-Nitroaniline	2100	U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	610	
101-55-3	4-Bromophenyl Phenyl Ether	420	U	420	75	
59-50-7	4-Chloro-3-methylphenol	420	U	420	46	
106-47-8	4-Chloroaniline	420	U	420	81	
7005-72-3	4-Chlorophenyl Phenyl Ether	420	U	420	59	
100-01-6	4-Nitroaniline	2100	U	2100	460	
100-02-7	4-Nitrophenol	2100	U	2100	310	
83-32-9	Acenaphthene	420	U	420	60	
208-96-8	Acenaphthylene	420	U	420	56	
120-12-7	Anthracene	420	U	420	66	
56-55-3	Benz(a)anthracene	92	J	420	65	
50-32-8	Benzo(a)pyrene	98	J	420	70	
205-99-2	Benzo(b)fluoranthene	110	J	420	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1300  
 Date Received: 9/ 6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 18:27

Sample Name: E5315B01 (0-2)  
 Lab Code: R1306536-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS943.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	420	U	420	79	
207-08-9	Benzo(k)fluoranthene	91	J	420	75	
108-60-1	2,2'-Oxybis(1-chloropropane)	420	U	420	50	
111-91-1	Bis(2-chloroethoxy)methane	420	U	420	58	
111-44-4	Bis(2-chloroethyl) Ether	420	U	420	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	62	J	420	58	
85-68-7	Butyl Benzyl Phthalate	420	U	420	64	
86-74-8	Carbazole	420	U	420	58	
218-01-9	Chrysene	120	J	420	59	
84-74-2	Di-n-butyl Phthalate	140	J	420	120	
117-84-0	Di-n-octyl Phthalate	420	U	420	80	
53-70-3	Dibenz(a,h)anthracene	420	U	420	120	
132-64-9	Dibenzofuran	420	U	420	46	
84-66-2	Diethyl Phthalate	420	U	420	54	
131-11-3	Dimethyl Phthalate	420	U	420	60	
206-44-0	Fluoranthene	250	J	420	67	
86-73-7	Fluorene	420	U	420	53	
118-74-1	Hexachlorobenzene	420	U	420	64	
87-68-3	Hexachlorobutadiene	420	U	420	47	
77-47-4	Hexachlorocyclopentadiene	420	U	420	67	
67-72-1	Hexachloroethane	420	U	420	58	
193-39-5	Indeno(1,2,3-cd)pyrene	420	U	420	69	
78-59-1	Isophorone	420	U	420	56	
621-64-7	N-Nitrosodi-n-propylamine	420	U	420	48	
86-30-6	N-Nitrosodiphenylamine	420	U	420	65	
91-20-3	Naphthalene	420	U	420	42	
98-95-3	Nitrobenzene	420	U	420	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	350	
85-01-8	Phenanthrene	120	J	420	56	
108-95-2	Phenol	420	U	420	46	
129-00-0	Pyrene	170	J	420	81	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1306536  
Date Collected: 9/ 5/13 1300  
Date Received: 9/ 6/13  
Date Extracted: 9/11/13  
Date Analyzed: 9/13/13 18:27

Sample Name: E5315B01 (0-2)  
Lab Code: R1306536-007

Units: µg/Kg  
Basis: Dry  
Percent Solids: 79.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
Prep Method: EPA 3541  
Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS943.D\

Analysis Lot: 358488  
Extraction Lot: 191326  
Instrument Name: R-MS-51  
Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	67	41-151	9/13/13 18:27	
2-Fluorobiphenyl	63	47-126	9/13/13 18:27	
2-Fluorophenol	50	16-129	9/13/13 18:27	
Nitrobenzene-d5	60	39-136	9/13/13 18:27	
Phenol-d6	57	10-145	9/13/13 18:27	
p-Terphenyl-d14	67	35-152	9/13/13 18:27	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5315B01 (0-2)  
**Lab Code:** R1306536-007  
**Matrix:** Soil

**Service Request:** R1306536

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	LPRUNOSKE	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5315B01 (8-10)  
**Lab Code:** R1306536-008

**Service Request:** R1306536  
**Date Collected:** 9/ 5/13 1305  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	93.7	Percent	1.0	1	NA	9/6/13 11:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Service Request: R1306536  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13

Basis: Dry  
 Percent Solids: 93.7

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2390	mg/Kg	10	3	1	9/16/13	9/24/13 11:06	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/16/13	9/23/13 10:25	
Arsenic, Total	6010C	3.8	mg/Kg	1.0	0.5	1	9/16/13	9/23/13 10:25	
Barium, Total	6010C	10.0	mg/Kg	2.0	0.08	1	9/16/13	9/23/13 10:25	
Beryllium, Total	6010C	0.10 J	mg/Kg	0.30	0.03	1	9/16/13	9/23/13 10:25	
Boron, Total	6010C	20 U	mg/Kg	20	4	1	9/16/13	9/23/13 10:25	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/16/13	9/23/13 10:25	
Calcium, Total	6010C	160000	mg/Kg	5100	1500	50	9/16/13	9/23/13 10:43	
Chromium, Total	6010C	7.0	mg/Kg	1.0	0.2	1	9/16/13	9/23/13 10:25	
Cobalt, Total	6010C	3.2 J	mg/Kg	5.1	0.06	1	9/16/13	9/23/13 10:25	
Copper, Total	6010C	8.4	mg/Kg	2.0	0.7	1	9/16/13	9/23/13 10:25	
Iron, Total	6010C	7610	mg/Kg	100	60	10	9/16/13	9/22/13 13:04	
Lead, Total	6010C	5.3	mg/Kg	5.1	0.3	1	9/16/13	9/23/13 10:25	
Magnesium, Total	6010C	100000	mg/Kg	1000	20	10	9/16/13	9/22/13 13:04	
Manganese, Total	6010C	385	mg/Kg	10	2	10	9/16/13	9/22/13 13:04	
Mercury, Total	7471B	0.006 J	mg/Kg	0.034	0.006	1	9/12/13	9/12/13 19:49	
Nickel, Total	6010C	6.3	mg/Kg	4.1	0.09	1	9/16/13	9/23/13 10:25	
Potassium, Total	6010C	640	mg/Kg	200	20	1	9/16/13	9/23/13 10:25	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/16/13	9/23/13 10:25	
Silver, Total	6010C	0.4 J	mg/Kg	1.0	0.09	1	9/16/13	9/23/13 10:25	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/16/13	9/23/13 10:25	
Vanadium, Total	6010C	9.2	mg/Kg	5.1	0.05	1	9/16/13	9/23/13 10:25	
Zinc, Total	6010C	20.0	mg/Kg	2.0	0.08	1	9/16/13	9/23/13 10:25	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 15:33

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4948.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	2.3	J	3.8	2.2	
71-43-2	Benzene	3.8	U	3.8	0.22	
75-27-4	Bromodichloromethane	3.8	U	3.8	0.47	
75-25-2	Bromoform	3.8	U	3.8	0.71	
74-83-9	Bromomethane	3.8	U	3.8	1.1	
78-93-3	2-Butanone (MEK)	3.8	U	3.8	1.8	
75-15-0	Carbon Disulfide	3.8	U	3.8	0.94	
56-23-5	Carbon Tetrachloride	3.8	U	3.8	0.70	
108-90-7	Chlorobenzene	3.8	U	3.8	0.22	
75-00-3	Chloroethane	3.8	U	3.8	2.2	
67-66-3	Chloroform	3.8	U	3.8	0.96	
74-87-3	Chloromethane	3.8	U	3.8	0.31	
124-48-1	Dibromochloromethane	3.8	U	3.8	0.56	
75-34-3	1,1-Dichloroethane	3.8	U	3.8	0.95	
107-06-2	1,2-Dichloroethane	3.8	U	3.8	0.47	
75-35-4	1,1-Dichloroethene	3.8	U	3.8	0.97	
156-59-2	cis-1,2-Dichloroethene	3.8	U	3.8	0.72	
156-60-5	trans-1,2-Dichloroethene	3.8	U	3.8	0.66	
78-87-5	1,2-Dichloropropane	3.8	U	3.8	0.74	
10061-01-5	cis-1,3-Dichloropropene	3.8	U	3.8	0.69	
10061-02-6	trans-1,3-Dichloropropene	3.8	U	3.8	0.16	
100-41-4	Ethylbenzene	3.8	U	3.8	0.18	
591-78-6	2-Hexanone	3.8	U	3.8	0.92	
75-09-2	Methylene Chloride	3.8	U	3.8	0.44	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.8	U	3.8	0.75	
100-42-5	Styrene	3.8	U	3.8	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	3.8	U	3.8	0.62	
127-18-4	Tetrachloroethene	3.8	U	3.8	0.67	
108-88-3	Toluene	1.0	J	3.8	0.76	
71-55-6	1,1,1-Trichloroethane	3.8	U	3.8	0.56	
79-00-5	1,1,2-Trichloroethane	3.8	U	3.8	0.56	
79-01-6	Trichloroethene	3.8	U	3.8	0.77	
75-01-4	Vinyl Chloride	3.8	U	3.8	1.4	
95-47-6	o-Xylene	3.8	U	3.8	0.37	
179601-23-1	m,p-Xylenes	7.6	U	7.6	0.83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 15:33

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4948.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.8 U	3.8	0.72	
1330-20-7	Xylenes, Total	11 U	11	1.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	51-136	9/9/13 15:33	
Toluene-d8	101	66-138	9/9/13 15:33	
Dibromofluoromethane	101	63-138	9/9/13 15:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/5/13 1305  
 Date Received: 9/6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 19:04

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS944.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	36	
95-50-1	1,2-Dichlorobenzene	350	U	350	40	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	76	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	36	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	65	
	3- and 4-Methylphenol Coelution	350	U	350	54	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	51	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	56	
56-55-3	Benz(a)anthracene	350	U	350	55	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 19:04

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS944.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	280	J	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	59	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 19:04

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306536-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091313\CS944.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	41-151	9/13/13 19:04	
2-Fluorobiphenyl	73	47-126	9/13/13 19:04	
2-Fluorophenol	55	16-129	9/13/13 19:04	
Nitrobenzene-d5	69	39-136	9/13/13 19:04	
Phenol-d6	63	10-145	9/13/13 19:04	
p-Terphenyl-d14	75	35-152	9/13/13 19:04	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5315B01 (8-10)  
**Lab Code:** R1306536-008  
**Matrix:** Soil

**Service Request:** R1306536

**Date Collected:** 9/5/13  
**Date Received:** 9/6/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	LPRUNOSKE	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10463

E753-13

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>ID07 US 30</b>		Project Number <b>EE-004335-001-01770</b>		
Project Manager <b>Karen Bunker/Sheeri Johnson</b>		Report CC <b>Dean Trebant</b>		
Company/Address <b>Ecology: Environment 33 W Monroe St Suite 1460 Chicago IL 60603</b>				
Phone <b>312 576 9243</b>		Email <b>shchurand@ec-e.com</b>		
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>S. J. Capen</b>		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
<b>E314B01(2-4)</b>	<b>-00600</b>	<b>9-5-13</b>	<b>1220</b>	<b>Soil</b>
<b>E315B01(0-2)</b>	<b>-007</b>	<b>9-5-13</b>	<b>1300</b>	<b>Soil</b>
<b>E315B01(8-70)</b>	<b>-008</b>	<b>9-5-13</b>	<b>1305</b>	<b>Soil</b>
<b>E315G01</b>		<b>9-5-13</b>	<b>1315</b>	<b>Water</b>
<b>E317B04</b>		<b>9-5-13</b>	<b>1325</b>	<b>Water</b>
<b>9-5-13</b>				
<b>9-5-13</b>				

SPECIAL INSTRUCTIONS/COMMENTS Metals <b>See R1306535 for TRLP See R1306537 for GW</b>		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day	
RECEIVED BY <i>[Signature]</i> Printed Name <b>Sherry D. Trebant</b> Firm <b>ALS</b> Date/Time <b>9/5/13 0930</b>		RECEIVED BY <i>[Signature]</i> Printed Name <b>Sherry D. Trebant</b> Firm <b>ALS</b> Date/Time <b>9/5/13 0930</b>	

ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	
METALS TOTAL (List in comments below)		GC/MS SVoAs	
METALS DISSOLVED (List in comments below)		GC/MS SVoAs	
PCBs 8082 & 808		GC/MS SVoAs	
PESTICIDES 8081 & 808		GC/MS SVoAs	
GC VOAAs 8021 & 801/802		GC/MS SVoAs	
GC VOAAs 8270 & 825		GC/MS SVoAs	
GC/MS SVoAs 8250 & 824 & CLP		GC/MS SVoAs	
NUMBER OF CONTAINERS		PRESERVATIVE	
VOC		VOC	
SULC		SULC	
TBT THE METALS		TBT THE METALS	
TRI THE METALS		TRI THE METALS	
PH 5.1		PH 5.1	

REMARKS/ALTERNATE DESCRIPTION		INVOICE INFORMATION	
ms/msd		PO #	
Trip Blank		BILL TO:	
		REPORT REQUIREMENTS	
		I. Results Only	
		II. Results + QC Summaries (LCS, DUP, MS/MSD as required)	
		III. Results + QC and Calibration Summaries	
		IV. Data Validation Report with Raw Data	
		RELINQUISHED BY	
		Signature	
		Printed Name	
		Firm	
		Date/Time	
		RECEIVED BY	
		Signature	
		Printed Name	
		Firm	
		Date/Time	
		REQUESTED REPORT DATE	
		STUD	
		R1306536	
		Edata	
		RELINQUISHED BY	
		Signature	
		Printed Name	
		Firm	
		Date/Time	



September 25, 2013

Service Request No: R1306535

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306535**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 99



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Certification, ID #, and another ID #. Rows include NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5315B01 (0-2)  
**Lab Code:** R1306535-007

**Service Request:** R1306535  
**Date Collected:** 9/ 5/13 1300  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.12	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306535  
**Date Collected:** 9/ 5/13 1300  
**Date Received:** 9/ 6/13  
**Pre-Prep Date:** 9/12/13

**Sample Name:** E5315B01 (0-2)  
**Lab Code:** R1306535-007

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.74		mg/L	0.20	1	9/16/13	9/20/13 04:31	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/16/13	9/20/13 04:31	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 04:31	
Barium	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 04:31	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/16/13	9/20/13 04:31	
Boron	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 04:31	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Calcium	6010C	68.9		mg/L	2.0	2	9/16/13	9/22/13 12:15	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 04:31	
Copper	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Iron	6010C	0.34		mg/L	0.10	1	9/16/13	9/20/13 04:31	
Lead	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Magnesium	6010C	28.8		mg/L	1.0	1	9/16/13	9/20/13 04:31	
Manganese	6010C	0.028		mg/L	0.010	1	9/16/13	9/20/13 04:31	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/17/13	9/18/13 15:55	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/16/13	9/20/13 04:31	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 04:31	
Silver	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/16/13	9/20/13 04:31	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 04:31	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 04:31	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5315B01 (0-2)  
**Lab Code:** R1306535-007  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5315B01 (8-10)  
**Lab Code:** R1306535-008

**Service Request:** R1306535  
**Date Collected:** 9/ 5/13 1305  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.19	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306535  
 Date Collected: 9/ 5/13 1305  
 Date Received: 9/ 6/13  
 Pre-Prep Date: 9/12/13

Sample Name: E5315B01 (8-10)  
 Lab Code: R1306535-008

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.27	mg/L	0.20	1	9/16/13	9/20/13 04:41	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/16/13	9/20/13 04:41	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/16/13	9/20/13 04:41	
Barium	6010C	1.0 U	mg/L	1.0	1	9/16/13	9/20/13 04:41	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/16/13	9/20/13 04:41	
Boron	6010C	1.0 U	mg/L	1.0	1	9/16/13	9/20/13 04:41	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Calcium	6010C	392	mg/L	10	10	9/16/13	9/19/13 22:38	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/16/13	9/20/13 04:41	
Copper	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Iron	6010C	0.32	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Lead	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Magnesium	6010C	215	mg/L	1.0	1	9/16/13	9/20/13 04:41	
Manganese	6010C	2.02	mg/L	0.010	1	9/16/13	9/20/13 04:41	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/17/13	9/18/13 15:56	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/16/13	9/20/13 04:41	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/16/13	9/20/13 04:41	
Silver	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/16/13	9/20/13 04:41	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/16/13	9/20/13 04:41	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/16/13	9/20/13 04:41	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5315B01 (8-10)  
**Lab Code:** R1306535-008  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





October 14, 2013

Service Request No: R1307206

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1307206**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307206  
Date Collected: 9/ 5/13 1305  
Date Received: 9/ 6/13  
Pre-Prep Date: 10/4/13

Sample Name: E5315B01 (8-10)  
Lab Code: R1307206-006

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	1.54	mg/L	0.010	1	10/ 7/13	10/11/13 07:53	



ALS ENVIRONMENTAL

Analyst Summary Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Name: E5315B01 (8-10)  
Lab Code: R1307206-006  
Matrix: Soil

Service Request: R1307206

Date Collected: 9/5/13

Date Received: 9/6/13

Analysis Method

Extracted/Digested By

Analyzed By

6010C

CWINKSTERN

DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10463

E753-13

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-001-0176</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker/Sheeri Johnson</b>		Report LOC <b>Dean Trebowt</b>		PRESERVATIVE	
Company/Address <b>Ecology: Environment 33 W Market St Suite 1460 Chicago IL 60603</b>		Email <b>SJohnson@ene-co</b>		PRELIMINARY ANALYSIS RESULTS	
Phone <b>312 576 9243</b>		Sampler's Signature <b>S Johnson</b>		GCMS VOA CLP GCMS VOA GCMS SVOA GC VOA PESTICIDES PCBs METALS TOTAL METALS DISSOLVED LOC	
CLIENT SAMPLE ID		DATE		MATRIX	
FOR OFFICE USE ONLY LAB ID		SAMPLING TIME			
<b>E5314B01(2-4)</b>	<b>00600</b>	<b>9-5-13</b>	<b>1220</b>	<b>So-1</b>	<b>4</b>
<b>E5315B01(0-2)</b>	<b>007</b>	<b>9-5-13</b>	<b>1300</b>	<b>So-1</b>	<b>4</b>
<b>E5315B01(870)</b>	<b>008</b>	<b>9-5-13</b>	<b>1305</b>	<b>So-1</b>	<b>4</b>
<b>E5315G01</b>	<b>009</b>	<b>9-5-13</b>	<b>1315</b>	<b>Water</b>	<b>4</b>
<b>E5317B04</b>	<b>010</b>	<b>9-5-13</b>	<b>1325</b>	<b>Water</b>	<b>1</b>
REMARKS/ALTERNATE DESCRIPTION <b>musford</b> <b>07/11/13</b> <b>Trip Blank</b>					
SPECIAL INSTRUCTIONS/COMMENTS <b>Metals</b> <b>SPUD ONLY</b>					
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO: <b>Ecology</b>	
REQUESTED REPORT DATE <b>9-5-13</b>		RECEIVED BY <b>SND</b>		RELINQUISHED BY <b>Ecology</b>	
STATE WHERE SAMPLES WERE COLLECTED <b>IL</b>		RECEIVED BY <b>IL</b>		RELINQUISHED BY <b>IL</b>	
Signature <b>Sheeri Johnson</b>		Signature <b>Sheeri Johnson</b>		Signature <b>Sheeri Johnson</b>	
Printed Name <b>Sheeri Johnson</b>		Printed Name <b>Sheeri Johnson</b>		Printed Name <b>Sheeri Johnson</b>	
Firm <b>Ecology: Environment</b>		Firm <b>Ecology: Environment</b>		Firm <b>Ecology: Environment</b>	
Date/Time <b>9-5-13/1600</b>		Date/Time <b>9-5-13 0930</b>		Date/Time <b>9-5-13 0930</b>	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15920-15932 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.592385° Longitude: -88.186708°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805121 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.592385° Longitude: -88.186708°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5317B02 was sampled within the construction zone adjacent to ISGS #2141A-17 (Commercial Buildings). Refer to PSI Report for ISGS #2141A-17 (Commercial Buildings) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306535, R1306536, and R1307206.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

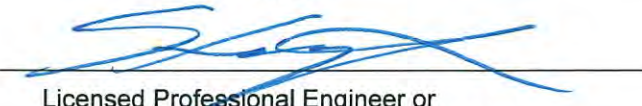
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

11/24/14

Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-17 (Commercial Buildings)		Comparison Criteria			
	E5317B02		MACs			TACO
BORING	E5317B02		Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	E5317B02 (4-6)	E5317B02 (10-12)				
MATRIX	Soil	Soil				
DEPTH (meters)	1.2-1.8	3.1-3.7				
pH	8.86	8.38				
<b>VOCs (µg/kg)</b>						
Acetone	1.4 J	4.4	25,000	--	--	--
Toluene	0.52 J	0.68 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>						
Di-n-butyl Phthalate	ND U	130 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>						
Aluminum	2,520	1,840	--	--	--	--
Arsenic	6.1	7.5	11.3	13	--	--
Barium	12.5	17.2	1,500	--	--	--
Beryllium	0.14 J	0.08 J	22	--	--	--
Calcium	126,000	131,000	--	--	--	--
Chromium	6.2	5.4 B	21	--	--	--
Cobalt	3.5 J	3.6 J	20	--	--	--
Copper	12.0	16.0	2,900	--	--	--
Iron	9,370	11,900	15,000	15,900	--	--
Lead	5.2 J	5.9	107	--	--	--
Magnesium	70,500	73,800	325,000	--	--	--
Manganese	290	476	630	636	--	--
Mercury	0.011 J	0.010 J	0.89	--	--	--
Nickel	7.8	7.7	100	--	--	--
Potassium	780	460	--	--	--	--
Silver	0.2 J	0.3 J	4.4	--	--	--
Vanadium	8.4	9.4	550	--	--	--
Zinc	24.7	48.5	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	ND U	0.22	--	--	--	--
Calcium	904	525	--	--	--	--
Iron	0.11	0.64	--	--	--	5
Magnesium	503	138	--	--	--	--
Manganese	4.89 L	1.46 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	ND U	ND U	--	--	--	0.15





September 25, 2013

Service Request No: R1306535

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306535**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 99

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5317B02 (4-6)  
**Lab Code:** R1306535-004

**Service Request:** R1306535  
**Date Collected:** 9/ 5/13 1500  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.86	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306535  
 Date Collected: 9/ 5/13 1500  
 Date Received: 9/ 6/13  
 Pre-Prep Date: 9/12/13

Sample Name: E5317B02 (4-6)  
 Lab Code: R1306535-004

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/16/13	9/20/13 03:01	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/16/13	9/20/13 03:01	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 03:01	
Barium	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 03:01	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/16/13	9/20/13 03:01	
Boron	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 03:01	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Calcium	6010C	904		mg/L	50	50	9/16/13	9/22/13 11:38	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 03:01	
Copper	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Iron	6010C	0.11		mg/L	0.10	1	9/16/13	9/20/13 03:01	
Lead	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Magnesium	6010C	503		mg/L	1.0	1	9/16/13	9/20/13 03:01	
Manganese	6010C	4.89		mg/L	0.010	1	9/16/13	9/20/13 03:01	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/17/13	9/18/13 15:43	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/16/13	9/20/13 03:01	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 03:01	
Silver	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/16/13	9/20/13 03:01	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 03:01	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 03:01	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5317B02 (4-6)  
**Lab Code:** R1306535-004  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5317B02 (10-12)  
**Lab Code:** R1306535-005

**Service Request:** R1306535  
**Date Collected:** 9/ 5/13 1505  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.38	pH Units		1	NA	9/13/13 13:25	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5317B02 (10-12)  
**Lab Code:** R1306535-005  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





September 26, 2013

Service Request No: R1306536

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 278





REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Certification, ID #, and another ID #. Rows include NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5317B02 (4-6)  
**Lab Code:** R1306536-004

**Service Request:** R1306536  
**Date Collected:** 9/ 5/13 1500  
**Date Received:** 9/ 6/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.6	Percent	1.0	1	NA	9/6/13 11:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5317B02 (4-6)  
 Lab Code: R1306536-004

Service Request: R1306536  
 Date Collected: 9/ 5/13 1500  
 Date Received: 9/ 6/13

Basis: Dry  
 Percent Solids: 94.6

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2520	mg/Kg	10	3	1	9/16/13	9/24/13 09:59	
Antimony, Total	6010C	6.3 U	mg/Kg	6.3	0.3	1	9/16/13	9/23/13 09:20	
Arsenic, Total	6010C	6.1	mg/Kg	1.0	0.5	1	9/16/13	9/23/13 09:20	
Barium, Total	6010C	12.5	mg/Kg	2.1	0.08	1	9/16/13	9/23/13 09:20	
Beryllium, Total	6010C	0.14 J	mg/Kg	0.31	0.03	1	9/16/13	9/23/13 09:20	
Boron, Total	6010C	21 U	mg/Kg	21	4	1	9/16/13	9/23/13 09:20	
Cadmium, Total	6010C	0.52 U	mg/Kg	0.52	0.07	1	9/16/13	9/23/13 09:20	
Calcium, Total	6010C	126000	mg/Kg	5200	1600	50	9/16/13	9/23/13 10:27	
Chromium, Total	6010C	6.2	mg/Kg	1.0	0.2	1	9/16/13	9/23/13 09:20	
Cobalt, Total	6010C	3.5 J	mg/Kg	5.2	0.06	1	9/16/13	9/23/13 09:20	
Copper, Total	6010C	12.0	mg/Kg	2.1	0.7	1	9/16/13	9/23/13 09:20	
Iron, Total	6010C	9370	mg/Kg	100	60	10	9/16/13	9/22/13 12:05	
Lead, Total	6010C	5.2 J	mg/Kg	5.2	0.3	1	9/16/13	9/23/13 09:20	
Magnesium, Total	6010C	70500	mg/Kg	1000	20	10	9/16/13	9/22/13 12:05	
Manganese, Total	6010C	290	mg/Kg	10	2	10	9/16/13	9/22/13 12:05	
Mercury, Total	7471B	0.011 J	mg/Kg	0.032	0.006	1	9/12/13	9/12/13 19:36	
Nickel, Total	6010C	7.8	mg/Kg	4.2	0.09	1	9/16/13	9/23/13 09:20	
Potassium, Total	6010C	780	mg/Kg	210	20	1	9/16/13	9/23/13 09:20	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/16/13	9/23/13 09:20	
Silver, Total	6010C	0.2 J	mg/Kg	1.0	0.09	1	9/16/13	9/23/13 09:20	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/16/13	9/23/13 09:20	
Vanadium, Total	6010C	8.4	mg/Kg	5.2	0.06	1	9/16/13	9/23/13 09:20	
Zinc, Total	6010C	24.7	mg/Kg	2.1	0.08	1	9/16/13	9/23/13 09:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1500  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 13:41

Sample Name: E5317B02 (4-6)  
 Lab Code: R1306536-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4945.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .41

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	1.4 J	2.2	1.3	
71-43-2	Benzene	2.2 U	2.2	0.13	
75-27-4	Bromodichloromethane	2.2 U	2.2	0.27	
75-25-2	Bromoform	2.2 U	2.2	0.41	
74-83-9	Bromomethane	2.2 U	2.2	0.60	
78-93-3	2-Butanone (MEK)	2.2 U	2.2	1.0	
75-15-0	Carbon Disulfide	2.2 U	2.2	0.54	
56-23-5	Carbon Tetrachloride	2.2 U	2.2	0.40	
108-90-7	Chlorobenzene	2.2 U	2.2	0.13	
75-00-3	Chloroethane	2.2 U	2.2	1.3	
67-66-3	Chloroform	2.2 U	2.2	0.55	
74-87-3	Chloromethane	2.2 U	2.2	0.18	
124-48-1	Dibromochloromethane	2.2 U	2.2	0.32	
75-34-3	1,1-Dichloroethane	2.2 U	2.2	0.55	
107-06-2	1,2-Dichloroethane	2.2 U	2.2	0.27	
75-35-4	1,1-Dichloroethene	2.2 U	2.2	0.56	
156-59-2	cis-1,2-Dichloroethene	2.2 U	2.2	0.42	
156-60-5	trans-1,2-Dichloroethene	2.2 U	2.2	0.38	
78-87-5	1,2-Dichloropropane	2.2 U	2.2	0.43	
10061-01-5	cis-1,3-Dichloropropene	2.2 U	2.2	0.40	
10061-02-6	trans-1,3-Dichloropropene	2.2 U	2.2	0.087	
100-41-4	Ethylbenzene	2.2 U	2.2	0.10	
591-78-6	2-Hexanone	2.2 U	2.2	0.53	
75-09-2	Methylene Chloride	2.2 U	2.2	0.25	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.2 U	2.2	0.43	
100-42-5	Styrene	2.2 U	2.2	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	2.2 U	2.2	0.36	
127-18-4	Tetrachloroethene	2.2 U	2.2	0.39	
108-88-3	Toluene	0.52 J	2.2	0.44	
71-55-6	1,1,1-Trichloroethane	2.2 U	2.2	0.32	
79-00-5	1,1,2-Trichloroethane	2.2 U	2.2	0.32	
79-01-6	Trichloroethene	2.2 U	2.2	0.44	
75-01-4	Vinyl Chloride	2.2 U	2.2	0.80	
95-47-6	o-Xylene	2.2 U	2.2	0.21	
179601-23-1	m,p-Xylenes	4.3 U	4.3	0.48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1500  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 13:41

Sample Name: E5317B02 (4-6)  
 Lab Code: R1306536-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4945.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .41

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	2.2 U	2.2	0.41	
1330-20-7	Xylenes, Total	6.5 U	6.5	0.69	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	51-136	9/9/13 13:41	
Toluene-d8	98	66-138	9/9/13 13:41	
Dibromofluoromethane	99	63-138	9/9/13 13:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1500  
 Date Received: 9/ 6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 17:12

Sample Name: E5317B02 (4-6)  
 Lab Code: R1306536-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS941.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	35	
95-50-1	1,2-Dichlorobenzene	350 U	350	39	
541-73-1	1,3-Dichlorobenzene	350 U	350	53	
106-46-7	1,4-Dichlorobenzene	350 U	350	40	
95-95-4	2,4,5-Trichlorophenol	350 U	350	61	
88-06-2	2,4,6-Trichlorophenol	350 U	350	51	
120-83-2	2,4-Dichlorophenol	350 U	350	47	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	75	
606-20-2	2,6-Dinitrotoluene	350 U	350	58	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	35	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	350 U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	64	
	3- and 4-Methylphenol Coelution	350 U	350	53	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	63	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	50	
208-96-8	Acenaphthylene	350 U	350	47	
120-12-7	Anthracene	350 U	350	55	
56-55-3	Benz(a)anthracene	350 U	350	54	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/5/13 1500  
 Date Received: 9/6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 17:12

Sample Name: E5317B02 (4-6)  
 Lab Code: R1306536-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS941.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306536  
**Date Collected:** 9/ 5/13 1500  
**Date Received:** 9/ 6/13  
**Date Extracted:** 9/11/13  
**Date Analyzed:** 9/13/13 17:12

**Sample Name:** E5317B02 (4-6)  
**Lab Code:** R1306536-004

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.6

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\091313\CS941.D\

**Analysis Lot:** 358488  
**Extraction Lot:** 191326  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/13/13 17:12	
2-Fluorobiphenyl	75	47-126	9/13/13 17:12	
2-Fluorophenol	56	16-129	9/13/13 17:12	
Nitrobenzene-d5	72	39-136	9/13/13 17:12	
Phenol-d6	66	10-145	9/13/13 17:12	
p-Terphenyl-d14	79	35-152	9/13/13 17:12	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Service Request: R1306536  
 Date Collected: 9/ 5/13 1505  
 Date Received: 9/ 6/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.0	Percent	1.0	1	NA	9/6/13 11:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Service Request: R1306536  
 Date Collected: 9/ 5/13 1505  
 Date Received: 9/ 6/13

Basis: Dry  
 Percent Solids: 95.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1840		mg/Kg	10	3	1	9/16/13	9/24/13 10:06	
Antimony, Total	6010C	6.1	U	mg/Kg	6.1	0.3	1	9/16/13	9/23/13 09:27	
Arsenic, Total	6010C	7.5		mg/Kg	1.0	0.4	1	9/16/13	9/23/13 09:27	
Barium, Total	6010C	17.2		mg/Kg	2.0	0.08	1	9/16/13	9/23/13 09:27	
Beryllium, Total	6010C	0.08	J	mg/Kg	0.30	0.03	1	9/16/13	9/23/13 09:27	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/16/13	9/23/13 09:27	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/16/13	9/23/13 09:27	
Calcium, Total	6010C	131000		mg/Kg	5100	1500	50	9/16/13	9/23/13 10:35	
Chromium, Total	6010C	5.4	B	mg/Kg	1.0	0.2	1	9/16/13	9/23/13 09:27	
Cobalt, Total	6010C	3.6	J	mg/Kg	5.1	0.06	1	9/16/13	9/23/13 09:27	
Copper, Total	6010C	16.0		mg/Kg	2.0	0.7	1	9/16/13	9/23/13 09:27	
Iron, Total	6010C	11900		mg/Kg	100	60	10	9/16/13	9/22/13 12:11	
Lead, Total	6010C	5.9		mg/Kg	5.1	0.3	1	9/16/13	9/23/13 09:27	
Magnesium, Total	6010C	73800		mg/Kg	1000	20	10	9/16/13	9/22/13 12:11	
Manganese, Total	6010C	476		mg/Kg	10	2	10	9/16/13	9/22/13 12:11	
Mercury, Total	7471B	0.010	J	mg/Kg	0.033	0.006	1	9/12/13	9/12/13 19:38	
Nickel, Total	6010C	7.7		mg/Kg	4.0	0.09	1	9/16/13	9/23/13 09:27	
Potassium, Total	6010C	460		mg/Kg	200	20	1	9/16/13	9/23/13 09:27	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/16/13	9/23/13 09:27	
Silver, Total	6010C	0.3	J	mg/Kg	1.0	0.08	1	9/16/13	9/23/13 09:27	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/16/13	9/23/13 09:27	
Vanadium, Total	6010C	9.4		mg/Kg	5.1	0.05	1	9/16/13	9/23/13 09:27	
Zinc, Total	6010C	48.5		mg/Kg	2.0	0.08	1	9/16/13	9/23/13 09:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1505  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 14:18

Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4946.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .52

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.4		2.7	1.6	
71-43-2	Benzene	2.7	U	2.7	0.16	
75-27-4	Bromodichloromethane	2.7	U	2.7	0.34	
75-25-2	Bromoform	2.7	U	2.7	0.51	
74-83-9	Bromomethane	2.7	U	2.7	0.76	
78-93-3	2-Butanone (MEK)	2.7	U	2.7	1.3	
75-15-0	Carbon Disulfide	2.7	U	2.7	0.68	
56-23-5	Carbon Tetrachloride	2.7	U	2.7	0.51	
108-90-7	Chlorobenzene	2.7	U	2.7	0.16	
75-00-3	Chloroethane	2.7	U	2.7	1.6	
67-66-3	Chloroform	2.7	U	2.7	0.69	
74-87-3	Chloromethane	2.7	U	2.7	0.22	
124-48-1	Dibromochloromethane	2.7	U	2.7	0.40	
75-34-3	1,1-Dichloroethane	2.7	U	2.7	0.69	
107-06-2	1,2-Dichloroethane	2.7	U	2.7	0.34	
75-35-4	1,1-Dichloroethene	2.7	U	2.7	0.71	
156-59-2	cis-1,2-Dichloroethene	2.7	U	2.7	0.52	
156-60-5	trans-1,2-Dichloroethene	2.7	U	2.7	0.48	
78-87-5	1,2-Dichloropropane	2.7	U	2.7	0.54	
10061-01-5	cis-1,3-Dichloropropene	2.7	U	2.7	0.50	
10061-02-6	trans-1,3-Dichloropropene	2.7	U	2.7	0.11	
100-41-4	Ethylbenzene	2.7	U	2.7	0.13	
591-78-6	2-Hexanone	2.7	U	2.7	0.67	
75-09-2	Methylene Chloride	2.7	U	2.7	0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.7	U	2.7	0.54	
100-42-5	Styrene	2.7	U	2.7	0.17	
79-34-5	1,1,2,2-Tetrachloroethane	2.7	U	2.7	0.45	
127-18-4	Tetrachloroethene	2.7	U	2.7	0.49	
108-88-3	Toluene	0.68	J	2.7	0.55	
71-55-6	1,1,1-Trichloroethane	2.7	U	2.7	0.40	
79-00-5	1,1,2-Trichloroethane	2.7	U	2.7	0.40	
79-01-6	Trichloroethene	2.7	U	2.7	0.56	
75-01-4	Vinyl Chloride	2.7	U	2.7	1.1	
95-47-6	o-Xylene	2.7	U	2.7	0.27	
179601-23-1	m,p-Xylenes	5.5	U	5.5	0.60	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 5/13 1505  
 Date Received: 9/ 6/13  
 Date Analyzed: 9/9/13 14:18

Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\090913\K4946.D\

Analysis Lot: 357498  
 Instrument Name: R-MS-07  
 Dilution Factor: .52

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	2.7 U	2.7	0.52	
1330-20-7	Xylenes, Total	8.2 U	8.2	0.86	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	51-136	9/9/13 14:18	
Toluene-d8	100	66-138	9/9/13 14:18	
Dibromofluoromethane	102	63-138	9/9/13 14:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/5/13 1505  
 Date Received: 9/6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 17:50

Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS942.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	53	
106-46-7	1,4-Dichlorobenzene	350	U	350	40	
95-95-4	2,4,5-Trichlorophenol	350	U	350	61	
88-06-2	2,4,6-Trichlorophenol	350	U	350	51	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	58	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	290	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	62	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	49	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	58	
205-99-2	Benzo(b)fluoranthene	350	U	350	84	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/5/13 1505  
 Date Received: 9/6/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 17:50

Sample Name: E5317B02 (10-12)  
 Lab Code: R1306536-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS942.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	48	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	48	
85-68-7	Butyl Benzyl Phthalate	350	U	350	53	
86-74-8	Carbazole	350	U	350	48	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	130	J	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	67	
53-70-3	Dibenz(a,h)anthracene	350	U	350	94	
132-64-9	Dibenzofuran	350	U	350	38	
84-66-2	Diethyl Phthalate	350	U	350	45	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	53	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	54	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306536  
**Date Collected:** 9/ 5/13 1505  
**Date Received:** 9/ 6/13  
**Date Extracted:** 9/11/13  
**Date Analyzed:** 9/13/13 17:50

**Sample Name:** E5317B02 (10-12)  
**Lab Code:** R1306536-005

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 95.0

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091313\CS942.D\

**Analysis Lot:** 358488  
**Extraction Lot:** 191326  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/13/13 17:50	
2-Fluorobiphenyl	75	47-126	9/13/13 17:50	
2-Fluorophenol	54	16-129	9/13/13 17:50	
Nitrobenzene-d5	72	39-136	9/13/13 17:50	
Phenol-d6	64	10-145	9/13/13 17:50	
p-Terphenyl-d14	77	35-152	9/13/13 17:50	







October 14, 2013

Service Request No: R1307206

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1307206**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307206  
Date Collected: 9/ 5/13 1500  
Date Received: 9/ 6/13  
Pre-Prep Date: 10/4/13

Sample Name: E5317B02 (4-6)  
Lab Code: R1307206-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 7/13	10/11/13 07:41	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5317B02 (4-6)  
**Lab Code:** R1307206-004  
**Matrix:** Soil

**Service Request:** R1307206

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

CWINKSTERN

DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307206  
Date Collected: 9/ 5/13 1505  
Date Received: 9/ 6/13  
Pre-Prep Date: 10/4/13

Sample Name: E5317B02 (10-12)  
Lab Code: R1307206-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/ 7/13	10/11/13 07:47	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/450000I345/EE-004335-000I-01TTO  
**Sample Name:** E5317B02 (10-12)  
**Lab Code:** R1307206-005  
**Matrix:** Soil

**Service Request:** R1307206

**Date Collected:** 9/5/13

**Date Received:** 9/6/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	CWINKSTERN	DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15936 (23343) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.592176° Longitude: -88.186355°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.592176° Longitude: -88.186355°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location E5318B01 was sampled within the construction zone adjacent to ISGS #2141A-18 (Commercial Building). Refer to PSI Report for ISGS #2141A-18 (Commercial Building) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306535, R1306536, and R1307206.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

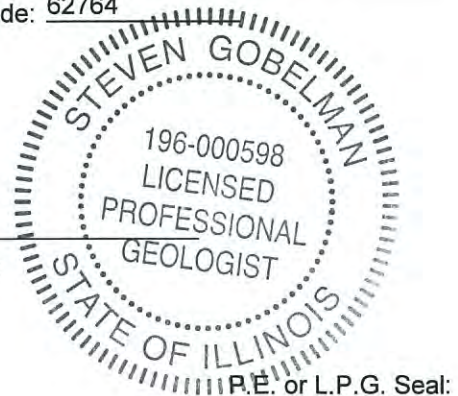
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

12/24/14  
 Date:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-18 (Commercial Building)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	E5318B01				
<b>SAMPLE</b>	E5318B01 (4-6)	<b>Most Stringent</b>	<b>Within an MSA</b>	<b>Within Chicago</b>	<b>SCGIER</b>
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	1.2-1.8				
<b>pH</b>	8.56				
<b>VOCs (µg/kg)</b>					
Toluene	1.5 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>					
Benzo(a)pyrene	59 J	90	2,100	1,300	--
Chrysene	63 J	88,000	--	--	--
Fluoranthene	150 J	3,100,000	--	--	--
Phenanthrene	71 J	210,000	--	--	--
Pyrene	98 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	2,300	--	--	--	--
Arsenic	5.2	11.3	13	--	--
Barium	16.4	1,500	--	--	--
Beryllium	0.11 J	22	--	--	--
Calcium	148,000	--	--	--	--
Chromium	8.8	21	--	--	--
Cobalt	3.4 J	20	--	--	--
Copper	11.3	2,900	--	--	--
Iron	10,400	15,000	15,900	--	--
Lead	4.8 J	107	--	--	--
Magnesium	83,500	325,000	--	--	--
Manganese	738 †m	630	636	--	--
Mercury	0.009 J	0.89	--	--	--
Nickel	9.6	100	--	--	--
Potassium	520	--	--	--	--
Silver	0.3 J	4.4	--	--	--
Vanadium	9.2	550	--	--	--
Zinc	27.7	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	865	--	--	--	--
Magnesium	520	--	--	--	--
Manganese	4.41 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	ND U	--	--	--	0.15



September 25, 2013

Service Request No: R1306535

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306535**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 99

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5318B01 (4-6)  
**Lab Code:** R1306535-011

**Service Request:** R1306535  
**Date Collected:** 9/6/13 1025  
**Date Received:** 9/7/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.56	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306535  
**Date Collected:** 9/ 6/13 1025  
**Date Received:** 9/ 7/13  
**Pre-Prep Date:** 9/12/13

**Sample Name:** E5318B01 (4-6)  
**Lab Code:** R1306535-011

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/16/13	9/20/13 05:41	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/16/13	9/20/13 05:41	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 05:41	
Barium	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 05:41	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/16/13	9/20/13 05:41	
Boron	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 05:41	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Calcium	6010C	865		mg/L	50	50	9/16/13	9/22/13 12:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 05:41	
Copper	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Iron	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Lead	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Magnesium	6010C	520		mg/L	1.0	1	9/16/13	9/20/13 05:41	
Manganese	6010C	4.41		mg/L	0.010	1	9/16/13	9/20/13 05:41	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/17/13	9/18/13 16:01	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/16/13	9/20/13 05:41	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 05:41	
Silver	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/16/13	9/20/13 05:41	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 05:41	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:41	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5318B01 (4-6)  
**Lab Code:** R1306535-011  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/6/13

**Date Received:** 9/7/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







September 26, 2013

Service Request No: R1306536

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 278

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



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Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5318B01 (4-6)  
**Lab Code:** R1306536-011

**Service Request:** R1306536  
**Date Collected:** 9/ 6/13 1025  
**Date Received:** 9/ 7/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.3	Percent	1.0	1	NA	9/10/13 11:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5318B01 (4-6)  
 Lab Code: R1306536-011

Service Request: R1306536  
 Date Collected: 9/ 6/13 1025  
 Date Received: 9/ 7/13

Basis: Dry  
 Percent Solids: 94.3

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	2300	mg/Kg	10	3	1	9/16/13	9/24/13 11:25	
Antimony, Total	6010C	6.1 U	mg/Kg	6.1	0.3	1	9/16/13	9/23/13 10:45	
Arsenic, Total	6010C	5.2	mg/Kg	1.0	0.5	1	9/16/13	9/23/13 10:45	
Barium, Total	6010C	16.4	mg/Kg	2.0	0.08	1	9/16/13	9/23/13 10:45	
Beryllium, Total	6010C	0.11 J	mg/Kg	0.31	0.03	1	9/16/13	9/23/13 10:45	
Boron, Total	6010C	20 U	mg/Kg	20	4	1	9/16/13	9/23/13 10:45	
Cadmium, Total	6010C	0.51 U	mg/Kg	0.51	0.07	1	9/16/13	9/23/13 10:45	
Calcium, Total	6010C	148000	mg/Kg	5100	1500	50	9/16/13	9/23/13 10:51	
Chromium, Total	6010C	8.8	mg/Kg	1.0	0.2	1	9/16/13	9/23/13 10:45	
Cobalt, Total	6010C	3.4 J	mg/Kg	5.1	0.06	1	9/16/13	9/23/13 10:45	
Copper, Total	6010C	11.3	mg/Kg	2.0	0.7	1	9/16/13	9/23/13 10:45	
Iron, Total	6010C	10400	mg/Kg	100	60	10	9/16/13	9/22/13 13:21	
Lead, Total	6010C	4.8 J	mg/Kg	5.1	0.3	1	9/16/13	9/23/13 10:45	
Magnesium, Total	6010C	83500	mg/Kg	1000	20	10	9/16/13	9/22/13 13:21	
Manganese, Total	6010C	738	mg/Kg	10	2	10	9/16/13	9/22/13 13:21	
Mercury, Total	7471B	0.009 J	mg/Kg	0.034	0.006	1	9/12/13	9/12/13 19:54	
Nickel, Total	6010C	9.6	mg/Kg	4.1	0.09	1	9/16/13	9/23/13 10:45	
Potassium, Total	6010C	520	mg/Kg	200	20	1	9/16/13	9/23/13 10:45	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/16/13	9/23/13 10:45	
Silver, Total	6010C	0.3 J	mg/Kg	1.0	0.09	1	9/16/13	9/23/13 10:45	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/16/13	9/23/13 10:45	
Vanadium, Total	6010C	9.2	mg/Kg	5.1	0.05	1	9/16/13	9/23/13 10:45	
Zinc, Total	6010C	27.7	mg/Kg	2.0	0.08	1	9/16/13	9/23/13 10:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1025  
 Date Received: 9/ 7/13  
 Date Analyzed: 9/9/13 18:30

Sample Name: E5318B01 (4-6)  
 Lab Code: R1306536-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9591.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.0 U	4.0	2.3	
71-43-2	Benzene	4.0 U	4.0	0.24	
75-27-4	Bromodichloromethane	4.0 U	4.0	0.49	
75-25-2	Bromoform	4.0 U	4.0	0.74	
74-83-9	Bromomethane	4.0 U	4.0	1.1	
78-93-3	2-Butanone (MEK)	4.0 U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0 U	4.0	0.99	
56-23-5	Carbon Tetrachloride	4.0 U	4.0	0.74	
108-90-7	Chlorobenzene	4.0 U	4.0	0.24	
75-00-3	Chloroethane	4.0 U	4.0	2.3	
67-66-3	Chloroform	4.0 U	4.0	1.1	
74-87-3	Chloromethane	4.0 U	4.0	0.32	
124-48-1	Dibromochloromethane	4.0 U	4.0	0.59	
75-34-3	1,1-Dichloroethane	4.0 U	4.0	1.0	
107-06-2	1,2-Dichloroethane	4.0 U	4.0	0.49	
75-35-4	1,1-Dichloroethene	4.0 U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0 U	4.0	0.76	
156-60-5	trans-1,2-Dichloroethene	4.0 U	4.0	0.69	
78-87-5	1,2-Dichloropropane	4.0 U	4.0	0.78	
10061-01-5	cis-1,3-Dichloropropene	4.0 U	4.0	0.72	
10061-02-6	trans-1,3-Dichloropropene	4.0 U	4.0	0.16	
100-41-4	Ethylbenzene	4.0 U	4.0	0.19	
591-78-6	2-Hexanone	4.0 U	4.0	0.97	
75-09-2	Methylene Chloride	4.0 U	4.0	0.46	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	4.0	0.78	
100-42-5	Styrene	4.0 U	4.0	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	4.0	0.65	
127-18-4	Tetrachloroethene	4.0 U	4.0	0.70	
108-88-3	Toluene	1.5 J	4.0	0.80	
71-55-6	1,1,1-Trichloroethane	4.0 U	4.0	0.59	
79-00-5	1,1,2-Trichloroethane	4.0 U	4.0	0.59	
79-01-6	Trichloroethene	4.0 U	4.0	0.81	
75-01-4	Vinyl Chloride	4.0 U	4.0	1.5	
95-47-6	o-Xylene	4.0 U	4.0	0.39	
179601-23-1	m,p-Xylenes	8.0 U	8.0	0.87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PS1/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1025  
 Date Received: 9/ 7/13  
 Date Analyzed: 9/9/13 18:30

Sample Name: E5318B01 (4-6)  
 Lab Code: R1306536-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090913\T9591.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .75

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0 U	4.0	0.75	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/9/13 18:30	
Toluene-d8	105	66-138	9/9/13 18:30	
Dibromofluoromethane	98	63-138	9/9/13 18:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1025  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 20:54

Sample Name: E5318B01 (4-6)  
 Lab Code: R1306536-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS947.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	35	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	35	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	52	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	380	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	59	J	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1025  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 20:54

Sample Name: E5318B01 (4-6)  
 Lab Code: R1306536-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS947.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	66	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	42	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	63	J	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	96	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	150	J	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	35	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	71	J	350	47	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	98	J	350	68	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306536  
**Date Collected:** 9/ 6/13 1025  
**Date Received:** 9/ 7/13  
**Date Extracted:** 9/11/13  
**Date Analyzed:** 9/13/13 20:54

**Sample Name:** E5318B01 (4-6)  
**Lab Code:** R1306536-011

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091313\CS947.D\

**Analysis Lot:** 358488  
**Extraction Lot:** 191326  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/13/13 20:54	
2-Fluorobiphenyl	70	47-126	9/13/13 20:54	
2-Fluorophenol	54	16-129	9/13/13 20:54	
Nitrobenzene-d5	67	39-136	9/13/13 20:54	
Phenol-d6	61	10-145	9/13/13 20:54	
p-Terphenyl-d14	70	35-152	9/13/13 20:54	





October 14, 2013

Service Request No: R1307206

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1307206**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 44

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307206  
Date Collected: 9/ 6/13 1025  
Date Received: 9/ 7/13  
Pre-Prep Date: 10/4/13

Sample Name: E5318B01 (4-6)  
Lab Code: R1307206-008

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/ 7/13	10/11/13 08:17	

ALS ENVIRONMENTAL

Analyst Summary Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Name: E5318B01 (4-6)  
Lab Code: R1307206-008  
Matrix: Soil

Service Request: R1307206

Date Collected: 9/6/13

Date Received: 9/7/13

Analysis Method

Extracted/Digested By

Analyzed By

6010C

CWINKSTERN

DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10465

E753-75  
OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
FDOT US30		EE-00435-0001-01773		PRESERVATIVE	
Project Manager		Report CC		METALS, DISSOLVED (List in comments below)	
Karen Bunker/Shawn Johnson		Dean Tiebert		METALS, TOTAL (List in comments below)	
Company/Address				PCBS • 8082 • 608	
Ecology and Environment				PESTICIDES • 8091 • 608	
33 W Monroe St Suite 176				GC VOAS • 8270 • 825	
Chilaga IC 60603				GCMS SVOAS • 8260 • 624 • CLP	
Phone #	312 578 9243	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
Email	Shawn@epmc.com				
Sampler's Signature	Shawn				
	Subst Center				
ES317B01(0-2)	PH	9-6-13	0915	5-1	4
ES317B01(2-4)	PH	9-6-13	0920	5-1	4
ES318B01(4-6)	PH	9-6-13	1025	5-1	4
ES319B01(2-4)	PH	9-6-13	1100	5-1	7
ES320B01(0-2)	PH	9-6-13	1130	5-1	4
ES320B01(4-6)	PH	9-6-13	1155	5-1	4
<del>PH + TRUP Metals on hold until 9/20/13</del>					
<del>PH + TRUP Metals only</del>					
<del>PH + TRUP Metals on hold until 9/20/13</del>					

SPECIAL INSTRUCTIONS/COMMENTS	TURNAROUND REQUIREMENTS	REPORT REQUIREMENTS	INVOICE INFORMATION
Metals	RUSH (SURCHARGES APPLY) 1 day ___ 2 day ___ 3 day ___ 4 day ___ 5 day ___	I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report v	PO # BILL TO: <u>ALB 7706</u> <u>Chilaga</u>
See QAPP <input type="checkbox"/>	REQUESTED REPORT DATE	Edata ___ Yes	R1306535 Ecology and Environment, Incorporated 100 US30 Palmsfield PSI
STATE WHERE SAMPLES WERE COLLECTED	RECEIVED BY	RELINQUISHED E	
RELINQUISHED BY	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time
9-6-13/1615	9-7-13 9:35		





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
15940 (23329) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.591920° Longitude: -88.186034°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.591920° Longitude: -88.186034°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

Location E5319B01 was sampled within the construction zone adjacent to ISGS #2141A-19 (Kastelic Canvas). Refer to PSI Report for ISGS #2141A-19 (Kastelic Canvas) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306535 and R1306536.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

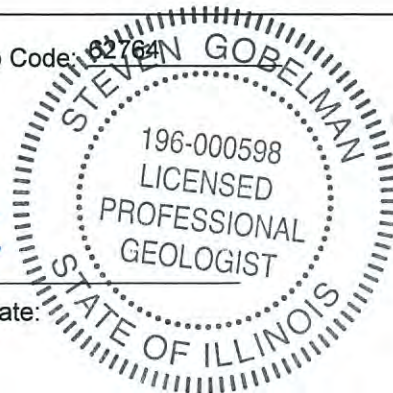
City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:



11/24/17

Date:



P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-19 (Kastelic Canvas)	Comparison Criteria			
BORING	E5319B01	MACs			TACO
SAMPLE	E5319B01 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	0.6-1.2				
pH	7.71				
<b>VOCs (None Detected)</b>					
<b>SVOCs (µg/kg)</b>					
Di-n-butyl Phthalate	130 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	11,200	--	--	--	--
Arsenic	8.1	11.3	13	--	--
Barium	183	1,500	--	--	--
Beryllium	0.73	22	--	--	--
Cadmium	0.26 J	5.2	--	--	--
Calcium	6,800	--	--	--	--
Chromium	16.3	21	--	--	--
Cobalt	9.0	20	--	--	--
Copper	30.5	2,900	--	--	--
Iron	16,500 †m	15,000	15,900	--	--
Lead	46.6	107	--	--	--
Magnesium	4,640	325,000	--	--	--
Manganese	958 †m	630	636	--	--
Mercury	0.042	0.89	--	--	--
Nickel	15.5	100	--	--	--
Potassium	1,440	--	--	--	--
Selenium	1.4 †	1.3	--	--	--
Vanadium	28.4	550	--	--	--
Zinc	103	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	0.38	--	--	--	--
Calcium	140	--	--	--	--
Iron	0.14	--	--	--	5
Magnesium	68.8	--	--	--	--
Manganese	0.107	--	--	--	0.15



September 25, 2013

Service Request No: R1306535

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

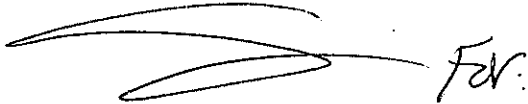
Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306535**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 99



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5319B01 (2-4)  
**Lab Code:** R1306535-012

**Service Request:** R1306535  
**Date Collected:** 9/ 6/13 1100  
**Date Received:** 9/ 7/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.71	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306535  
**Date Collected:** 9/ 6/13 1100  
**Date Received:** 9/ 7/13  
**Pre-Prep Date:** 9/12/13

**Sample Name:** E5319B01 (2-4)  
**Lab Code:** R1306535-012

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.38		mg/L	0.20	1	9/16/13	9/20/13 05:47	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/16/13	9/20/13 05:47	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 05:47	
Barium	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 05:47	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/16/13	9/20/13 05:47	
Boron	6010C	1.0	U	mg/L	1.0	1	9/16/13	9/20/13 05:47	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Calcium	6010C	140		mg/L	10	10	9/16/13	9/19/13 23:15	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 05:47	
Copper	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Iron	6010C	0.14		mg/L	0.10	1	9/16/13	9/20/13 05:47	
Lead	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Magnesium	6010C	68.8		mg/L	1.0	1	9/16/13	9/20/13 05:47	
Manganese	6010C	0.107		mg/L	0.010	1	9/16/13	9/20/13 05:47	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/17/13	9/18/13 16:03	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/16/13	9/20/13 05:47	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/16/13	9/20/13 05:47	
Silver	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/16/13	9/20/13 05:47	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/16/13	9/20/13 05:47	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/16/13	9/20/13 05:47	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5319B01 (2-4)  
**Lab Code:** R1306535-012  
**Matrix:** Soil

**Service Request:** R1306535

**Date Collected:** 9/6/13

**Date Received:** 9/7/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





September 26, 2013

Service Request No: R1306536

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 6, 2013 and September 7, 2013. For your reference, these analyses have been assigned our service request number **R1306536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 278

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
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Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5319B01 (2-4)  
**Lab Code:** R1306536-012

**Service Request:** R1306536  
**Date Collected:** 9/ 6/13 1100  
**Date Received:** 9/ 7/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.9	Percent	1.0	1	NA	9/10/13 11:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5319B01 (2-4)  
 Lab Code: R1306536-012

Service Request: R1306536  
 Date Collected: 9/ 6/13 1100  
 Date Received: 9/ 7/13

Basis: Dry  
 Percent Solids: 79.9

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11200	mg/Kg	24	7	2	9/16/13	9/24/13 11:32	
Antimony, Total	6010C	7.2 U	mg/Kg	7.2	0.3	1	9/16/13	9/23/13 10:51	
Arsenic, Total	6010C	8.1	mg/Kg	1.2	0.5	1	9/16/13	9/23/13 10:51	
Barium, Total	6010C	183	mg/Kg	2.4	0.09	1	9/16/13	9/23/13 10:51	
Beryllium, Total	6010C	0.73	mg/Kg	0.36	0.04	1	9/16/13	9/23/13 10:51	
Boron, Total	6010C	24 U	mg/Kg	24	5	1	9/16/13	9/23/13 10:51	
Cadmium, Total	6010C	0.26 J	mg/Kg	0.60	0.08	1	9/16/13	9/23/13 10:51	
Calcium, Total	6010C	6800	mg/Kg	1200	400	10	9/16/13	9/22/13 13:27	
Chromium, Total	6010C	16.3	mg/Kg	1.2	0.2	1	9/16/13	9/23/13 10:51	
Cobalt, Total	6010C	9.0	mg/Kg	6.0	0.07	1	9/16/13	9/23/13 10:51	
Copper, Total	6010C	30.5	mg/Kg	2.4	0.8	1	9/16/13	9/23/13 10:51	
Iron, Total	6010C	16500	mg/Kg	120	70	10	9/16/13	9/22/13 13:27	
Lead, Total	6010C	46.6	mg/Kg	6.0	0.3	1	9/16/13	9/23/13 10:51	
Magnesium, Total	6010C	4640	mg/Kg	120	2	1	9/16/13	9/23/13 10:51	
Manganese, Total	6010C	958	mg/Kg	12	2	10	9/16/13	9/22/13 13:27	
Mercury, Total	7471B	0.042	mg/Kg	0.039	0.007	1	9/12/13	9/12/13 19:56	
Nickel, Total	6010C	15.5	mg/Kg	4.8	0.10	1	9/16/13	9/23/13 10:51	
Potassium, Total	6010C	1440	mg/Kg	240	20	1	9/16/13	9/23/13 10:51	
Selenium, Total	6010C	1.4	mg/Kg	1.2	0.4	1	9/16/13	9/23/13 10:51	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	0.10	1	9/16/13	9/23/13 10:51	
Thallium, Total	6010C	2.4 U	mg/Kg	2.4	0.9	2	9/16/13	9/24/13 11:32	
Vanadium, Total	6010C	28.4	mg/Kg	6.0	0.06	1	9/16/13	9/23/13 10:51	
Zinc, Total	6010C	103	mg/Kg	2.4	0.09	1	9/16/13	9/23/13 10:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1100  
 Date Received: 9/ 7/13  
 Date Analyzed: 9/9/13 19:02

Sample Name: E5319B01 (2-4)  
 Lab Code: R1306536-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9592.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.2	U	5.2	3.0	
71-43-2	Benzene	5.2	U	5.2	0.31	
75-27-4	Bromodichloromethane	5.2	U	5.2	0.64	
75-25-2	Bromoform	5.2	U	5.2	0.97	
74-83-9	Bromomethane	5.2	U	5.2	1.5	
78-93-3	2-Butanone (MEK)	5.2	U	5.2	2.4	
75-15-0	Carbon Disulfide	5.2	U	5.2	1.3	
56-23-5	Carbon Tetrachloride	5.2	U	5.2	0.96	
108-90-7	Chlorobenzene	5.2	U	5.2	0.31	
75-00-3	Chloroethane	5.2	U	5.2	3.0	
67-66-3	Chloroform	5.2	U	5.2	1.4	
74-87-3	Chloromethane	5.2	U	5.2	0.42	
124-48-1	Dibromochloromethane	5.2	U	5.2	0.76	
75-34-3	1,1-Dichloroethane	5.2	U	5.2	1.3	
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.64	
75-35-4	1,1-Dichloroethene	5.2	U	5.2	1.4	
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.99	
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.90	
78-87-5	1,2-Dichloropropane	5.2	U	5.2	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.94	
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.21	
100-41-4	Ethylbenzene	5.2	U	5.2	0.24	
591-78-6	2-Hexanone	5.2	U	5.2	1.3	
75-09-2	Methylene Chloride	5.2	U	5.2	0.60	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	1.1	
100-42-5	Styrene	5.2	U	5.2	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.85	
127-18-4	Tetrachloroethene	5.2	U	5.2	0.92	
108-88-3	Toluene	5.2	U	5.2	1.1	
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.76	
79-00-5	1,1,2-Trichloroethane	5.2	U	5.2	0.76	
79-01-6	Trichloroethene	5.2	U	5.2	1.1	
75-01-4	Vinyl Chloride	5.2	U	5.2	2.0	
95-47-6	o-Xylene	5.2	U	5.2	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306536  
**Date Collected:** 9/ 6/13 1100  
**Date Received:** 9/ 7/13  
**Date Analyzed:** 9/9/13 19:02

**Sample Name:** E5319B01 (2-4)  
**Lab Code:** R1306536-012

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 79.9

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUDATA\msvoa12\Data\090913\T9592.D\

**Analysis Lot:** 357464  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .83

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.2 U	5.2	0.98	
1330-20-7	Xylenes, Total	16 U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	51-136	9/9/13 19:02	
Toluene-d8	106	66-138	9/9/13 19:02	
Dibromofluoromethane	103	63-138	9/9/13 19:02	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1100  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 21:31

Sample Name: E5319B01 (2-4)  
 Lab Code: R1306536-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUATA\5973A\DATA\091313\CS948.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410	U	410	42	
95-50-1	1,2-Dichlorobenzene	410	U	410	46	
541-73-1	1,3-Dichlorobenzene	410	U	410	63	
106-46-7	1,4-Dichlorobenzene	410	U	410	48	
95-95-4	2,4,5-Trichlorophenol	410	U	410	73	
88-06-2	2,4,6-Trichlorophenol	410	U	410	61	
120-83-2	2,4-Dichlorophenol	410	U	410	56	
105-67-9	2,4-Dimethylphenol	410	U	410	46	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	410	U	410	89	
606-20-2	2,6-Dinitrotoluene	410	U	410	69	
91-58-7	2-Chloronaphthalene	410	U	410	43	
95-57-8	2-Chlorophenol	410	U	410	44	
91-57-6	2-Methylnaphthalene	410	U	410	42	
95-48-7	2-Methylphenol	410	U	410	54	
88-74-4	2-Nitroaniline	2100	U	2100	350	
88-75-5	2-Nitrophenol	410	U	410	62	
91-94-1	3,3'-Dichlorobenzidine	410	U	410	76	
	3- and 4-Methylphenol Coelution	410	U	410	63	
99-09-2	3-Nitroaniline	2100	U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	610	
101-55-3	4-Bromophenyl Phenyl Ether	410	U	410	74	
59-50-7	4-Chloro-3-methylphenol	410	U	410	46	
106-47-8	4-Chloroaniline	410	U	410	80	
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U	410	59	
100-01-6	4-Nitroaniline	2100	U	2100	450	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	410	U	410	59	
208-96-8	Acenaphthylene	410	U	410	56	
120-12-7	Anthracene	410	U	410	65	
56-55-3	Benz(a)anthracene	410	U	410	64	
50-32-8	Benzo(a)pyrene	410	U	410	69	
205-99-2	Benzo(b)fluoranthene	410	U	410	100	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/6/13 1100  
 Date Received: 9/7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 21:31

Sample Name: E5319B01 (2-4)  
 Lab Code: R1306536-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091313\CS948.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	410	U	410	78	
207-08-9	Benzo(k)fluoranthene	410	U	410	74	
108-60-1	2,2'-Oxybis(1-chloropropane)	410	U	410	50	
111-91-1	Bis(2-chloroethoxy)methane	410	U	410	57	
111-44-4	Bis(2-chloroethyl) Ether	410	U	410	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	410	U	410	57	
85-68-7	Butyl Benzyl Phthalate	410	U	410	63	
86-74-8	Carbazole	410	U	410	58	
218-01-9	Chrysene	410	U	410	58	
84-74-2	Di-n-butyl Phthalate	130	J	410	120	
117-84-0	Di-n-octyl Phthalate	410	U	410	80	
53-70-3	Dibenz(a,h)anthracene	410	U	410	120	
132-64-9	Dibenzofuran	410	U	410	46	
84-66-2	Diethyl Phthalate	410	U	410	54	
131-11-3	Dimethyl Phthalate	410	U	410	59	
206-44-0	Fluoranthene	410	U	410	66	
86-73-7	Fluorene	410	U	410	52	
118-74-1	Hexachlorobenzene	410	U	410	63	
87-68-3	Hexachlorobutadiene	410	U	410	46	
77-47-4	Hexachlorocyclopentadiene	410	U	410	66	
67-72-1	Hexachloroethane	410	U	410	58	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	410	69	
78-59-1	Isophorone	410	U	410	55	
621-64-7	N-Nitrosodi-n-propylamine	410	U	410	47	
86-30-6	N-Nitrosodiphenylamine	410	U	410	65	
91-20-3	Naphthalene	410	U	410	42	
98-95-3	Nitrobenzene	410	U	410	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	350	
85-01-8	Phenanthrene	410	U	410	56	
108-95-2	Phenol	410	U	410	46	
129-00-0	Pyrene	410	U	410	80	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306536  
 Date Collected: 9/ 6/13 1100  
 Date Received: 9/ 7/13  
 Date Extracted: 9/11/13  
 Date Analyzed: 9/13/13 21:31

Sample Name: E5319B01 (2-4)  
 Lab Code: R1306536-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091313\CS948.D\

Analysis Lot: 358488  
 Extraction Lot: 191326  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	69	41-151	9/13/13 21:31	
2-Fluorobiphenyl	66	47-126	9/13/13 21:31	
2-Fluorophenol	56	16-129	9/13/13 21:31	
Nitrobenzene-d5	64	39-136	9/13/13 21:31	
Phenol-d6	61	10-145	9/13/13 21:31	
p-Terphenyl-d14	69	35-152	9/13/13 21:31	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10465

E753-15

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)															
FDOT US30		EE-004335-0001-01773		PRESERVATIVE		METALS, TOTAL (List in comments below)		METALS, DISSOLVED (List in comments below)		GCMS SVAS (8270 • 825)		GCMS SVAS (8260 • 824 • CLP)		Pesticides (8021 • 801/802)		PCBs (8082 • 608)		Preservative Key	
Project Manager Karen Bunker/Sheeri Johnson		Report CC Dean T. Siebert		NUMBER OF CONTAINERS		METALS, TOTAL (List in comments below)		METALS, DISSOLVED (List in comments below)		GCMS SVAS (8270 • 825)		GCMS SVAS (8260 • 824 • CLP)		Pesticides (8021 • 801/802)		PCBs (8082 • 608)		0. NONE 1. HCl 2. HNO <sub>3</sub> 3. H <sub>2</sub> SO <sub>4</sub> 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO <sub>4</sub> 8. Other	
Company/Address Ecology and Environment 33 W Monroe St Suite 1760 Chicago IL 60603		Sampler's Name Sibyanfar Encin		DATE		SAMPLING TIME		MATRIX		FOR OFFICE USE ONLY LAB ID		REMARKS/ ALTERNATE DESCRIPTION		REMARKS/ ALTERNATE DESCRIPTION		REMARKS/ ALTERNATE DESCRIPTION		REMARKS/ ALTERNATE DESCRIPTION	
312 STE 9243		Sibyanfar Encin		9-6-13		0915		S-1		009		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		0920		S-1		010		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1025		S-1		011		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1100		S-1		012		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1130		S-1		013		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		014		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		015		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		016		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		017		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		018		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		019		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		020		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		021		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		022		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		023		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		024		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		025		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		026		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		027		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		028		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		029		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		030		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		031		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		032		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		033		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		034		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		035		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		036		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		037		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		038		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		039		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		040		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		041		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		042		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		043		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		044		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		045		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		046		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		047		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		048		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		049		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		050		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		051		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		052		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		053		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		054		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		055		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		056		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		057		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		058		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		059		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		060		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		061		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		062		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		063		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		064		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		065		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		066		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		067		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		068		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		069		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		070		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		071		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		072		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		073		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		074		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		075		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		076		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		077		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		078		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		079		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		080		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		081		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		082		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		083		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		084		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		085		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		086		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		087		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		088		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		089		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		090		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		091		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		092		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		093		X		X		X		X	
312 STE 9243		Sibyanfar Encin		9-6-13		1135		S-1		094		X		X		X			



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16101 (23210) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.590829° Longitude: -88.182910°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805046 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.590829° Longitude: -88.182910°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5321B02 and E5321B04 were sampled within the construction zone adjacent to ISGS #2141A-21 (Rod Baker Ford). Refer to PSI Report for ISGS #2141A-21 (Rod Baker Ford) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306591, R1306593, and R1307224.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

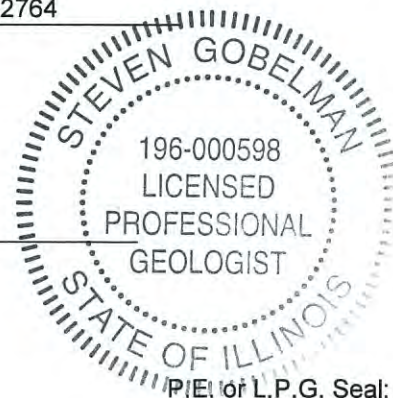
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:



Professional L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**  
**CONTAMINANTS OF CONCERN**

SITE	ISGS #2141A-21 (Rod Baker Ford)				Comparison Criteria			
	E5321B02		E5321B04		MACs			TACO
BORING					Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	E5321B02 (2-4)	E5321B02 (8-10)	E5321B04 (2-4)	E5321B04 (4-6)				
MATRIX	Soil	Soil	Soil	Soil				
DEPTH (meters)	0.6-1.2	2.4-3.1	0.6-1.2	1.2-1.8				
pH	8.23	8.87	7.87	7.51				
<b>VOCs (µg/kg)</b>								
Acetone	ND U	2.6 J	ND U	ND U	25,000	--	--	--
Toluene	1.1 J	ND U	0.80 J	0.93 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>								
Bis(2-ethylhexyl) Phthalate	ND U	ND U	ND U	ND U	46,000	--	--	--
Di-n-butyl Phthalate	ND U	ND U	ND U	ND U	2,300,000	--	--	--
Phenanthrene	ND U	ND U	ND U	56 J	--	--	--	--
<b>Inorganics (mg/kg)</b>								
Aluminum	10,900	1,400	14,200	17,700	--	--	--	--
Antimony	ND U	ND U	1.3 J	ND U	5	--	--	--
Arsenic	9.5	4.8	9.0	13.0 †	11.3	13	--	--
Barium	114	8.0	166	129	1,500	--	--	--
Beryllium	0.65	0.06 J	0.78	1.22	22	--	--	--
Boron	ND U	ND U	ND U	ND U	40	--	--	--
Calcium	5,080	120,000	3,040	5,230	--	--	--	--
Chromium	16.3	8.7	20.0	25.3 †	21	--	--	--
Cobalt	9.3	2.0 J	12.5	6.8	20	--	--	--
Copper	17.3	10.1	13.4	24.3	2,900	--	--	--
Iron	21,000 †m	9,090	22,200 †m	33,100 †m	15,000	15,900	--	--
Lead	19.3	4.2 J	27.7	28.0	107	--	--	--
Magnesium	4,440	70,100	3,340	5,590	325,000	--	--	--
Manganese	719 †m	257	1,010 †m	392	630	636	--	--
Mercury	0.023 J	0.007 J	0.039 J	0.066	0.89	--	--	--
Nickel	18.2	5.1	15.9	28.1	100	--	--	--
Potassium	1,600	490	1,320	1,660	--	--	--	--
Selenium	0.5 J	ND U	ND U	ND U	1.3	--	--	--
Thallium	ND U	ND U	0.5 J	ND U	2.6	--	--	--
Vanadium	29.4	5.9	36.1	36.0	550	--	--	--
Zinc	68.4	26.7	64.7	78.3	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>								
Aluminum	0.87	ND U	1.67	ND U	--	--	--	--
Calcium	54	492	64	736	--	--	--	--
Iron	0.44	ND U	0.80	ND U	--	--	--	5
Magnesium	20.1	147	13.6	436	--	--	--	--
Manganese	0.037	1.38 L	0.034	4.63 L	--	--	--	0.15
Potassium	5.2	ND U	ND U	ND U	--	--	--	--
<b>SPLP Metals (mg/L)</b>								
Manganese	NA	ND U	NA	0.467 L	--	--	--	0.15





September 25, 2013

Service Request No: R1306591

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306591**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

*For.*

Page 1 of 76



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Agency, ID #, and Certification #. Rows include Connecticut, Delaware, DoD ELAP, Florida, Illinois, Maine, Nebraska, Nevada, New Jersey, New York, New Hampshire, North Carolina, Pennsylvania, Rhode Island, and Virginia.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

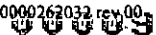
Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5321B02 (8-10)  
Lab Code: R1306591-002

Service Request: R1306591  
Date Collected: 9/9/13 1235  
Date Received: 9/10/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.87	pH Units		1	NA	9/16/13 12:50	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306591-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 16:49	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 16:49	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 16:49	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 09:20	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 16:49	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 16:49	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Calcium	6010C	492		mg/L	10	10	9/19/13	9/23/13 21:13	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 09:20	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 16:49	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Magnesium	6010C	147		mg/L	1.0	1	9/19/13	9/23/13 16:49	
Manganese	6010C	1.38		mg/L	0.010	1	9/19/13	9/23/13 16:49	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:08	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 16:49	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 16:49	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 16:49	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 16:49	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 16:49	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B02 (8-10)  
**Lab Code:** R1306591-002  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13

**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5321B02 (2-4)  
**Lab Code:** R1306591-012

**Service Request:** R1306591  
**Date Collected:** 9/ 9/13 1230  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.23	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306591-012

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.87		mg/L	0.20	1	9/19/13	9/23/13 18:43	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 18:43	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 18:43	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:09	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 18:43	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 18:43	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:43	
Calcium	6010C	54		mg/L	10	10	9/19/13	9/23/13 23:20	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:09	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 18:43	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:43	
Iron	6010C	0.44		mg/L	0.10	1	9/19/13	9/23/13 18:43	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:43	
Magnesium	6010C	20.1		mg/L	1.0	1	9/19/13	9/23/13 18:43	
Manganese	6010C	0.037		mg/L	0.010	1	9/19/13	9/23/13 18:43	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:33	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:43	
Potassium	6010C	5.2		mg/L	5.0	1	9/19/13	9/23/13 18:43	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 18:43	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 18:43	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 18:43	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 18:43	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:09	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B02 (2-4)  
**Lab Code:** R1306591-012  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5321B04 (2-4)  
Lab Code: R1306591-005

Service Request: R1306591  
Date Collected: 9/9/13 1345  
Date Received: 9/10/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.87	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/ 9/13 1345  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306591-005

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	1.67		mg/L	0.20	1	9/19/13	9/23/13 17:19	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 17:19	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:19	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 09:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 17:19	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 17:19	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	
Calcium	6010C	64		mg/L	10	10	9/19/13	9/23/13 21:48	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 09:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:19	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	
Iron	6010C	0.80		mg/L	0.10	1	9/19/13	9/23/13 17:19	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	
Magnesium	6010C	13.6		mg/L	1.0	1	9/19/13	9/23/13 17:19	
Manganese	6010C	0.034		mg/L	0.010	1	9/19/13	9/23/13 17:19	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:13	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 17:19	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:19	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 17:19	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:19	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:19	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B04 (2-4)  
**Lab Code:** R1306591-005  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5321B04 (4-6)  
Lab Code: R1306591-006

Service Request: R1306591  
Date Collected: 9/9/13 1350  
Date Received: 9/10/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.51	pH Units		1	NA	9/16/13 12:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306591  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306591-006

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 17:25	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 17:25	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:25	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 09:56	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/23/13 17:25	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 17:25	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Calcium	6010C	736		mg/L	10	10	9/19/13	9/23/13 21:55	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 09:56	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:25	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Magnesium	6010C	436		mg/L	1.0	1	9/19/13	9/23/13 17:25	
Manganese	6010C	4.63		mg/L	0.010	1	9/19/13	9/23/13 17:25	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:15	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 17:25	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 17:25	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 17:25	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 17:25	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 17:25	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B04 (4-6)  
**Lab Code:** R1306591-006  
**Matrix:** Soil

**Service Request:** R1306591

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM : 10654 E753-20

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name DST 4530		Project Number CE-004335-0001-01770		ANALYSIS REQUESTED (Include Method Number and Container Preservative)								
Project Manager Kevin Butler / Sheri Johnson		Report CC Dana Tebeaut		PRESERVATIVE								
Company/Address Ecology, Environment 30 W. Niagara St. Suite 1460 Chicago IL 60603		Email johnson@ecol-en.com		PRESERVATIVE								
Phone # 312 576 7117		Sample # 3007		PRESERVATIVE								
Sample # 3007		Sample # 3007		PRESERVATIVE								
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VYAS • 0260 • 024 • CLR • 0270 • 025 GCMS STOA • 0270 • 025 GC VYAS • 0271 • 021/020 PESTICIDES • 0081 • 008 PCBS • 0082 • 008 METALS TOTAL (List in comments below) METALS DISSOLVED (List in comments below)	Loc	SVOC	VOC	PH	% S.L.B.	REMARKS/ ALTERNATE DESCRIPTION
ES321B02 (0-2)	002	9-9-13	1235	Soil	4			X	X	X		
ES321B03 (0-2)	003	9-9-13	1300	Soil	4			X	X	X		
ES321B03 (0-4)	004	9-9-13	1305	Soil	4			X	X	X		
ES321B04 (2-4)	005	9-9-13	1345	Soil	4			X	X	X		
ES321B04 (4-4)	006	9-9-13	1350	Soil	4			X	X	X		
ES30B02 (0-2)	007	9-9-13	1450	Soil	4			X	X	X		

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

See OAPP

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Printed Name: <i>[Name]</i>	Printed Name: <i>[Name]</i>
Firm: <i>[Firm]</i>	Firm: <i>[Firm]</i>
Date/Time: 9-1-13 / 1030	Date/Time: 9/13 / 0930

TURNAROUND REQUIREMENTS  
RUSH (SURCHARGES APPLY)  
1 day 2 day 3 day  
4 day 5 day

REPORT REQUIREMENTS  
I. Results Only  
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)  
III. Results + QC and Calibration Summaries  
IV. Data Validation Report with Raw Data

Requested Report Date: \_\_\_\_\_

RECEIVED BY: *[Signature]*  
Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

RELINQUISHED BY: *[Signature]*  
Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

INVOICE INFORMATION  
PO # \_\_\_\_\_  
BILL TO: \_\_\_\_\_  
RECEIVED BY: *[Signature]*  
Signature: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Date/Time: \_\_\_\_\_



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM : 10654 E753-20

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name DST 4530		Project Number CE-004335-0001-01770		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Karen Butler / Sheri Johnson		Report CC Dana Tebeaut		PRESERVATIVE	
Company/Address Ecology, Environment 30 W Niagara St Sudb 1460 Chicago IL 60603		Email johnson@ecol.com		PRESERVATIVE	
Phone # 312 576 7111		Sample # 300		NUMBER OF CONTAINERS	
Sample Signature <i>[Signature]</i>		Sample # 300		NUMBER OF CONTAINERS	
Sample #		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		MATRIX	
ES321B02 (0-2)	002	9-9-13	1235	So.1	4
ES321B03 (0-2)	003	9-9-13	1300	So.1	4
ES321B03 (0-2)	004	9-9-13	1305	So.1	4
ES321B04 (2-4)	005	9-9-13	1345	So.1	4
ES321B04 (4-4)	006	9-9-13	1350	So.1	4
ES30B02 (0-2)	007	9-9-13	1450	So.1	4
<i>[Large Signature]</i>					
SPECIAL INSTRUCTIONS/COMMENTS Metals					
STATE WHERE SAMPLES WERE COLLECTED					
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY	
Signature: <i>[Signature]</i>		Signature: <i>[Signature]</i>		Signature	
Printed Name: <i>[Name]</i>		Printed Name: <i>[Name]</i>		Printed Name	
Firm: <i>[Firm]</i>		Firm: <i>[Firm]</i>		Firm	
Date/Time: 9-1-13 / 1030		Date/Time: 9/13 / 0930		Date/Time	
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day					
REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data					
INVOICE INFORMATION PO # BILL TO:					
RECEIVED BY: <i>[Signature]</i>					





# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10468

E753-18

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

Project Name: **WS30**  
 Project Manager: **Kevin Bunker/Steve Johnson**  
 Company/Address: **Ecology; Environment**  
**33 W Monroe St Suite 1410**  
**Chicago IL 60603**  
 Phone #: **312 578 9240**  
 Sample's Signature: **Scott Coop**  
 Sample's Printed Name: **Shahwan Cene**  
 Email: **shahwan@ecology.com**

Project Number: **E6-004335-0001-01770**  
 Report CC: **Dean Tabin**  
 PRESERVATIVE: **None**  
 ANALYSIS REQUESTED (Include Method Number and Container Preservative):  
 METALS TOTAL (List in comments below)  
 METALS DISSOLVED (List in comments below)  
 PCBs (E082 • E08)  
 PESTICIDES (E021 • E01/E02)  
 GC VDAS (E270 • E25)  
 GCMS SVDA (E260 • E24 • CLP)  
 NUMBER OF CONTAINERS: **8**  
 PREPARATIVE: **VC**  
 SVD: **total for metals**  
 PH: **5.1**  
 Preservative Key:  
 0. NONE  
 1. HCl  
 2. HNO3  
 3. H2SO4  
 4. NaOH  
 5. Zn Acetate  
 6. MeOH  
 7. NaHSO4  
 8. Other

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	ANALYSIS REQUESTED								REMARKS/ALTERNATE DESCRIPTION		
					GCMS VDAS (E260 • E24 • CLP)	GCMS SVDA (E270 • E25)	GC VDAS (E021 • E01/E02)	PESTICIDES (E081 • E08)	PCBs (E082 • E08)	METALS TOTAL (List in comments below)	METALS DISSOLVED (List in comments below)	SVD		PH	
E53CB01 (2-4)	015	9-9-13	0920	Soil	X	X	X	X	X	X	X	X	X	X	MS/MS
E53OPB01 (2-4)	015	9-9-13	0950	Soil	X	X	X	X	X	X	X	X	X	X	
E5321B01 (0-2)	010	9-9-13	1105	Soil	X	X	X	X	X	X	X	X	X	X	
E5321B01 (6-8)	011	9-9-13	1110	Soil	X	X	X	X	X	X	X	X	X	X	
E5321B02 (2-4)	012	9-9-13	1230	Soil	X	X	X	X	X	X	X	X	X	X	

SPECIAL INSTRUCTIONS/COMMENTS: **Metals**

See OAPP

STATE WHERE SAMPLES WERE COLLECTED: **Illinois**

RECEIVED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

RELINQUISHED BY: **Scott Coop** (Signature), **Scott Coop** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

TURNAROUND REQUIREMENTS: **RUSH (SURCHARGES APPLY)**  
 1 day \_\_\_\_\_ 2 day \_\_\_\_\_ 3 day \_\_\_\_\_  
 4 day \_\_\_\_\_ 5 day \_\_\_\_\_

REPORT REQUIREMENTS:  
 I. Results Only \_\_\_\_\_  
 II. Results + QC Summaries (LCS, DUP, MS/MSD as required) \_\_\_\_\_  
 III. Results + QC and Calibration Summaries \_\_\_\_\_  
 IV. Data Validation Report with Raw Data \_\_\_\_\_

REQUESTED REPORT DATE: \_\_\_\_\_

RECEIVED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

RELINQUISHED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)

INVOICE INFORMATION: **PO #** \_\_\_\_\_ **BILL TO:** \_\_\_\_\_

RECEIVED BY: **Steve Johnson** (Signature), **Steve Johnson** (Printed Name), **Ecology; Environment** (Firm), **9-9-13/1620** (Date/Time)



September 27, 2013

Service Request No: R1306593

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1306593**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*For:*

Karen Bunker  
Project Manager

Page 1 of 189

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5321B02 (8-10)  
**Lab Code:** R1306593-002

**Service Request:** R1306593  
**Date Collected:** 9/ 9/13 1235  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	96.7	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Service Request: R1306593  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 96.7

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1400	mg/Kg	10	3	1	9/18/13	9/21/13 00:25	
Antimony, Total	6010C	1.0 BJ	mg/Kg	6.0	0.2	1	9/18/13	9/21/13 00:25	
Arsenic, Total	6010C	4.8	mg/Kg	1.0	0.4	1	9/18/13	9/21/13 00:25	
Barium, Total	6010C	8.0	mg/Kg	2.0	0.08	1	9/18/13	9/21/13 00:25	
Beryllium, Total	6010C	0.06 J	mg/Kg	0.30	0.03	1	9/18/13	9/21/13 00:25	
Boron, Total	6010C	20 U	mg/Kg	20	4	1	9/18/13	9/21/13 00:25	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	0.07	1	9/18/13	9/21/13 00:25	
Calcium, Total	6010C	120000	mg/Kg	1000	300	10	9/18/13	9/20/13 21:18	
Chromium, Total	6010C	8.7	mg/Kg	1.0	0.10	1	9/18/13	9/21/13 00:25	
Cobalt, Total	6010C	2.0 J	mg/Kg	5.0	0.06	1	9/18/13	9/21/13 00:25	
Copper, Total	6010C	10.1	mg/Kg	2.0	0.7	1	9/18/13	9/21/13 00:25	
Iron, Total	6010C	9090	mg/Kg	100	60	10	9/18/13	9/20/13 21:18	
Lead, Total	6010C	4.2 J	mg/Kg	5.0	0.3	1	9/18/13	9/21/13 00:25	
Magnesium, Total	6010C	70100	mg/Kg	100	2	1	9/18/13	9/21/13 00:25	
Manganese, Total	6010C	257	mg/Kg	1.0	0.2	1	9/18/13	9/21/13 00:25	
Mercury, Total	7471B	0.007 J	mg/Kg	0.032	0.006	1	9/18/13	9/19/13 16:51	
Nickel, Total	6010C	5.1	mg/Kg	4.0	0.09	1	9/18/13	9/21/13 00:25	
Potassium, Total	6010C	490	mg/Kg	200	20	1	9/18/13	9/21/13 00:25	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	0.3	1	9/18/13	9/23/13 09:06	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	0.08	1	9/18/13	9/21/13 00:25	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	0.4	1	9/18/13	9/21/13 00:25	
Vanadium, Total	6010C	5.9	mg/Kg	5.0	0.05	1	9/18/13	9/21/13 00:25	
Zinc, Total	6010C	26.7	mg/Kg	2.0	0.08	1	9/18/13	9/23/13 09:06	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 13:04

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5045.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	2.6 BJ	4.0	2.3	
71-43-2	Benzene	4.0 U	4.0	0.24	
75-27-4	Bromodichloromethane	4.0 U	4.0	0.49	
75-25-2	Bromoform	4.0 U	4.0	0.75	
74-83-9	Bromomethane	4.0 U	4.0	1.1	
78-93-3	2-Butanone (MEK)	4.0 U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0 U	4.0	0.99	
56-23-5	Carbon Tetrachloride	4.0 U	4.0	0.74	
108-90-7	Chlorobenzene	4.0 U	4.0	0.24	
75-00-3	Chloroethane	4.0 U	4.0	2.3	
67-66-3	Chloroform	4.0 U	4.0	1.1	
74-87-3	Chloromethane	4.0 U	4.0	0.32	
124-48-1	Dibromochloromethane	4.0 U	4.0	0.59	
75-34-3	1,1-Dichloroethane	4.0 U	4.0	1.0	
107-06-2	1,2-Dichloroethane	4.0 U	4.0	0.49	
75-35-4	1,1-Dichloroethene	4.0 U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0 U	4.0	0.76	
156-60-5	trans-1,2-Dichloroethene	4.0 U	4.0	0.69	
78-87-5	1,2-Dichloropropane	4.0 U	4.0	0.78	
10061-01-5	cis-1,3-Dichloropropene	4.0 U	4.0	0.72	
10061-02-6	trans-1,3-Dichloropropene	4.0 U	4.0	0.16	
100-41-4	Ethylbenzene	4.0 U	4.0	0.19	
591-78-6	2-Hexanone	4.0 U	4.0	0.97	
75-09-2	Methylene Chloride	4.0 U	4.0	0.46	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	4.0	0.79	
100-42-5	Styrene	4.0 U	4.0	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	4.0	0.65	
127-18-4	Tetrachloroethene	4.0 U	4.0	0.71	
108-88-3	Toluene	4.0 U	4.0	0.80	
71-55-6	1,1,1-Trichloroethane	4.0 U	4.0	0.59	
79-00-5	1,1,2-Trichloroethane	4.0 U	4.0	0.59	
79-01-6	Trichloroethene	4.0 U	4.0	0.81	
75-01-4	Vinyl Chloride	4.0 U	4.0	1.5	
95-47-6	o-Xylene	4.0 U	4.0	0.39	
179601-23-1	m,p-Xylenes	8.0 U	8.0	0.87	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 13:04

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.7

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5045.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0 U	4.0	0.75	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	51-136	9/16/13 13:04	
Toluene-d8	96	66-138	9/16/13 13:04	
Dibromofluoromethane	100	63-138	9/16/13 13:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1235  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 16:39

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ622.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340 U	340	35	
95-50-1	1,2-Dichlorobenzene	340 U	340	38	
541-73-1	1,3-Dichlorobenzene	340 U	340	52	
106-46-7	1,4-Dichlorobenzene	340 U	340	40	
95-95-4	2,4,5-Trichlorophenol	340 U	340	60	
88-06-2	2,4,6-Trichlorophenol	340 U	340	50	
120-83-2	2,4-Dichlorophenol	340 U	340	46	
105-67-9	2,4-Dimethylphenol	340 U	340	38	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	340 U	340	73	
606-20-2	2,6-Dinitrotoluene	340 U	340	57	
91-58-7	2-Chloronaphthalene	340 U	340	36	
95-57-8	2-Chlorophenol	340 U	340	36	
91-57-6	2-Methylnaphthalene	340 U	340	35	
95-48-7	2-Methylphenol	340 U	340	45	
88-74-4	2-Nitroaniline	1800 U	1800	290	
88-75-5	2-Nitrophenol	340 U	340	51	
91-94-1	3,3'-Dichlorobenzidine	340 U	340	63	
	3- and 4-Methylphenol Coelution	340 U	340	52	
99-09-2	3-Nitroaniline	1800 U	1800	320	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	500	
101-55-3	4-Bromophenyl Phenyl Ether	340 U	340	61	
59-50-7	4-Chloro-3-methylphenol	340 U	340	38	
106-47-8	4-Chloroaniline	340 U	340	66	
7005-72-3	4-Chlorophenyl Phenyl Ether	340 U	340	49	
100-01-6	4-Nitroaniline	1800 U	1800	380	
100-02-7	4-Nitrophenol	1800 U	1800	250	
83-32-9	Acenaphthene	340 U	340	49	
208-96-8	Acenaphthylene	340 U	340	46	
120-12-7	Anthracene	340 U	340	54	
56-55-3	Benz(a)anthracene	340 U	340	53	
50-32-8	Benzo(a)pyrene	340 U	340	57	
205-99-2	Benzo(b)fluoranthene	340 U	340	83	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 16:39

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ622.D

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	U	340	65	
207-08-9	Benzo(k)fluoranthene	340	U	340	62	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	41	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	47	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	35	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	47	
85-68-7	Butyl Benzyl Phthalate	340	U	340	53	
86-74-8	Carbazole	340	U	340	48	
218-01-9	Chrysene	340	U	340	48	
84-74-2	Di-n-butyl Phthalate	340	U	340	94	
117-84-0	Di-n-octyl Phthalate	340	U	340	66	
53-70-3	Dibenz(a,h)anthracene	340	U	340	92	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	340	U	340	45	
131-11-3	Dimethyl Phthalate	340	U	340	49	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	43	
118-74-1	Hexachlorobenzene	340	U	340	52	
87-68-3	Hexachlorobutadiene	340	U	340	38	
77-47-4	Hexachlorocyclopentadiene	340	U	340	55	
67-72-1	Hexachloroethane	340	U	340	48	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	57	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	39	
86-30-6	N-Nitrosodiphenylamine	340	U	340	54	
91-20-3	Naphthalene	340	U	340	35	
98-95-3	Nitrobenzene	340	U	340	36	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	340	U	340	46	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	67	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1235  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 16:39

Sample Name: E5321B02 (8-10)  
 Lab Code: R1306593-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 96.7

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\091313\AQ622.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	61	41-151	9/13/13 16:39	
2-Fluorobiphenyl	70	47-126	9/13/13 16:39	
2-Fluorophenol	57	16-129	9/13/13 16:39	
Nitrobenzene-d5	77	39-136	9/13/13 16:39	
Phenol-d6	65	10-145	9/13/13 16:39	
p-Terphenyl-d14	83	35-152	9/13/13 16:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5321B02 (2-4)  
**Lab Code:** R1306593-012

**Service Request:** R1306593  
**Date Collected:** 9/9/13 1230  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	83.9	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Service Request: R1306593  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 83.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10900		mg/Kg	12	4	1	9/18/13	9/21/13 02:20	
Antimony, Total	6010C	1.3	BJ	mg/Kg	7.0	0.3	1	9/18/13	9/21/13 02:20	
Arsenic, Total	6010C	9.5		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 02:20	
Barium, Total	6010C	114		mg/Kg	2.3	0.09	1	9/18/13	9/21/13 02:20	
Beryllium, Total	6010C	0.65		mg/Kg	0.35	0.03	1	9/18/13	9/21/13 02:20	
Boron, Total	6010C	13	BJ	mg/Kg	23	5	1	9/18/13	9/21/13 02:20	
Cadmium, Total	6010C	0.58	U	mg/Kg	0.58	0.08	1	9/18/13	9/21/13 02:20	
Calcium, Total	6010C	5080		mg/Kg	120	40	1	9/18/13	9/21/13 02:20	
Chromium, Total	6010C	16.3		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 02:20	
Cobalt, Total	6010C	9.3		mg/Kg	5.8	0.07	1	9/18/13	9/21/13 02:20	
Copper, Total	6010C	17.3		mg/Kg	2.3	0.8	1	9/18/13	9/21/13 02:20	
Iron, Total	6010C	21000		mg/Kg	120	70	10	9/18/13	9/20/13 22:52	
Lead, Total	6010C	19.3		mg/Kg	5.8	0.3	1	9/18/13	9/21/13 02:20	
Magnesium, Total	6010C	4440		mg/Kg	120	2	1	9/18/13	9/21/13 02:20	
Manganese, Total	6010C	719		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 02:20	
Mercury, Total	7471B	0.023	J	mg/Kg	0.036	0.006	1	9/18/13	9/19/13 17:14	
Nickel, Total	6010C	18.2		mg/Kg	4.7	0.10	1	9/18/13	9/21/13 02:20	
Potassium, Total	6010C	1600		mg/Kg	230	20	1	9/18/13	9/21/13 02:20	
Selenium, Total	6010C	0.5	J	mg/Kg	1.2	0.4	1	9/18/13	9/21/13 02:20	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 02:20	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 02:20	
Vanadium, Total	6010C	29.4		mg/Kg	5.8	0.06	1	9/18/13	9/21/13 02:20	
Zinc, Total	6010C	68.4		mg/Kg	2.3	0.09	1	9/18/13	9/21/13 02:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 17:59

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUIDATA\MSVOA7\DATA\091613\K5052.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .76

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.5 U	4.5	2.6	
71-43-2	Benzene	4.5 U	4.5	0.27	
75-27-4	Bromodichloromethane	4.5 U	4.5	0.56	
75-25-2	Bromoform	4.5 U	4.5	0.85	
74-83-9	Bromomethane	4.5 U	4.5	1.3	
78-93-3	2-Butanone (MEK)	4.5 U	4.5	2.1	
75-15-0	Carbon Disulfide	4.5 U	4.5	1.2	
56-23-5	Carbon Tetrachloride	4.5 U	4.5	0.84	
108-90-7	Chlorobenzene	4.5 U	4.5	0.27	
75-00-3	Chloroethane	4.5 U	4.5	2.6	
67-66-3	Chloroform	4.5 U	4.5	1.2	
74-87-3	Chloromethane	4.5 U	4.5	0.37	
124-48-1	Dibromochloromethane	4.5 U	4.5	0.67	
75-34-3	1,1-Dichloroethane	4.5 U	4.5	1.2	
107-06-2	1,2-Dichloroethane	4.5 U	4.5	0.56	
75-35-4	1,1-Dichloroethene	4.5 U	4.5	1.2	
156-59-2	cis-1,2-Dichloroethene	4.5 U	4.5	0.87	
156-60-5	trans-1,2-Dichloroethene	4.5 U	4.5	0.78	
78-87-5	1,2-Dichloropropane	4.5 U	4.5	0.88	
10061-01-5	cis-1,3-Dichloropropene	4.5 U	4.5	0.82	
10061-02-6	trans-1,3-Dichloropropene	4.5 U	4.5	0.19	
100-41-4	Ethylbenzene	4.5 U	4.5	0.21	
591-78-6	2-Hexanone	4.5 U	4.5	1.1	
75-09-2	Methylene Chloride	4.5 U	4.5	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.5 U	4.5	0.89	
100-42-5	Styrene	4.5 U	4.5	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.5 U	4.5	0.74	
127-18-4	Tetrachloroethene	4.5 U	4.5	0.80	
108-88-3	Toluene	1.1 J	4.5	0.91	
71-55-6	1,1,1-Trichloroethane	4.5 U	4.5	0.67	
79-00-5	1,1,2-Trichloroethane	4.5 U	4.5	0.67	
79-01-6	Trichloroethene	4.5 U	4.5	0.92	
75-01-4	Vinyl Chloride	4.5 U	4.5	1.7	
95-47-6	o-Xylene	4.5 U	4.5	0.44	
179601-23-1	m,p-Xylenes	9.1 U	9.1	0.99	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1230  
 Date Received: 9/10/13  
 Date Analyzed: 9/16/13 17:59

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091613\K5052.D\

Analysis Lot: 358730  
 Instrument Name: R-MS-07  
 Dilution Factor: .76

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.5 U	4.5	0.86	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	51-136	9/16/13 17:59	
Toluene-d8	100	66-138	9/16/13 17:59	
Dibromofluoromethane	101	63-138	9/16/13 17:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 23:10

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ634.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390 U	390	40	
95-50-1	1,2-Dichlorobenzene	390 U	390	44	
541-73-1	1,3-Dichlorobenzene	390 U	390	60	
106-46-7	1,4-Dichlorobenzene	390 U	390	46	
95-95-4	2,4,5-Trichlorophenol	390 U	390	69	
88-06-2	2,4,6-Trichlorophenol	390 U	390	58	
120-83-2	2,4-Dichlorophenol	390 U	390	53	
105-67-9	2,4-Dimethylphenol	390 U	390	44	
51-28-5	2,4-Dinitrophenol	2000 U	2000	170	
121-14-2	2,4-Dinitrotoluene	390 U	390	84	
606-20-2	2,6-Dinitrotoluene	390 U	390	66	
91-58-7	2-Chloronaphthalene	390 U	390	41	
95-57-8	2-Chlorophenol	390 U	390	42	
91-57-6	2-Methylnaphthalene	390 U	390	40	
95-48-7	2-Methylphenol	390 U	390	52	
88-74-4	2-Nitroaniline	2000 U	2000	330	
88-75-5	2-Nitrophenol	390 U	390	59	
91-94-1	3,3'-Dichlorobenzidine	390 U	390	72	
	3- and 4-Methylphenol Coelution	390 U	390	60	
99-09-2	3-Nitroaniline	2000 U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000 U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	390 U	390	71	
59-50-7	4-Chloro-3-methylphenol	390 U	390	44	
106-47-8	4-Chloroaniline	390 U	390	77	
7005-72-3	4-Chlorophenyl Phenyl Ether	390 U	390	56	
100-01-6	4-Nitroaniline	2000 U	2000	430	
100-02-7	4-Nitrophenol	2000 U	2000	290	
83-32-9	Acenaphthene	390 U	390	57	
208-96-8	Acenaphthylene	390 U	390	53	
120-12-7	Anthracene	390 U	390	62	
56-55-3	Benz(a)anthracene	390 U	390	61	
50-32-8	Benzo(a)pyrene	390 U	390	66	
205-99-2	Benzo(b)fluoranthene	390 U	390	96	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 23:10

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ634.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	75	
207-08-9	Benzo(k)fluoranthene	390	U	390	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	48	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	55	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	55	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	55	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	76	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	44	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	57	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	50	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	53	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	62	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	44	
129-00-0	Pyrene	390	U	390	77	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1230  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 23:10

Sample Name: E5321B02 (2-4)  
 Lab Code: R1306593-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ634.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	76	41-151	9/13/13 23:10	
2-Fluorobiphenyl	65	47-126	9/13/13 23:10	
2-Fluorophenol	60	16-129	9/13/13 23:10	
Nitrobenzene-d5	71	39-136	9/13/13 23:10	
Phenol-d6	64	10-145	9/13/13 23:10	
p-Terphenyl-d14	61	35-152	9/13/13 23:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5321B04 (2-4)  
**Lab Code:** R1306593-005

**Service Request:** R1306593  
**Date Collected:** 9/ 9/13 1345  
**Date Received:** 9/10/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	77.8	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Service Request: R1306593  
 Date Collected: 9/9/13 1345  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 77.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	14200		mg/Kg	12	4	1	9/18/13	9/21/13 00:44	
Antimony, Total	6010C	1.3	BJ	mg/Kg	7.3	0.3	1	9/18/13	9/21/13 00:44	
Arsenic, Total	6010C	9.0		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:44	
Barium, Total	6010C	166		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 00:44	
Beryllium, Total	6010C	0.78		mg/Kg	0.37	0.04	1	9/18/13	9/21/13 00:44	
Boron, Total	6010C	16	BJ	mg/Kg	24	5	1	9/18/13	9/21/13 00:44	
Cadmium, Total	6010C	0.61	U	mg/Kg	0.61	0.08	1	9/18/13	9/21/13 00:44	
Calcium, Total	6010C	3040		mg/Kg	120	40	1	9/18/13	9/21/13 00:44	
Chromium, Total	6010C	20.0		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:44	
Cobalt, Total	6010C	12.5		mg/Kg	6.1	0.07	1	9/18/13	9/21/13 00:44	
Copper, Total	6010C	13.4		mg/Kg	2.4	0.8	1	9/18/13	9/21/13 00:44	
Iron, Total	6010C	22200		mg/Kg	120	70	10	9/18/13	9/20/13 21:36	
Lead, Total	6010C	27.7		mg/Kg	6.1	0.3	1	9/18/13	9/21/13 00:44	
Magnesium, Total	6010C	3340		mg/Kg	120	2	1	9/18/13	9/21/13 00:44	
Manganese, Total	6010C	1010		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:44	
Mercury, Total	7471B	0.039	J	mg/Kg	0.041	0.007	1	9/18/13	9/19/13 16:56	
Nickel, Total	6010C	15.9		mg/Kg	4.9	0.2	1	9/18/13	9/21/13 00:44	
Potassium, Total	6010C	1320		mg/Kg	240	20	1	9/18/13	9/21/13 00:44	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/18/13	9/23/13 09:24	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 00:44	
Thallium, Total	6010C	0.5	J	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:44	
Vanadium, Total	6010C	36.1		mg/Kg	6.1	0.06	1	9/18/13	9/21/13 00:44	
Zinc, Total	6010C	64.7		mg/Kg	2.4	0.09	1	9/18/13	9/23/13 09:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/ 9/13 1345  
 Date Received: 9/10/13  
 Date Analyzed: 9/13/13 16:01

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091313\K5031.D\

Analysis Lot: 358530  
 Instrument Name: R-MS-07  
 Dilution Factor: .55

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.5 U	3.5	2.0	
71-43-2	Benzene	3.5 U	3.5	0.21	
75-27-4	Bromodichloromethane	3.5 U	3.5	0.44	
75-25-2	Bromoform	3.5 U	3.5	0.66	
74-83-9	Bromomethane	3.5 U	3.5	0.98	
78-93-3	2-Butanone (MEK)	3.5 U	3.5	1.7	
75-15-0	Carbon Disulfide	3.5 U	3.5	0.88	
56-23-5	Carbon Tetrachloride	3.5 U	3.5	0.66	
108-90-7	Chlorobenzene	3.5 U	3.5	0.21	
75-00-3	Chloroethane	3.5 U	3.5	2.1	
67-66-3	Chloroform	3.5 U	3.5	0.90	
74-87-3	Chloromethane	3.5 U	3.5	0.29	
124-48-1	Dibromochloromethane	3.5 U	3.5	0.52	
75-34-3	1,1-Dichloroethane	3.5 U	3.5	0.89	
107-06-2	1,2-Dichloroethane	3.5 U	3.5	0.44	
75-35-4	1,1-Dichloroethene	3.5 U	3.5	0.91	
156-59-2	cis-1,2-Dichloroethene	3.5 U	3.5	0.68	
156-60-5	trans-1,2-Dichloroethene	3.5 U	3.5	0.61	
78-87-5	1,2-Dichloropropane	3.5 U	3.5	0.69	
10061-01-5	cis-1,3-Dichloropropene	3.5 U	3.5	0.64	
10061-02-6	trans-1,3-Dichloropropene	3.5 U	3.5	0.15	
100-41-4	Ethylbenzene	3.5 U	3.5	0.17	
591-78-6	2-Hexanone	3.5 U	3.5	0.86	
75-09-2	Methylene Chloride	3.5 U	3.5	0.41	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.5 U	3.5	0.70	
100-42-5	Styrene	3.5 U	3.5	0.22	
79-34-5	1,1,2,2-Tetrachloroethane	3.5 U	3.5	0.58	
127-18-4	Tetrachloroethene	3.5 U	3.5	0.63	
108-88-3	Toluene	0.80 J	3.5	0.71	
71-55-6	1,1,1-Trichloroethane	3.5 U	3.5	0.52	
79-00-5	1,1,2-Trichloroethane	3.5 U	3.5	0.52	
79-01-6	Trichloroethene	3.5 U	3.5	0.72	
75-01-4	Vinyl Chloride	3.5 U	3.5	1.4	
95-47-6	o-Xylene	3.5 U	3.5	0.34	
179601-23-1	m,p-Xylenes	7.1 U	7.1	0.78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1345  
 Date Received: 9/10/13  
 Date Analyzed: 9/13/13 16:01

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091313\K5031.D\

Analysis Lot: 358530  
 Instrument Name: R-MS-07  
 Dilution Factor: .55

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.5	U	3.5	0.67	
1330-20-7	Xylenes, Total	11	U	11	1.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/13/13 16:01	
Toluene-d8	98	66-138	9/13/13 16:01	
Dibromofluoromethane	105	63-138	9/13/13 16:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1345  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:18

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\091313\AQ625.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	420	U	420	43	
95-50-1	1,2-Dichlorobenzene	420	U	420	48	
541-73-1	1,3-Dichlorobenzene	420	U	420	65	
106-46-7	1,4-Dichlorobenzene	420	U	420	49	
95-95-4	2,4,5-Trichlorophenol	420	U	420	75	
88-06-2	2,4,6-Trichlorophenol	420	U	420	62	
120-83-2	2,4-Dichlorophenol	420	U	420	57	
105-67-9	2,4-Dimethylphenol	420	U	420	47	
51-28-5	2,4-Dinitrophenol	2200	U	2200	180	
121-14-2	2,4-Dinitrotoluene	420	U	420	91	
606-20-2	2,6-Dinitrotoluene	420	U	420	71	
91-58-7	2-Chloronaphthalene	420	U	420	45	
95-57-8	2-Chlorophenol	420	U	420	45	
91-57-6	2-Methylnaphthalene	420	U	420	43	
95-48-7	2-Methylphenol	420	U	420	56	
88-74-4	2-Nitroaniline	2200	U	2200	360	
88-75-5	2-Nitrophenol	420	U	420	63	
91-94-1	3,3'-Dichlorobenzidine	420	U	420	78	
	3- and 4-Methylphenol Coelution	420	U	420	65	
99-09-2	3-Nitroaniline	2200	U	2200	400	
534-52-1	4,6-Dinitro-2-methylphenol	2200	U	2200	620	
101-55-3	4-Bromophenyl Phenyl Ether	420	U	420	76	
59-50-7	4-Chloro-3-methylphenol	420	U	420	47	
106-47-8	4-Chloroaniline	420	U	420	83	
7005-72-3	4-Chlorophenyl Phenyl Ether	420	U	420	60	
100-01-6	4-Nitroaniline	2200	U	2200	470	
100-02-7	4-Nitrophenol	2200	U	2200	310	
83-32-9	Acenaphthene	420	U	420	61	
208-96-8	Acenaphthylene	420	U	420	57	
120-12-7	Anthracene	420	U	420	67	
56-55-3	Benz(a)anthracene	420	U	420	66	
50-32-8	Benzo(a)pyrene	420	U	420	71	
205-99-2	Benzo(b)fluoranthene	420	U	420	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1345  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:18

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ625.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	420	U	420	80	
207-08-9	Benzo(k)fluoranthene	420	U	420	76	
108-60-1	2,2'-Oxybis(1-chloropropane)	420	U	420	51	
111-91-1	Bis(2-chloroethoxy)methane	420	U	420	59	
111-44-4	Bis(2-chloroethyl) Ether	420	U	420	43	
117-81-7	Bis(2-ethylhexyl) Phthalate	420	U	420	59	
85-68-7	Butyl Benzyl Phthalate	420	U	420	65	
86-74-8	Carbazole	420	U	420	59	
218-01-9	Chrysene	420	U	420	60	
84-74-2	Di-n-butyl Phthalate	420	U	420	120	
117-84-0	Di-n-octyl Phthalate	420	U	420	82	
53-70-3	Dibenz(a,h)anthracene	420	U	420	120	
132-64-9	Dibenzofuran	420	U	420	47	
84-66-2	Diethyl Phthalate	420	U	420	55	
131-11-3	Dimethyl Phthalate	420	U	420	61	
206-44-0	Fluoranthene	420	U	420	68	
86-73-7	Fluorene	420	U	420	54	
118-74-1	Hexachlorobenzene	420	U	420	65	
87-68-3	Hexachlorobutadiene	420	U	420	47	
77-47-4	Hexachlorocyclopentadiene	420	U	420	68	
67-72-1	Hexachloroethane	420	U	420	59	
193-39-5	Indeno(1,2,3-cd)pyrene	420	U	420	70	
78-59-1	Isophorone	420	U	420	57	
621-64-7	N-Nitrosodi-n-propylamine	420	U	420	49	
86-30-6	N-Nitrosodiphenylamine	420	U	420	66	
91-20-3	Naphthalene	420	U	420	43	
98-95-3	Nitrobenzene	420	U	420	45	
87-86-5	Pentachlorophenol (PCP)	2200	U	2200	360	
85-01-8	Phenanthrene	420	U	420	57	
108-95-2	Phenol	420	U	420	47	
129-00-0	Pyrene	420	U	420	83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1345  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:18

Sample Name: E5321B04 (2-4)  
 Lab Code: R1306593-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ625.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	89	41-151	9/13/13 18:18	
2-Fluorobiphenyl	68	47-126	9/13/13 18:18	
2-Fluorophenol	67	16-129	9/13/13 18:18	
Nitrobenzene-d5	76	39-136	9/13/13 18:18	
Phenol-d6	72	10-145	9/13/13 18:18	
p-Terphenyl-d14	91	35-152	9/13/13 18:18	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B04 (2-4)  
**Lab Code:** R1306593-005  
**Matrix:** Soil

**Service Request:** R1306593

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5321B04 (4-6)  
Lab Code: R1306593-006

Service Request: R1306593  
Date Collected: 9/9/13 1350  
Date Received: 9/10/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	80.9	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13

Basis: Dry  
 Percent Solids: 80.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	17700		mg/Kg	12	4	1	9/18/13	9/21/13 00:50	
Antimony, Total	6010C	1.3	BJ	mg/Kg	7.3	0.3	1	9/18/13	9/21/13 00:50	
Arsenic, Total	6010C	13.0		mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:50	
Barium, Total	6010C	129		mg/Kg	2.4	0.09	1	9/18/13	9/21/13 00:50	
Beryllium, Total	6010C	1.22		mg/Kg	0.37	0.04	1	9/18/13	9/21/13 00:50	
Boron, Total	6010C	24	B	mg/Kg	24	5	1	9/18/13	9/21/13 00:50	
Cadmium, Total	6010C	0.61	U	mg/Kg	0.61	0.08	1	9/18/13	9/21/13 00:50	
Calcium, Total	6010C	5230		mg/Kg	120	40	1	9/18/13	9/21/13 00:50	
Chromium, Total	6010C	25.3		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:50	
Cobalt, Total	6010C	6.8		mg/Kg	6.1	0.07	1	9/18/13	9/21/13 00:50	
Copper, Total	6010C	24.3		mg/Kg	2.4	0.8	1	9/18/13	9/21/13 00:50	
Iron, Total	6010C	33100		mg/Kg	120	70	10	9/18/13	9/20/13 21:42	
Lead, Total	6010C	28.0		mg/Kg	6.1	0.3	1	9/18/13	9/21/13 00:50	
Magnesium, Total	6010C	5590		mg/Kg	120	2	1	9/18/13	9/21/13 00:50	
Manganese, Total	6010C	392		mg/Kg	1.2	0.2	1	9/18/13	9/21/13 00:50	
Mercury, Total	7471B	0.066		mg/Kg	0.038	0.006	1	9/18/13	9/19/13 16:58	
Nickel, Total	6010C	28.1		mg/Kg	4.9	0.2	1	9/18/13	9/21/13 00:50	
Potassium, Total	6010C	1660		mg/Kg	240	20	1	9/18/13	9/21/13 00:50	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/18/13	9/23/13 09:30	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/18/13	9/21/13 00:50	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/18/13	9/21/13 00:50	
Vanadium, Total	6010C	36.0		mg/Kg	6.1	0.06	1	9/18/13	9/21/13 00:50	
Zinc, Total	6010C	78.3		mg/Kg	2.4	0.09	1	9/18/13	9/23/13 09:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Date Analyzed: 9/13/13 16:41

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091313\K5032.D\

Analysis Lot: 358530  
 Instrument Name: R-MS-07  
 Dilution Factor: .63

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.9 U	3.9	2.2	
71-43-2	Benzene	3.9 U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9 U	3.9	0.48	
75-25-2	Bromoform	3.9 U	3.9	0.73	
74-83-9	Bromomethane	3.9 U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9 U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9 U	3.9	0.97	
56-23-5	Carbon Tetrachloride	3.9 U	3.9	0.72	
108-90-7	Chlorobenzene	3.9 U	3.9	0.23	
75-00-3	Chloroethane	3.9 U	3.9	2.3	
67-66-3	Chloroform	3.9 U	3.9	0.99	
74-87-3	Chloromethane	3.9 U	3.9	0.32	
124-48-1	Dibromochloromethane	3.9 U	3.9	0.57	
75-34-3	1,1-Dichloroethane	3.9 U	3.9	0.98	
107-06-2	1,2-Dichloroethane	3.9 U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9 U	3.9	1.0	
156-59-2	cis-1,2-Dichloroethene	3.9 U	3.9	0.74	
156-60-5	trans-1,2-Dichloroethene	3.9 U	3.9	0.67	
78-87-5	1,2-Dichloropropane	3.9 U	3.9	0.76	
10061-01-5	cis-1,3-Dichloropropene	3.9 U	3.9	0.71	
10061-02-6	trans-1,3-Dichloropropene	3.9 U	3.9	0.16	
100-41-4	Ethylbenzene	3.9 U	3.9	0.18	
591-78-6	2-Hexanone	3.9 U	3.9	0.95	
75-09-2	Methylene Chloride	3.9 U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9 U	3.9	0.77	
100-42-5	Styrene	3.9 U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9 U	3.9	0.64	
127-18-4	Tetrachloroethene	3.9 U	3.9	0.69	
108-88-3	Toluene	0.93 J	3.9	0.78	
71-55-6	1,1,1-Trichloroethane	3.9 U	3.9	0.57	
79-00-5	1,1,2-Trichloroethane	3.9 U	3.9	0.57	
79-01-6	Trichloroethene	3.9 U	3.9	0.79	
75-01-4	Vinyl Chloride	3.9 U	3.9	1.5	
95-47-6	o-Xylene	3.9 U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.8 U	7.8	0.85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Date Analyzed: 9/13/13 16:41

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091313\K5032.D\

Analysis Lot: 358530  
 Instrument Name: R-MS-07  
 Dilution Factor: .63

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9	U	3.9	0.74	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	51-136	9/13/13 16:41	
Toluene-d8	99	66-138	9/13/13 16:41	
Dibromofluoromethane	103	63-138	9/13/13 16:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:50

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\091313\AQ626.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410	U	410	41	
95-50-1	1,2-Dichlorobenzene	410	U	410	46	
541-73-1	1,3-Dichlorobenzene	410	U	410	62	
106-46-7	1,4-Dichlorobenzene	410	U	410	47	
95-95-4	2,4,5-Trichlorophenol	410	U	410	72	
88-06-2	2,4,6-Trichlorophenol	410	U	410	60	
120-83-2	2,4-Dichlorophenol	410	U	410	55	
105-67-9	2,4-Dimethylphenol	410	U	410	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	410	U	410	88	
606-20-2	2,6-Dinitrotoluene	410	U	410	68	
91-58-7	2-Chloronaphthalene	410	U	410	43	
95-57-8	2-Chlorophenol	410	U	410	43	
91-57-6	2-Methylnaphthalene	410	U	410	41	
95-48-7	2-Methylphenol	410	U	410	54	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	410	U	410	61	
91-94-1	3,3'-Dichlorobenzidine	410	U	410	75	
	3- and 4-Methylphenol Coelution	410	U	410	62	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	600	
101-55-3	4-Bromophenyl Phenyl Ether	410	U	410	73	
59-50-7	4-Chloro-3-methylphenol	410	U	410	45	
106-47-8	4-Chloroaniline	410	U	410	79	
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U	410	58	
100-01-6	4-Nitroaniline	2100	U	2100	450	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	410	U	410	59	
208-96-8	Acenaphthylene	410	U	410	55	
120-12-7	Anthracene	410	U	410	64	
56-55-3	Benz(a)anthracene	410	U	410	63	
50-32-8	Benzo(a)pyrene	410	U	410	68	
205-99-2	Benzo(b)fluoranthene	410	U	410	99	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:50

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ626.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	410	U	410	77	
207-08-9	Benzo(k)fluoranthene	410	U	410	73	
108-60-1	2,2'-Oxybis(1-chloropropane)	410	U	410	49	
111-91-1	Bis(2-chloroethoxy)methane	410	U	410	57	
111-44-4	Bis(2-chloroethyl) Ether	410	U	410	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	410	U	410	57	
85-68-7	Butyl Benzyl Phthalate	410	U	410	63	
86-74-8	Carbazole	410	U	410	57	
218-01-9	Chrysene	410	U	410	57	
84-74-2	Di-n-butyl Phthalate	410	U	410	120	
117-84-0	Di-n-octyl Phthalate	410	U	410	79	
53-70-3	Dibenz(a,h)anthracene	410	U	410	110	
132-64-9	Dibenzofuran	410	U	410	45	
84-66-2	Diethyl Phthalate	410	U	410	53	
131-11-3	Dimethyl Phthalate	410	U	410	59	
206-44-0	Fluoranthene	410	U	410	66	
86-73-7	Fluorene	410	U	410	52	
118-74-1	Hexachlorobenzene	410	U	410	63	
87-68-3	Hexachlorobutadiene	410	U	410	46	
77-47-4	Hexachlorocyclopentadiene	410	U	410	65	
67-72-1	Hexachloroethane	410	U	410	57	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	410	68	
78-59-1	Isophorone	410	U	410	55	
621-64-7	N-Nitrosodi-n-propylamine	410	U	410	47	
86-30-6	N-Nitrosodiphenylamine	410	U	410	64	
91-20-3	Naphthalene	410	U	410	41	
98-95-3	Nitrobenzene	410	U	410	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	56	J	410	55	
108-95-2	Phenol	410	U	410	45	
129-00-0	Pyrene	410	U	410	79	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306593  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/13/13 18:50

Sample Name: E5321B04 (4-6)  
 Lab Code: R1306593-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 80.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\091313\AQ626.D\

Analysis Lot: 358570  
 Extraction Lot: 191471  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	41-151	9/13/13 18:50	
2-Fluorobiphenyl	53	47-126	9/13/13 18:50	
2-Fluorophenol	55	16-129	9/13/13 18:50	
Nitrobenzene-d5	61	39-136	9/13/13 18:50	
Phenol-d6	62	10-145	9/13/13 18:50	
p-Terphenyl-d14	77	35-152	9/13/13 18:50	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B04 (4-6)  
**Lab Code:** R1306593-006  
**Matrix:** Soil

**Service Request:** R1306593

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	ZMIAO



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10654 E753-20

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>DOT 4530</b>		Project Number <b>CC-004335-0001-0170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																																																									
Project Manager <b>Karen Baker / Sharon Johnson</b>		Report CC <b>Dean Tebow</b>		PRESERVATIVE																																																																									
Company/Address <b>Ecology, Environment 30 W Monroe St Chicago IL 60603</b>		Email <b>shw...@ecol-en.com</b>		PRESERVATIVE																																																																									
Phone # <b>312 876 9210</b>		Sample ID <b>See H Coops</b>		PRESERVATIVE																																																																									
Sample's Signature 		Sample's Printed Name <b>See H Coops</b>		PRESERVATIVE																																																																									
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS																																																																								
<b>E5321B02 (E70)</b>	<b>007</b>	<b>9-9-10</b>	<b>1235</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<b>E5321B03 (0-2)</b>	<b>008</b>	<b>9-9-13</b>	<b>1300</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<b>E5321B03 (6-4)</b>	<b>009</b>	<b>9-9-13</b>	<b>1305</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<b>E5321B04 (2-4)</b>	<b>005</b>	<b>9-9-13</b>	<b>1345</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<b>E5321B04 (4-4)</b>	<b>006</b>	<b>9-9-13</b>	<b>1350</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<b>E53CB02 (0-2)</b>	<b>007</b>	<b>9-9-10</b>	<b>1450</b>	<b>Sp-1</b>	<b>4</b>																																																																								
<table border="1"> <tr> <td>GCMS VOAs • 8260 • 824 • CLP</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GCMS SVOAs • 8270 • 825</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GC VOAs • 8021 • 801/802</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PESTICIDES • 8081 • 808</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>PCBs • 8082 • 808</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>METALS, TOTAL (List in comments below)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>METALS, DISSOLVED (List in comments below)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LOC</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>SLOC</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>TOTL TRAC METALS</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>TOTL SPOR TRAC METALS</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>PH % Sol. (b)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>						GCMS VOAs • 8260 • 824 • CLP						GCMS SVOAs • 8270 • 825						GC VOAs • 8021 • 801/802						PESTICIDES • 8081 • 808						PCBs • 8082 • 808						METALS, TOTAL (List in comments below)						METALS, DISSOLVED (List in comments below)						LOC	X	X	X	X	X	SLOC	X	X	X	X	X	TOTL TRAC METALS	X	X	X	X	X	TOTL SPOR TRAC METALS	X	X	X	X	X	PH % Sol. (b)	X	X	X	X	X
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TOTL SPOR TRAC METALS	X	X	X	X	X																																																																								
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# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10468

E753-18

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>JVM US30</b>		Project Number <b>EC-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																					
Project Manager <b>Karen Bunker/Shari Johnson</b>		Report CC <b>Dean Tobin</b>		PRESERVATIVE																					
Company/Address <b>Ecology; Environment 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Email <b>Stahman@ecoc.com</b>		NUMBER OF CONTAINERS																					
Phone # <b>312 578 9247</b>		Sampler's Signature <b>Scott Coop</b>		Sample's Printed Name <b>Stahman</b>		METALS, TOTAL (List in comments below)																			
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		METALS, DISSOLVED (List in comments below)																	
E53CB01 (870)		9-9-13		0920		Soil		PCBs 8082 & 808																	
E53OR01 (2-4)		9-9-13		0950		Soil		PESTICIDES 8081 & 808																	
E5321B01 (0-2)		9-9-13		1105		Soil		GC VOAs 8021 & 801/802																	
E5321B01 (6-8)		9-9-13		1110		Soil		GC SVOAs 8270 & 825																	
E5321B02 (2-4)		9-9-13		1230		Soil		GCMS VOAs 8280 & 824 CLP																	
SPECIAL INSTRUCTIONS/COMMENTS Metals														REMARKS/ ALTERNATE DESCRIPTION											
STATE WHERE SAMPLES WERE COLLECTED														REPORT REQUIREMENTS											
RECEIVED BY														I. Results Only											
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RECEIVED BY														Edata Yes No											
RECEIVED BY														PO #											
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RECEIVED BY														Printed Name											
RECEIVED BY														Firm											
RECEIVED BY														Date/Time											



October 21, 2013

Service Request No: R1307224

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 10, 2013. For your reference, these analyses have been assigned our service request number **R1307224**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*For:*

Page 1 of 35



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/ID, State/ID, State/ID. Rows include: NELAP Accredited, Connecticut ID # PH0556, Delaware Accredited, DoD ELAP #65817, Florida ID # E87674, Illinois ID #200047, Maine ID #NY0032, Nebraska Accredited, Nevada ID # NY-00032, New Jersey ID # NY004, New York ID # 10145, New Hampshire ID # 294100 A/B, North Carolina #676, Pennsylvania ID# 68-786, Rhode Island ID # 158, Virginia #460167.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307224  
 Date Collected: 9/9/13 1235  
 Date Received: 9/10/13  
 Pre-Prep Date: 10/10/13

Sample Name: E5321B02 (8-10)  
 Lab Code: R1307224-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/11/13	10/15/13	09:49

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B02 (8-10)  
**Lab Code:** R1307224-002  
**Matrix:** Soil

**Service Request:** R1307224

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	CWINKSTERN	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307224  
 Date Collected: 9/9/13 1350  
 Date Received: 9/10/13  
 Pre-Prep Date: 10/10/13

Sample Name: E5321B034 (4-6)  
 Lab Code: R1307224-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.467	mg/L	0.010	1	10/11/13	10/15/13	10:26



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5321B034 (4-6)  
**Lab Code:** R1307224-005  
**Matrix:** Soil

**Service Request:** R1307224

**Date Collected:** 9/9/13  
**Date Received:** 9/10/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	CWINKSTERN	DBOND







# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10654 E753-20

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		Report CC		PRESERVATIVE		ANALYSIS REQUESTED (Include Method Number and Container Preservative)										REMARKS/ ALTERNATE DESCRIPTION											
Project Manager		Company/Address		Report CC		NUMBER OF CONTAINERS		GCMS VOAs		GC VOAs		PESTICIDES		PCBs		METALS, TOTAL		METALS, DISCLOSED		VOC		SOL		TOL		TOL		PH	
Phone #		Email		Sampler's Signature		Sampler's Printed Name		DATE		SAMPLING TIME		MATRIX		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		PRESERVATIVE KEY		PRESERVATIVE KEY		PRESERVATIVE KEY		PRESERVATIVE KEY	
E-01 4530		Karen Bunker Shaw, Inc.		Dean Zebout		John S. Cooper		9-9-10		1235		Soil		002		9-9-10		1235		Soil		0		HCL		HCL		HCL	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1300		Soil		003		003		9-9-10		1300		Soil		0		HNO3		HNO3		HNO3	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1305		Soil		004		004		9-9-10		1305		Soil		0		H2SO4		H2SO4		H2SO4	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1345		Soil		005		005		9-9-10		1345		Soil		0		NaOH		NaOH		NaOH	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1350		Soil		006		006		9-9-10		1350		Soil		0		MeOH		MeOH		MeOH	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1450		Soil		007		007		9-9-10		1450		Soil		0		NaHSO4		NaHSO4		NaHSO4	
302 578 940		Chicago IL 60603		Seal of Cooper		9-9-10		1450		Soil		008		008		9-9-10		1450		Soil		0		Other		Other		Other	

SPECIAL INSTRUCTIONS/COMMENTS: Metals

See QAPP

STATE WHERE SAMPLES WERE COLLECTED: RECEIVED BY: RELINQUISHED BY:

Signature: [Signature] Signature: [Signature]

Printed Name: [Name] Printed Name: [Name]

Firm: [Firm] Firm: [Firm]

Date/Time: 9-9-10/1630 Date/Time: 9-9-10/0930

INVOICE INFORMATION: PO #: [Blank] BILL TO: [Blank]

REPORT REQUIREMENTS: I. Results Only: [Blank] II. Results + QC Summaries (LCS, DUP, MS/MSD as required): [Blank] III. Results + QC and Calibration Summaries: [Blank] IV. Data Validation Report with Raw Data: [Blank]

TURNAROUND REQUIREMENTS: RUSH (SURCHARGES APPLY): 1 day: [Blank] 2 day: [Blank] 3 day: [Blank] 4 day: [Blank] 5 day: [Blank]

RECEIVED BY: [Signature] RECEIVED BY: [Signature]

Signature: [Signature] Signature: [Signature]

Printed Name: [Name] Printed Name: [Name]

Firm: [Firm] Firm: [Firm]

Date/Time: [Blank] Date/Time: [Blank]

Edata: Yes [Blank] No [Blank]

RECEIVED BY: [Signature]

Signature: [Signature]

Printed Name: [Name]

Firm: [Firm]

Date/Time: [Blank]



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16141 (23200) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.589904° Longitude: -88.182315°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805039 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.589904° Longitude: -88.182315°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5322B01 and E5322B03 were sampled within the construction zone adjacent to ISGS #2141A-22 (Vacant Lot). Refer to PSI Report for ISGS #2141A-22 (Vacant Lot) including Table 4-4, and Figure 4-3.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

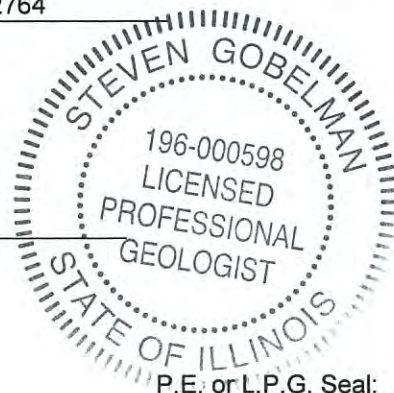
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN**

SITE	ISGS #2141A-22 (Vacant Lot)						Comparison Criteria					
	E5322B01		E5322B03		E5322B03		MACs		TACO			
<b>BORING</b>	E5322B01 (8-10)		E5322B03 (0-2)		E5322B03 (6-8)							
<b>SAMPLE</b>	E5322B01 (2-4)	E5322B01D (8-10)	Soil	Soil	Soil	Soil						
<b>MATRIX</b>	Soil	Soil	Soil	Soil	Soil	Soil						
<b>DEPTH (meters)</b>	0.6-1.2	2.4-3.1	2.4-3.1	0.0-0.6	1.8-2.4	1.8-2.4						
<b>pH</b>	8.13	8.62	8.76	8.00	8.48	8.48						
<b>VOCs (µg/kg)</b>												
Acetone	ND	U	3.4	J	ND	U	ND	U	7.2	25,000	--	--
Toluene	ND	U	1.7	J	ND	U	1.2	J	1.8	12,000	--	--
<b>SVOCs (None Detected)</b>												
<b>Inorganics (mg/kg)</b>												
Aluminum	7,100	1,200	1,570	11,700	3,450	11,700	3,450	11,700	3,450	--	--	--
Arsenic	7.5	2.0	3.6	8.9	7.1	8.9	7.1	8.9	7.1	11.3	13	--
Barium	46.9	6.8	9.1	145	23.0	145	23.0	145	23.0	1,500	--	--
Beryllium	0.29	J	0.04	J	0.05	J	0.68	J	0.16	22	--	--
Boron	ND	U	ND	U	ND	U	12	J	ND	40	--	--
Cadmium	ND	U	ND	U	ND	U	0.21	J	ND	5.2	--	--
Calcium	116,000	171,000	151,000	2,430	142,000	2,430	142,000	2,430	142,000	--	--	--
Chromium	16.0	10.6	10.2	16.8	12.0	16.8	12.0	16.8	12.0	21	--	--
Cobalt	5.9	J	1.8	J	2.4	J	10.1	J	3.7	20	--	--
Copper	17.9	6.8	10.3	14.9	16.7	14.9	16.7	14.9	16.7	2,900	--	--
Iron	15,000	4,710	7,020	20,300	14,300	20,300	14,300	20,300	14,300	15,000	15,900	--
Lead	25.2	1.9	3.6	J	33.3	18.4	33.3	18.4	33.3	107	--	--
Magnesium	69,800	95,400	89,100	2,140	83,100	2,140	83,100	2,140	83,100	325,000	--	--
Manganese	490	249	249	985	387	985	387	985	387	630	636	--
Mercury	0.031	J	ND	U	0.011	J	0.024	J	0.011	0.89	--	--
Nickel	13.0	3.3	4.6	15.2	8.6	15.2	8.6	15.2	8.6	100	--	--
Potassium	1,040	550	600	1,000	620	1,000	620	1,000	620	--	--	--
Vanadium	22.1	4.9	7.2	32.6	14.4	32.6	14.4	32.6	14.4	550	--	--
Zinc	53.7	13.4	20.9	58.9	36.3	58.9	36.3	58.9	36.3	5,100	--	--
<b>TCLP Metals (mg/L)</b>												
Aluminum	ND	U	ND	U	0.41	ND	U	0.41	ND	U	--	--
Calcium	760	888	911	45	879	45	879	45	879	--	--	--
Iron	ND	U	1.06	0.14	ND	U	0.14	ND	U	--	--	5
Magnesium	465	503	520	12.2	522	12.2	522	12.2	522	--	--	--
Manganese	1.64	L	4.86	L	4.33	L	4.33	L	4.33	--	--	0.15
<b>SPLP Metals (mg/L)</b>												
Manganese	1.28	L	0.013	0.014	0.038	NA	0.038	0.014	0.038	--	--	0.15





October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B01 (2-4)  
**Lab Code:** R1306652-007

**Service Request:** R1306652  
**Date Collected:** 9/10/13 0910  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.13	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306652-007

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 20:17	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 20:17	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:17	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:51	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:51	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 20:17	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Calcium	6010C	760		mg/L	10	10	9/19/13	9/24/13 00:11	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:51	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:17	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Magnesium	6010C	465		mg/L	1.0	1	9/19/13	9/23/13 20:17	
Manganese	6010C	1.64		mg/L	0.010	1	9/19/13	9/23/13 20:17	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:48	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 20:17	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:17	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:17	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 20:17	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:17	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:51	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (2-4)  
**Lab Code:** RI306652-007  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1306652-008

**Service Request:** R1306652  
**Date Collected:** 9/10/13 0915  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.62	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01 TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 09:15  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5322B01 (8-10)  
 Lab Code: R1306652-008

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/23/13 20:23	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/23/13 20:23	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:23	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/24/13 11:57	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/24/13 11:57	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/23/13 20:23	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:23	
Calcium	6010C	888		mg/L	10	10	9/19/13	9/24/13 00:18	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:57	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:23	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:23	
Iron	6010C	1.62		mg/L	0.10	1	9/19/13	9/23/13 20:23	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:23	
Magnesium	6010C	503		mg/L	10	10	9/19/13	9/24/13 00:18	
Manganese	6010C	3.82		mg/L	0.010	1	9/19/13	9/23/13 20:23	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/21/13 15:49	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:23	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/23/13 20:23	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/23/13 20:23	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/23/13 20:23	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/23/13 20:23	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/23/13 20:23	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/24/13 11:57	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1306652-008  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1306652-009

**Service Request:** R1306652  
**Date Collected:** 9/10/13 0915  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.76	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5322B01D (8-10)  
 Lab Code: R1306652-009

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 15:26	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 15:26	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:26	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:26	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 15:26	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:26	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Calcium	6010C	911		mg/L	10	10	9/19/13	9/26/13 11:05	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:26	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Iron	6010C	1.06		mg/L	0.10	1	9/19/13	9/25/13 15:26	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Magnesium	6010C	520		mg/L	10	10	9/19/13	9/26/13 11:05	
Manganese	6010C	4.86		mg/L	0.010	1	9/19/13	9/25/13 15:26	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 15:51	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 17:37	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:26	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 15:26	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:26	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:26	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1306652-009  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5322B03 (0-2)  
Lab Code: R1306652-010

Service Request: R1306652  
Date Collected: 9/10/13 1010  
Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note.
pH	9045D	8.00		pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306652-010

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.41		mg/L	0.20	1	9/19/13	9/25/13 15:32	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 15:32	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:32	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:32	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 15:32	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:32	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Calcium	6010C	45		mg/L	10	10	9/19/13	9/26/13 11:11	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:32	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Iron	6010C	0.14		mg/L	0.10	1	9/19/13	9/25/13 15:32	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Magnesium	6010C	12.2		mg/L	1.0	1	9/19/13	9/25/13 15:32	
Manganese	6010C	0.055		mg/L	0.010	1	9/19/13	9/25/13 15:32	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 15:53	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 17:44	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:32	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 15:32	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:32	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:32	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B03 (0-2)  
**Lab Code:** R1306652-010  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B03 (6-8)  
**Lab Code:** R1306652-011

**Service Request:** R1306652  
**Date Collected:** 9/10/13 1015  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.48	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5322B03 (6-8)  
 Lab Code: R1306652-011

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 15:38	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 15:38	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:38	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:38	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 15:38	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 15:38	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Calcium	6010C	879		mg/L	10	10	9/19/13	9/26/13 11:30	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:38	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Iron	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Magnesium	6010C	522		mg/L	10	10	9/19/13	9/26/13 11:30	
Manganese	6010C	4.33		mg/L	0.010	1	9/19/13	9/25/13 15:38	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 15:54	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 17:50	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 15:38	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 15:38	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 15:38	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 15:38	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B03 (6-8)  
**Lab Code:** R1306652-011  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B01 (2-4)  
**Lab Code:** R1306655-007

**Service Request:** R1306655  
**Date Collected:** 9/10/13 0910  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	75.1	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 75.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	7100		mg/Kg	13	4	1	9/23/13	9/25/13 00:45	
Antimony, Total	6010C	1.4	BJ	mg/Kg	7.9	0.3	1	9/23/13	9/25/13 00:45	
Arsenic, Total	6010C	7.5		mg/Kg	1.3	0.6	1	9/23/13	9/25/13 00:45	
Barium, Total	6010C	46.9		mg/Kg	2.6	0.10	1	9/23/13	9/25/13 00:45	
Beryllium, Total	6010C	0.29	J	mg/Kg	0.40	0.04	1	9/23/13	9/25/13 00:45	
Boron, Total	6010C	26	U	mg/Kg	26	5	1	9/23/13	9/25/13 00:45	
Cadmium, Total	6010C	0.66	U	mg/Kg	0.66	0.08	1	9/23/13	9/25/13 00:45	
Calcium, Total	6010C	116000		mg/Kg	1300	400	10	9/23/13	9/24/13 19:27	
Chromium, Total	6010C	16.0		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:45	
Cobalt, Total	6010C	5.9	J	mg/Kg	6.6	0.07	1	9/23/13	9/25/13 00:45	
Copper, Total	6010C	17.9		mg/Kg	2.6	0.9	1	9/23/13	9/25/13 00:45	
Iron, Total	6010C	15000		mg/Kg	130	70	10	9/23/13	9/24/13 19:27	
Lead, Total	6010C	25.2		mg/Kg	6.6	0.3	1	9/23/13	9/25/13 00:45	
Magnesium, Total	6010C	69800		mg/Kg	1300	30	10	9/23/13	9/24/13 19:27	
Manganese, Total	6010C	490		mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:45	
Mercury, Total	7471B	0.031	J	mg/Kg	0.041	0.007	1	9/18/13	9/19/13 17:43	
Nickel, Total	6010C	13.0		mg/Kg	5.3	0.2	1	9/23/13	9/25/13 00:45	
Potassium, Total	6010C	1040		mg/Kg	260	20	1	9/23/13	9/25/13 00:45	
Selenium, Total	6010C	1.3	U	mg/Kg	1.3	0.4	1	9/23/13	9/25/13 00:45	
Silver, Total	6010C	1.3	U	mg/Kg	1.3	0.2	1	9/23/13	9/25/13 00:45	
Thallium, Total	6010C	1.3	U	mg/Kg	1.3	0.5	1	9/23/13	9/25/13 00:45	
Vanadium, Total	6010C	22.1		mg/Kg	6.6	0.07	1	9/23/13	9/25/13 00:45	
Zinc, Total	6010C	53.7		mg/Kg	2.6	0.10	1	9/23/13	9/25/13 00:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 15:56

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5212.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.7 U	4.7	2.7	
71-43-2	Benzene	4.7 U	4.7	0.28	
75-27-4	Bromodichloromethane	4.7 U	4.7	0.58	
75-25-2	Bromoform	4.7 U	4.7	0.88	
74-83-9	Bromomethane	4.7 U	4.7	1.4	
78-93-3	2-Butanone (MEK)	4.7 U	4.7	2.2	
75-15-0	Carbon Disulfide	4.7 U	4.7	1.2	
56-23-5	Carbon Tetrachloride	4.7 U	4.7	0.87	
108-90-7	Chlorobenzene	4.7 U	4.7	0.28	
75-00-3	Chloroethane	4.7 U	4.7	2.8	
67-66-3	Chloroform	4.7 U	4.7	1.2	
74-87-3	Chloromethane	4.7 U	4.7	0.38	
124-48-1	Dibromochloromethane	4.7 U	4.7	0.70	
75-34-3	1,1-Dichloroethane	4.7 U	4.7	1.2	
107-06-2	1,2-Dichloroethane	4.7 U	4.7	0.58	
75-35-4	1,1-Dichloroethene	4.7 U	4.7	1.3	
156-59-2	cis-1,2-Dichloroethene	4.7 U	4.7	0.90	
156-60-5	trans-1,2-Dichloroethene	4.7 U	4.7	0.82	
78-87-5	1,2-Dichloropropane	4.7 U	4.7	0.92	
10061-01-5	cis-1,3-Dichloropropene	4.7 U	4.7	0.86	
10061-02-6	trans-1,3-Dichloropropene	4.7 U	4.7	0.19	
100-41-4	Ethylbenzene	4.7 U	4.7	0.22	
591-78-6	2-Hexanone	4.7 U	4.7	1.2	
75-09-2	Methylene Chloride	4.7 U	4.7	0.54	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.7 U	4.7	0.93	
100-42-5	Styrene	4.7 U	4.7	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	4.7 U	4.7	0.77	
127-18-4	Tetrachloroethene	4.7 U	4.7	0.84	
108-88-3	Toluene	4.7 U	4.7	0.95	
71-55-6	1,1,1-Trichloroethane	4.7 U	4.7	0.70	
79-00-5	1,1,2-Trichloroethane	4.7 U	4.7	0.70	
79-01-6	Trichloroethene	4.7 U	4.7	0.96	
75-01-4	Vinyl Chloride	4.7 U	4.7	1.8	
95-47-6	o-Xylene	4.7 U	4.7	0.46	
179601-23-1	m,p-Xylenes	9.5 U	9.5	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 15:56

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5212.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .71

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.7 U	4.7	0.89	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/24/13 15:56	
Toluene-d8	99	66-138	9/24/13 15:56	
Dibromofluoromethane	101	63-138	9/24/13 15:56	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 18:07

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS991.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	440 U	440	44	
95-50-1	1,2-Dichlorobenzene	440 U	440	49	
541-73-1	1,3-Dichlorobenzene	440 U	440	67	
106-46-7	1,4-Dichlorobenzene	440 U	440	51	
95-95-4	2,4,5-Trichlorophenol	440 U	440	77	
88-06-2	2,4,6-Trichlorophenol	440 U	440	65	
120-83-2	2,4-Dichlorophenol	440 U	440	59	
105-67-9	2,4-Dimethylphenol	440 U	440	49	
51-28-5	2,4-Dinitrophenol	2300 U	2300	190	
121-14-2	2,4-Dinitrotoluene	440 U	440	94	
606-20-2	2,6-Dinitrotoluene	440 U	440	73	
91-58-7	2-Chloronaphthalene	440 U	440	46	
95-57-8	2-Chlorophenol	440 U	440	46	
91-57-6	2-Methylnaphthalene	440 U	440	44	
95-48-7	2-Methylphenol	440 U	440	58	
88-74-4	2-Nitroaniline	2300 U	2300	370	
88-75-5	2-Nitrophenol	440 U	440	66	
91-94-1	3,3'-Dichlorobenzidine	440 U	440	80	
	3- and 4-Methylphenol Coelution	440 U	440	67	
99-09-2	3-Nitroaniline	2300 U	2300	410	
534-52-1	4,6-Dinitro-2-methylphenol	2300 U	2300	640	
101-55-3	4-Bromophenyl Phenyl Ether	440 U	440	79	
59-50-7	4-Chloro-3-methylphenol	440 U	440	49	
106-47-8	4-Chloroaniline	440 U	440	85	
7005-72-3	4-Chlorophenyl Phenyl Ether	440 U	440	62	
100-01-6	4-Nitroaniline	2300 U	2300	480	
100-02-7	4-Nitrophenol	2300 U	2300	320	
83-32-9	Acenaphthene	440 U	440	63	
208-96-8	Acenaphthylene	440 U	440	59	
120-12-7	Anthracene	440 U	440	69	
56-55-3	Benz(a)anthracene	440 U	440	68	
50-32-8	Benzo(a)pyrene	440 U	440	74	
205-99-2	Benzo(b)fluoranthene	440 U	440	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 18:07

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS991.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	440	U	440	83	
207-08-9	Benzo(k)fluoranthene	440	U	440	79	
108-60-1	2,2'-Oxybis(1-chloropropane)	440	U	440	53	
111-91-1	Bis(2-chloroethoxy)methane	440	U	440	61	
111-44-4	Bis(2-chloroethyl) Ether	440	U	440	44	
117-81-7	Bis(2-ethylhexyl) Phthalate	440	U	440	61	
85-68-7	Butyl Benzyl Phthalate	440	U	440	67	
86-74-8	Carbazole	440	U	440	61	
218-01-9	Chrysene	440	U	440	62	
84-74-2	Di-n-butyl Phthalate	440	U	440	130	
117-84-0	Di-n-octyl Phthalate	440	U	440	85	
53-70-3	Dibenz(a,h)anthracene	440	U	440	120	
132-64-9	Dibenzofuran	440	U	440	49	
84-66-2	Diethyl Phthalate	440	U	440	57	
131-11-3	Dimethyl Phthalate	440	U	440	63	
206-44-0	Fluoranthene	440	U	440	71	
86-73-7	Fluorene	440	U	440	56	
118-74-1	Hexachlorobenzene	440	U	440	67	
87-68-3	Hexachlorobutadiene	440	U	440	49	
77-47-4	Hexachlorocyclopentadiene	440	U	440	70	
67-72-1	Hexachloroethane	440	U	440	61	
193-39-5	Indeno(1,2,3-cd)pyrene	440	U	440	73	
78-59-1	Isophorone	440	U	440	59	
621-64-7	N-Nitrosodi-n-propylamine	440	U	440	50	
86-30-6	N-Nitrosodiphenylamine	440	U	440	69	
91-20-3	Naphthalene	440	U	440	44	
98-95-3	Nitrobenzene	440	U	440	47	
87-86-5	Pentachlorophenol (PCP)	2300	U	2300	370	
85-01-8	Phenanthrene	440	U	440	59	
108-95-2	Phenol	440	U	440	49	
129-00-0	Pyrene	440	U	440	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0910  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 18:07

Sample Name: E5322B01 (2-4)  
 Lab Code: R1306655-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 75.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS991.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	61	41-151	9/17/13 18:07	
2-Fluorobiphenyl	58	47-126	9/17/13 18:07	
2-Fluorophenol	53	16-129	9/17/13 18:07	
Nitrobenzene-d5	56	39-136	9/17/13 18:07	
Phenol-d6	60	10-145	9/17/13 18:07	
p-Terphenyl-d14	70	35-152	9/17/13 18:07	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (2-4)  
**Lab Code:** R1306655-007  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B01 (8-10)  
 Lab Code: R1306655-008

Service Request: R1306655  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 93.4

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1200		mg/Kg	10	3	1	9/23/13	9/25/13 00:51	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.3	0.3	1	9/23/13	9/25/13 00:51	
Arsenic, Total	6010C	2.0		mg/Kg	1.0	0.5	1	9/23/13	9/25/13 00:51	
Barium, Total	6010C	6.8		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 00:51	
Beryllium, Total	6010C	0.04	J	mg/Kg	0.31	0.03	1	9/23/13	9/25/13 00:51	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/23/13	9/25/13 00:51	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/23/13	9/25/13 00:51	
Calcium, Total	6010C	171000		mg/Kg	1000	400	10	9/23/13	9/24/13 19:33	
Chromium, Total	6010C	10.6		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 00:51	
Cobalt, Total	6010C	1.8	J	mg/Kg	5.2	0.06	1	9/23/13	9/25/13 00:51	
Copper, Total	6010C	6.8		mg/Kg	2.1	0.7	1	9/23/13	9/25/13 00:51	
Iron, Total	6010C	4710		mg/Kg	100	60	10	9/23/13	9/24/13 19:33	
Lead, Total	6010C	1.9	J	mg/Kg	5.2	0.3	1	9/23/13	9/25/13 00:51	
Magnesium, Total	6010C	95400		mg/Kg	100	2	1	9/23/13	9/25/13 00:51	
Manganese, Total	6010C	249		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 00:51	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/18/13	9/19/13 17:45	
Nickel, Total	6010C	3.3	J	mg/Kg	4.2	0.09	1	9/23/13	9/25/13 00:51	
Potassium, Total	6010C	550		mg/Kg	210	20	1	9/23/13	9/25/13 00:51	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 00:51	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/23/13	9/25/13 00:51	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 00:51	
Vanadium, Total	6010C	4.9	J	mg/Kg	5.2	0.06	1	9/23/13	9/25/13 00:51	
Zinc, Total	6010C	13.4		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 00:51	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13  
 Date Analyzed: 9/24/13 16:33

Sample Name: E5322B01 (8-10)  
 Lab Code: R1306655-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\092413\K5213.D\

Analysis Lot: 359969  
 Instrument Name: R-MS-07  
 Dilution Factor: .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.4	J	4.7	2.7	
71-43-2	Benzene	4.7	U	4.7	0.28	
75-27-4	Bromodichloromethane	4.7	U	4.7	0.57	
75-25-2	Bromoform	4.7	U	4.7	0.87	
74-83-9	Bromomethane	4.7	U	4.7	1.3	
78-93-3	2-Butanone (MEK)	4.7	U	4.7	2.2	
75-15-0	Carbon Disulfide	4.7	U	4.7	1.2	
56-23-5	Carbon Tetrachloride	4.7	U	4.7	0.86	
108-90-7	Chlorobenzene	4.7	U	4.7	0.28	
75-00-3	Chloroethane	4.7	U	4.7	2.7	
67-66-3	Chloroform	4.7	U	4.7	1.2	
74-87-3	Chloromethane	4.7	U	4.7	0.38	
124-48-1	Dibromochloromethane	4.7	U	4.7	0.68	
75-34-3	1,1-Dichloroethane	4.7	U	4.7	1.2	
107-06-2	1,2-Dichloroethane	4.7	U	4.7	0.57	
75-35-4	1,1-Dichloroethene	4.7	U	4.7	1.2	
156-59-2	cis-1,2-Dichloroethene	4.7	U	4.7	0.89	
156-60-5	trans-1,2-Dichloroethene	4.7	U	4.7	0.81	
78-87-5	1,2-Dichloropropane	4.7	U	4.7	0.91	
10061-01-5	cis-1,3-Dichloropropene	4.7	U	4.7	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.7	U	4.7	0.19	
100-41-4	Ethylbenzene	4.7	U	4.7	0.22	
591-78-6	2-Hexanone	4.7	U	4.7	1.2	
75-09-2	Methylene Chloride	4.7	U	4.7	0.54	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.7	U	4.7	0.92	
100-42-5	Styrene	4.7	U	4.7	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.7	U	4.7	0.76	
127-18-4	Tetrachloroethene	4.7	U	4.7	0.82	
108-88-3	Toluene	1.7	J	4.7	0.94	
71-55-6	1,1,1-Trichloroethane	4.7	U	4.7	0.68	
79-00-5	1,1,2-Trichloroethane	4.7	U	4.7	0.68	
79-01-6	Trichloroethene	4.7	U	4.7	0.95	
75-01-4	Vinyl Chloride	4.7	U	4.7	1.8	
95-47-6	o-Xylene	4.7	U	4.7	0.45	
179601-23-1	m,p-Xylenes	9.3	U	9.3	1.1	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 0915  
**Date Received:** 9/11/13  
**Date Analyzed:** 9/24/13 16:33

**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1306655-008

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 93.4

**Volatile Organic Compounds by GC/MS**

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQU\DATA\MSVOA7\DATA\092413\K5213.D\

**Analysis Lot:** 359969  
**Instrument Name:** R-MS-07  
**Dilution Factor:** .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.7	U	4.7	0.88	
1330-20-7	Xylenes, Total	14	U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/24/13 16:33	
Toluene-d8	100	66-138	9/24/13 16:33	
Dibromofluoromethane	101	63-138	9/24/13 16:33	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 18:44

Sample Name: E5322B01 (8-10)  
 Lab Code: R1306655-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS992.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350 U	350	36	
95-50-1	1,2-Dichlorobenzene	350 U	350	40	
541-73-1	1,3-Dichlorobenzene	350 U	350	54	
106-46-7	1,4-Dichlorobenzene	350 U	350	41	
95-95-4	2,4,5-Trichlorophenol	350 U	350	62	
88-06-2	2,4,6-Trichlorophenol	350 U	350	52	
120-83-2	2,4-Dichlorophenol	350 U	350	48	
105-67-9	2,4-Dimethylphenol	350 U	350	39	
51-28-5	2,4-Dinitrophenol	1800 U	1800	150	
121-14-2	2,4-Dinitrotoluene	350 U	350	76	
606-20-2	2,6-Dinitrotoluene	350 U	350	59	
91-58-7	2-Chloronaphthalene	350 U	350	37	
95-57-8	2-Chlorophenol	350 U	350	37	
91-57-6	2-Methylnaphthalene	350 U	350	36	
95-48-7	2-Methylphenol	350 U	350	46	
88-74-4	2-Nitroaniline	1800 U	1800	300	
88-75-5	2-Nitrophenol	350 U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350 U	350	65	
	3- and 4-Methylphenol Coelution	350 U	350	54	
99-09-2	3-Nitroaniline	1800 U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800 U	1800	520	
101-55-3	4-Bromophenyl Phenyl Ether	350 U	350	64	
59-50-7	4-Chloro-3-methylphenol	350 U	350	39	
106-47-8	4-Chloroaniline	350 U	350	69	
7005-72-3	4-Chlorophenyl Phenyl Ether	350 U	350	50	
100-01-6	4-Nitroaniline	1800 U	1800	390	
100-02-7	4-Nitrophenol	1800 U	1800	260	
83-32-9	Acenaphthene	350 U	350	51	
208-96-8	Acenaphthylene	350 U	350	48	
120-12-7	Anthracene	350 U	350	56	
56-55-3	Benz(a)anthracene	350 U	350	55	
50-32-8	Benzo(a)pyrene	350 U	350	59	
205-99-2	Benzo(b)fluoranthene	350 U	350	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 09:15  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 18:44

Sample Name: E5322B01 (8-10)  
 Lab Code: R1306655-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 93.4

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS992.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	64	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	50	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	96	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	51	
206-44-0	Fluoranthene	350	U	350	57	
86-73-7	Fluorene	350	U	350	45	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	40	
77-47-4	Hexachlorocyclopentadiene	350	U	350	57	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	59	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	41	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	69	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 0915  
**Date Received:** 9/11/13  
**Date Extracted:** 9/12/13  
**Date Analyzed:** 9/17/13 18:44

**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1306655-008

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 93.4

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091713\CS992.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191525  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	64	41-151	9/17/13 18:44	
2-Fluorobiphenyl	78	47-126	9/17/13 18:44	
2-Fluorophenol	60	16-129	9/17/13 18:44	
Nitrobenzene-d5	72	39-136	9/17/13 18:44	
Phenol-d6	67	10-145	9/17/13 18:44	
p-Terphenyl-d14	76	35-152	9/17/13 18:44	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1306655-008  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5322B01D (8-10)  
Lab Code: R1306655-009

Service Request: R1306655  
Date Collected: 9/10/13 0915  
Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	94.2	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B01D (8-10)  
 Lab Code: R1306655-009

Service Request: R1306655  
 Date Collected: 9/10/13 09:15  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 94.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1570		mg/Kg	10	3	1	9/23/13	9/25/13 01:10	
Antimony, Total	6010C	1.4	BJ	mg/Kg	6.1	0.3	1	9/23/13	9/25/13 01:10	
Arsenic, Total	6010C	3.6		mg/Kg	1.0	0.5	1	9/23/13	9/25/13 01:10	
Barium, Total	6010C	9.1		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 01:10	
Beryllium, Total	6010C	0.05	J	mg/Kg	0.31	0.03	1	9/23/13	9/25/13 01:10	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/23/13	9/25/13 01:10	
Cadmium, Total	6010C	0.51	U	mg/Kg	0.51	0.07	1	9/23/13	9/25/13 01:10	
Calcium, Total	6010C	151000		mg/Kg	1000	300	10	9/23/13	9/24/13 19:52	
Chromium, Total	6010C	10.2		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:10	
Cobalt, Total	6010C	2.4	J	mg/Kg	5.1	0.06	1	9/23/13	9/25/13 01:10	
Copper, Total	6010C	10.3		mg/Kg	2.0	0.7	1	9/23/13	9/25/13 01:10	
Iron, Total	6010C	7020		mg/Kg	100	60	10	9/23/13	9/24/13 19:52	
Lead, Total	6010C	3.6	J	mg/Kg	5.1	0.3	1	9/23/13	9/25/13 01:10	
Magnesium, Total	6010C	89100		mg/Kg	1000	20	10	9/23/13	9/24/13 19:52	
Manganese, Total	6010C	249		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:10	
Mercury, Total	7471B	0.033	U	mg/Kg	0.033	0.006	1	9/18/13	9/19/13 17:50	
Nickel, Total	6010C	4.6		mg/Kg	4.1	0.09	1	9/23/13	9/25/13 01:10	
Potassium, Total	6010C	600		mg/Kg	200	20	1	9/23/13	9/25/13 01:10	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 01:10	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/23/13	9/25/13 01:10	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 01:10	
Vanadium, Total	6010C	7.2		mg/Kg	5.1	0.06	1	9/23/13	9/25/13 01:10	
Zinc, Total	6010C	20.9		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 01:10	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 12:24

Sample Name: E5322B01D (8-10)  
 Lab Code: R1306655-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5088.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .96

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.1	U	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.95	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.94	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.97	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	0.99	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.0	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.90	
108-88-3	Toluene	5.1	U	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.49	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 0915  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 12:24

Sample Name: E5322B01D (8-10)  
 Lab Code: R1306655-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5088.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .96

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.96	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	51-136	9/18/13 12:24	
Toluene-d8	97	66-138	9/18/13 12:24	
Dibromofluoromethane	99	63-138	9/18/13 12:24	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 09:15  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 19:21

Sample Name: E5322B01D (8-10)  
 Lab Code: R1306655-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS993.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	350	U	350	36	
95-50-1	1,2-Dichlorobenzene	350	U	350	39	
541-73-1	1,3-Dichlorobenzene	350	U	350	54	
106-46-7	1,4-Dichlorobenzene	350	U	350	41	
95-95-4	2,4,5-Trichlorophenol	350	U	350	62	
88-06-2	2,4,6-Trichlorophenol	350	U	350	52	
120-83-2	2,4-Dichlorophenol	350	U	350	47	
105-67-9	2,4-Dimethylphenol	350	U	350	39	
51-28-5	2,4-Dinitrophenol	1800	U	1800	150	
121-14-2	2,4-Dinitrotoluene	350	U	350	75	
606-20-2	2,6-Dinitrotoluene	350	U	350	59	
91-58-7	2-Chloronaphthalene	350	U	350	37	
95-57-8	2-Chlorophenol	350	U	350	37	
91-57-6	2-Methylnaphthalene	350	U	350	36	
95-48-7	2-Methylphenol	350	U	350	46	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	350	U	350	53	
91-94-1	3,3'-Dichlorobenzidine	350	U	350	64	
	3- and 4-Methylphenol Coelution	350	U	350	53	
99-09-2	3-Nitroaniline	1800	U	1800	330	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	510	
101-55-3	4-Bromophenyl Phenyl Ether	350	U	350	63	
59-50-7	4-Chloro-3-methylphenol	350	U	350	39	
106-47-8	4-Chloroaniline	350	U	350	68	
7005-72-3	4-Chlorophenyl Phenyl Ether	350	U	350	50	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	350	U	350	50	
208-96-8	Acenaphthylene	350	U	350	47	
120-12-7	Anthracene	350	U	350	55	
56-55-3	Benz(a)anthracene	350	U	350	54	
50-32-8	Benzo(a)pyrene	350	U	350	59	
205-99-2	Benzo(b)fluoranthene	350	U	350	85	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 09:15  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 19:21

Sample Name: E5322B01D (8-10)  
 Lab Code: R1306655-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 94.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS993.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	350	U	350	67	
207-08-9	Benzo(k)fluoranthene	350	U	350	63	
108-60-1	2,2'-Oxybis(1-chloropropane)	350	U	350	43	
111-91-1	Bis(2-chloroethoxy)methane	350	U	350	49	
111-44-4	Bis(2-chloroethyl) Ether	350	U	350	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	350	U	350	49	
85-68-7	Butyl Benzyl Phthalate	350	U	350	54	
86-74-8	Carbazole	350	U	350	49	
218-01-9	Chrysene	350	U	350	49	
84-74-2	Di-n-butyl Phthalate	350	U	350	97	
117-84-0	Di-n-octyl Phthalate	350	U	350	68	
53-70-3	Dibenz(a,h)anthracene	350	U	350	95	
132-64-9	Dibenzofuran	350	U	350	39	
84-66-2	Diethyl Phthalate	350	U	350	46	
131-11-3	Dimethyl Phthalate	350	U	350	50	
206-44-0	Fluoranthene	350	U	350	56	
86-73-7	Fluorene	350	U	350	44	
118-74-1	Hexachlorobenzene	350	U	350	54	
87-68-3	Hexachlorobutadiene	350	U	350	39	
77-47-4	Hexachlorocyclopentadiene	350	U	350	56	
67-72-1	Hexachloroethane	350	U	350	49	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	350	58	
78-59-1	Isophorone	350	U	350	47	
621-64-7	N-Nitrosodi-n-propylamine	350	U	350	40	
86-30-6	N-Nitrosodiphenylamine	350	U	350	55	
91-20-3	Naphthalene	350	U	350	36	
98-95-3	Nitrobenzene	350	U	350	37	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	290	
85-01-8	Phenanthrene	350	U	350	48	
108-95-2	Phenol	350	U	350	39	
129-00-0	Pyrene	350	U	350	68	

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Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 0915  
**Date Received:** 9/11/13  
**Date Extracted:** 9/12/13  
**Date Analyzed:** 9/17/13 19:21

**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1306655-009

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 94.2

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091713\CS993.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191525  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	68	41-151	9/17/13 19:21	
2-Fluorobiphenyl	78	47-126	9/17/13 19:21	
2-Fluorophenol	65	16-129	9/17/13 19:21	
Nitrobenzene-d5	72	39-136	9/17/13 19:21	
Phenol-d6	69	10-145	9/17/13 19:21	
p-Terphenyl-d14	76	35-152	9/17/13 19:21	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1306655-009  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5322B03 (0-2)  
**Lab Code:** R1306655-010

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1010  
**Date Received:** 9/11/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	81.5	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 81.5

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11700		mg/Kg	12	4	1	9/23/13	9/25/13 01:16	
Antimony, Total	6010C	1.1	BJ	mg/Kg	7.0	0.3	1	9/23/13	9/25/13 01:16	
Arsenic, Total	6010C	8.9		mg/Kg	1.2	0.5	1	9/23/13	9/25/13 01:16	
Barium, Total	6010C	145		mg/Kg	2.3	0.09	1	9/23/13	9/25/13 01:16	
Beryllium, Total	6010C	0.68		mg/Kg	0.35	0.03	1	9/23/13	9/25/13 01:16	
Boron, Total	6010C	12	J	mg/Kg	23	5	1	9/23/13	9/25/13 01:16	
Cadmium, Total	6010C	0.21	J	mg/Kg	0.58	0.08	1	9/23/13	9/25/13 01:16	
Calcium, Total	6010C	2430		mg/Kg	120	40	1	9/23/13	9/27/13 10:06	
Chromium, Total	6010C	16.8		mg/Kg	1.2	0.2	1	9/23/13	9/25/13 01:16	
Cobalt, Total	6010C	10.1		mg/Kg	5.8	0.07	1	9/23/13	9/25/13 01:16	
Copper, Total	6010C	14.9		mg/Kg	2.3	0.8	1	9/23/13	9/25/13 01:16	
Iron, Total	6010C	20300		mg/Kg	120	70	10	9/23/13	9/24/13 19:58	
Lead, Total	6010C	18.4		mg/Kg	5.8	0.3	1	9/23/13	9/25/13 01:16	
Magnesium, Total	6010C	2140		mg/Kg	120	2	1	9/23/13	9/25/13 01:16	
Manganese, Total	6010C	985		mg/Kg	1.2	0.2	1	9/23/13	9/25/13 01:16	
Mercury, Total	7471B	0.024	J	mg/Kg	0.037	0.006	1	9/18/13	9/19/13 17:51	
Nickel, Total	6010C	15.2		mg/Kg	4.7	0.10	1	9/23/13	9/25/13 01:16	
Potassium, Total	6010C	1000		mg/Kg	230	20	1	9/23/13	9/25/13 01:16	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/23/13	9/25/13 01:16	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/23/13	9/25/13 01:16	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/23/13	9/25/13 01:16	
Vanadium, Total	6010C	32.6		mg/Kg	5.8	0.06	1	9/23/13	9/25/13 01:16	
Zinc, Total	6010C	58.9		mg/Kg	2.3	0.09	1	9/23/13	9/25/13 01:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Date Analyzed: 9/17/13 18:06

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091713\K5074.D\

Analysis Lot: 358732  
 Instrument Name: R-MS-07  
 Dilution Factor: .69

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.2 U	4.2	2.4	
71-43-2	Benzene	4.2 U	4.2	0.25	
75-27-4	Bromodichloromethane	4.2 U	4.2	0.52	
75-25-2	Bromoform	4.2 U	4.2	0.79	
74-83-9	Bromomethane	4.2 U	4.2	1.2	
78-93-3	2-Butanone (MEK)	4.2 U	4.2	2.0	
75-15-0	Carbon Disulfide	4.2 U	4.2	1.1	
56-23-5	Carbon Tetrachloride	4.2 U	4.2	0.78	
108-90-7	Chlorobenzene	4.2 U	4.2	0.25	
75-00-3	Chloroethane	4.2 U	4.2	2.5	
67-66-3	Chloroform	4.2 U	4.2	1.1	
74-87-3	Chloromethane	4.2 U	4.2	0.34	
124-48-1	Dibromochloromethane	4.2 U	4.2	0.62	
75-34-3	1,1-Dichloroethane	4.2 U	4.2	1.1	
107-06-2	1,2-Dichloroethane	4.2 U	4.2	0.52	
75-35-4	1,1-Dichloroethene	4.2 U	4.2	1.1	
156-59-2	cis-1,2-Dichloroethene	4.2 U	4.2	0.81	
156-60-5	trans-1,2-Dichloroethene	4.2 U	4.2	0.73	
78-87-5	1,2-Dichloropropane	4.2 U	4.2	0.83	
10061-01-5	cis-1,3-Dichloropropene	4.2 U	4.2	0.77	
10061-02-6	trans-1,3-Dichloropropene	4.2 U	4.2	0.17	
100-41-4	Ethylbenzene	4.2 U	4.2	0.20	
591-78-6	2-Hexanone	4.2 U	4.2	1.1	
75-09-2	Methylene Chloride	4.2 U	4.2	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2 U	4.2	0.83	
100-42-5	Styrene	4.2 U	4.2	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.2 U	4.2	0.69	
127-18-4	Tetrachloroethene	4.2 U	4.2	0.75	
108-88-3	Toluene	1.2 J	4.2	0.85	
71-55-6	1,1,1-Trichloroethane	4.2 U	4.2	0.62	
79-00-5	1,1,2-Trichloroethane	4.2 U	4.2	0.62	
79-01-6	Trichloroethene	4.2 U	4.2	0.86	
75-01-4	Vinyl Chloride	4.2 U	4.2	1.6	
95-47-6	o-Xylene	4.2 U	4.2	0.41	
179601-23-1	m,p-Xylenes	8.5 U	8.5	0.93	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Date Analyzed: 9/17/13 18:06

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091713\K5074.D\

Analysis Lot: 358732  
 Instrument Name: R-MS-07  
 Dilution Factor: .69

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.2	U	4.2	0.80	
1330-20-7	Xylenes, Total	13	U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	51-136	9/17/13 18:06	
Toluene-d8	99	66-138	9/17/13 18:06	
Dibromofluoromethane	102	63-138	9/17/13 18:06	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 19:57

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS994.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	46	
541-73-1	1,3-Dichlorobenzene	400	U	400	62	
106-46-7	1,4-Dichlorobenzene	400	U	400	47	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	60	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	400	U	400	87	
606-20-2	2,6-Dinitrotoluene	400	U	400	68	
91-58-7	2-Chloronaphthalene	400	U	400	43	
95-57-8	2-Chlorophenol	400	U	400	43	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	61	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	74	
	3- and 4-Methylphenol Coelution	400	U	400	62	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	73	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	79	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	58	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	64	
56-55-3	Benz(a)anthracene	400	U	400	63	
50-32-8	Benzo(a)pyrene	400	U	400	68	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 19:57

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS994.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	77	
207-08-9	Benzo(k)fluoranthene	400	U	400	73	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	78	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	45	
84-66-2	Diethyl Phthalate	400	U	400	53	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	65	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	65	
67-72-1	Hexachloroethane	400	U	400	57	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	55	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	79	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1010  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 19:57

Sample Name: E5322B03 (0-2)  
 Lab Code: R1306655-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS994.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	62	41-151	9/17/13 19:57	
2-Fluorobiphenyl	64	47-126	9/17/13 19:57	
2-Fluorophenol	59	16-129	9/17/13 19:57	
Nitrobenzene-d5	61	39-136	9/17/13 19:57	
Phenol-d6	61	10-145	9/17/13 19:57	
p-Terphenyl-d14	67	35-152	9/17/13 19:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	92.0	Percent	1.0	1	NA	9/12/13 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13

Basis: Dry  
 Percent Solids: 92.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	3450		mg/Kg	10	3	1	9/23/13	9/25/13 01:22	
Antimony, Total	6010C	1.3	BJ	mg/Kg	6.2	0.3	1	9/23/13	9/25/13 01:22	
Arsenic, Total	6010C	7.1		mg/Kg	1.0	0.5	1	9/23/13	9/25/13 01:22	
Barium, Total	6010C	23.0		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:22	
Beryllium, Total	6010C	0.16	J	mg/Kg	0.31	0.03	1	9/23/13	9/25/13 01:22	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/23/13	9/25/13 01:22	
Cadmium, Total	6010C	0.52	U	mg/Kg	0.52	0.07	1	9/23/13	9/25/13 01:22	
Calcium, Total	6010C	142000		mg/Kg	1000	400	10	9/23/13	9/24/13 20:04	
Chromium, Total	6010C	12.0		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:22	
Cobalt, Total	6010C	3.7	J	mg/Kg	5.2	0.06	1	9/23/13	9/25/13 01:22	
Copper, Total	6010C	16.7		mg/Kg	2.1	0.7	1	9/23/13	9/25/13 01:22	
Iron, Total	6010C	14300		mg/Kg	100	60	10	9/23/13	9/24/13 20:04	
Lead, Total	6010C	33.3		mg/Kg	5.2	0.3	1	9/23/13	9/25/13 01:22	
Magnesium, Total	6010C	83100		mg/Kg	1000	20	10	9/23/13	9/24/13 20:04	
Manganese, Total	6010C	387		mg/Kg	1.0	0.2	1	9/23/13	9/25/13 01:22	
Mercury, Total	7471B	0.011	J	mg/Kg	0.033	0.006	1	9/18/13	9/19/13 17:53	
Nickel, Total	6010C	8.6		mg/Kg	4.1	0.09	1	9/23/13	9/25/13 01:22	
Potassium, Total	6010C	620		mg/Kg	210	20	1	9/23/13	9/25/13 01:22	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.3	1	9/23/13	9/25/13 01:22	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.09	1	9/23/13	9/25/13 01:22	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/23/13	9/25/13 01:22	
Vanadium, Total	6010C	14.4		mg/Kg	5.2	0.06	1	9/23/13	9/25/13 01:22	
Zinc, Total	6010C	36.3		mg/Kg	2.1	0.08	1	9/23/13	9/25/13 01:22	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 13:01

Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5089.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: 1.1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	7.2		6.0	3.4	
71-43-2	Benzene	6.0	U	6.0	0.35	
75-27-4	Bromodichloromethane	6.0	U	6.0	0.73	
75-25-2	Bromoform	6.0	U	6.0	1.2	
74-83-9	Bromomethane	6.0	U	6.0	1.7	
78-93-3	2-Butanone (MEK)	6.0	U	6.0	2.8	
75-15-0	Carbon Disulfide	6.0	U	6.0	1.5	
56-23-5	Carbon Tetrachloride	6.0	U	6.0	1.1	
108-90-7	Chlorobenzene	6.0	U	6.0	0.35	
75-00-3	Chloroethane	6.0	U	6.0	3.5	
67-66-3	Chloroform	6.0	U	6.0	1.6	
74-87-3	Chloromethane	6.0	U	6.0	0.48	
124-48-1	Dibromochloromethane	6.0	U	6.0	0.88	
75-34-3	1,1-Dichloroethane	6.0	U	6.0	1.5	
107-06-2	1,2-Dichloroethane	6.0	U	6.0	0.73	
75-35-4	1,1-Dichloroethene	6.0	U	6.0	1.6	
156-59-2	cis-1,2-Dichloroethene	6.0	U	6.0	1.2	
156-60-5	trans-1,2-Dichloroethene	6.0	U	6.0	1.1	
78-87-5	1,2-Dichloropropane	6.0	U	6.0	1.2	
10061-01-5	cis-1,3-Dichloropropene	6.0	U	6.0	1.1	
10061-02-6	trans-1,3-Dichloropropene	6.0	U	6.0	0.24	
100-41-4	Ethylbenzene	6.0	U	6.0	0.28	
591-78-6	2-Hexanone	6.0	U	6.0	1.5	
75-09-2	Methylene Chloride	6.0	U	6.0	0.69	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.0	U	6.0	1.2	
100-42-5	Styrene	6.0	U	6.0	0.36	
79-34-5	1,1,2,2-Tetrachloroethane	6.0	U	6.0	0.97	
127-18-4	Tetrachloroethene	6.0	U	6.0	1.1	
108-88-3	Toluene	1.8	J	6.0	1.2	
71-55-6	1,1,1-Trichloroethane	6.0	U	6.0	0.88	
79-00-5	1,1,2-Trichloroethane	6.0	U	6.0	0.88	
79-01-6	Trichloroethene	6.0	U	6.0	1.3	
75-01-4	Vinyl Chloride	6.0	U	6.0	2.2	
95-47-6	o-Xylene	6.0	U	6.0	0.58	
179601-23-1	m,p-Xylenes	12	U	12	1.4	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13  
 Date Analyzed: 9/18/13 13:01

Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091813\K5089.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: 1.1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.0	U	6.0	1.2	
1330-20-7	Xylenes, Total	18	U	18	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	51-136	9/18/13 13:01	
Toluene-d8	100	66-138	9/18/13 13:01	
Dibromofluoromethane	100	63-138	9/18/13 13:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 20:33

Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091713\CS995.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	360	U	360	36	
95-50-1	1,2-Dichlorobenzene	360	U	360	40	
541-73-1	1,3-Dichlorobenzene	360	U	360	55	
106-46-7	1,4-Dichlorobenzene	360	U	360	42	
95-95-4	2,4,5-Trichlorophenol	360	U	360	63	
88-06-2	2,4,6-Trichlorophenol	360	U	360	53	
120-83-2	2,4-Dichlorophenol	360	U	360	48	
105-67-9	2,4-Dimethylphenol	360	U	360	40	
51-28-5	2,4-Dinitrophenol	1800	U	1800	160	
121-14-2	2,4-Dinitrotoluene	360	U	360	77	
606-20-2	2,6-Dinitrotoluene	360	U	360	60	
91-58-7	2-Chloronaphthalene	360	U	360	38	
95-57-8	2-Chlorophenol	360	U	360	38	
91-57-6	2-Methylnaphthalene	360	U	360	36	
95-48-7	2-Methylphenol	360	U	360	47	
88-74-4	2-Nitroaniline	1800	U	1800	300	
88-75-5	2-Nitrophenol	360	U	360	54	
91-94-1	3,3'-Dichlorobenzidine	360	U	360	66	
	3- and 4-Methylphenol Coelution	360	U	360	55	
99-09-2	3-Nitroaniline	1800	U	1800	340	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	1800	530	
101-55-3	4-Bromophenyl Phenyl Ether	360	U	360	65	
59-50-7	4-Chloro-3-methylphenol	360	U	360	40	
106-47-8	4-Chloroaniline	360	U	360	70	
7005-72-3	4-Chlorophenyl Phenyl Ether	360	U	360	51	
100-01-6	4-Nitroaniline	1800	U	1800	390	
100-02-7	4-Nitrophenol	1800	U	1800	260	
83-32-9	Acenaphthene	360	U	360	52	
208-96-8	Acenaphthylene	360	U	360	48	
120-12-7	Anthracene	360	U	360	57	
56-55-3	Benz(a)anthracene	360	U	360	56	
50-32-8	Benzo(a)pyrene	360	U	360	60	
205-99-2	Benzo(b)fluoranthene	360	U	360	87	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/10/13 1015  
 Date Received: 9/11/13  
 Date Extracted: 9/12/13  
 Date Analyzed: 9/17/13 20:33

Sample Name: E5322B03 (6-8)  
 Lab Code: R1306655-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 92.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091713\CS995.D\

Analysis Lot: 358914  
 Extraction Lot: 191525  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	360	U	360	68	
207-08-9	Benzo(k)fluoranthene	360	U	360	65	
108-60-1	2,2'-Oxybis(1-chloropropane)	360	U	360	44	
111-91-1	Bis(2-chloroethoxy)methane	360	U	360	50	
111-44-4	Bis(2-chloroethyl) Ether	360	U	360	36	
117-81-7	Bis(2-ethylhexyl) Phthalate	360	U	360	50	
85-68-7	Butyl Benzyl Phthalate	360	U	360	55	
86-74-8	Carbazole	360	U	360	50	
218-01-9	Chrysene	360	U	360	51	
84-74-2	Di-n-butyl Phthalate	360	U	360	99	
117-84-0	Di-n-octyl Phthalate	360	U	360	69	
53-70-3	Dibenz(a,h)anthracene	360	U	360	97	
132-64-9	Dibenzofuran	360	U	360	40	
84-66-2	Diethyl Phthalate	360	U	360	47	
131-11-3	Dimethyl Phthalate	360	U	360	52	
206-44-0	Fluoranthene	360	U	360	58	
86-73-7	Fluorene	360	U	360	46	
118-74-1	Hexachlorobenzene	360	U	360	55	
87-68-3	Hexachlorobutadiene	360	U	360	40	
77-47-4	Hexachlorocyclopentadiene	360	U	360	57	
67-72-1	Hexachloroethane	360	U	360	50	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	360	60	
78-59-1	Isophorone	360	U	360	48	
621-64-7	N-Nitrosodi-n-propylamine	360	U	360	41	
86-30-6	N-Nitrosodiphenylamine	360	U	360	56	
91-20-3	Naphthalene	360	U	360	36	
98-95-3	Nitrobenzene	360	U	360	38	
87-86-5	Pentachlorophenol (PCP)	1800	U	1800	300	
85-01-8	Phenanthrene	360	U	360	49	
108-95-2	Phenol	360	U	360	40	
129-00-0	Pyrene	360	U	360	70	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/10/13 1015  
**Date Received:** 9/11/13  
**Date Extracted:** 9/12/13  
**Date Analyzed:** 9/17/13 20:33

**Sample Name:** E5322B03 (6-8)  
**Lab Code:** R1306655-011

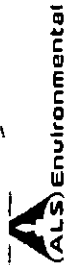
**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 92.0

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQU\DATA\5973A\DATA\091713\CS995.D\

**Analysis Lot:** 358914  
**Extraction Lot:** 191525  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/17/13 20:33	
2-Fluorobiphenyl	74	47-126	9/17/13 20:33	
2-Fluorophenol	63	16-129	9/17/13 20:33	
Nitrobenzene-d5	65	39-136	9/17/13 20:33	
Phenol-d6	63	10-145	9/17/13 20:33	
p-Terphenyl-d14	68	35-152	9/17/13 20:33	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10655

E753-21

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IPIT US 30</b>		Project Number <b>CE-004335-0001-0170</b>															
Project Manager <b>Kevin Punter/Sheri Johnson</b>		Report CC <b>Dean Trebant</b>															
Company/Address <b>Elegy - Environment 33 W Wmear St Sack 1410 Chicago IL 60603</b>																	
Phone # <b>312 574 9243</b>		Email <b>Johnson@elegy.com</b>															
Sample's Signature <i>[Signature]</i>		Sample's Printed Name <b>Scott Cooper</b>															
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	ANALYSIS REQUESTED (Include Method Number and Container Preservative)				REMARKS/ALTERNATE DESCRIPTION						
E5322B01(2-4)	DDP	9-10-13	0910	Soil	4		GCMS VOCs ° 8280 & 824 ° CP	GCMS SVOCs ° 8270 & 825	GC VOCs ° 8021 & 601/602	PESTICIDES ° 8081 & 808	PCBS ° 8082 & 808	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOC	PH TOP SOIL	Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NH4SO4 8. Other	
E5322B01(8-70)	DDP	9-10-13	0915	Soil	4												
E5322B01D(2-10)	DDP	9-10-13	0915	Soil	4												
E5322B03(0-2)	DDP	9-10-13	1010	Soil	4												
E5322B03(6-8)	DDP	9-10-13	1015	Soil	4												
E5322B02(0-1-5)	DDP	9-10-13	1030	Soil	4												
SPECIAL INSTRUCTIONS/COMMENTS Metals																	
See OAPP <input type="checkbox"/>																	
STATE WHERE SAMPLES WERE COLLECTED																	
RELINQUISHED BY					RECEIVED BY					RELINQUISHED BY							
Signature <i>[Signature]</i>					Signature <i>[Signature]</i>					Signature							
Printed Name <b>Scott Cooper</b>					Printed Name <b>Scott Cooper</b>					Printed Name							
Firm <b>E.E.</b>					Firm <b>ALS</b>					Firm							
Date/Time <b>9-10-13 1600</b>					Date/Time <b>9-11-13 1130</b>					Date/Time							
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day																	
REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data																	
INVOICE INFORMATION PO # BILL TO:																	
RECEIVED BY <b>R1306655</b>																	



October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307320  
Date Collected: 9/10/13 0915  
Date Received: 9/11/13  
Pre-Prep Date: 10/6/13

Sample Name: E5322B01 (2-4)  
Lab Code: R1307320-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	1.28	mg/L	0.010	1	10/9/13	10/10/13 19:17	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (2-4)  
**Lab Code:** R1307320-004  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307320  
Date Collected: 9/10/13 0915  
Date Received: 9/11/13  
Pre-Prep Date: 10/6/13

Sample Name: E5322B01 (8-10)  
Lab Code: R1307320-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.013		mg/L	0.010	1	10/9/13	10/10/13 19:23	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01 (8-10)  
**Lab Code:** R1307320-005  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13 1010  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/6/13

**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1307320-006

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.014		mg/L	0.010	1	10/9/13	10/10/13 19:29	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B01D (8-10)  
**Lab Code:** R1307320-006  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13

**Date Received:** 9/11/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307320  
**Date Collected:** 9/10/13 1015  
**Date Received:** 9/11/13  
**Pre-Prep Date:** 10/6/13

**Sample Name:** E5322B03 (6-8)  
**Lab Code:** R1307320-007

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.038	mg/L	0.010	1	10/9/13	10/10/13 19:35	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5322B03 (6-8)  
**Lab Code:** R1307320-007  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/10/13  
**Date Received:** 9/11/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16210 and 16214 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.587980° Longitude: -88.180624°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.587980° Longitude: -88.180624°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5323B01 was sampled within the construction zone adjacent to ISGS #2141A-23 (Commercial Buildings). Refer to PSI Report for ISGS #2141A-23 (Commercial Buildings) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

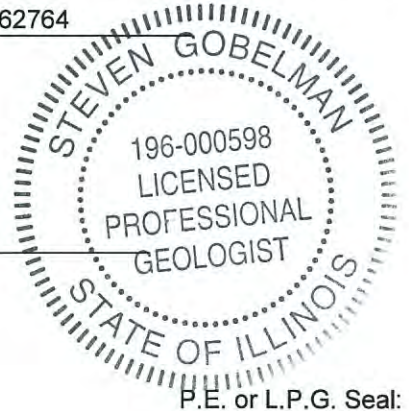
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

  
 Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-23 (Commercial Buildings)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	E5323B01				
<b>SAMPLE</b>	E5323B01 (4-6)	<b>Most Stringent</b>	<b>Within an MSA</b>	<b>Within Chicago</b>	<b>SCGIER</b>
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	1.2-1.8				
<b>pH</b>	8.63				
<b>VOCs (µg/kg)</b>					
Toluene	1.4 J	12,000	--	--	--
<b>SVOCs (µg/kg)</b>					
Diethyl Phthalate	110 J	470,000	--	--	--
Di-n-butyl Phthalate	120 J	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	1,530	--	--	--	--
Arsenic	2.99	11.3	13	--	--
Barium	8.9	1,500	--	--	--
Beryllium	0.05 J	22	--	--	--
Calcium	132,000	--	--	--	--
Chromium	9.41	21	--	--	--
Cobalt	2.2 J	20	--	--	--
Copper	8.9	2,900	--	--	--
Iron	6,190	15,000	15,900	--	--
Lead	3.0 J	107	--	--	--
Magnesium	75,600	325,000	--	--	--
Manganese	295	630	636	--	--
Nickel	5.1	100	--	--	--
Potassium	390	--	--	--	--
Vanadium	5.4	550	--	--	--
Zinc	20.3	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Calcium	955	--	--	--	--
Iron	0.21	--	--	--	5
Magnesium	471	--	--	--	--
Manganese	4.34 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	0.020	--	--	--	0.15



October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5323B01 (4-6)  
**Lab Code:** R1306652-017

**Service Request:** R1306652  
**Date Collected:** 9/11/13 1145  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.63	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306652-017

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/19/13	9/25/13 17:09	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 17:09	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:09	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:09	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 17:09	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:09	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Calcium	6010C	955		mg/L	10	10	9/19/13	9/26/13 12:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:09	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Iron	6010C	0.21		mg/L	0.10	1	9/19/13	9/25/13 17:09	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Magnesium	6010C	471		mg/L	1.0	1	9/19/13	9/25/13 17:09	
Manganese	6010C	4.34		mg/L	0.010	1	9/19/13	9/25/13 17:09	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:11	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 19:05	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:09	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 17:09	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:09	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:09	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5323B01 (4-6)  
**Lab Code:** R1306652-017  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/11/13  
**Date Received:** 9/12/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

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|---|--|
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Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5323B01 (4-6)  
Lab Code: R1306655-017

Service Request: R1306655  
Date Collected: 9/11/13 1145  
Date Received: 9/12/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	97.3	Percent	1.0	1	NA	9/16/13 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5323B01 (4-6)  
**Lab Code:** R1306655-017

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1145  
**Date Received:** 9/12/13

**Basis:** Dry  
**Percent Solids:** 97.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	1530		mg/Kg	10	2.8	1	9/23/13	9/25/13 02:36	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.0	0.2	1	9/23/13	9/25/13 02:36	
Arsenic, Total	6010C	2.99		mg/Kg	1.0	0.40	1	9/23/13	9/25/13 02:36	
Barium, Total	6010C	8.9		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 02:36	
Beryllium, Total	6010C	0.05	J	mg/Kg	0.30	0.03	1	9/23/13	9/25/13 02:36	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/23/13	9/25/13 02:36	
Cadmium, Total	6010C	0.50	U	mg/Kg	0.50	0.06	1	9/23/13	9/25/13 02:36	
Calcium, Total	6010C	132000		mg/Kg	1000	290	10	9/23/13	9/24/13 21:18	
Chromium, Total	6010C	9.41		mg/Kg	1.0	0.10	1	9/23/13	9/25/13 02:36	
Cobalt, Total	6010C	2.2	J	mg/Kg	5.0	0.06	1	9/23/13	9/25/13 02:36	
Copper, Total	6010C	8.9		mg/Kg	2.0	0.7	1	9/23/13	9/25/13 02:36	
Iron, Total	6010C	6190		mg/Kg	100	53	10	9/23/13	9/24/13 21:18	
Lead, Total	6010C	3.0	J	mg/Kg	5.0	0.2	1	9/23/13	9/25/13 02:36	
Magnesium, Total	6010C	75600		mg/Kg	1000	20	10	9/23/13	9/24/13 21:18	
Manganese, Total	6010C	295		mg/Kg	1.0	0.11	1	9/23/13	9/25/13 02:36	
Mercury, Total	7471B	0.032	U	mg/Kg	0.032	0.006	1	9/18/13	9/19/13 18:09	
Nickel, Total	6010C	5.1		mg/Kg	4.0	0.09	1	9/23/13	9/25/13 02:36	
Potassium, Total	6010C	390		mg/Kg	200	20	1	9/23/13	9/25/13 02:36	
Selenium, Total	6010C	1.0	U	mg/Kg	1.0	0.29	1	9/23/13	9/25/13 02:36	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/23/13	9/25/13 02:36	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.36	1	9/23/13	9/25/13 02:36	
Vanadium, Total	6010C	5.4		mg/Kg	5.0	0.05	1	9/23/13	9/25/13 02:36	
Zinc, Total	6010C	20.3		mg/Kg	2.0	0.08	1	9/23/13	9/25/13 02:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 16:09

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306655-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 97.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5094.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .81

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.2	U	4.2	2.4	
71-43-2	Benzene	4.2	U	4.2	0.25	
75-27-4	Bromodichloromethane	4.2	U	4.2	0.51	
75-25-2	Bromoform	4.2	U	4.2	0.78	
74-83-9	Bromomethane	4.2	U	4.2	1.2	
78-93-3	2-Butanone (MEK)	4.2	U	4.2	2.0	
75-15-0	Carbon Disulfide	4.2	U	4.2	1.1	
56-23-5	Carbon Tetrachloride	4.2	U	4.2	0.77	
108-90-7	Chlorobenzene	4.2	U	4.2	0.25	
75-00-3	Chloroethane	4.2	U	4.2	2.4	
67-66-3	Chloroform	4.2	U	4.2	1.1	
74-87-3	Chloromethane	4.2	U	4.2	0.34	
124-48-1	Dibromochloromethane	4.2	U	4.2	0.61	
75-34-3	1,1-Dichloroethane	4.2	U	4.2	1.1	
107-06-2	1,2-Dichloroethane	4.2	U	4.2	0.51	
75-35-4	1,1-Dichloroethene	4.2	U	4.2	1.1	
156-59-2	cis-1,2-Dichloroethene	4.2	U	4.2	0.80	
156-60-5	trans-1,2-Dichloroethene	4.2	U	4.2	0.72	
78-87-5	1,2-Dichloropropane	4.2	U	4.2	0.81	
10061-01-5	cis-1,3-Dichloropropene	4.2	U	4.2	0.75	
10061-02-6	trans-1,3-Dichloropropene	4.2	U	4.2	0.17	
100-41-4	Ethylbenzene	4.2	U	4.2	0.20	
591-78-6	2-Hexanone	4.2	U	4.2	1.1	
75-09-2	Methylene Chloride	4.2	U	4.2	0.48	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	0.82	
100-42-5	Styrene	4.2	U	4.2	0.25	
79-34-5	1,1,2-Tetrachloroethane	4.2	U	4.2	0.68	
127-18-4	Tetrachloroethene	4.2	U	4.2	0.74	
108-88-3	Toluene	1.4	J	4.2	0.84	
71-55-6	1,1,1-Trichloroethane	4.2	U	4.2	0.61	
79-00-5	1,1,2-Trichloroethane	4.2	U	4.2	0.61	
79-01-6	Trichloroethene	4.2	U	4.2	0.85	
75-01-4	Vinyl Chloride	4.2	U	4.2	1.6	
95-47-6	o-Xylene	4.2	U	4.2	0.40	
179601-23-1	m,p-Xylenes	8.3	U	8.3	0.91	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 16:09

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306655-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 97.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5094.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .81

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.2 U	4.2	0.79	
1330-20-7	Xylenes, Total	12 U	12	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	51-136	9/18/13 16:09	
Toluene-d8	102	66-138	9/18/13 16:09	
Dibromofluoromethane	105	63-138	9/18/13 16:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 20:16

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306655-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 97.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS971.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	340	U	340	34	
95-50-1	1,2-Dichlorobenzene	340	U	340	38	
541-73-1	1,3-Dichlorobenzene	340	U	340	52	
106-46-7	1,4-Dichlorobenzene	340	U	340	39	
95-95-4	2,4,5-Trichlorophenol	340	U	340	60	
88-06-2	2,4,6-Trichlorophenol	340	U	340	50	
120-83-2	2,4-Dichlorophenol	340	U	340	46	
105-67-9	2,4-Dimethylphenol	340	U	340	38	
51-28-5	2,4-Dinitrophenol	1700	U	1700	150	
121-14-2	2,4-Dinitrotoluene	340	U	340	73	
606-20-2	2,6-Dinitrotoluene	340	U	340	57	
91-58-7	2-Chloronaphthalene	340	U	340	36	
95-57-8	2-Chlorophenol	340	U	340	36	
91-57-6	2-Methylnaphthalene	340	U	340	34	
95-48-7	2-Methylphenol	340	U	340	45	
88-74-4	2-Nitroaniline	1700	U	1700	290	
88-75-5	2-Nitrophenol	340	U	340	51	
91-94-1	3,3'-Dichlorobenzidine	340	U	340	62	
	3- and 4-Methylphenol Coelution	340	U	340	52	
99-09-2	3-Nitroaniline	1700	U	1700	320	
534-52-1	4,6-Dinitro-2-methylphenol	1700	U	1700	500	
101-55-3	4-Bromophenyl Phenyl Ether	340	U	340	61	
59-50-7	4-Chloro-3-methylphenol	340	U	340	38	
106-47-8	4-Chloroaniline	340	U	340	66	
7005-72-3	4-Chlorophenyl Phenyl Ether	340	U	340	48	
100-01-6	4-Nitroaniline	1700	U	1700	370	
100-02-7	4-Nitrophenol	1700	U	1700	250	
83-32-9	Acenaphthene	340	U	340	49	
208-96-8	Acenaphthylene	340	U	340	46	
120-12-7	Anthracene	340	U	340	54	
56-55-3	Benz(a)anthracene	340	U	340	53	
50-32-8	Benzo(a)pyrene	340	U	340	57	
205-99-2	Benzo(b)fluoranthene	340	U	340	83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 20:16

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306655-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 97.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS971.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	U	340	64	
207-08-9	Benzo(k)fluoranthene	340	U	340	61	
108-60-1	2,2'-Oxybis(1-chloropropane)	340	U	340	41	
111-91-1	Bis(2-chloroethoxy)methane	340	U	340	47	
111-44-4	Bis(2-chloroethyl) Ether	340	U	340	34	
117-81-7	Bis(2-ethylhexyl) Phthalate	340	U	340	47	
85-68-7	Butyl Benzyl Phthalate	340	U	340	52	
86-74-8	Carbazole	340	U	340	47	
218-01-9	Chrysene	340	U	340	48	
84-74-2	Di-n-butyl Phthalate	120	J	340	94	
117-84-0	Di-n-octyl Phthalate	340	U	340	65	
53-70-3	Dibenz(a,h)anthracene	340	U	340	92	
132-64-9	Dibenzofuran	340	U	340	38	
84-66-2	Diethyl Phthalate	110	J	340	44	
131-11-3	Dimethyl Phthalate	340	U	340	49	
206-44-0	Fluoranthene	340	U	340	55	
86-73-7	Fluorene	340	U	340	43	
118-74-1	Hexachlorobenzene	340	U	340	52	
87-68-3	Hexachlorobutadiene	340	U	340	38	
77-47-4	Hexachlorocyclopentadiene	340	U	340	54	
67-72-1	Hexachloroethane	340	U	340	47	
193-39-5	Indeno(1,2,3-cd)pyrene	340	U	340	56	
78-59-1	Isophorone	340	U	340	46	
621-64-7	N-Nitrosodi-n-propylamine	340	U	340	39	
86-30-6	N-Nitrosodiphenylamine	340	U	340	53	
91-20-3	Naphthalene	340	U	340	34	
98-95-3	Nitrobenzene	340	U	340	36	
87-86-5	Pentachlorophenol (PCP)	1700	U	1700	290	
85-01-8	Phenanthrene	340	U	340	46	
108-95-2	Phenol	340	U	340	38	
129-00-0	Pyrene	340	U	340	66	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1145  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 20:16

Sample Name: E5323B01 (4-6)  
 Lab Code: R1306655-017

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 97.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091613\CS971.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	64	41-151	9/16/13 20:16	
2-Fluorobiphenyl	78	47-126	9/16/13 20:16	
2-Fluorophenol	60	16-129	9/16/13 20:16	
Nitrobenzene-d5	75	39-136	9/16/13 20:16	
Phenol-d6	68	10-145	9/16/13 20:16	
p-Terphenyl-d14	64	35-152	9/16/13 20:16	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10658

ETS-24

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE		NUMBER OF CONTAINERS		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		REMARKS/ALTERNATE DESCRIPTION		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	GC/MS VOA CLP • 8260 • 824 • CLP	GC/MS SVOA • 8270 • 825	GC VOA • 8021 • 801/802	PESTICIDES • 8081 • 808	PCBs • 8082 • 808	GC VOA • 8021 • 801/802	PCBs • 8081 • 808	PESTICIDES • 8082 • 808	METALS TOTAL (List in comments below)	METALS DISSOLVED (List in comments below)	Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NHOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other	
ES332101 (870)	015	9-11-13	0910	So.1												
ES333301 (2-1)	016	9-11-13	1010	So.1												
ES333301		9-11-13	1030	Water												
ES333308		9-4-13	0910	Water												
ES333301 (40)	017	9-11-13	1145	So.1												
<del>ES333301 (40) 9-11-13</del>																

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO:	
STATE WHERE SAMPLES WERE COLLECTED		REQUESTED REPORT DATE		Edits Yes		RELINQUISHED	
RELINQUISHED BY	SIGNATURE	RELINQUISHED BY	SIGNATURE	RELINQUISHED BY	SIGNATURE	RELINQUISHED BY	SIGNATURE
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

See OAPP

Table Soil WA/SWA/Met only  
Spd on hold

**R1306655**  
 Ecology And Environment, Incorporated  
 IDOT US30 Plainfield PI



October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307320  
Date Collected: 9/11/13 1145  
Date Received: 9/12/13  
Pre-Prep Date: 10/10/13

Sample Name: E5323B01 (4-6)  
Lab Code: R1307320-013

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.020	mg/L	0.010	1	10/11/13	10/15/13 11:09	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5323B01 (4-6)  
**Lab Code:** R1307320-013  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

CWINKSTERN

DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16220 (23039) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.587508° Longitude: -88.180169°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805068 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.587508° Longitude: -88.180169°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location E5324B03 was sampled within the construction zone adjacent to ISGS #2141A-24 (Todds Bodyshop). Refer to PSI Report for ISGS #2141A-24 (Todds Bodyshop) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652 and R1306655.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

1/24/14  
 Date:





P.E. or L.P.G. Seal:

**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-24 (Todds Bodyshop)	Comparison Criteria			
		MACs			TACO
<b>BORING</b>	<b>E5324B03</b>				
<b>SAMPLE</b>	E5324B03 (2-4)	Most Stringent	Within an MSA	Within Chicago	SCGIER
<b>MATRIX</b>	Soil				
<b>DEPTH (meters)</b>	0.6-1.2				
<b>pH</b>	7.40				
<b>VOCs (µg/kg)</b>					
Acetone	<b>4.1 J</b>	25,000	--	--	--
Toluene	<b>3.1 J</b>	12,000	--	--	--
<b>SVOCs (µg/kg)</b>					
Diethyl Phthalate	<b>110 J</b>	470,000	--	--	--
Di-n-butyl Phthalate	<b>160 J</b>	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	<b>19,700</b>	--	--	--	--
Arsenic	<b>12.4 †</b>	11.3	13	--	--
Barium	<b>135</b>	1,500	--	--	--
Beryllium	<b>1.41</b>	22	--	--	--
Boron	<b>25 J</b>	40	--	--	--
Cadmium	<b>0.71</b>	5.2	--	--	--
Calcium	<b>4,220</b>	--	--	--	--
Chromium	<b>25.0 †</b>	21	--	--	--
Cobalt	<b>11.1</b>	20	--	--	--
Copper	<b>22.7</b>	2,900	--	--	--
Iron	<b>36,300 †m</b>	15,000	15,900	--	--
Lead	<b>18.1</b>	107	--	--	--
Magnesium	<b>5,030</b>	325,000	--	--	--
Manganese	<b>1,110 †m</b>	630	636	--	--
Mercury	<b>0.063</b>	0.89	--	--	--
Nickel	<b>27.8</b>	100	--	--	--
Potassium	<b>1,210</b>	--	--	--	--
Vanadium	<b>41.1</b>	550	--	--	--
Zinc	<b>82.9</b>	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	<b>0.61</b>	--	--	--	--
Calcium	<b>96</b>	--	--	--	--
Iron	<b>0.31</b>	--	--	--	5
Magnesium	<b>52.0</b>	--	--	--	--
Manganese	<b>0.080</b>	--	--	--	0.15



October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5324B03 (2-4)  
**Lab Code:** R1306652-018

**Service Request:** R1306652  
**Date Collected:** 9/11/13 1255  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.40	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/11/13 1255  
 Date Received: 9/12/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5324B03 (2-4)  
 Lab Code: R1306652-018

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.61		mg/L	0.20	1	9/19/13	9/25/13 17:15	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 17:15	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:15	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:15	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 17:15	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:15	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Calcium	6010C	96		mg/L	10	10	9/19/13	9/26/13 12:51	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:15	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Iron	6010C	0.31		mg/L	0.10	1	9/19/13	9/25/13 17:15	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Magnesium	6010C	52.0		mg/L	1.0	1	9/19/13	9/25/13 17:15	
Manganese	6010C	0.080		mg/L	0.010	1	9/19/13	9/25/13 17:15	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:12	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/26/13 19:11	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:15	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 17:15	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:15	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:15	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5324B03 (2-4)  
**Lab Code:** R1306652-018  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/11/13  
**Date Received:** 9/12/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

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|---|--|
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Connecticut ID # PH0556	Nebraska Accredited	
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DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5324B03 (2-4)  
Lab Code: R1306655-018

Service Request: R1306655  
Date Collected: 9/11/13 1255  
Date Received: 9/12/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	77.3	Percent	1.0	1	NA	9/16/13 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5324B03 (2-4)  
 Lab Code: R1306655-018

Service Request: R1306655  
 Date Collected: 9/11/13 1255  
 Date Received: 9/12/13

Basis: Dry  
 Percent Solids: 77.3

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	19700		mg/Kg	12	4	1	9/23/13	9/25/13 02:42	
Antimony, Total	6010C	1.1	BJ	mg/Kg	7.5	0.3	1	9/23/13	9/25/13 02:42	
Arsenic, Total	6010C	12.4		mg/Kg	1.2	0.5	1	9/23/13	9/25/13 02:42	
Barium, Total	6010C	135		mg/Kg	2.5	0.10	1	9/23/13	9/25/13 02:42	
Beryllium, Total	6010C	1.41		mg/Kg	0.37	0.04	1	9/23/13	9/25/13 02:42	
Boron, Total	6010C	25	J	mg/Kg	25	5	1	9/23/13	9/25/13 02:42	
Cadmium, Total	6010C	0.71		mg/Kg	0.62	0.08	1	9/23/13	9/25/13 02:42	
Calcium, Total	6010C	4220		mg/Kg	120	40	1	9/23/13	9/27/13 10:13	
Chromium, Total	6010C	25.0		mg/Kg	1.2	0.2	1	9/23/13	9/25/13 02:42	
Cobalt, Total	6010C	11.1		mg/Kg	6.2	0.07	1	9/23/13	9/25/13 02:42	
Copper, Total	6010C	22.7		mg/Kg	2.5	0.8	1	9/23/13	9/25/13 02:42	
Iron, Total	6010C	36300		mg/Kg	120	70	10	9/23/13	9/24/13 21:24	
Lead, Total	6010C	18.1		mg/Kg	6.2	0.3	1	9/23/13	9/25/13 02:42	
Magnesium, Total	6010C	5030		mg/Kg	120	2	1	9/23/13	9/25/13 02:42	
Manganese, Total	6010C	1110		mg/Kg	1.2	0.2	1	9/23/13	9/25/13 02:42	
Mercury, Total	7471B	0.063		mg/Kg	0.041	0.007	1	9/18/13	9/19/13 18:11	
Nickel, Total	6010C	27.8		mg/Kg	5.0	0.2	1	9/23/13	9/25/13 02:42	
Potassium, Total	6010C	1210		mg/Kg	250	20	1	9/23/13	9/25/13 02:42	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/23/13	9/25/13 02:42	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/23/13	9/25/13 02:42	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/23/13	9/25/13 02:42	
Vanadium, Total	6010C	41.1		mg/Kg	6.2	0.07	1	9/23/13	9/25/13 02:42	
Zinc, Total	6010C	82.9		mg/Kg	2.5	0.09	1	9/23/13	9/25/13 02:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1255  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 16:46

Sample Name: E5324B03 (2-4)  
 Lab Code: R1306655-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5095.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .79

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.1	J	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.96	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.95	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.98	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	1.0	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.1	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.90	
108-88-3	Toluene	3.1	J	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1255  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 16:46

Sample Name: E5324B03 (2-4)  
 Lab Code: R1306655-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\091813\K5095.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .79

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.97	
1330-20-7	Xylenes, Total	15	U	15	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	51-136	9/18/13 16:46	
Toluene-d8	98	66-138	9/18/13 16:46	
Dibromofluoromethane	101	63-138	9/18/13 16:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1255  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 20:53

Sample Name: E5324B03 (2-4)  
 Lab Code: R1306655-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091613\CS972.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	430	U	430	43	
95-50-1	1,2-Dichlorobenzene	430	U	430	48	
541-73-1	1,3-Dichlorobenzene	430	U	430	65	
106-46-7	1,4-Dichlorobenzene	430	U	430	49	
95-95-4	2,4,5-Trichlorophenol	430	U	430	75	
88-06-2	2,4,6-Trichlorophenol	430	U	430	63	
120-83-2	2,4-Dichlorophenol	430	U	430	57	
105-67-9	2,4-Dimethylphenol	430	U	430	48	
51-28-5	2,4-Dinitrophenol	2200	U	2200	180	
121-14-2	2,4-Dinitrotoluene	430	U	430	92	
606-20-2	2,6-Dinitrotoluene	430	U	430	71	
91-58-7	2-Chloronaphthalene	430	U	430	45	
95-57-8	2-Chlorophenol	430	U	430	45	
91-57-6	2-Methylnaphthalene	430	U	430	43	
95-48-7	2-Methylphenol	430	U	430	56	
88-74-4	2-Nitroaniline	2200	U	2200	360	
88-75-5	2-Nitrophenol	430	U	430	64	
91-94-1	3,3'-Dichlorobenzidine	430	U	430	78	
	3- and 4-Methylphenol Coelution	430	U	430	65	
99-09-2	3-Nitroaniline	2200	U	2200	400	
534-52-1	4,6-Dinitro-2-methylphenol	2200	U	2200	630	
101-55-3	4-Bromophenyl Phenyl Ether	430	U	430	77	
59-50-7	4-Chloro-3-methylphenol	430	U	430	47	
106-47-8	4-Chloroaniline	430	U	430	83	
7005-72-3	4-Chlorophenyl Phenyl Ether	430	U	430	61	
100-01-6	4-Nitroaniline	2200	U	2200	470	
100-02-7	4-Nitrophenol	2200	U	2200	310	
83-32-9	Acenaphthene	430	U	430	61	
208-96-8	Acenaphthylene	430	U	430	57	
120-12-7	Anthracene	430	U	430	67	
56-55-3	Benz(a)anthracene	430	U	430	66	
50-32-8	Benzo(a)pyrene	430	U	430	72	
205-99-2	Benzo(b)fluoranthene	430	U	430	110	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 12:55  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/16/13 20:53

Sample Name: E5324B03 (2-4)  
 Lab Code: R1306655-018

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 77.3

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091613\CS972.D\

Analysis Lot: 358693  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	430	U	430	81	
207-08-9	Benzo(k)fluoranthene	430	U	430	77	
108-60-1	2,2'-Oxybis(1-chloropropane)	430	U	430	52	
111-91-1	Bis(2-chloroethoxy)methane	430	U	430	59	
111-44-4	Bis(2-chloroethyl) Ether	430	U	430	43	
117-81-7	Bis(2-ethylhexyl) Phthalate	430	U	430	59	
85-68-7	Butyl Benzyl Phthalate	430	U	430	66	
86-74-8	Carbazole	430	U	430	59	
218-01-9	Chrysene	430	U	430	60	
84-74-2	Di-n-butyl Phthalate	160	J	430	120	
117-84-0	Di-n-octyl Phthalate	430	U	430	82	
53-70-3	Dibenz(a,h)anthracene	430	U	430	120	
132-64-9	Dibenzofuran	430	U	430	47	
84-66-2	Diethyl Phthalate	110	J	430	56	
131-11-3	Dimethyl Phthalate	430	U	430	61	
206-44-0	Fluoranthene	430	U	430	69	
86-73-7	Fluorene	430	U	430	54	
118-74-1	Hexachlorobenzene	430	U	430	65	
87-68-3	Hexachlorobutadiene	430	U	430	48	
77-47-4	Hexachlorocyclopentadiene	430	U	430	68	
67-72-1	Hexachloroethane	430	U	430	60	
193-39-5	Indeno(1,2,3-cd)pyrene	430	U	430	71	
78-59-1	Isophorone	430	U	430	57	
621-64-7	N-Nitrosodi-n-propylamine	430	U	430	49	
86-30-6	N-Nitrosodiphenylamine	430	U	430	67	
91-20-3	Naphthalene	430	U	430	43	
98-95-3	Nitrobenzene	430	U	430	46	
87-86-5	Pentachlorophenol (PCP)	2200	U	2200	360	
85-01-8	Phenanthrene	430	U	430	58	
108-95-2	Phenol	430	U	430	47	
129-00-0	Pyrene	430	U	430	83	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1255  
**Date Received:** 9/12/13  
**Date Extracted:** 9/13/13  
**Date Analyzed:** 9/16/13 20:53

**Sample Name:** E5324B03 (2-4)  
**Lab Code:** R1306655-018

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 77.3

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\091613\CS972.D\

**Analysis Lot:** 358693  
**Extraction Lot:** 191633  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	76	41-151	9/16/13 20:53	
2-Fluorobiphenyl	75	47-126	9/16/13 20:53	
2-Fluorophenol	64	16-129	9/16/13 20:53	
Nitrobenzene-d5	73	39-136	9/16/13 20:53	
Phenol-d6	67	10-145	9/16/13 20:53	
p-Terphenyl-d14	73	35-152	9/16/13 20:53	





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16300 (23011) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.587106° Longitude: -88.179215°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970800002 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.587106° Longitude: -88.179215°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Locations E5325B01, E5325B02, and E5325B03 were sampled within the construction zone adjacent to ISGS #2141A-25 (Route 30 Plex). Refer to PSI Report for ISGS #2141A-25 (Route 30 Plex) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306775, R1306776, and R1307413.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

11/24/14

Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

## CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-25 (Route 30 Plex)			Comparison Criteria			
	E5325B01	E5325B02	E5325B03	MACs			TACO
BORING	E5325B01 (0-2)	E5325B02 (0-2)	E5325B03 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE	Soil	Soil	Soil				
MATRIX	0.0-0.6	0.0-0.6	0.0-0.6				
DEPTH (meters)	7.42	8.34	8.47				
pH							
<b>VOCs (µg/kg)</b>							
Toluene	ND U	1.2 J	ND U	12,000	--	--	--
<b>SVOCs (µg/kg)</b>							
Benzo(a)anthracene	260 J	ND U	ND U	900	1,800	1,100	--
Benzo(a)pyrene	370 J †	65 J	ND U	90	2,100	1,300	--
Benzo(b)fluoranthene	410 J	ND U	ND U	900	2,100	1,500	--
Benzo(g,h,i)perylene	340 J	ND U	ND U	--	--	--	--
Benzo(k)fluoranthene	370 J	ND U	ND U	9,000	--	--	--
Chrysene	410 J	77 J	ND U	88,000	--	--	--
Fluoranthene	720 J	93 J	ND U	3,100,000	--	--	--
Indeno(1,2,3-cd)pyrene	290 J	ND U	ND U	900	1,600	900	--
Phenanthrene	440 J	52 J	ND U	--	--	--	--
Pyrene	550 J	73 J	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>							
Aluminum	10,500	9,020	4,430	--	--	--	--
Arsenic	4.8	7.3	6.2	11.3	13	--	--
Barium	136	62.0	31.1	1,500	--	--	--
Beryllium	0.62	0.55	0.33	22	--	--	--
Cadmium	0.24 J	ND U	ND U	5.2	--	--	--
Calcium	17,000	65,300	134,000	--	--	--	--
Chromium	14.9	13.1	8.0	21	--	--	--
Cobalt	6.8	5.9	4.0 J	20	--	--	--
Copper	16.5	14.3	10.0	2,900	--	--	--
Iron	16,900 †m	20,000 †m	11,400	15,000	15,900	--	--
Lead	16.9	42.0	70.8	107	--	--	--
Magnesium	9,200	37,700	82,300	325,000	--	--	--
Manganese	463	562	402	630	636	--	--
Mercury	0.009 J	0.017 J	ND U	0.89	--	--	--
Nickel	12.6	12.0	9.7	100	--	--	--
Potassium	950	860	940	--	--	--	--
Selenium	0.7 J	ND U	ND U	1.3	--	--	--
Silver	ND U	ND U	0.2 J	4.4	--	--	--
Vanadium	21.1	23.7	15.4	550	--	--	--
Zinc	65.3	50.5	43.1	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>							
Calcium	841	322	355	--	--	--	--
Iron	0.35	ND U	0.12	--	--	--	5
Magnesium	308	113	98.1	--	--	--	--
Manganese	5.26 L	2.31 L	2.59 L	--	--	--	0.15
Zinc	0.15	ND U	ND U	--	--	--	5
<b>SPLP Metals (mg/L)</b>							
Manganese	ND U	0.182 L	0.209 L	--	--	--	0.15



October 03, 2013

Service Request No: R1306775

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306775**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted;

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 152



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B01 (0-2)  
**Lab Code:** R1306775-005

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1025  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	95.6	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Service Request: R1306775  
 Date Collected: 9/13/13 1025  
 Date Received: 9/16/13

Basis: Dry  
 Percent Solids: 95.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10500		mg/Kg	10	3	1	9/24/13	9/29/13 15:32	
Antimony, Total	6010C	0.2	BJ	mg/Kg	6.0	0.2	1	9/24/13	9/29/13 15:32	
Arsenic, Total	6010C	4.8		mg/Kg	1.0	0.4	1	9/24/13	9/29/13 15:32	
Barium, Total	6010C	136		mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:32	
Beryllium, Total	6010C	0.62		mg/Kg	0.30	0.03	1	9/24/13	9/29/13 15:32	
Boron, Total	6010C	20	U	mg/Kg	20	4	1	9/24/13	9/29/13 15:32	
Cadmium, Total	6010C	0.24	J	mg/Kg	0.50	0.07	1	9/24/13	9/29/13 15:32	
Calcium, Total	6010C	17000		mg/Kg	1000	300	10	9/24/13	10/1/13 02:27	
Chromium, Total	6010C	14.9		mg/Kg	1.0	0.10	1	9/24/13	9/29/13 15:32	
Cobalt, Total	6010C	6.8		mg/Kg	5.0	0.06	1	9/24/13	9/29/13 15:32	
Copper, Total	6010C	16.5		mg/Kg	2.0	0.7	1	9/24/13	9/29/13 15:32	
Iron, Total	6010C	16900		mg/Kg	100	60	10	9/24/13	9/27/13 18:09	
Lead, Total	6010C	16.9		mg/Kg	5.0	0.3	1	9/24/13	9/29/13 15:32	
Magnesium, Total	6010C	9200		mg/Kg	1000	20	10	9/24/13	9/27/13 18:09	
Manganese, Total	6010C	463		mg/Kg	10	2	10	9/24/13	9/27/13 18:09	
Mercury, Total	7471B	0.009	J	mg/Kg	0.032	0.006	1	9/23/13	9/23/13 14:59	
Nickel, Total	6010C	12.6		mg/Kg	4.0	0.09	1	9/24/13	9/29/13 15:32	
Potassium, Total	6010C	950		mg/Kg	200	20	1	9/24/13	9/29/13 15:32	
Selenium, Total	6010C	0.7	J	mg/Kg	1.0	0.3	1	9/24/13	9/29/13 15:32	
Silver, Total	6010C	1.0	U	mg/Kg	1.0	0.08	1	9/24/13	9/29/13 15:32	
Thallium, Total	6010C	1.0	U	mg/Kg	1.0	0.4	1	9/24/13	9/29/13 15:32	
Vanadium, Total	6010C	21.1		mg/Kg	5.0	0.05	1	9/24/13	9/29/13 15:32	
Zinc, Total	6010C	65.3		mg/Kg	2.0	0.08	1	9/24/13	9/29/13 15:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1025  
 Date Received: 9/16/13  
 Date Analyzed: 9/19/13 12:00

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091913\K5110.D\

Analysis Lot: 359426  
 Instrument Name: R-MS-07  
 Dilution Factor: .95

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.0	U	5.0	2.8	
71-43-2	Benzene	5.0	U	5.0	0.29	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.61	
75-25-2	Bromoform	5.0	U	5.0	0.93	
74-83-9	Bromomethane	5.0	U	5.0	1.4	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.3	
75-15-0	Carbon Disulfide	5.0	U	5.0	1.3	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.92	
108-90-7	Chlorobenzene	5.0	U	5.0	0.29	
75-00-3	Chloroethane	5.0	U	5.0	2.9	
67-66-3	Chloroform	5.0	U	5.0	1.3	
74-87-3	Chloromethane	5.0	U	5.0	0.40	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.73	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.3	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.61	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.3	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.95	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.86	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.97	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.90	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.20	
100-41-4	Ethylbenzene	5.0	U	5.0	0.23	
591-78-6	2-Hexanone	5.0	U	5.0	1.3	
75-09-2	Methylene Chloride	5.0	U	5.0	0.57	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.98	
100-42-5	Styrene	5.0	U	5.0	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.81	
127-18-4	Tetrachloroethene	5.0	U	5.0	0.88	
108-88-3	Toluene	5.0	U	5.0	1.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.73	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.73	
79-01-6	Trichloroethene	5.0	U	5.0	1.1	
75-01-4	Vinyl Chloride	5.0	U	5.0	1.9	
95-47-6	o-Xylene	5.0	U	5.0	0.48	
179601-23-1	m,p-Xylenes	9.9	U	9.9	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1025  
 Date Received: 9/16/13  
 Date Analyzed: 9/19/13 12:00

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091913\K5110.D\

Analysis Lot: 359426  
 Instrument Name: R-MS-07  
 Dilution Factor: .95

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.0 U	5.0	0.94	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	51-136	9/19/13 12:00	
Toluene-d8	98	66-138	9/19/13 12:00	
Dibromofluoromethane	104	63-138	9/19/13 12:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 10:25  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 18:25

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\092413\CT099.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	1000	U	1000	110	
95-50-1	1,2-Dichlorobenzene	1000	U	1000	120	
541-73-1	1,3-Dichlorobenzene	1000	U	1000	160	
106-46-7	1,4-Dichlorobenzene	1000	U	1000	120	
95-95-4	2,4,5-Trichlorophenol	1000	U	1000	190	
88-06-2	2,4,6-Trichlorophenol	1000	U	1000	160	
120-83-2	2,4-Dichlorophenol	1000	U	1000	140	
105-67-9	2,4-Dimethylphenol	1000	U	1000	120	
51-28-5	2,4-Dinitrophenol	5300	U	5300	440	
121-14-2	2,4-Dinitrotoluene	1000	U	1000	230	
606-20-2	2,6-Dinitrotoluene	1000	U	1000	180	
91-58-7	2-Chloronaphthalene	1000	U	1000	110	
95-57-8	2-Chlorophenol	1000	U	1000	110	
91-57-6	2-Methylnaphthalene	1000	U	1000	110	
95-48-7	2-Methylphenol	1000	U	1000	140	
88-74-4	2-Nitroaniline	5300	U	5300	860	
88-75-5	2-Nitrophenol	1000	U	1000	160	
91-94-1	3,3'-Dichlorobenzidine	1000	U	1000	190	
	3- and 4-Methylphenol Coelution	1000	U	1000	160	
99-09-2	3-Nitroaniline	5300	U	5300	970	
534-52-1	4,6-Dinitro-2-methylphenol	5300	U	5300	1600	
101-55-3	4-Bromophenyl Phenyl Ether	1000	U	1000	190	
59-50-7	4-Chloro-3-methylphenol	1000	U	1000	120	
106-47-8	4-Chloroaniline	1000	U	1000	210	
7005-72-3	4-Chlorophenyl Phenyl Ether	1000	U	1000	150	
100-01-6	4-Nitroaniline	5300	U	5300	1200	
100-02-7	4-Nitrophenol	5300	U	5300	750	
83-32-9	Acenaphthene	1000	U	1000	150	
208-96-8	Acenaphthylene	1000	U	1000	140	
120-12-7	Anthracene	1000	U	1000	170	
56-55-3	Benz(a)anthracene	260	J	1000	160	
50-32-8	Benzo(a)pyrene	370	J	1000	180	
205-99-2	Benzo(b)fluoranthene	410	J	1000	260	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 10:25  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 18:25

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\092413\CT099.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 3

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	340	J	1000	200	
207-08-9	Benzo(k)fluoranthene	370	J	1000	190	
108-60-1	2,2'-Oxybis(1-chloropropane)	1000	U	1000	130	
111-91-1	Bis(2-chloroethoxy)methane	1000	U	1000	150	
111-44-4	Bis(2-chloroethyl) Ether	1000	U	1000	110	
117-81-7	Bis(2-ethylhexyl) Phthalate	1000	U	1000	150	
85-68-7	Butyl Benzyl Phthalate	1000	U	1000	160	
86-74-8	Carbazole	1000	U	1000	150	
218-01-9	Chrysene	410	J	1000	150	
84-74-2	Di-n-butyl Phthalate	1000	U	1000	290	
117-84-0	Di-n-octyl Phthalate	1000	U	1000	200	
53-70-3	Dibenz(a,h)anthracene	1000	U	1000	280	
132-64-9	Dibenzofuran	1000	U	1000	120	
84-66-2	Diethyl Phthalate	1000	U	1000	140	
131-11-3	Dimethyl Phthalate	1000	U	1000	150	
206-44-0	Fluoranthene	720	J	1000	170	
86-73-7	Fluorene	1000	U	1000	130	
118-74-1	Hexachlorobenzene	1000	U	1000	160	
87-68-3	Hexachlorobutadiene	1000	U	1000	120	
77-47-4	Hexachlorocyclopentadiene	1000	U	1000	170	
67-72-1	Hexachloroethane	1000	U	1000	150	
193-39-5	Indeno(1,2,3-cd)pyrene	290	J	1000	180	
78-59-1	Isophorone	1000	U	1000	140	
621-64-7	N-Nitrosodi-n-propylamine	1000	U	1000	120	
86-30-6	N-Nitrosodiphenylamine	1000	U	1000	170	
91-20-3	Naphthalene	1000	U	1000	110	
98-95-3	Nitrobenzene	1000	U	1000	110	
87-86-5	Pentachlorophenol (PCP)	5300	U	5300	860	
85-01-8	Phenanthrene	440	J	1000	140	
108-95-2	Phenol	1000	U	1000	120	
129-00-0	Pyrene	550	J	1000	210	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 10:25  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 18:25

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306775-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 95.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\092413\CT099.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 3

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	56	41-151	9/24/13 18:25	
2-Fluorobiphenyl	62	47-126	9/24/13 18:25	
2-Fluorophenol	55	16-129	9/24/13 18:25	
Nitrobenzene-d5	58	39-136	9/24/13 18:25	
Phenol-d6	59	10-145	9/24/13 18:25	
p-Terphenyl-d14	76	35-152	9/24/13 18:25	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B01 (0-2)  
**Lab Code:** R1306775-005  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13  
**Date Received:** 9/16/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1306775-006

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1110  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	90.0	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5325B02 (0-2)  
 Lab Code: R1306775-006

Service Request: R1306775  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13

Basis: Dry  
 Percent Solids: 90.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	9020		mg/Kg	11	3	1	9/24/13	9/29/13 15:39	
Antimony, Total	6010C	6.4	U	mg/Kg	6.4	0.3	1	9/24/13	9/29/13 15:39	
Arsenic, Total	6010C	7.3		mg/Kg	1.1	0.5	1	9/24/13	9/29/13 15:39	
Barium, Total	6010C	62.0		mg/Kg	2.1	0.08	1	9/24/13	9/29/13 15:39	
Beryllium, Total	6010C	0.55		mg/Kg	0.32	0.03	1	9/24/13	9/29/13 15:39	
Boron, Total	6010C	21	U	mg/Kg	21	4	1	9/24/13	9/29/13 15:39	
Cadmium, Total	6010C	0.53	U	mg/Kg	0.53	0.07	1	9/24/13	9/29/13 15:39	
Calcium, Total	6010C	65300		mg/Kg	2100	700	20	9/24/13	10/1/13 02:34	
Chromium, Total	6010C	13.1		mg/Kg	1.1	0.2	1	9/24/13	9/29/13 15:39	
Cobalt, Total	6010C	5.9		mg/Kg	5.3	0.06	1	9/24/13	9/29/13 15:39	
Copper, Total	6010C	14.3		mg/Kg	2.1	0.7	1	9/24/13	9/29/13 15:39	
Iron, Total	6010C	20000		mg/Kg	110	60	10	9/24/13	9/27/13 18:15	
Lead, Total	6010C	42.0		mg/Kg	5.3	0.3	1	9/24/13	9/29/13 15:39	
Magnesium, Total	6010C	37700		mg/Kg	1100	20	10	9/24/13	9/27/13 18:15	
Manganese, Total	6010C	562		mg/Kg	11	2	10	9/24/13	9/27/13 18:15	
Mercury, Total	7471B	0.017	J	mg/Kg	0.035	0.006	1	9/23/13	9/23/13 15:01	
Nickel, Total	6010C	12.0		mg/Kg	4.3	0.09	1	9/24/13	9/29/13 15:39	
Potassium, Total	6010C	860		mg/Kg	210	20	1	9/24/13	9/29/13 15:39	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:39	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/24/13	9/29/13 15:39	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:39	
Vanadium, Total	6010C	23.7		mg/Kg	5.3	0.06	1	9/24/13	9/29/13 15:39	
Zinc, Total	6010C	50.5		mg/Kg	2.1	0.08	1	9/24/13	9/29/13 15:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Date Analyzed: 9/18/13 21:13

Sample Name: E5325B02 (0-2)  
 Lab Code: R1306775-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9865.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .72

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.0 U	4.0	2.3	
71-43-2	Benzene	4.0 U	4.0	0.24	
75-27-4	Bromodichloromethane	4.0 U	4.0	0.49	
75-25-2	Bromoform	4.0 U	4.0	0.75	
74-83-9	Bromomethane	4.0 U	4.0	1.2	
78-93-3	2-Butanone (MEK)	4.0 U	4.0	1.9	
75-15-0	Carbon Disulfide	4.0 U	4.0	1.0	
56-23-5	Carbon Tetrachloride	4.0 U	4.0	0.74	
108-90-7	Chlorobenzene	4.0 U	4.0	0.24	
75-00-3	Chloroethane	4.0 U	4.0	2.3	
67-66-3	Chloroform	4.0 U	4.0	1.1	
74-87-3	Chloromethane	4.0 U	4.0	0.32	
124-48-1	Dibromochloromethane	4.0 U	4.0	0.59	
75-34-3	1,1-Dichloroethane	4.0 U	4.0	1.0	
107-06-2	1,2-Dichloroethane	4.0 U	4.0	0.49	
75-35-4	1,1-Dichloroethene	4.0 U	4.0	1.1	
156-59-2	cis-1,2-Dichloroethene	4.0 U	4.0	0.76	
156-60-5	trans-1,2-Dichloroethene	4.0 U	4.0	0.69	
78-87-5	1,2-Dichloropropane	4.0 U	4.0	0.78	
10061-01-5	cis-1,3-Dichloropropene	4.0 U	4.0	0.73	
10061-02-6	trans-1,3-Dichloropropene	4.0 U	4.0	0.16	
100-41-4	Ethylbenzene	4.0 U	4.0	0.19	
591-78-6	2-Hexanone	4.0 U	4.0	0.97	
75-09-2	Methylene Chloride	4.0 U	4.0	0.46	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	4.0	0.79	
100-42-5	Styrene	4.0 U	4.0	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.0 U	4.0	0.65	
127-18-4	Tetrachloroethene	4.0 U	4.0	0.71	
108-88-3	Toluene	1.2 J	4.0	0.80	
71-55-6	1,1,1-Trichloroethane	4.0 U	4.0	0.59	
79-00-5	1,1,2-Trichloroethane	4.0 U	4.0	0.59	
79-01-6	Trichloroethene	4.0 U	4.0	0.81	
75-01-4	Vinyl Chloride	4.0 U	4.0	1.5	
95-47-6	o-Xylene	4.0 U	4.0	0.39	
179601-23-1	m,p-Xylenes	8.0 U	8.0	0.88	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Date Analyzed: 9/18/13 21:13

Sample Name: E5325B02 (0-2)  
 Lab Code: R1306775-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9865.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: .72

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.0	U	4.0	0.76	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	51-136	9/18/13 21:13	
Toluene-d8	105	66-138	9/18/13 21:13	
Dibromofluoromethane	103	63-138	9/18/13 21:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 19:02

Sample Name: E5325B02 (0-2)  
 Lab Code: R1306775-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT100.D

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	370	U	370	37	
95-50-1	1,2-Dichlorobenzene	370	U	370	41	
541-73-1	1,3-Dichlorobenzene	370	U	370	56	
106-46-7	1,4-Dichlorobenzene	370	U	370	42	
95-95-4	2,4,5-Trichlorophenol	370	U	370	64	
88-06-2	2,4,6-Trichlorophenol	370	U	370	54	
120-83-2	2,4-Dichlorophenol	370	U	370	49	
105-67-9	2,4-Dimethylphenol	370	U	370	41	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	370	U	370	79	
606-20-2	2,6-Dinitrotoluene	370	U	370	61	
91-58-7	2-Chloronaphthalene	370	U	370	39	
95-57-8	2-Chlorophenol	370	U	370	39	
91-57-6	2-Methylnaphthalene	370	U	370	37	
95-48-7	2-Methylphenol	370	U	370	48	
88-74-4	2-Nitroaniline	1900	U	1900	310	
88-75-5	2-Nitrophenol	370	U	370	55	
91-94-1	3,3'-Dichlorobenzidine	370	U	370	67	
	3- and 4-Methylphenol Coelution	370	U	370	56	
99-09-2	3-Nitroaniline	1900	U	1900	340	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	540	
101-55-3	4-Bromophenyl Phenyl Ether	370	U	370	66	
59-50-7	4-Chloro-3-methylphenol	370	U	370	41	
106-47-8	4-Chloroaniline	370	U	370	71	
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U	370	52	
100-01-6	4-Nitroaniline	1900	U	1900	400	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	370	U	370	53	
208-96-8	Acenaphthylene	370	U	370	49	
120-12-7	Anthracene	370	U	370	58	
56-55-3	Benz(a)anthracene	370	U	370	57	
50-32-8	Benzo(a)pyrene	65	J	370	61	
205-99-2	Benzo(b)fluoranthene	370	U	370	89	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 19:02

Sample Name: E5325B02 (0-2)  
 Lab Code: R1306775-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 90.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\092413\CT100.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	370 U	370	70	
207-08-9	Benzo(k)fluoranthene	370 U	370	66	
108-60-1	2,2'-Oxybis(1-chloropropane)	370 U	370	44	
111-91-1	Bis(2-chloroethoxy)methane	370 U	370	51	
111-44-4	Bis(2-chloroethyl) Ether	370 U	370	37	
117-81-7	Bis(2-ethylhexyl) Phthalate	370 U	370	51	
85-68-7	Butyl Benzyl Phthalate	370 U	370	56	
86-74-8	Carbazole	370 U	370	51	
218-01-9	Chrysene	77 J	370	52	
84-74-2	Di-n-butyl Phthalate	370 U	370	110	
117-84-0	Di-n-octyl Phthalate	370 U	370	71	
53-70-3	Dibenz(a,h)anthracene	370 U	370	99	
132-64-9	Dibenzofuran	370 U	370	41	
84-66-2	Diethyl Phthalate	370 U	370	48	
131-11-3	Dimethyl Phthalate	370 U	370	53	
206-44-0	Fluoranthene	93 J	370	59	
86-73-7	Fluorene	370 U	370	46	
118-74-1	Hexachlorobenzene	370 U	370	56	
87-68-3	Hexachlorobutadiene	370 U	370	41	
77-47-4	Hexachlorocyclopentadiene	370 U	370	59	
67-72-1	Hexachloroethane	370 U	370	51	
193-39-5	Indeno(1,2,3-cd)pyrene	370 U	370	61	
78-59-1	Isophorone	370 U	370	49	
621-64-7	N-Nitrosodi-n-propylamine	370 U	370	42	
86-30-6	N-Nitrosodiphenylamine	370 U	370	57	
91-20-3	Naphthalene	370 U	370	37	
98-95-3	Nitrobenzene	370 U	370	39	
87-86-5	Pentachlorophenol (PCP)	1900 U	1900	310	
85-01-8	Phenanthrene	52 J	370	50	
108-95-2	Phenol	370 U	370	41	
129-00-0	Pyrene	73 J	370	71	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306775  
**Date Collected:** 9/13/13 1110  
**Date Received:** 9/16/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/24/13 19:02

**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1306775-006

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 90.0

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973A\DATA\092413\CT100.D\

**Analysis Lot:** 360067  
**Extraction Lot:** 191738  
**Instrument Name:** R-MS-51  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	69	41-151	9/24/13 19:02	
2-Fluorobiphenyl	66	47-126	9/24/13 19:02	
2-Fluorophenol	54	16-129	9/24/13 19:02	
Nitrobenzene-d5	59	39-136	9/24/13 19:02	
Phenol-d6	59	10-145	9/24/13 19:02	
p-Terphenyl-d14	74	35-152	9/24/13 19:02	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1306775-006  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5325B03 (0-2)  
Lab Code: R1306775-007

Service Request: R1306775  
Date Collected: 9/13/13 1125  
Date Received: 9/16/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	87.1	Percent	1.0	1	NA	9/23/13 13:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B03 (0-2)  
**Lab Code:** R1306775-007

**Service Request:** R1306775  
**Date Collected:** 9/13/13 11:25  
**Date Received:** 9/16/13

**Basis:** Dry  
**Percent Solids:** 87.1

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	4430		mg/Kg	11	4	1	9/24/13	9/29/13 15:45	
Antimony, Total	6010C	6.6	U	mg/Kg	6.6	0.3	1	9/24/13	9/29/13 15:45	
Arsenic, Total	6010C	6.2		mg/Kg	1.1	0.5	1	9/24/13	9/29/13 15:45	
Barium, Total	6010C	31.1		mg/Kg	2.2	0.09	1	9/24/13	9/29/13 15:45	
Beryllium, Total	6010C	0.33		mg/Kg	0.33	0.03	1	9/24/13	9/29/13 15:45	
Boron, Total	6010C	9	BJ	mg/Kg	22	4	1	9/24/13	9/29/13 15:45	
Cadmium, Total	6010C	0.55	U	mg/Kg	0.55	0.07	1	9/24/13	9/29/13 15:45	
Calcium, Total	6010C	134000		mg/Kg	5500	1700	50	9/24/13	10/1/13 02:53	
Chromium, Total	6010C	8.0		mg/Kg	1.1	0.2	1	9/24/13	9/29/13 15:45	
Cobalt, Total	6010C	4.0	J	mg/Kg	5.5	0.06	1	9/24/13	9/29/13 15:45	
Copper, Total	6010C	10.0		mg/Kg	2.2	0.7	1	9/24/13	9/29/13 15:45	
Iron, Total	6010C	11400		mg/Kg	110	60	10	9/24/13	9/27/13 18:21	
Lead, Total	6010C	70.8		mg/Kg	5.5	0.3	1	9/24/13	9/29/13 15:45	
Magnesium, Total	6010C	82300		mg/Kg	1100	20	10	9/24/13	9/27/13 18:21	
Manganese, Total	6010C	402		mg/Kg	11	2	10	9/24/13	9/27/13 18:21	
Mercury, Total	7471B	0.037	U	mg/Kg	0.037	0.006	1	9/23/13	9/23/13 15:06	
Nickel, Total	6010C	9.7		mg/Kg	4.4	0.10	1	9/24/13	9/29/13 15:45	
Potassium, Total	6010C	940		mg/Kg	220	20	1	9/24/13	9/29/13 15:45	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:45	
Silver, Total	6010C	0.2	J	mg/Kg	1.1	0.09	1	9/24/13	9/29/13 15:45	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/24/13	9/29/13 15:45	
Vanadium, Total	6010C	15.4		mg/Kg	5.5	0.06	1	9/24/13	9/29/13 15:45	
Zinc, Total	6010C	43.1		mg/Kg	2.2	0.08	1	9/24/13	9/29/13 15:45	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 11:25  
 Date Received: 9/16/13  
 Date Analyzed: 9/18/13 21:44

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306775-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091813\T9866.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.17

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	6.7	U	6.7	3.8	
71-43-2	Benzene	6.7	U	6.7	0.39	
75-27-4	Bromodichloromethane	6.7	U	6.7	0.82	
75-25-2	Bromoform	6.7	U	6.7	1.3	
74-83-9	Bromomethane	6.7	U	6.7	1.9	
78-93-3	2-Butanone (MEK)	6.7	U	6.7	3.1	
75-15-0	Carbon Disulfide	6.7	U	6.7	1.7	
56-23-5	Carbon Tetrachloride	6.7	U	6.7	1.3	
108-90-7	Chlorobenzene	6.7	U	6.7	0.39	
75-00-3	Chloroethane	6.7	U	6.7	3.9	
67-66-3	Chloroform	6.7	U	6.7	1.7	
74-87-3	Chloromethane	6.7	U	6.7	0.54	
124-48-1	Dibromochloromethane	6.7	U	6.7	0.99	
75-34-3	1,1-Dichloroethane	6.7	U	6.7	1.7	
107-06-2	1,2-Dichloroethane	6.7	U	6.7	0.82	
75-35-4	1,1-Dichloroethene	6.7	U	6.7	1.8	
156-59-2	cis-1,2-Dichloroethene	6.7	U	6.7	1.3	
156-60-5	trans-1,2-Dichloroethene	6.7	U	6.7	1.2	
78-87-5	1,2-Dichloropropane	6.7	U	6.7	1.4	
10061-01-5	cis-1,3-Dichloropropene	6.7	U	6.7	1.3	
10061-02-6	trans-1,3-Dichloropropene	6.7	U	6.7	0.27	
100-41-4	Ethylbenzene	6.7	U	6.7	0.31	
591-78-6	2-Hexanone	6.7	U	6.7	1.7	
75-09-2	Methylene Chloride	6.7	U	6.7	0.77	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.7	U	6.7	1.4	
100-42-5	Styrene	6.7	U	6.7	0.41	
79-34-5	1,1,2,2-Tetrachloroethane	6.7	U	6.7	1.1	
127-18-4	Tetrachloroethene	6.7	U	6.7	1.2	
108-88-3	Toluene	6.7	U	6.7	1.4	
71-55-6	1,1,1-Trichloroethane	6.7	U	6.7	0.99	
79-00-5	1,1,2-Trichloroethane	6.7	U	6.7	0.99	
79-01-6	Trichloroethene	6.7	U	6.7	1.4	
75-01-4	Vinyl Chloride	6.7	U	6.7	2.5	
95-47-6	o-Xylene	6.7	U	6.7	0.65	
179601-23-1	m,p-Xylenes	13	U	13	1.5	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1125  
 Date Received: 9/16/13  
 Date Analyzed: 9/18/13 21:44

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306775-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.1

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091813\T9866.D\

Analysis Lot: 359021  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.17

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.7	U	6.7	1.3	
1330-20-7	Xylenes, Total	20	U	20	2.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	51-136	9/18/13 21:44	
Toluene-d8	106	66-138	9/18/13 21:44	
Dibromofluoromethane	99	63-138	9/18/13 21:44	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1125  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 19:39

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306775-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\092413\CT101.D

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	1900	U	1900	190	
95-50-1	1,2-Dichlorobenzene	1900	U	1900	220	
541-73-1	1,3-Dichlorobenzene	1900	U	1900	290	
106-46-7	1,4-Dichlorobenzene	1900	U	1900	220	
95-95-4	2,4,5-Trichlorophenol	1900	U	1900	340	
88-06-2	2,4,6-Trichlorophenol	1900	U	1900	280	
120-83-2	2,4-Dichlorophenol	1900	U	1900	260	
105-67-9	2,4-Dimethylphenol	1900	U	1900	210	
51-28-5	2,4-Dinitrophenol	9800	U	9800	800	
121-14-2	2,4-Dinitrotoluene	1900	U	1900	410	
606-20-2	2,6-Dinitrotoluene	1900	U	1900	320	
91-58-7	2-Chloronaphthalene	1900	U	1900	200	
95-57-8	2-Chlorophenol	1900	U	1900	200	
91-57-6	2-Methylnaphthalene	1900	U	1900	190	
95-48-7	2-Methylphenol	1900	U	1900	250	
88-74-4	2-Nitroaniline	9800	U	9800	1600	
88-75-5	2-Nitrophenol	1900	U	1900	290	
91-94-1	3,3'-Dichlorobenzidine	1900	U	1900	350	
	3- and 4-Methylphenol Coelution	1900	U	1900	290	
99-09-2	3-Nitroaniline	9800	U	9800	1800	
534-52-1	4,6-Dinitro-2-methylphenol	9800	U	9800	2800	
101-55-3	4-Bromophenyl Phenyl Ether	1900	U	1900	340	
59-50-7	4-Chloro-3-methylphenol	1900	U	1900	210	
106-47-8	4-Chloroaniline	1900	U	1900	370	
7005-72-3	4-Chlorophenyl Phenyl Ether	1900	U	1900	270	
100-01-6	4-Nitroaniline	9800	U	9800	2100	
100-02-7	4-Nitrophenol	9800	U	9800	1400	
83-32-9	Acenaphthene	1900	U	1900	280	
208-96-8	Acenaphthylene	1900	U	1900	260	
120-12-7	Anthracene	1900	U	1900	300	
56-55-3	Benz(a)anthracene	1900	U	1900	300	
50-32-8	Benzo(a)pyrene	1900	U	1900	320	
205-99-2	Benzo(b)fluoranthene	1900	U	1900	460	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1125  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 19:39

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306775-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\092413\CT101.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	1900	U	1900	360	
207-08-9	Benzo(k)fluoranthene	1900	U	1900	340	
108-60-1	2,2'-Oxybis(1-chloropropane)	1900	U	1900	230	
111-91-1	Bis(2-chloroethoxy)methane	1900	U	1900	270	
111-44-4	Bis(2-chloroethyl) Ether	1900	U	1900	190	
117-81-7	Bis(2-ethylhexyl) Phthalate	1900	U	1900	270	
85-68-7	Butyl Benzyl Phthalate	1900	U	1900	290	
86-74-8	Carbazole	1900	U	1900	270	
218-01-9	Chrysene	1900	U	1900	270	
84-74-2	Di-n-butyl Phthalate	1900	U	1900	520	
117-84-0	Di-n-octyl Phthalate	1900	U	1900	370	
53-70-3	Dibenz(a,h)anthracene	1900	U	1900	510	
132-64-9	Dibenzofuran	1900	U	1900	210	
84-66-2	Diethyl Phthalate	1900	U	1900	250	
131-11-3	Dimethyl Phthalate	1900	U	1900	280	
206-44-0	Fluoranthene	1900	U	1900	310	
86-73-7	Fluorene	1900	U	1900	240	
118-74-1	Hexachlorobenzene	1900	U	1900	290	
87-68-3	Hexachlorobutadiene	1900	U	1900	210	
77-47-4	Hexachlorocyclopentadiene	1900	U	1900	310	
67-72-1	Hexachloroethane	1900	U	1900	270	
193-39-5	Indeno(1,2,3-cd)pyrene	1900	U	1900	320	
78-59-1	Isophorone	1900	U	1900	260	
621-64-7	N-Nitrosodi-n-propylamine	1900	U	1900	220	
86-30-6	N-Nitrosodiphenylamine	1900	U	1900	300	
91-20-3	Naphthalene	1900	U	1900	190	
98-95-3	Nitrobenzene	1900	U	1900	200	
87-86-5	Pentachlorophenol (PCP)	9800	U	9800	1600	
85-01-8	Phenanthrene	1900	U	1900	260	
108-95-2	Phenol	1900	U	1900	210	
129-00-0	Pyrene	1900	U	1900	370	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306775  
 Date Collected: 9/13/13 1125  
 Date Received: 9/16/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/24/13 19:39

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306775-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 87.1

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\092413\CT101.D\

Analysis Lot: 360067  
 Extraction Lot: 191738  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	54	41-151	9/24/13 19:39	
2-Fluorobiphenyl	59	47-126	9/24/13 19:39	
2-Fluorophenol	55	16-129	9/24/13 19:39	
Nitrobenzene-d5	55	39-136	9/24/13 19:39	
Phenol-d6	59	10-145	9/24/13 19:39	
p-Terphenyl-d14	70	35-152	9/24/13 19:39	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B03 (0-2)  
**Lab Code:** R1306775-007  
**Matrix:** Soil

**Service Request:** R1306775

**Date Collected:** 9/13/13  
**Date Received:** 9/16/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10660

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>DOT US 30</b>		Project Number <b>EL-004335-0001-017D</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker/sherril Johns</b>		Report CC <b>Dean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment 33 W Monroe #1410 Chicago, IL 60603</b>		Email <b>312-578-9243</b>		NUMBER OF CONTAINERS	
Sample's Signature <b>Jeff Hughes</b>		Sample's Print Name <b>Jeff Hughes</b>		GCMS VSAs • 8260 • 824 • CLP • 8270 • 825 GCMS SVAs • 8271 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS TOTAL (List in comments below)	
FOR OFFICE USE ONLY LAB ID		SAMPLING DATE		SAMPLING TIME	
MATRIX		DATE		TIME	
CLIENT SAMPLE ID		DATE		MATRIX	
E533980(12-4)		9/13/13		Soil	
E539601		9/13/13		Water	
E532580(10-2)		9/13/13		Soil	
E537813		9/13/13		Water	
E537813		9/9/13		Water	
E5325802(0-2)		9/13/13		Soil	
E5325803(0-2)		9/13/13		Soil	
E5327801(0-2)		9/13/13		Soil	
E5343601		9/13/13		Water	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSM/SD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data	
See OAPP <input type="checkbox"/>		REQUESTED REPORT DATE		INVOICE INFORMATION	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		PO #	
RELINQUISHED BY		RELINQUISHED BY		BILL TO:	
Signature: <i>Jeff Hughes</i>		Signature: <i>John Sand</i>		R1306775	
Printed Name: <b>Jeff Hughes</b>		Printed Name: <b>John Sand</b>			
Firm: <b>E+E</b>		Firm: <b>ALS</b>			
Date/Time: <b>9/13/13 1650</b>		Date/Time: <b>9/13 0845</b>			
Distribution: White - Lab Copy, Yellow - Return to Originator					

Soil Total WPA/SWA/NOT ONLY  
SPED on Hold



October 04, 2013

Service Request No: R1306776

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1306776**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 63

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B01 (0-2)  
**Lab Code:** R1306776-005

**Service Request:** R1306776  
**Date Collected:** 9/13/13 1025  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.42	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1025  
 Date Received: 9/16/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5325B01 (0-2)  
 Lab Code: R1306776-005

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/29/13 19:00	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 00:19	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:19	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 00:19	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 00:19	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/30/13 22:48	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Calcium	6010C	841		mg/L	20	20	9/25/13	10/2/13 17:02	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:19	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Iron	6010C	0.35		mg/L	0.10	1	9/25/13	9/28/13 00:19	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Magnesium	6010C	308		mg/L	1.0	1	9/25/13	9/28/13 00:19	
Manganese	6010C	5.26		mg/L	0.010	1	9/25/13	9/28/13 00:19	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:19	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 19:00	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:19	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:19	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 00:19	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:19	
Zinc	6010C	0.15		mg/L	0.10	1	9/25/13	9/28/13 00:19	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B01 (0-2)  
**Lab Code:** R1306776-005  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13  
**Date Received:** 9/16/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1306776-006

**Service Request:** R1306776  
**Date Collected:** 9/13/13 1110  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.34	pH Units		1	NA	9/23/13 15:50	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5325B02 (0-2)  
 Lab Code: R1306776-006

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/28/13 00:25	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 00:25	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:25	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 00:25	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 00:25	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/30/13 23:21	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Calcium	6010C	322		mg/L	10	10	9/25/13	9/27/13 21:07	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:25	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Magnesium	6010C	113		mg/L	1.0	1	9/25/13	9/28/13 00:25	
Manganese	6010C	2.31		mg/L	0.010	1	9/25/13	9/28/13 00:25	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:21	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 19:07	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:25	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 00:25	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:25	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:25	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1306776-006  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13  
**Date Received:** 9/16/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5325B03 (0-2)  
**Lab Code:** R1306776-007

**Service Request:** R1306776  
**Date Collected:** 9/13/13 1125  
**Date Received:** 9/16/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.47	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306776  
 Date Collected: 9/13/13 1125  
 Date Received: 9/16/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5325B03 (0-2)  
 Lab Code: R1306776-007

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	9/28/13 00:31	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	9/28/13 00:31	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:31	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/28/13 00:31	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	9/28/13 00:31	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	9/30/13 23:28	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Calcium	6010C	355		mg/L	10	10	9/25/13	9/27/13 21:13	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:31	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Iron	6010C	0.12		mg/L	0.10	1	9/25/13	9/28/13 00:31	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Magnesium	6010C	98.1		mg/L	1.0	1	9/25/13	9/28/13 00:31	
Manganese	6010C	2.59		mg/L	0.010	1	9/25/13	9/28/13 00:31	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 16:26	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	9/29/13 19:13	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	9/28/13 00:31	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	9/28/13 00:31	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	9/28/13 00:31	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	9/28/13 00:31	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B03 (0-2)  
**Lab Code:** R1306776-007  
**Matrix:** Soil

**Service Request:** R1306776

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10660

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-017D</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karey Bunker/sherri.johnson</b>		Report CC <b>Dean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment 33 W Monroe #1410 Chicago, IL 60603</b>		Phone # <b>312-578-9243</b>		PRESERVATIVE	
Sampler's Signature <b>Jeff Hughes</b>		Sampler's Printed Name <b>Jeff Hughes</b>		PRESERVATIVE	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
MATRIX		DATE		SAMPLING TIME	
E5339801(2-4)		9/13/13		0923	
E5339601		9/13/13		1000	
E5325801(0-2)		9/13/13		1025	
E5327813		9/13/13		1030*	
E5325801		9/13/13		1110	
E5325803(0-2)		9/13/13		1125	
E5327801(0-2)		9/13/13		1255	
E5343601		9/13/13		1505	
NUMBER OF CONTAINERS		MATRIX		SAMPLING TIME	
GCMS VOAS ° 8290 ° 824 ° CLP		Soil		4	
GCMS SVCS ° 8270 ° 825		Water		4	
GC VOAS ° 8021 ° 801/802		Soil		4	
PESTICIDES ° 8081 ° 808		Water		4	
PCBS ° 8082 ° 808		Water		4	
METALS TOTAL (List in comments below)		Water		4	
METALS DISSOLVED (List in comments below)		Water		4	
VOCS		Water		4	
SVOCs		Water		4	
Total TAL Metals		Water		4	
TCR/SRP Metals		Water		4	
pH		Water		4	
% Solids		Water		4	
REMARKS/ ALTERNATE DESCRIPTION		DATE		SAMPLING TIME	
Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other		DATE		SAMPLING TIME	

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, M/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO:	
STATE WHERE SAMPLES WERE COLLECTED		REQUESTED REPORT DATE		Edata Yes No		RECEIVED BY <b>R/306726</b>	
RECEIVED BY <b>Jeff Hughes</b>		RECEIVED BY		Signature		Signature	
Printed Name <b>Jeff Hughes</b>		Printed Name		Printed Name		Printed Name	
Firm <b>E+E</b>		Firm		Firm		Firm	
Date/Time <b>9/13/13 1630</b>		Date/Time <b>9/13 0845</b>		Date/Time		Date/Time	

-TCR + PH only  
-SRP on Help



October 22, 2013

Service Request No: R1307413

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 14, 2013 and September 16, 2013. For your reference, these analyses have been assigned our service request number **R1307413**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 34



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/ID, Accredited ID, and State/ID. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois, Virginia.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads





ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307413  
Date Collected: 9/13/13 1025  
Date Received: 9/16/13  
Pre-Prep Date: 10/12/13

Sample Name: E5325B01 (0-2)  
Lab Code: R1307413-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010	U	mg/L	0.010	1	10/15/13	10/17/13 21:36	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B01 (0-2)  
**Lab Code:** R1307413-005  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307413  
 Date Collected: 9/13/13 1110  
 Date Received: 9/16/13  
 Pre-Prep Date: 10/12/13

Sample Name: E5325B02 (0-2)  
 Lab Code: R1307413-006

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.182	mg/L	0.010	1	10/15/13	10/17/13 21:43	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B02 (0-2)  
**Lab Code:** R1307413-006  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	CWINKSTERN

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307413  
Date Collected: 9/13/13 1125  
Date Received: 9/16/13  
Pre-Prep Date: 10/12/13

Sample Name: E5325B03 (0-2)  
Lab Code: R1307413-007

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.209		mg/L	0.010	1	10/15/13	10/17/13	21:49

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5325B03 (0-2)  
**Lab Code:** R1307413-007  
**Matrix:** Soil

**Service Request:** R1307413

**Date Collected:** 9/13/13

**Date Received:** 9/16/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	CWINKSTERN



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10660

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-0170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker / Sherril Johnson</b>		Report CC <b>Deau Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment</b>		Phone # <b>33 W Monroe 79410</b>		PRELIMINARY TESTS	
City/State/Zip <b>Chicago, IL 60603</b>		Email		GCMS VOCs • 8260 • 824 • CLP	
Sampler's Signature <b>Jeff Hughes</b>		Sampler's Printed Name <b>Jeff Hughes</b>		GCMS SVOCs • 8270 • 825	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY	DATE	SAMPLING TIME	MATRIX	
E5339801(2-4)	COY	9/13/13	0923	Soil 4	
E5339601	COY	9/13/13	1000	Water 4	
E5325801(0-2)	COY	9/13/13	1025	Soil 4	
E5337813	COY	9/13/13	1050	Water 1	
E5337813	COY	9/13/13	935	Water 1	
E5325802(0-2)	COY	9/13/13	1110	Soil 4	
E5325803(0-2)	COY	9/13/13	1125	Soil 4	
E5327801(0-2)	COY	9/13/13	1255	Soil 4	
E5343601	COY	9/13/13	1505	Water	

SPECIAL INSTRUCTIONS/COMMENTS Metals	TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____	REPORT REQUIREMENTS I. Results Only _____ II. Results + OC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + OC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____	INVOICE INFORMATION PO # _____ BILL TO: <b>U-1307413</b>	
	REQUESTED REPORT DATE _____	Edata Yes _____ No _____	RECEIVED BY <b>SW/410</b> <b>RT306722</b>	
	RECEIVED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____	RECEIVED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____	RECEIVED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____	RECEIVED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____
	STATE WHERE SAMPLES WERE COLLECTED	RELINQUISHED BY Signature <b>Jeff Hughes</b> Printed Name <b>Jeff Hughes</b> Firm <b>AUS</b> Date/Time <b>9/13/13 1600</b>	RELINQUISHED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____	RELINQUISHED BY Signature _____ Printed Name _____ Firm _____ Date/Time _____



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.587937° Longitude: -88.178669°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: \_\_\_\_\_ BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30

Latitude: 41.587937° Longitude: -88.178669°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Location E5326B01 was sampled within the construction zone adjacent to ISGS #2141A-26 (Vacant Land). Refer to PSI Report for ISGS #2141A-26 (Vacant Land) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306652, R1306655, and R1307320.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-26 (Vacant Land)	Comparison Criteria			
BORING	E5326B01	MACs			TACO
SAMPLE	E5326B01 (0-2)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil				
DEPTH (meters)	0.0-0.6				
pH	8.02				
<b>VOCs (None Detected)</b>					
<b>SVOCs (µg/kg)</b>					
Fluoranthene	390 J	3,100,000	--	--	--
<b>Inorganics (mg/kg)</b>					
Aluminum	6,590	--	--	--	--
Arsenic	7.5	11.3	13	--	--
Barium	53.5	1,500	--	--	--
Beryllium	0.35	22	--	--	--
Calcium	113,000	--	--	--	--
Chromium	15.4	21	--	--	--
Cobalt	5.4 J	20	--	--	--
Copper	16.8	2,900	--	--	--
Iron	15,300 †	15,000	15,900	--	--
Lead	30.3	107	--	--	--
Magnesium	71,700	325,000	--	--	--
Manganese	459	630	636	--	--
Mercury	0.027 J	0.89	--	--	--
Nickel	12.8	100	--	--	--
Potassium	1,080	--	--	--	--
Vanadium	16.6	550	--	--	--
Zinc	58.9	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>					
Aluminum	0.23	--	--	--	--
Calcium	420	--	--	--	--
Iron	0.22	--	--	--	5
Magnesium	134	--	--	--	--
Manganese	1.20 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>					
Manganese	0.902 L	--	--	--	0.15



October 02, 2013

Service Request No: R1306655

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306655**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 299

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	D1 extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5326B01 (0-2)  
**Lab Code:** R1306655-022

**Service Request:** R1306655  
**Date Collected:** 9/11/13 1500  
**Date Received:** 9/12/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.5	Percent	1.0	1	NA	9/16/13 13:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13

Basis: Dry  
 Percent Solids: 86.5

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	6590		mg/Kg	11	4	1	9/18/13	9/21/13 02:57	
Antimony, Total	6010C	1.5	BJ	mg/Kg	6.6	0.3	1	9/18/13	9/21/13 02:57	
Arsenic, Total	6010C	7.5		mg/Kg	1.1	0.5	1	9/18/13	9/21/13 02:57	
Barium, Total	6010C	53.5		mg/Kg	2.2	0.09	1	9/18/13	9/21/13 02:57	
Beryllium, Total	6010C	0.35		mg/Kg	0.33	0.03	1	9/18/13	9/21/13 02:57	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/18/13	9/21/13 02:57	
Cadmium, Total	6010C	0.55	U	mg/Kg	0.55	0.07	1	9/18/13	9/21/13 02:57	
Calcium, Total	6010C	113000		mg/Kg	1100	400	10	9/18/13	9/20/13 23:16	
Chromium, Total	6010C	15.4		mg/Kg	1.1	0.2	1	9/18/13	9/21/13 02:57	
Cobalt, Total	6010C	5.4	J	mg/Kg	5.5	0.06	1	9/18/13	9/21/13 02:57	
Copper, Total	6010C	16.8		mg/Kg	2.2	0.7	1	9/18/13	9/21/13 02:57	
Iron, Total	6010C	15300		mg/Kg	110	60	10	9/18/13	9/20/13 23:16	
Lead, Total	6010C	30.3		mg/Kg	5.5	0.3	1	9/18/13	9/21/13 02:57	
Magnesium, Total	6010C	71700		mg/Kg	1100	20	10	9/18/13	9/20/13 23:16	
Manganese, Total	6010C	459		mg/Kg	1.1	0.2	1	9/18/13	9/21/13 02:57	
Mercury, Total	7471B	0.027	J	mg/Kg	0.037	0.006	1	9/18/13	9/19/13 17:17	
Nickel, Total	6010C	12.8		mg/Kg	4.4	0.10	1	9/18/13	9/21/13 02:57	
Potassium, Total	6010C	1080		mg/Kg	220	20	1	9/18/13	9/21/13 02:57	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/18/13	9/21/13 02:57	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/18/13	9/21/13 02:57	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/18/13	9/21/13 02:57	
Vanadium, Total	6010C	16.6		mg/Kg	5.5	0.06	1	9/18/13	9/21/13 02:57	
Zinc, Total	6010C	58.9		mg/Kg	2.2	0.08	1	9/18/13	9/21/13 02:57	



## ALS Group USA, Corp. dba ALS Environmental

## Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 19:15

Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.5

## Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5099.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .65

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.8	U	3.8	2.2	
71-43-2	Benzene	3.8	U	3.8	0.22	
75-27-4	Bromodichloromethane	3.8	U	3.8	0.46	
75-25-2	Bromoform	3.8	U	3.8	0.70	
74-83-9	Bromomethane	3.8	U	3.8	1.1	
78-93-3	2-Butanone (MEK)	3.8	U	3.8	1.8	
75-15-0	Carbon Disulfide	3.8	U	3.8	0.94	
56-23-5	Carbon Tetrachloride	3.8	U	3.8	0.70	
108-90-7	Chlorobenzene	3.8	U	3.8	0.22	
75-00-3	Chloroethane	3.8	U	3.8	2.2	
67-66-3	Chloroform	3.8	U	3.8	0.95	
74-87-3	Chloromethane	3.8	U	3.8	0.31	
124-48-1	Dibromochloromethane	3.8	U	3.8	0.55	
75-34-3	1,1-Dichloroethane	3.8	U	3.8	0.94	
107-06-2	1,2-Dichloroethane	3.8	U	3.8	0.46	
75-35-4	1,1-Dichloroethene	3.8	U	3.8	0.97	
156-59-2	cis-1,2-Dichloroethene	3.8	U	3.8	0.72	
156-60-5	trans-1,2-Dichloroethene	3.8	U	3.8	0.65	
78-87-5	1,2-Dichloropropane	3.8	U	3.8	0.73	
10061-01-5	cis-1,3-Dichloropropene	3.8	U	3.8	0.68	
10061-02-6	trans-1,3-Dichloropropene	3.8	U	3.8	0.16	
100-41-4	Ethylbenzene	3.8	U	3.8	0.18	
591-78-6	2-Hexanone	3.8	U	3.8	0.91	
75-09-2	Methylene Chloride	3.8	U	3.8	0.43	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.8	U	3.8	0.74	
100-42-5	Styrene	3.8	U	3.8	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	3.8	U	3.8	0.61	
127-18-4	Tetrachloroethene	3.8	U	3.8	0.67	
108-88-3	Toluene	3.8	U	3.8	0.76	
71-55-6	1,1,1-Trichloroethane	3.8	U	3.8	0.55	
79-00-5	1,1,2-Trichloroethane	3.8	U	3.8	0.55	
79-01-6	Trichloroethene	3.8	U	3.8	0.76	
75-01-4	Vinyl Chloride	3.8	U	3.8	1.4	
95-47-6	o-Xylene	3.8	U	3.8	0.37	
179601-23-1	m,p-Xylenes	7.5	U	7.5	0.82	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Date Analyzed: 9/18/13 19:15  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\MSVOA7\DATA\091813\K5099.D\

Analysis Lot: 359038  
 Instrument Name: R-MS-07  
 Dilution Factor: .65

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.8	U	3.8	0.71	
1330-20-7	Xylenes, Total	11	U	11	1.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	51-136	9/18/13 19:15	
Toluene-d8	99	66-138	9/18/13 19:15	
Dibromofluoromethane	102	63-138	9/18/13 19:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/17/13 13:43

Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS983.D\

Analysis Lot: 358914  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	1900	U	1900	200	
95-50-1	1,2-Dichlorobenzene	1900	U	1900	220	
541-73-1	1,3-Dichlorobenzene	1900	U	1900	290	
106-46-7	1,4-Dichlorobenzene	1900	U	1900	220	
95-95-4	2,4,5-Trichlorophenol	1900	U	1900	340	
88-06-2	2,4,6-Trichlorophenol	1900	U	1900	280	
120-83-2	2,4-Dichlorophenol	1900	U	1900	260	
105-67-9	2,4-Dimethylphenol	1900	U	1900	220	
51-28-5	2,4-Dinitrophenol	9800	U	9800	810	
121-14-2	2,4-Dinitrotoluene	1900	U	1900	410	
606-20-2	2,6-Dinitrotoluene	1900	U	1900	320	
91-58-7	2-Chloronaphthalene	1900	U	1900	200	
95-57-8	2-Chlorophenol	1900	U	1900	200	
91-57-6	2-Methylnaphthalene	1900	U	1900	200	
95-48-7	2-Methylphenol	1900	U	1900	250	
88-74-4	2-Nitroaniline	9800	U	9800	1600	
88-75-5	2-Nitrophenol	1900	U	1900	290	
91-94-1	3,3'-Dichlorobenzidine	1900	U	1900	350	
	3- and 4-Methylphenol Coelution	1900	U	1900	290	
99-09-2	3-Nitroaniline	9800	U	9800	1800	
534-52-1	4,6-Dinitro-2-methylphenol	9800	U	9800	2800	
101-55-3	4-Bromophenyl Phenyl Ether	1900	U	1900	350	
59-50-7	4-Chloro-3-methylphenol	1900	U	1900	210	
106-47-8	4-Chloroaniline	1900	U	1900	370	
7005-72-3	4-Chlorophenyl Phenyl Ether	1900	U	1900	270	
100-01-6	4-Nitroaniline	9800	U	9800	2100	
100-02-7	4-Nitrophenol	9800	U	9800	1400	
83-32-9	Acenaphthene	1900	U	1900	280	
208-96-8	Acenaphthylene	1900	U	1900	260	
120-12-7	Anthracene	1900	U	1900	300	
56-55-3	Benz(a)anthracene	1900	U	1900	300	
50-32-8	Benzo(a)pyrene	1900	U	1900	320	
205-99-2	Benzo(b)fluoranthene	1900	U	1900	470	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/17/13 13:43

Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS983.D\

Analysis Lot: 358914  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	1900	U	1900	360	
207-08-9	Benzo(k)fluoranthene	1900	U	1900	350	
108-60-1	2,2'-Oxybis(1-chloropropane)	1900	U	1900	230	
111-91-1	Bis(2-chloroethoxy)methane	1900	U	1900	270	
111-44-4	Bis(2-chloroethyl) Ether	1900	U	1900	200	
117-81-7	Bis(2-ethylhexyl) Phthalate	1900	U	1900	270	
85-68-7	Butyl Benzyl Phthalate	1900	U	1900	300	
86-74-8	Carbazole	1900	U	1900	270	
218-01-9	Chrysene	1900	U	1900	270	
84-74-2	Di-n-butyl Phthalate	1900	U	1900	530	
117-84-0	Di-n-octyl Phthalate	1900	U	1900	370	
53-70-3	Dibenz(a,h)anthracene	1900	U	1900	520	
132-64-9	Dibenzofuran	1900	U	1900	210	
84-66-2	Diethyl Phthalate	1900	U	1900	250	
131-11-3	Dimethyl Phthalate	1900	U	1900	280	
206-44-0	Fluoranthene	390	J	1900	310	
86-73-7	Fluorene	1900	U	1900	240	
118-74-1	Hexachlorobenzene	1900	U	1900	300	
87-68-3	Hexachlorobutadiene	1900	U	1900	220	
77-47-4	Hexachlorocyclopentadiene	1900	U	1900	310	
67-72-1	Hexachloroethane	1900	U	1900	270	
193-39-5	Indeno(1,2,3-cd)pyrene	1900	U	1900	320	
78-59-1	Isophorone	1900	U	1900	260	
621-64-7	N-Nitrosodi-n-propylamine	1900	U	1900	220	
86-30-6	N-Nitrosodiphenylamine	1900	U	1900	300	
91-20-3	Naphthalene	1900	U	1900	200	
98-95-3	Nitrobenzene	1900	U	1900	210	
87-86-5	Pentachlorophenol (PCP)	9800	U	9800	1600	
85-01-8	Phenanthrene	1900	U	1900	260	
108-95-2	Phenol	1900	U	1900	210	
129-00-0	Pyrene	1900	U	1900	370	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306655  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Date Extracted: 9/13/13  
 Date Analyzed: 9/17/13 13:43

Sample Name: E5326B01 (0-2)  
 Lab Code: R1306655-022

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091713\CS983.D\

Analysis Lot: 358914  
 Extraction Lot: 191633  
 Instrument Name: R-MS-51  
 Dilution Factor: 5

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	60	41-151	9/17/13 13:43	
2-Fluorobiphenyl	70	47-126	9/17/13 13:43	
2-Fluorophenol	57	16-129	9/17/13 13:43	
Nitrobenzene-d5	60	39-136	9/17/13 13:43	
Phenol-d6	61	10-145	9/17/13 13:43	
p-Terphenyl-d14	56	35-152	9/17/13 13:43	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5326B01 (0-2)  
**Lab Code:** R1306655-022  
**Matrix:** Soil

**Service Request:** R1306655

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	TCHRIST
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JWU





October 02, 2013

Service Request No: R1306652

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1306652**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 113



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5326B01 (0-2)  
 Lab Code: R1306652-022

Service Request: R1306652  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.02	pH Units		1	NA	9/23/13 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306652  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Pre-Prep Date: 9/18/13

Sample Name: E5326B01 (0-2)  
 Lab Code: R1306652-022

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.23		mg/L	0.20	1	9/19/13	9/25/13 17:39	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/19/13	9/25/13 17:39	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:39	
Barium	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:39	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/19/13	9/25/13 17:39	
Boron	6010C	1.0	U	mg/L	1.0	1	9/19/13	9/25/13 17:39	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Calcium	6010C	420		mg/L	10	10	9/19/13	9/26/13 13:17	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:39	
Copper	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Iron	6010C	0.22		mg/L	0.10	1	9/19/13	9/25/13 17:39	
Lead	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Magnesium	6010C	134		mg/L	1.0	1	9/19/13	9/25/13 17:39	
Manganese	6010C	1.20		mg/L	0.010	1	9/19/13	9/25/13 17:39	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/20/13	9/20/13 16:22	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/19/13	9/27/13 09:16	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/19/13	9/25/13 17:39	
Silver	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/19/13	9/25/13 17:39	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/19/13	9/25/13 17:39	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/19/13	9/25/13 17:39	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5326B01 (0-2)  
**Lab Code:** R1306652-022  
**Matrix:** Soil

**Service Request:** R1306652

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10659

E753-25

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE / OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)															
ID07 W30		EE-004335-0001-01770																	
Project Manager		Report CC		PRESERVATIVE															
Karen Bunsie / Sheri Johnson		Dera Ziebert																	
Company/Address		Ecology, Environment		METALS TOTAL (List in comments below)															
33 W Monroe St Suite 1410		Chicago, IL 60603																	
Phone #		Email		METALS DISSOLVED (List in comments below)															
712 578 9213		shjohnson@ecol.com																	
Sampler's Signature		Sampler's Printed Name		PCBs ° 8082 ° 808															
[Signature]		S. R. H. Cooper																	
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		Pesticides ° 8021 ° 801/802											
ES324B03(24)		9-11-13		1255		Soil													
ES324B01(62)		9-11-13		1320		Soil													
ES324B02(24)		9-11-13		1350		Soil													
ES335B01(62)		9-11-13		1410		Soil													
ES326B01(62)		9-11-13		1500		Soil													
SPECIAL INSTRUCTIONS/COMMENTS				TURNAROUND REQUIREMENTS				REPORT REQUIREMENTS				INVOICE INFORMATION							
Metals				RUSH (SURCHARGES APPLY) 1 day ___ 2 day ___ 3 day ___ 4 day ___ 5 day ___				I. Results Only II. Results + OC Summaries (LCS, OUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data				PO # BILL TO:							
See OAPP <input type="checkbox"/>				REQUESTED REPORT DATE				Echnia Yes ___ No ___				RECEIVED BY							
STATE WHERE SAMPLES WERE COLLECTED				RECEIVED BY				RELINQUISHED BY				RECEIVED BY							
[Signature]				[Signature]				[Signature]				[Signature]							
Printed Name				Printed Name				Printed Name				Printed Name							
Firm				Firm				Firm				Firm							
Date/Time				Date/Time				Date/Time				Date/Time							
9-11-13/1600				9-11-13 9:45				9-11-13				11/30/652							



October 16, 2013

Service Request No: R1307320

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 11, 2013 and September 12, 2013. For your reference, these analyses have been assigned our service request number **R1307320**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*FBV*

Page 1 of 54

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307320  
 Date Collected: 9/11/13 1500  
 Date Received: 9/12/13  
 Pre-Prep Date: 10/10/13

Sample Name: E5326B01 (0-2)  
 Lab Code: R1307320-017

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.902	mg/L	0.010	1	10/11/13	10/15/13	11:46

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5326B01 (0-2)  
**Lab Code:** R1307320-017  
**Matrix:** Soil

**Service Request:** R1307320

**Date Collected:** 9/11/13

**Date Received:** 9/12/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

CWINKSTERN

DBOND





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
22921 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.585618° Longitude: -88.174537°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805078 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.585618° Longitude: -88.174537°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Location E5328B01 was sampled within the construction zone adjacent to ISGS #2141A-28 (Mobil). Refer to PSI Report for ISGS #2141A-28 (Mobil) including Table 4-4, and Figure 4-2.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306850, R1306852, and R1307556.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

**Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))**

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

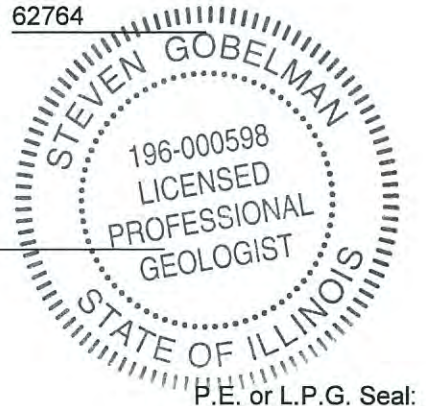
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

11/24/14  
 Date:







**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10

CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-28 (Mobil)		Comparison Criteria			
BORING	E5328B01		MACs			TACO
SAMPLE	E5328B01 (2-4)	E5328B01 (10-12)	Most Stringent	Within an MSA	Within Chicago	SCGIER
MATRIX	Soil	Soil				
DEPTH (meters)	0.6-1.2	3.1-3.7				
pH	7.29	7.59				
<b>VOCs (µg/kg)</b>						
2-Butanone	ND UJ	2.5 J	--	--	--	--
Acetone	ND UJ	12	25,000	--	--	--
Carbon Disulfide	ND UJ	3.4 J	9,000	--	--	--
Toluene	1.6 J	1.9 J	12,000	--	--	--
<b>SVOCs (None Detected)</b>						
<b>Inorganics (mg/kg)</b>						
Aluminum	13,400	4,010	--	--	--	--
Arsenic	11.7 †	6.8	11.3	13	--	--
Barium	207	28.8	1,500	--	--	--
Beryllium	0.81	0.33 J	22	--	--	--
Cadmium	0.66	ND U	5.2	--	--	--
Calcium	5,810	77,800	--	--	--	--
Chromium	20.4	10.0	21	--	--	--
Cobalt	14.6	9.8	20	--	--	--
Copper	21.1	11.6	2,900	--	--	--
Iron	26,100 †m	13,100	15,000	15,900	--	--
Lead	31.3	11.3	107	--	--	--
Magnesium	3,360	46,500	325,000	--	--	--
Manganese	1,810 †m	601	630	636	--	--
Mercury	0.033 J	0.020 J	0.89	--	--	--
Nickel	21.4	15.0	100	--	--	--
Potassium	1,650	1,150	--	--	--	--
Selenium	0.9 J	ND U	1.3	--	--	--
Vanadium	37.2	17.4	550	--	--	--
Zinc	79.7	44.8	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>						
Aluminum	0.59	1.00	--	--	--	--
Calcium	103	309	--	--	--	--
Iron	0.26	0.60	--	--	--	5
Magnesium	22.4	188	--	--	--	--
Manganese	0.018	6.34 L	--	--	--	0.15
<b>SPLP Metals (mg/L)</b>						
Manganese	NA	0.851 L	--	--	--	0.15





October 11, 2013

Service Request No: R1306852

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306852**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 258

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5328B01 (2-4)  
Lab Code: R1306852-007

Service Request: R1306852  
Date Collected: 9/17/13 0915  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.2	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5328B01 (2-4)  
**Lab Code:** R1306852-007

**Service Request:** R1306852  
**Date Collected:** 9/17/13 09:15  
**Date Received:** 9/18/13

**Basis:** Dry  
**Percent Solids:** 82.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	13400		mg/Kg	12	4	1	9/30/13	10/3/13 20:12	
Antimony, Total	6010C	7.0	U	mg/Kg	7.0	0.3	1	9/30/13	10/3/13 20:12	
Arsenic, Total	6010C	11.7		mg/Kg	1.2	0.5	1	9/30/13	10/3/13 20:12	
Barium, Total	6010C	207		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:12	
Beryllium, Total	6010C	0.81		mg/Kg	0.35	0.03	1	9/30/13	10/3/13 20:12	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/30/13	10/3/13 20:12	
Cadmium, Total	6010C	0.66		mg/Kg	0.58	0.08	1	9/30/13	10/3/13 20:12	
Calcium, Total	6010C	5810		mg/Kg	120	40	1	9/30/13	10/3/13 20:12	
Chromium, Total	6010C	20.4		mg/Kg	1.2	0.2	1	9/30/13	10/3/13 20:12	
Cobalt, Total	6010C	14.6		mg/Kg	5.8	0.07	1	9/30/13	10/3/13 20:12	
Copper, Total	6010C	21.1		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 20:12	
Iron, Total	6010C	26100		mg/Kg	120	70	10	9/30/13	10/3/13 16:31	
Lead, Total	6010C	31.3		mg/Kg	5.8	0.3	1	9/30/13	10/3/13 20:12	
Magnesium, Total	6010C	3360		mg/Kg	120	2	1	9/30/13	10/3/13 20:12	
Manganese, Total	6010C	1810		mg/Kg	12	2	10	9/30/13	10/3/13 16:31	
Mercury, Total	7471B	0.033	J	mg/Kg	0.040	0.007	1	9/26/13	9/26/13 20:20	
Nickel, Total	6010C	21.4		mg/Kg	4.7	0.10	1	9/30/13	10/3/13 20:12	
Potassium, Total	6010C	1650		mg/Kg	230	20	1	9/30/13	10/3/13 20:12	
Selenium, Total	6010C	0.9	J	mg/Kg	1.2	0.4	1	9/30/13	10/3/13 20:12	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/30/13	10/3/13 20:12	
Thallium, Total	6010C	5.8	U	mg/Kg	5.8	2.1	5	9/30/13	10/4/13 10:14	
Vanadium, Total	6010C	37.2		mg/Kg	5.8	0.06	1	9/30/13	10/3/13 20:12	
Zinc, Total	6010C	79.7		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 18:57

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9945.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .8

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.9	U	4.9	2.8	
71-43-2	Benzene	4.9	U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9	U	4.9	0.60	
75-25-2	Bromoform	4.9	U	4.9	0.91	
74-83-9	Bromomethane	4.9	U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9	U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9	U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9	U	4.9	0.90	
108-90-7	Chlorobenzene	4.9	U	4.9	0.29	
75-00-3	Chloroethane	4.9	U	4.9	2.8	
67-66-3	Chloroform	4.9	U	4.9	1.3	
74-87-3	Chloromethane	4.9	U	4.9	0.39	
124-48-1	Dibromochloromethane	4.9	U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9	U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9	U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9	U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9	U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.84	
78-87-5	1,2-Dichloropropane	4.9	U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.20	
100-41-4	Ethylbenzene	4.9	U	4.9	0.23	
591-78-6	2-Hexanone	4.9	U	4.9	1.2	
75-09-2	Methylene Chloride	4.9	U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9	U	4.9	0.96	
100-42-5	Styrene	4.9	U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	0.79	
127-18-4	Tetrachloroethene	4.9	U	4.9	0.86	
108-88-3	Toluene	1.6	J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9	U	4.9	0.72	
79-01-6	Trichloroethene	4.9	U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9	U	4.9	1.8	
95-47-6	o-Xylene	4.9	U	4.9	0.47	
179601-23-1	m,p-Xylenes	9.7	U	9.7	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01 TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 18:57

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9945.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .8

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9	U	4.9	0.92	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	56	51-136	9/22/13 18:57	
Toluene-d8	100	66-138	9/22/13 18:57	
Dibromofluoromethane	105	63-138	9/22/13 18:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 20:13

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9922.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.1	J	5.4	3.1	
71-43-2	Benzene	5.4	U	5.4	0.32	
75-27-4	Bromodichloromethane	5.4	U	5.4	0.66	
75-25-2	Bromoform	5.4	U	5.4	1.0	
74-83-9	Bromomethane	5.4	U	5.4	1.5	
78-93-3	2-Butanone (MEK)	5.4	U	5.4	2.5	
75-15-0	Carbon Disulfide	5.4	U	5.4	1.4	
56-23-5	Carbon Tetrachloride	5.4	U	5.4	0.99	
108-90-7	Chlorobenzene	5.4	U	5.4	0.32	
75-00-3	Chloroethane	5.4	U	5.4	3.1	
67-66-3	Chloroform	5.4	U	5.4	1.4	
74-87-3	Chloromethane	5.4	U	5.4	0.43	
124-48-1	Dibromochloromethane	5.4	U	5.4	0.79	
75-34-3	1,1-Dichloroethane	5.4	U	5.4	1.4	
107-06-2	1,2-Dichloroethane	5.4	U	5.4	0.66	
75-35-4	1,1-Dichloroethene	5.4	U	5.4	1.4	
156-59-2	cis-1,2-Dichloroethene	5.4	U	5.4	1.1	
156-60-5	trans-1,2-Dichloroethene	5.4	U	5.4	0.93	
78-87-5	1,2-Dichloropropane	5.4	U	5.4	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.4	U	5.4	0.97	
10061-02-6	trans-1,3-Dichloropropene	5.4	U	5.4	0.22	
100-41-4	Ethylbenzene	5.4	U	5.4	0.25	
591-78-6	2-Hexanone	5.4	U	5.4	1.3	
75-09-2	Methylene Chloride	5.4	U	5.4	0.62	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.4	U	5.4	1.1	
100-42-5	Styrene	5.4	U	5.4	0.33	
79-34-5	1,1,2,2-Tetrachloroethane	5.4	U	5.4	0.87	
127-18-4	Tetrachloroethene	5.4	U	5.4	0.95	
108-88-3	Toluene	5.4	U	5.4	1.1	
71-55-6	1,1,1-Trichloroethane	5.4	U	5.4	0.79	
79-00-5	1,1,2-Trichloroethane	5.4	U	5.4	0.79	
79-01-6	Trichloroethene	5.4	U	5.4	1.1	
75-01-4	Vinyl Chloride	5.4	U	5.4	2.0	
95-47-6	o-Xylene	5.4	U	5.4	0.52	
179601-23-1	m,p-Xylenes	11	U	11	1.2	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 20:13  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9922.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.4	U	5.4	1.1	
1330-20-7	Xylenes, Total	16	U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	61	51-136	9/20/13 20:13	
Toluene-d8	103	66-138	9/20/13 20:13	
Dibromofluoromethane	109	63-138	9/20/13 20:13	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:15

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE022.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	73	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:15

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5975E\data\092513\AE022.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	52	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	64	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	54	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:15

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306852-007

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE022.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	77	41-151	9/25/13 17:15	
2-Fluorobiphenyl	70	47-126	9/25/13 17:15	
2-Fluorophenol	61	16-129	9/25/13 17:15	
Nitrobenzene-d5	70	39-136	9/25/13 17:15	
Phenol-d6	67	10-145	9/25/13 17:15	
p-Terphenyl-d14	90	35-152	9/25/13 17:15	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5328B01 (2-4)  
**Lab Code:** R1306852-007  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5328B01 (10-12)  
Lab Code: R1306852-008

Service Request: R1306852  
Date Collected: 9/17/13 0945  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	82.6	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 82.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	4010		mg/Kg	12	4	1	9/30/13	10/3/13 20:20	
Antimony, Total	6010C	6.9	U	mg/Kg	6.9	0.3	1	9/30/13	10/3/13 20:20	
Arsenic, Total	6010C	6.8		mg/Kg	1.2	0.5	1	9/30/13	10/3/13 20:20	
Barium, Total	6010C	28.8		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:20	
Beryllium, Total	6010C	0.33	J	mg/Kg	0.35	0.03	1	9/30/13	10/3/13 20:20	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/30/13	10/3/13 20:20	
Cadmium, Total	6010C	0.58	U	mg/Kg	0.58	0.07	1	9/30/13	10/3/13 20:20	
Calcium, Total	6010C	77800		mg/Kg	1200	400	10	9/30/13	10/3/13 16:37	
Chromium, Total	6010C	10.0		mg/Kg	1.2	0.2	1	9/30/13	10/3/13 20:20	
Cobalt, Total	6010C	9.8		mg/Kg	5.8	0.07	1	9/30/13	10/3/13 20:20	
Copper, Total	6010C	11.6		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 20:20	
Iron, Total	6010C	13100		mg/Kg	120	70	10	9/30/13	10/3/13 16:37	
Lead, Total	6010C	11.3		mg/Kg	5.8	0.3	1	9/30/13	10/3/13 20:20	
Magnesium, Total	6010C	46500		mg/Kg	120	2	1	9/30/13	10/3/13 20:20	
Manganese, Total	6010C	601		mg/Kg	12	2	10	9/30/13	10/3/13 16:37	
Mercury, Total	7471B	0.020	J	mg/Kg	0.040	0.007	1	9/26/13	9/26/13 20:21	
Nickel, Total	6010C	15.0		mg/Kg	4.6	0.10	1	9/30/13	10/3/13 20:20	
Potassium, Total	6010C	1150		mg/Kg	230	20	1	9/30/13	10/3/13 20:20	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/30/13	10/3/13 20:20	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/30/13	10/3/13 20:20	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/30/13	10/3/13 20:20	
Vanadium, Total	6010C	17.4		mg/Kg	5.8	0.06	1	9/30/13	10/3/13 20:20	
Zinc, Total	6010C	44.8		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 20:45

Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9923.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .68

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	12		4.1	2.4	
71-43-2	Benzene	4.1	U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1	U	4.1	0.51	
75-25-2	Bromoform	4.1	U	4.1	0.77	
74-83-9	Bromomethane	4.1	U	4.1	1.2	
78-93-3	2-Butanone (MEK)	2.5	J	4.1	1.9	
75-15-0	Carbon Disulfide	3.4	J	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1	U	4.1	0.76	
108-90-7	Chlorobenzene	4.1	U	4.1	0.24	
75-00-3	Chloroethane	4.1	U	4.1	2.4	
67-66-3	Chloroform	4.1	U	4.1	1.1	
74-87-3	Chloromethane	4.1	U	4.1	0.33	
124-48-1	Dibromochloromethane	4.1	U	4.1	0.61	
75-34-3	1,1-Dichloroethane	4.1	U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1	U	4.1	0.51	
75-35-4	1,1-Dichloroethene	4.1	U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1	U	4.1	0.79	
156-60-5	trans-1,2-Dichloroethene	4.1	U	4.1	0.71	
78-87-5	1,2-Dichloropropane	4.1	U	4.1	0.80	
10061-01-5	cis-1,3-Dichloropropene	4.1	U	4.1	0.75	
10061-02-6	trans-1,3-Dichloropropene	4.1	U	4.1	0.17	
100-41-4	Ethylbenzene	4.1	U	4.1	0.19	
591-78-6	2-Hexanone	4.1	U	4.1	1.0	
75-09-2	Methylene Chloride	4.1	U	4.1	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	0.81	
100-42-5	Styrene	4.1	U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1	U	4.1	0.73	
108-88-3	Toluene	1.9	J	4.1	0.83	
71-55-6	1,1,1-Trichloroethane	4.1	U	4.1	0.61	
79-00-5	1,1,2-Trichloroethane	4.1	U	4.1	0.61	
79-01-6	Trichloroethene	4.1	U	4.1	0.84	
75-01-4	Vinyl Chloride	4.1	U	4.1	1.6	
95-47-6	o-Xylene	4.1	U	4.1	0.40	
179601-23-1	m,p-Xylenes	8.2	U	8.2	0.90	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 20:45

Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9923.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .68

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.1	U	4.1	0.78	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	51-136	9/20/13 20:45	
Toluene-d8	108	66-138	9/20/13 20:45	
Dibromofluoromethane	104	63-138	9/20/13 20:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:37

Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE023.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	40	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	61	
106-46-7	1,4-Dichlorobenzene	400	U	400	46	
95-95-4	2,4,5-Trichlorophenol	400	U	400	70	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	42	
91-57-6	2-Methylnaphthalene	400	U	400	40	
95-48-7	2-Methylphenol	400	U	400	52	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	73	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	44	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	290	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	63	
56-55-3	Benz(a)anthracene	400	U	400	62	
50-32-8	Benzo(a)pyrene	400	U	400	67	
205-99-2	Benzo(b)fluoranthene	400	U	400	97	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:37

Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE023.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	72	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	48	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	55	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	55	
85-68-7	Butyl Benzyl Phthalate	400	U	400	61	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	56	
84-74-2	Di-n-butyl Phthalate	400	U	400	110	
117-84-0	Di-n-octyl Phthalate	400	U	400	77	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	44	
84-66-2	Diethyl Phthalate	400	U	400	52	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	64	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	61	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	66	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	40	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	54	
108-95-2	Phenol	400	U	400	44	
129-00-0	Pyrene	400	U	400	78	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 0945  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 17:37

Sample Name: E5328B01 (10-12)  
 Lab Code: R1306852-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 82.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE023.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	85	41-151	9/25/13 17:37	
2-Fluorobiphenyl	62	47-126	9/25/13 17:37	
2-Fluorophenol	71	16-129	9/25/13 17:37	
Nitrobenzene-d5	67	39-136	9/25/13 17:37	
Phenol-d6	74	10-145	9/25/13 17:37	
p-Terphenyl-d14	97	35-152	9/25/13 17:37	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5328B01 (10-12)  
**Lab Code:** R1306852-008  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10795

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-01770</b>		
Project Manager <b>Baven Bunker</b>		Report CC <b>Dean Tebout</b>		
Company/Address <b>Ecology &amp; Environment, Inc</b> <b>33 W. Monroe St #1410</b> <b>Chicago, IL 60603</b>				
Phone # <b>312-578-9243</b>		Email <b>Jhughes@ene.com</b>		
Sender's Signature <i>J. Hughes</i>		Sampler's Printed Name <b>Jeff Hughes</b>		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
E5328B01(2-4)		9/17/13	0915	Soil
E5328B01(10-12)		9/17/13	0945	Soil
E5330B01(2-4)		9/17/13	1030	Soil
E5336B01(2-4)		9/17/13	1130	Soil
E5336B01(6-8)		9/17/13	1140	Soil
E5336B02(2-4)		9/17/13	1230	Soil
E5336B03(0-2)		9/17/13	1330	Soil

ANALYSIS REQUESTED (Include Method Number and Container Preservative)	PRESERVATIVE	NUMBER OF CONTAINERS	GCMS VOA • 8260 • 824 • CLP	GCMS SVOA • 8270 • 825	GC VOA • 8021 • 801/802	PESTICIDES • 8081 • 808	PCBs • 8092 • 808	METALS TOTAL (List in comments below)	METALS DISSOLVED (List in comments below)	VOCs	SVOCs	Total (TAL Metals)	TCP/SPLP Metals	pH	% Solids	REMARKS/ ALTERNATE DESCRIPTION	Preservative Key
																	0. NONE 1. HCl 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other _____
		4								X	X	X	X	X	X		
		4								X	X	X	X	X	X		
		4								X	X	X	X	X	X		
		4								X	X	X	X	X	X		
		4								X	X	X	X	X	X		
		4								X	X	X	X	X	X		

SPECIAL INSTRUCTIONS/COMMENTS Metals	TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____	REPORT REQUIREMENTS I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____	INVOICE INFORMATION PO # _____ BILL TO: _____
	REQUESTED REPORT DATE _____	Edata _____ Yes _____	<b>R1306852 5</b> Ecology And Environment, Incorporated IDOT USSD Plainfield PSI

STATE WHERE SAMPLES WERE COLLECTED	RECEIVED BY	RELINQUISHED BY
IL	<i>J. Hughes</i> Signature <b>Jeff Hughes</b> Printed Name Firm <b>ALS</b>	<i>[Signature]</i> Signature <b>[Printed Name]</b> Printed Name Firm <b>[Firm]</b>
Date/Time <b>9/17/13 1710</b>	Date/Time <b>9/18/13 0950</b>	Date/Time _____

See OAPP

Distribution: White - Lab Copy; Yellow - Return to Originator

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October 04, 2013

Service Request No: R1306850

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306850**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*KVB*

Karen Bunker  
Project Manager

Page I of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5328B01 (2-4)  
**Lab Code:** R1306850-007

**Service Request:** R1306850  
**Date Collected:** 9/17/13 0915  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.29	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 0915  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5328B01 (2-4)  
 Lab Code: R1306850-007

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.59	mg/L	0.20	1	9/23/13	9/27/13 12:46	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/23/13	9/27/13 12:46	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:46	
Barium	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:46	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/23/13	9/27/13 12:46	
Boron	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:46	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Calcium	6010C	103	mg/L	10	10	9/23/13	10/1/13 10:54	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:46	
Copper	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Iron	6010C	0.26	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Lead	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Magnesium	6010C	22.4	mg/L	1.0	1	9/23/13	9/27/13 12:46	
Manganese	6010C	0.018	mg/L	0.010	1	9/23/13	9/27/13 12:46	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 14:43	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/23/13	9/27/13 12:46	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:46	
Silver	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/23/13	9/27/13 12:46	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:46	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:46	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5328B01 (2-4)  
**Lab Code:** R1306850-007  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5328B01 (10-12)  
**Lab Code:** R1306850-008

**Service Request:** R1306850  
**Date Collected:** 9/17/13 0945  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.59	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306850  
**Date Collected:** 9/17/13 0945  
**Date Received:** 9/18/13  
**Pre-Prep Date:** 9/22/13

**Sample Name:** E5328B01 (10-12)  
**Lab Code:** R1306850-008

**Basis:** As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	1.00		mg/L	0.20	1	9/23/13	9/27/13 12:52	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 12:52	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:52	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:52	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 12:52	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:52	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Calcium	6010C	309		mg/L	10	10	9/23/13	10/1/13 11:01	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:52	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Iron	6010C	0.60		mg/L	0.10	1	9/23/13	9/27/13 12:52	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Magnesium	6010C	188		mg/L	1.0	1	9/23/13	9/27/13 12:52	
Manganese	6010C	6.34		mg/L	0.010	1	9/23/13	9/27/13 12:52	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:44	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/23/13	9/27/13 12:52	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:52	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 12:52	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:52	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:52	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5328B01 (10-12)  
**Lab Code:** R1306850-008  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 28, 2013

Service Request No: R1307556

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

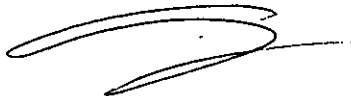
Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1307556**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 36

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





# INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

## Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

## Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307556  
Date Collected: 9/17/13 0945  
Date Received: 9/18/13  
Pre-Prep Date: 10/20/13

Sample Name: E5328B01 (10-12)  
Lab Code: R1307556-005

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.851	mg/L	0.010	1	10/21/13	10/24/13 23:57	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5328B01 (10-12)  
**Lab Code:** R1307556-005  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10795

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004935-0001-01710</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker</b>		Report CC <b>Dean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment, Inc 33 W. Monroe St #1410 Chicago, IL 60603</b>		Email <b>Jhughes+ecoe.com</b>		PRESERVATIVE	
Phone # <b>312-578-9243</b>		Samplers Provided Name <b>Jeff Hughes</b>		NUMBER OF CONTAINERS	
Signature <i>[Signature]</i>		DATE		MATRIX	
FOR OFFICE USE ONLY LAB ID		SAMPLING TIME			
CLIENT SAMPLE ID		DATE		MATRIX	
E5328B01(2-4)		9/17/13 0915		Soil	
E5328B01(10-12)		9/17/13 0945		Soil	
E5330B01(2-4)		9/17/13 1030		Soil	
E5336B01(2-4)		9/17/13 1130		Soil	
E5336B01(6-8)		9/17/13 1140		Soil	
E5336B02(7-4)		9/17/13 1230		Soil	
E5336B03(0-2)		9/17/13 1330		Soil	
SPECIAL INSTRUCTIONS/COMMENTS Metals					
TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MSMSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		INVOICE INFORMATION PO # BILL TO: <b>R1306850</b> Ecology And Environment, Incorporated 1001 US 30 Pittsfield Pk., Incorporated 5	
RECEIVED BY <i>[Signature]</i> Printed Name <b>Jeff Hughes</b> Firm <b>E+E</b> Date/Time <b>9/17/13 1710</b>		RECEIVED BY <i>[Signature]</i> Printed Name <b>John [Name]</b> Firm <b>ALS</b> Date/Time <b>9/18/13 0950</b>		RECEIVED BY <i>[Signature]</i> Printed Name <b>[Name]</b> Firm <b>[Firm]</b> Date/Time <b>[Date/Time]</b>	



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
22800 Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.586279° Longitude: -88.171833°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970455295 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.



Project Name: FAP 575: U.S. Route 30Latitude: 41.586279° Longitude: -88.171833°Uncontaminated Site Certification**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5329B02, E5329B03, E5329B04, and E5329B05 were sampled within the construction zone adjacent to ISGS #2141A-29 (Vacant Building). Refer to PSI Report for ISGS #2141A-29 (Vacant Building) including Table 4-4, and Figure 4-1A and 4-1B.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306850, R1306852, and R1307556.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

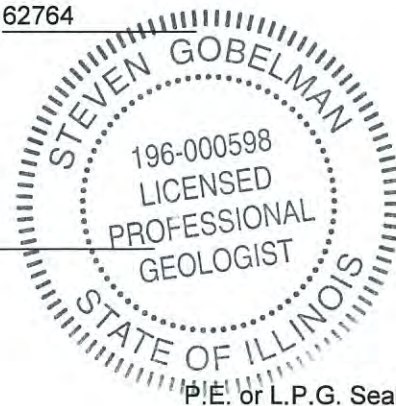
I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of TransportationStreet Address: 2300 South Dirksen ParkwayCity: Springfield State: IL Zip Code: 62764Phone: 217-785-4246Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

Date: 1/24/14





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-29 (Vacant Building)						Comparison Criteria		
	E5329B02	E5329B03	E5329B04		E5329B05	MACs			TACO
<b>SAMPLE</b>	E5329B02 (0-2)	E5329B03 (2-4)	E5329B04 (2-4)	E5329B04 (12-14)		E5329B05 (0-2)			
<b>MATRIX</b>	Soil	Soil	Soil	Soil	Soil	Soil			
<b>DEPTH (meters)</b>	0.0-0.6	0.6-1.2	0.6-1.2	3.7-4.3	0.0-0.6				
<b>pH</b>	7.43	7.41	8.08	7.13	7.95				
<b>VOCs (µg/kg)</b>									
Acetone	ND UJ	ND U	ND UJ	4.0	ND U	25,000	--	--	--
Carbon Disulfide	ND UJ	ND U	ND UJ	1.1 J	ND U	9,000	--	--	--
Toluene	1.5 J	ND U	ND UJ	ND UJ	ND U	12,000	--	--	--
<b>SVOCs (None Detected)</b>									
<b>Inorganics (mg/kg)</b>									
Aluminum	11,900	18,200	11,300	3,000	3,470	--	--	--	--
Arsenic	8.3	7.8	6.6	6.7	12.2 †	11.3	13	--	--
Barium	144	161	51.7	9.8	19.0	1,500	--	--	--
Beryllium	0.68	0.69	0.62	0.15 J	0.23 J	22	--	--	--
Cadmium	0.34 J	0.25 J	0.31 J	ND U	0.10 J	5.2	--	--	--
Calcium	9,370	2,470	72,600	105,000	88,500	--	--	--	--
Chromium	16.6	22.6 †	19.5	7.1	7.5	21	--	--	--
Cobalt	10.1	8.4	11.3	5.4 J	6.1	20	--	--	--
Copper	18.2	9.7	23.6	20.3	20.6	2,900	--	--	--
Iron	20,300 †m	24,300 †m	23,400 †m	12,100	15,400 †	15,000	15,900	--	--
Lead	26.7	15.3	13.8	6.8	10.1	107	--	--	--
Magnesium	6,410	4,400	28,100	52,600	48,400	325,000	--	--	--
Manganese	1,040	462	443	532	490	630	636	--	--
Mercury	0.029 J	0.035 J	0.025 J	0.013 J	0.015 J	0.89	--	--	--
Nickel	17.0	12.6	25.7	10.5	14.4	100	--	--	--
Potassium	1,240	1,030	2,520	730	850	--	--	--	--
Selenium	0.8 J	ND U	ND U	ND U	ND U	1.3	--	--	--
Vanadium	29.2	38.2	23.6	10.5	13.1	550	--	--	--
Zinc	66.2	60.0	69.6	20.5	57.1	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>									
Aluminum	0.36	2.30	ND U	ND U	0.69	--	--	--	--
Calcium	122	53	689	539	342	--	--	--	--
Iron	0.16	1.21	0.13	0.23	0.82	--	--	--	5
Magnesium	60.0	24.0	29.1	28.9	204	--	--	--	--
Manganese	0.049	0.056	0.700 L	1.98 L	1.35 L	--	--	--	0.15
Potassium	ND U	ND U	ND U	5.8	ND U	--	--	--	--
<b>SPLP Metals (mg/L)</b>									
Manganese	NA	NA	0.631 L	ND U	0.090	--	--	--	0.15



October 04, 2013

Service Request No: R1306850

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306850**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*KVB*

Karen Bunker  
Project Manager

Page I of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B04 (2-4)  
**Lab Code:** R1306850-002

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1445  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.08	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306850-002

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/23/13	9/27/13 12:16	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 12:16	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:16	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:16	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 12:16	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:16	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Calcium	6010C	689		mg/L	20	20	9/23/13	10/2/13 17:45	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:16	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Iron	6010C	0.13		mg/L	0.10	1	9/23/13	9/27/13 12:16	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Magnesium	6010C	29.1		mg/L	1.0	1	9/23/13	9/27/13 12:16	
Manganese	6010C	0.700		mg/L	0.010	1	9/23/13	9/27/13 12:16	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:31	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/23/13	9/27/13 12:16	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:16	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 12:16	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:16	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:16	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (2-4)  
**Lab Code:** R1306850-002  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1306850-003

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1510  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.13	pH Units		1	NA	10/1/13 15:30	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306850-003

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/23/13	9/27/13 12:22	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 12:22	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:22	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:22	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 12:22	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:22	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Calcium	6010C	539		mg/L	20	20	9/23/13	10/2/13 17:52	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:22	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Iron	6010C	0.23		mg/L	0.10	1	9/23/13	9/27/13 12:22	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Magnesium	6010C	28.9		mg/L	1.0	1	9/23/13	9/27/13 12:22	
Manganese	6010C	1.98		mg/L	0.010	1	9/23/13	9/27/13 12:22	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:33	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Potassium	6010C	5.8		mg/L	5.0	1	9/23/13	9/27/13 12:22	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:22	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 12:22	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:22	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:22	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1306850-003  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B05 (0-2)  
**Lab Code:** R1306850-004

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1418  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.95	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306850-004

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.69		mg/L	0.20	1	9/23/13	9/27/13 12:28	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 12:28	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:28	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:28	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 12:28	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 12:28	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Calcium	6010C	342		mg/L	10	10	9/23/13	10/1/13 10:36	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:28	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Iron	6010C	0.82		mg/L	0.10	1	9/23/13	9/27/13 12:28	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Magnesium	6010C	204		mg/L	1.0	1	9/23/13	9/27/13 12:28	
Manganese	6010C	1.35		mg/L	0.010	1	9/23/13	9/27/13 12:28	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:34	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/23/13	9/27/13 12:28	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 12:28	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 12:28	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 12:28	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 12:28	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B05 (0-2)  
**Lab Code:** R1306850-004  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B03 (2-4)  
**Lab Code:** R1306850-005

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1530  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.41	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306850-005

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	2.30	mg/L	0.20	1	9/23/13	9/27/13 12:34	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/23/13	9/27/13 12:34	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:34	
Barium	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:34	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/23/13	9/27/13 12:34	
Boron	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:34	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Calcium	6010C	53	mg/L	10	10	9/23/13	10/1/13 10:42	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:34	
Copper	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Iron	6010C	1.21	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Lead	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Magnesium	6010C	24.0	mg/L	1.0	1	9/23/13	9/27/13 12:34	
Manganese	6010C	0.056	mg/L	0.010	1	9/23/13	9/27/13 12:34	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 14:36	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/23/13	9/27/13 12:34	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:34	
Silver	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/23/13	9/27/13 12:34	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:34	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:34	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B03 (2-4)  
**Lab Code:** R1306850-005  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B02 (0-2)  
**Lab Code:** R1306850-006

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1553  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.43	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306850-006

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.36	mg/L	0.20	1	9/23/13	9/27/13 12:40	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/23/13	9/27/13 12:40	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:40	
Barium	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:40	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/23/13	9/27/13 12:40	
Boron	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:40	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Calcium	6010C	122	mg/L	10	10	9/23/13	10/1/13 10:48	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:40	
Copper	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Iron	6010C	0.16	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Lead	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Magnesium	6010C	60.0	mg/L	1.0	1	9/23/13	9/27/13 12:40	
Manganese	6010C	0.049	mg/L	0.010	1	9/23/13	9/27/13 12:40	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 14:38	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Potassium	6010C	5.0 U	mg/L	5.0	1	9/23/13	9/27/13 12:40	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:40	
Silver	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/23/13	9/27/13 12:40	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:40	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:40	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B02 (0-2)  
**Lab Code:** R1306850-006  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD





October 11, 2013

Service Request No: R1306852

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306852**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 258

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B04 (2-4)  
**Lab Code:** R1306852-002

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1445  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.2	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 84.2

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11300		mg/Kg	11	4	1	9/30/13	10/3/13 19:39	
Antimony, Total	6010C	6.9	U	mg/Kg	6.9	0.3	1	9/30/13	10/3/13 19:39	
Arsenic, Total	6010C	6.6		mg/Kg	1.1	0.5	1	9/30/13	10/3/13 19:39	
Barium, Total	6010C	51.7		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:39	
Beryllium, Total	6010C	0.62		mg/Kg	0.34	0.03	1	9/30/13	10/3/13 19:39	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/30/13	10/3/13 19:39	
Cadmium, Total	6010C	0.31	J	mg/Kg	0.57	0.07	1	9/30/13	10/3/13 19:39	
Calcium, Total	6010C	72600		mg/Kg	1100	400	10	9/30/13	10/3/13 15:59	
Chromium, Total	6010C	19.5		mg/Kg	1.1	0.2	1	9/30/13	10/3/13 19:39	
Cobalt, Total	6010C	11.3		mg/Kg	5.7	0.07	1	9/30/13	10/3/13 19:39	
Copper, Total	6010C	23.6		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 19:39	
Iron, Total	6010C	23400		mg/Kg	110	60	10	9/30/13	10/3/13 15:59	
Lead, Total	6010C	13.8		mg/Kg	5.7	0.3	1	9/30/13	10/3/13 19:39	
Magnesium, Total	6010C	28100		mg/Kg	110	2	1	9/30/13	10/3/13 19:39	
Manganese, Total	6010C	443		mg/Kg	11	2	10	9/30/13	10/3/13 15:59	
Mercury, Total	7471B	0.025	J	mg/Kg	0.038	0.006	1	9/26/13	9/26/13 20:11	
Nickel, Total	6010C	25.7		mg/Kg	4.6	0.10	1	9/30/13	10/3/13 19:39	
Potassium, Total	6010C	2520		mg/Kg	230	20	1	9/30/13	10/3/13 19:39	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 19:39	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.10	1	9/30/13	10/3/13 19:39	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 19:39	
Vanadium, Total	6010C	23.6		mg/Kg	5.7	0.06	1	9/30/13	10/3/13 19:39	
Zinc, Total	6010C	69.6		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:39	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 17:22

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\msvoa12\Data\092213\T9942.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .65

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	3.9	U	3.9	2.2	
71-43-2	Benzene	3.9	U	3.9	0.23	
75-27-4	Bromodichloromethane	3.9	U	3.9	0.48	
75-25-2	Bromoform	3.9	U	3.9	0.72	
74-83-9	Bromomethane	3.9	U	3.9	1.1	
78-93-3	2-Butanone (MEK)	3.9	U	3.9	1.8	
75-15-0	Carbon Disulfide	3.9	U	3.9	0.96	
56-23-5	Carbon Tetrachloride	3.9	U	3.9	0.72	
108-90-7	Chlorobenzene	3.9	U	3.9	0.23	
75-00-3	Chloroethane	3.9	U	3.9	2.3	
67-66-3	Chloroform	3.9	U	3.9	0.98	
74-87-3	Chloromethane	3.9	U	3.9	0.31	
124-48-1	Dibromochloromethane	3.9	U	3.9	0.57	
75-34-3	1,1-Dichloroethane	3.9	U	3.9	0.97	
107-06-2	1,2-Dichloroethane	3.9	U	3.9	0.48	
75-35-4	1,1-Dichloroethene	3.9	U	3.9	0.99	
156-59-2	cis-1,2-Dichloroethene	3.9	U	3.9	0.74	
156-60-5	trans-1,2-Dichloroethene	3.9	U	3.9	0.67	
78-87-5	1,2-Dichloropropane	3.9	U	3.9	0.75	
10061-01-5	cis-1,3-Dichloropropene	3.9	U	3.9	0.70	
10061-02-6	trans-1,3-Dichloropropene	3.9	U	3.9	0.16	
100-41-4	Ethylbenzene	3.9	U	3.9	0.18	
591-78-6	2-Hexanone	3.9	U	3.9	0.94	
75-09-2	Methylene Chloride	3.9	U	3.9	0.45	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.9	U	3.9	0.76	
100-42-5	Styrene	3.9	U	3.9	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.9	U	3.9	0.63	
127-18-4	Tetrachloroethene	3.9	U	3.9	0.68	
108-88-3	Toluene	3.9	U	3.9	0.78	
71-55-6	1,1,1-Trichloroethane	3.9	U	3.9	0.57	
79-00-5	1,1,2-Trichloroethane	3.9	U	3.9	0.57	
79-01-6	Trichloroethene	3.9	U	3.9	0.78	
75-01-4	Vinyl Chloride	3.9	U	3.9	1.5	
95-47-6	o-Xylene	3.9	U	3.9	0.38	
179601-23-1	m,p-Xylenes	7.7	U	7.7	0.85	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 17:22

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9942.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .65

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.9	U	3.9	0.73	
1330-20-7	Xylenes, Total	12	U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	71	51-136	9/22/13 17:22	
Toluene-d8	99	66-138	9/22/13 17:22	
Dibromofluoromethane	97	63-138	9/22/13 17:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 17:35

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9917.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .69

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.1	U	4.1	2.4	
71-43-2	Benzene	4.1	U	4.1	0.24	
75-27-4	Bromodichloromethane	4.1	U	4.1	0.50	
75-25-2	Bromoform	4.1	U	4.1	0.77	
74-83-9	Bromomethane	4.1	U	4.1	1.2	
78-93-3	2-Butanone (MEK)	4.1	U	4.1	1.9	
75-15-0	Carbon Disulfide	4.1	U	4.1	1.1	
56-23-5	Carbon Tetrachloride	4.1	U	4.1	0.76	
108-90-7	Chlorobenzene	4.1	U	4.1	0.24	
75-00-3	Chloroethane	4.1	U	4.1	2.4	
67-66-3	Chloroform	4.1	U	4.1	1.1	
74-87-3	Chloromethane	4.1	U	4.1	0.33	
124-48-1	Dibromochloromethane	4.1	U	4.1	0.60	
75-34-3	1,1-Dichloroethane	4.1	U	4.1	1.1	
107-06-2	1,2-Dichloroethane	4.1	U	4.1	0.50	
75-35-4	1,1-Dichloroethene	4.1	U	4.1	1.1	
156-59-2	cis-1,2-Dichloroethene	4.1	U	4.1	0.78	
156-60-5	trans-1,2-Dichloroethene	4.1	U	4.1	0.71	
78-87-5	1,2-Dichloropropane	4.1	U	4.1	0.80	
10061-01-5	cis-1,3-Dichloropropene	4.1	U	4.1	0.74	
10061-02-6	trans-1,3-Dichloropropene	4.1	U	4.1	0.17	
100-41-4	Ethylbenzene	4.1	U	4.1	0.19	
591-78-6	2-Hexanone	4.1	U	4.1	1.0	
75-09-2	Methylene Chloride	4.1	U	4.1	0.47	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.1	U	4.1	0.81	
100-42-5	Styrene	4.1	U	4.1	0.25	
79-34-5	1,1,2,2-Tetrachloroethane	4.1	U	4.1	0.67	
127-18-4	Tetrachloroethene	4.1	U	4.1	0.73	
108-88-3	Toluene	4.1	U	4.1	0.82	
71-55-6	1,1,1-Trichloroethane	4.1	U	4.1	0.60	
79-00-5	1,1,2-Trichloroethane	4.1	U	4.1	0.60	
79-01-6	Trichloroethene	4.1	U	4.1	0.83	
75-01-4	Vinyl Chloride	4.1	U	4.1	1.6	
95-47-6	o-Xylene	4.1	U	4.1	0.40	
179601-23-1	m,p-Xylenes	8.2	U	8.2	0.90	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 17:35  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9917.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .69

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.1 U	4.1	0.78	
1330-20-7	Xylenes, Total	12 U	12	1.3	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	74	51-136	9/20/13 17:35	
Toluene-d8	102	66-138	9/20/13 17:35	
Dibromofluoromethane	104	63-138	9/20/13 17:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 15:26

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE017.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	58	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	59	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	72	
	3- and 4-Methylphenol Coelution	390	U	390	60	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	56	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	62	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	66	
205-99-2	Benzo(b)fluoranthene	390	U	390	95	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 15:26

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE017.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	48	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	55	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	76	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	50	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	53	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 15:26

Sample Name: E5329B04 (2-4)  
 Lab Code: R1306852-002

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE017.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	104	41-151	9/25/13 15:26	
2-Fluorobiphenyl	86	47-126	9/25/13 15:26	
2-Fluorophenol	84	16-129	9/25/13 15:26	
Nitrobenzene-d5	85	39-136	9/25/13 15:26	
Phenol-d6	89	10-145	9/25/13 15:26	
p-Terphenyl-d14	117	35-152	9/25/13 15:26	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (2-4)  
**Lab Code:** R1306852-002  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1306852-003

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1510  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	83.9	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 83.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	3000		mg/Kg	12	4	1	9/30/13	10/3/13 19:46	
Antimony, Total	6010C	6.9	U	mg/Kg	6.9	0.3	1	9/30/13	10/3/13 19:46	
Arsenic, Total	6010C	6.7		mg/Kg	1.2	0.5	1	9/30/13	10/3/13 19:46	
Barium, Total	6010C	9.8		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:46	
Beryllium, Total	6010C	0.15	J	mg/Kg	0.35	0.03	1	9/30/13	10/3/13 19:46	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/30/13	10/3/13 19:46	
Cadmium, Total	6010C	0.58	U	mg/Kg	0.58	0.07	1	9/30/13	10/3/13 19:46	
Calcium, Total	6010C	105000		mg/Kg	1200	400	10	9/30/13	10/3/13 16:06	
Chromium, Total	6010C	7.1		mg/Kg	1.2	0.2	1	9/30/13	10/3/13 19:46	
Cobalt, Total	6010C	5.4	J	mg/Kg	5.8	0.07	1	9/30/13	10/3/13 19:46	
Copper, Total	6010C	20.3		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 19:46	
Iron, Total	6010C	12100		mg/Kg	120	70	10	9/30/13	10/3/13 16:06	
Lead, Total	6010C	6.8		mg/Kg	5.8	0.3	1	9/30/13	10/3/13 19:46	
Magnesium, Total	6010C	52600		mg/Kg	120	2	1	9/30/13	10/3/13 19:46	
Manganese, Total	6010C	532		mg/Kg	12	2	10	9/30/13	10/3/13 16:06	
Mercury, Total	7471B	0.013	J	mg/Kg	0.039	0.007	1	9/26/13	9/26/13 20:13	
Nickel, Total	6010C	10.5		mg/Kg	4.6	0.10	1	9/30/13	10/3/13 19:46	
Potassium, Total	6010C	730		mg/Kg	230	20	1	9/30/13	10/3/13 19:46	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/30/13	10/3/13 19:46	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/30/13	10/3/13 19:46	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/30/13	10/3/13 19:46	
Vanadium, Total	6010C	10.5		mg/Kg	5.8	0.06	1	9/30/13	10/3/13 19:46	
Zinc, Total	6010C	20.5		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:46	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 17:53

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\msvoa12\Data\092213\T9943.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .58

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.0		3.5	2.0	
71-43-2	Benzene	3.5	U	3.5	0.21	
75-27-4	Bromodichloromethane	3.5	U	3.5	0.43	
75-25-2	Bromoform	3.5	U	3.5	0.65	
74-83-9	Bromomethane	3.5	U	3.5	0.96	
78-93-3	2-Butanone (MEK)	3.5	U	3.5	1.6	
75-15-0	Carbon Disulfide	1.1	J	3.5	0.86	
56-23-5	Carbon Tetrachloride	3.5	U	3.5	0.64	
108-90-7	Chlorobenzene	3.5	U	3.5	0.21	
75-00-3	Chloroethane	3.5	U	3.5	2.0	
67-66-3	Chloroform	3.5	U	3.5	0.88	
74-87-3	Chloromethane	3.5	U	3.5	0.28	
124-48-1	Dibromochloromethane	3.5	U	3.5	0.51	
75-34-3	1,1-Dichloroethane	3.5	U	3.5	0.87	
107-06-2	1,2-Dichloroethane	3.5	U	3.5	0.43	
75-35-4	1,1-Dichloroethene	3.5	U	3.5	0.89	
156-59-2	cis-1,2-Dichloroethene	3.5	U	3.5	0.66	
156-60-5	trans-1,2-Dichloroethene	3.5	U	3.5	0.60	
78-87-5	1,2-Dichloropropane	3.5	U	3.5	0.68	
10061-01-5	cis-1,3-Dichloropropene	3.5	U	3.5	0.63	
10061-02-6	trans-1,3-Dichloropropene	3.5	U	3.5	0.14	
100-41-4	Ethylbenzene	3.5	U	3.5	0.16	
591-78-6	2-Hexanone	3.5	U	3.5	0.84	
75-09-2	Methylene Chloride	3.5	U	3.5	0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.5	U	3.5	0.68	
100-42-5	Styrene	3.5	U	3.5	0.21	
79-34-5	1,1,2,2-Tetrachloroethane	3.5	U	3.5	0.56	
127-18-4	Tetrachloroethene	3.5	U	3.5	0.61	
108-88-3	Toluene	3.5	U	3.5	0.70	
71-55-6	1,1,1-Trichloroethane	3.5	U	3.5	0.51	
79-00-5	1,1,2-Trichloroethane	3.5	U	3.5	0.51	
79-01-6	Trichloroethene	3.5	U	3.5	0.70	
75-01-4	Vinyl Chloride	3.5	U	3.5	1.3	
95-47-6	o-Xylene	3.5	U	3.5	0.34	
179601-23-1	m,p-Xylenes	6.9	U	6.9	0.76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 17:53

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoaI2\Data\092213\T9943.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .58

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.5	U	3.5	0.65	
1330-20-7	Xylenes, Total	10	U	10	1.1	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	45 *	51-136	9/22/13 17:53	
Toluene-d8	88	66-138	9/22/13 17:53	
Dibromofluoromethane	110	63-138	9/22/13 17:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 18:07

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoal2\Data\092013\T9918.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .63

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.5		3.8	2.2	
71-43-2	Benzene	3.8	U	3.8	0.22	
75-27-4	Bromodichloromethane	3.8	U	3.8	0.46	
75-25-2	Bromoform	3.8	U	3.8	0.70	
74-83-9	Bromomethane	3.8	U	3.8	1.1	
78-93-3	2-Butanone (MEK)	3.8	U	3.8	1.8	
75-15-0	Carbon Disulfide	1.0	J	3.8	0.94	
56-23-5	Carbon Tetrachloride	3.8	U	3.8	0.70	
108-90-7	Chlorobenzene	3.8	U	3.8	0.22	
75-00-3	Chloroethane	3.8	U	3.8	2.2	
67-66-3	Chloroform	3.8	U	3.8	0.95	
74-87-3	Chloromethane	3.8	U	3.8	0.31	
124-48-1	Dibromochloromethane	3.8	U	3.8	0.55	
75-34-3	1,1-Dichloroethane	3.8	U	3.8	0.94	
107-06-2	1,2-Dichloroethane	3.8	U	3.8	0.46	
75-35-4	1,1-Dichloroethene	3.8	U	3.8	0.97	
156-59-2	cis-1,2-Dichloroethene	3.8	U	3.8	0.72	
156-60-5	trans-1,2-Dichloroethene	3.8	U	3.8	0.65	
78-87-5	1,2-Dichloropropane	3.8	U	3.8	0.73	
10061-01-5	cis-1,3-Dichloropropene	3.8	U	3.8	0.68	
10061-02-6	trans-1,3-Dichloropropene	3.8	U	3.8	0.16	
100-41-4	Ethylbenzene	3.8	U	3.8	0.18	
591-78-6	2-Hexanone	3.8	U	3.8	0.91	
75-09-2	Methylene Chloride	3.8	U	3.8	0.43	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.8	U	3.8	0.74	
100-42-5	Styrene	3.8	U	3.8	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	3.8	U	3.8	0.61	
127-18-4	Tetrachloroethene	3.8	U	3.8	0.67	
108-88-3	Toluene	3.8	U	3.8	0.76	
71-55-6	1,1,1-Trichloroethane	3.8	U	3.8	0.55	
79-00-5	1,1,2-Trichloroethane	3.8	U	3.8	0.55	
79-01-6	Trichloroethene	3.8	U	3.8	0.76	
75-01-4	Vinyl Chloride	3.8	U	3.8	1.4	
95-47-6	o-Xylene	3.8	U	3.8	0.37	
179601-23-1	m,p-Xylenes	7.5	U	7.5	0.82	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 18:07

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9918.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .63

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	3.8	U	3.8	0.71	
1330-20-7	Xylenes, Total	11	U	11	1.2	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	47 *	51-136	9/20/13 18:07	
Toluene-d8	89	66-138	9/20/13 18:07	
Dibromofluoromethane	108	63-138	9/20/13 18:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 15:48

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE018.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	46	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	58	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	66	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	42	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	52	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	59	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	72	
	3- and 4-Methylphenol Coelution	390	U	390	60	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	580	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	71	
59-50-7	4-Chloro-3-methylphenol	390	U	390	44	
106-47-8	4-Chloroaniline	390	U	390	77	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	56	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	57	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	62	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	66	
205-99-2	Benzo(b)fluoranthene	390	U	390	96	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1510  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 15:48

Sample Name: E5329B04 (12-14)  
 Lab Code: R1306852-003

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 83.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE018.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	75	
207-08-9	Benzo(k)fluoranthene	390	U	390	71	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	48	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	55	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	55	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	55	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	76	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	44	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	57	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	50	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	53	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	62	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	44	
129-00-0	Pyrene	390	U	390	77	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1510  
**Date Received:** 9/18/13  
**Date Extracted:** 9/20/13  
**Date Analyzed:** 9/25/13 15:48

**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1306852-003

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 83.9

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5975E\data\092513\AE018.D\

**Analysis Lot:** 360139  
**Extraction Lot:** 192208  
**Instrument Name:** R-MS-56  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	77	41-151	9/25/13 15:48	
2-Fluorobiphenyl	66	47-126	9/25/13 15:48	
2-Fluorophenol	69	16-129	9/25/13 15:48	
Nitrobenzene-d5	68	39-136	9/25/13 15:48	
Phenol-d6	73	10-145	9/25/13 15:48	
p-Terphenyl-d14	98	35-152	9/25/13 15:48	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1306852-003  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5329B05 (0-2)  
**Lab Code:** R1306852-004

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1418  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.6	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Service Request: R1306852  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 86.6

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	3470		mg/Kg	11	4	1	9/30/13	10/3/13 19:52	
Antimony, Total	6010C	6.7	U	mg/Kg	6.7	0.3	1	9/30/13	10/3/13 19:52	
Arsenic, Total	6010C	12.2		mg/Kg	1.1	0.5	1	9/30/13	10/3/13 19:52	
Barium, Total	6010C	19.0		mg/Kg	2.2	0.09	1	9/30/13	10/3/13 19:52	
Beryllium, Total	6010C	0.23	J	mg/Kg	0.34	0.03	1	9/30/13	10/3/13 19:52	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/30/13	10/3/13 19:52	
Cadmium, Total	6010C	0.10	J	mg/Kg	0.56	0.07	1	9/30/13	10/3/13 19:52	
Calcium, Total	6010C	88500		mg/Kg	1100	400	10	9/30/13	10/3/13 16:12	
Chromium, Total	6010C	7.5		mg/Kg	1.1	0.2	1	9/30/13	10/3/13 19:52	
Cobalt, Total	6010C	6.1		mg/Kg	5.6	0.06	1	9/30/13	10/3/13 19:52	
Copper, Total	6010C	20.6		mg/Kg	2.2	0.8	1	9/30/13	10/3/13 19:52	
Iron, Total	6010C	15400		mg/Kg	110	60	10	9/30/13	10/3/13 16:12	
Lead, Total	6010C	10.1		mg/Kg	5.6	0.3	1	9/30/13	10/3/13 19:52	
Magnesium, Total	6010C	48400		mg/Kg	110	2	1	9/30/13	10/3/13 19:52	
Manganese, Total	6010C	490		mg/Kg	11	2	10	9/30/13	10/3/13 16:12	
Mercury, Total	7471B	0.015	J	mg/Kg	0.035	0.006	1	9/26/13	9/26/13 20:15	
Nickel, Total	6010C	14.4		mg/Kg	4.5	0.10	1	9/30/13	10/3/13 19:52	
Potassium, Total	6010C	850		mg/Kg	220	20	1	9/30/13	10/3/13 19:52	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 19:52	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/30/13	10/3/13 19:52	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 19:52	
Vanadium, Total	6010C	13.1		mg/Kg	5.6	0.06	1	9/30/13	10/3/13 19:52	
Zinc, Total	6010C	57.1		mg/Kg	2.2	0.08	1	9/30/13	10/3/13 19:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 18:38

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9919.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .9

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.2	U	5.2	3.0	
71-43-2	Benzene	5.2	U	5.2	0.31	
75-27-4	Bromodichloromethane	5.2	U	5.2	0.64	
75-25-2	Bromoform	5.2	U	5.2	0.97	
74-83-9	Bromomethane	5.2	U	5.2	1.5	
78-93-3	2-Butanone (MEK)	5.2	U	5.2	2.4	
75-15-0	Carbon Disulfide	5.2	U	5.2	1.3	
56-23-5	Carbon Tetrachloride	5.2	U	5.2	0.96	
108-90-7	Chlorobenzene	5.2	U	5.2	0.31	
75-00-3	Chloroethane	5.2	U	5.2	3.0	
67-66-3	Chloroform	5.2	U	5.2	1.4	
74-87-3	Chloromethane	5.2	U	5.2	0.42	
124-48-1	Dibromochloromethane	5.2	U	5.2	0.76	
75-34-3	1,1-Dichloroethane	5.2	U	5.2	1.3	
107-06-2	1,2-Dichloroethane	5.2	U	5.2	0.64	
75-35-4	1,1-Dichloroethene	5.2	U	5.2	1.4	
156-59-2	cis-1,2-Dichloroethene	5.2	U	5.2	0.99	
156-60-5	trans-1,2-Dichloroethene	5.2	U	5.2	0.90	
78-87-5	1,2-Dichloropropane	5.2	U	5.2	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.2	U	5.2	0.94	
10061-02-6	trans-1,3-Dichloropropene	5.2	U	5.2	0.21	
100-41-4	Ethylbenzene	5.2	U	5.2	0.24	
591-78-6	2-Hexanone	5.2	U	5.2	1.3	
75-09-2	Methylene Chloride	5.2	U	5.2	0.60	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.2	U	5.2	1.1	
100-42-5	Styrene	5.2	U	5.2	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	5.2	U	5.2	0.85	
127-18-4	Tetrachloroethene	5.2	U	5.2	0.92	
108-88-3	Toluene	5.2	U	5.2	1.1	
71-55-6	1,1,1-Trichloroethane	5.2	U	5.2	0.76	
79-00-5	1,1,2-Trichloroethane	5.2	U	5.2	0.76	
79-01-6	Trichloroethene	5.2	U	5.2	1.1	
75-01-4	Vinyl Chloride	5.2	U	5.2	2.0	
95-47-6	o-Xylene	5.2	U	5.2	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01 TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 14:18  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 18:38

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9919.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .9

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.2	U	5.2	0.98	
1330-20-7	Xylenes, Total	16	U	16	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	51-136	9/20/13 18:38	
Toluene-d8	105	66-138	9/20/13 18:38	
Dibromofluoromethane	99	63-138	9/20/13 18:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:10

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE019.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380 U	380	39	
95-50-1	1,2-Dichlorobenzene	380 U	380	43	
541-73-1	1,3-Dichlorobenzene	380 U	380	58	
106-46-7	1,4-Dichlorobenzene	380 U	380	44	
95-95-4	2,4,5-Trichlorophenol	380 U	380	67	
88-06-2	2,4,6-Trichlorophenol	380 U	380	56	
120-83-2	2,4-Dichlorophenol	380 U	380	51	
105-67-9	2,4-Dimethylphenol	380 U	380	43	
51-28-5	2,4-Dinitrophenol	2000 U	2000	170	
121-14-2	2,4-Dinitrotoluene	380 U	380	82	
606-20-2	2,6-Dinitrotoluene	380 U	380	64	
91-58-7	2-Chloronaphthalene	380 U	380	40	
95-57-8	2-Chlorophenol	380 U	380	40	
91-57-6	2-Methylnaphthalene	380 U	380	39	
95-48-7	2-Methylphenol	380 U	380	50	
88-74-4	2-Nitroaniline	2000 U	2000	320	
88-75-5	2-Nitrophenol	380 U	380	57	
91-94-1	3,3'-Dichlorobenzidine	380 U	380	70	
	3- and 4-Methylphenol Coelution	380 U	380	58	
99-09-2	3-Nitroaniline	2000 U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000 U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380 U	380	69	
59-50-7	4-Chloro-3-methylphenol	380 U	380	42	
106-47-8	4-Chloroaniline	380 U	380	74	
7005-72-3	4-Chlorophenyl Phenyl Ether	380 U	380	54	
100-01-6	4-Nitroaniline	2000 U	2000	420	
100-02-7	4-Nitrophenol	2000 U	2000	280	
83-32-9	Acenaphthene	380 U	380	55	
208-96-8	Acenaphthylene	380 U	380	51	
120-12-7	Anthracene	380 U	380	60	
56-55-3	Benz(a)anthracene	380 U	380	59	
50-32-8	Benzo(a)pyrene	380 U	380	64	
205-99-2	Benzo(b)fluoranthene	380 U	380	93	

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Analytical Report

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 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:10

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE019.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	72	
207-08-9	Benzo(k)fluoranthene	380	U	380	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	46	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	59	
86-74-8	Carbazole	380	U	380	53	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	73	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	380	U	380	61	
86-73-7	Fluorene	380	U	380	48	
118-74-1	Hexachlorobenzene	380	U	380	58	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	61	
67-72-1	Hexachloroethane	380	U	380	53	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	63	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	42	
129-00-0	Pyrene	380	U	380	74	





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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1418  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:10

Sample Name: E5329B05 (0-2)  
 Lab Code: R1306852-004

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE019.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	41-151	9/25/13 16:10	
2-Fluorobiphenyl	83	47-126	9/25/13 16:10	
2-Fluorophenol	73	16-129	9/25/13 16:10	
Nitrobenzene-d5	82	39-136	9/25/13 16:10	
Phenol-d6	78	10-145	9/25/13 16:10	
p-Terphenyl-d14	108	35-152	9/25/13 16:10	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.5	Percent	1.0	1	NA	9/24/13 16:45	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 84.5

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	18200	mg/Kg	11	4	1	9/30/13	10/3/13 19:59	
Antimony, Total	6010C	6.8 U	mg/Kg	6.8	0.3	1	9/30/13	10/3/13 19:59	
Arsenic, Total	6010C	7.8	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 19:59	
Barium, Total	6010C	161	mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:59	
Beryllium, Total	6010C	0.69	mg/Kg	0.34	0.03	1	9/30/13	10/3/13 19:59	
Boron, Total	6010C	23 U	mg/Kg	23	4	1	9/30/13	10/3/13 19:59	
Cadmium, Total	6010C	0.25 J	mg/Kg	0.56	0.07	1	9/30/13	10/3/13 19:59	
Calcium, Total	6010C	2470	mg/Kg	110	40	1	9/30/13	10/3/13 19:59	
Chromium, Total	6010C	22.6	mg/Kg	1.1	0.2	1	9/30/13	10/3/13 19:59	
Cobalt, Total	6010C	8.4	mg/Kg	5.6	0.06	1	9/30/13	10/3/13 19:59	
Copper, Total	6010C	9.7	mg/Kg	2.3	0.8	1	9/30/13	10/3/13 19:59	
Iron, Total	6010C	24300	mg/Kg	110	60	10	9/30/13	10/3/13 16:18	
Lead, Total	6010C	15.3	mg/Kg	5.6	0.3	1	9/30/13	10/3/13 19:59	
Magnesium, Total	6010C	4400	mg/Kg	110	2	1	9/30/13	10/3/13 19:59	
Manganese, Total	6010C	462	mg/Kg	11	2	10	9/30/13	10/3/13 16:18	
Mercury, Total	7471B	0.035 J	mg/Kg	0.037	0.006	1	9/26/13	9/26/13 20:16	
Nickel, Total	6010C	12.6	mg/Kg	4.5	0.10	1	9/30/13	10/3/13 19:59	
Potassium, Total	6010C	1030	mg/Kg	230	20	1	9/30/13	10/3/13 19:59	
Selenium, Total	6010C	1.1 U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 19:59	
Silver, Total	6010C	1.1 U	mg/Kg	1.1	0.09	1	9/30/13	10/3/13 19:59	
Thallium, Total	6010C	1.1 U	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 19:59	
Vanadium, Total	6010C	38.2	mg/Kg	5.6	0.06	1	9/30/13	10/3/13 19:59	
Zinc, Total	6010C	60.0	mg/Kg	2.3	0.09	1	9/30/13	10/3/13 19:59	

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 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 19:10

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9920.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.0	U	5.0	2.9	
71-43-2	Benzene	5.0	U	5.0	0.30	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.62	
75-25-2	Bromoform	5.0	U	5.0	0.94	
74-83-9	Bromomethane	5.0	U	5.0	1.4	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.4	
75-15-0	Carbon Disulfide	5.0	U	5.0	1.3	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.93	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	2.9	
67-66-3	Chloroform	5.0	U	5.0	1.3	
74-87-3	Chloromethane	5.0	U	5.0	0.41	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.74	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.3	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.62	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.3	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.96	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.87	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.98	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.91	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.21	
100-41-4	Ethylbenzene	5.0	U	5.0	0.24	
591-78-6	2-Hexanone	5.0	U	5.0	1.3	
75-09-2	Methylene Chloride	5.0	U	5.0	0.58	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.99	
100-42-5	Styrene	5.0	U	5.0	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.82	
127-18-4	Tetrachloroethene	5.0	U	5.0	0.89	
108-88-3	Toluene	5.0	U	5.0	1.1	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.74	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.74	
79-01-6	Trichloroethene	5.0	U	5.0	1.1	
75-01-4	Vinyl Chloride	5.0	U	5.0	1.9	
95-47-6	o-Xylene	5.0	U	5.0	0.49	
179601-23-1	m,p-Xylenes	10	U	10	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 19:10

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9920.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .85

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	0.95	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	51-136	9/20/13 19:10	
Toluene-d8	106	66-138	9/20/13 19:10	
Dibromofluoromethane	101	63-138	9/20/13 19:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:31

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE020.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	58	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	72	
	3- and 4-Methylphenol Coelution	390	U	390	60	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	56	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	62	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	95	

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Analytical Report

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 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:31

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE020.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	75	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	63	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1530  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:31

Sample Name: E5329B03 (2-4)  
 Lab Code: R1306852-005

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE020.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	78	41-151	9/25/13 16:31	
2-Fluorobiphenyl	63	47-126	9/25/13 16:31	
2-Fluorophenol	65	16-129	9/25/13 16:31	
Nitrobenzene-d5	65	39-136	9/25/13 16:31	
Phenol-d6	68	10-145	9/25/13 16:31	
p-Terphenyl-d14	89	35-152	9/25/13 16:31	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5329B02 (0-2)  
Lab Code: R1306852-006

Service Request: R1306852  
Date Collected: 9/17/13 1553  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.8	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 86.8

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11900		mg/Kg	11	4	1	9/30/13	10/3/13 20:05	
Antimony, Total	6010C	6.6	U	mg/Kg	6.6	0.3	1	9/30/13	10/3/13 20:05	
Arsenic, Total	6010C	8.3		mg/Kg	1.1	0.5	1	9/30/13	10/3/13 20:05	
Barium, Total	6010C	144		mg/Kg	2.2	0.09	1	9/30/13	10/3/13 20:05	
Beryllium, Total	6010C	0.68		mg/Kg	0.33	0.03	1	9/30/13	10/3/13 20:05	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/30/13	10/3/13 20:05	
Cadmium, Total	6010C	0.34	J	mg/Kg	0.55	0.07	1	9/30/13	10/3/13 20:05	
Calcium, Total	6010C	9370		mg/Kg	110	40	1	9/30/13	10/3/13 20:05	
Chromium, Total	6010C	16.6		mg/Kg	1.1	0.2	1	9/30/13	10/3/13 20:05	
Cobalt, Total	6010C	10.1		mg/Kg	5.5	0.06	1	9/30/13	10/3/13 20:05	
Copper, Total	6010C	18.2		mg/Kg	2.2	0.7	1	9/30/13	10/3/13 20:05	
Iron, Total	6010C	20300		mg/Kg	110	60	10	9/30/13	10/3/13 16:24	
Lead, Total	6010C	26.7		mg/Kg	5.5	0.3	1	9/30/13	10/3/13 20:05	
Magnesium, Total	6010C	6410		mg/Kg	110	2	1	9/30/13	10/3/13 20:05	
Manganese, Total	6010C	1040		mg/Kg	11	2	10	9/30/13	10/3/13 16:24	
Mercury, Total	7471B	0.029	J	mg/Kg	0.035	0.006	1	9/26/13	9/26/13 20:18	
Nickel, Total	6010C	17.0		mg/Kg	4.4	0.10	1	9/30/13	10/3/13 20:05	
Potassium, Total	6010C	1240		mg/Kg	220	20	1	9/30/13	10/3/13 20:05	
Selenium, Total	6010C	0.8	J	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 20:05	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/30/13	10/3/13 20:05	
Thallium, Total	6010C	2.2	U	mg/Kg	2.2	0.8	2	9/30/13	10/4/13 10:08	
Vanadium, Total	6010C	29.2		mg/Kg	5.5	0.06	1	9/30/13	10/3/13 20:05	
Zinc, Total	6010C	66.2		mg/Kg	2.2	0.08	1	9/30/13	10/3/13 20:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 18:25

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9944.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.0	U	5.0	2.9	
71-43-2	Benzene	5.0	U	5.0	0.30	
75-27-4	Bromodichloromethane	5.0	U	5.0	0.62	
75-25-2	Bromoform	5.0	U	5.0	0.94	
74-83-9	Bromomethane	5.0	U	5.0	1.4	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.3	
75-15-0	Carbon Disulfide	5.0	U	5.0	1.3	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	0.93	
108-90-7	Chlorobenzene	5.0	U	5.0	0.30	
75-00-3	Chloroethane	5.0	U	5.0	2.9	
67-66-3	Chloroform	5.0	U	5.0	1.3	
74-87-3	Chloromethane	5.0	U	5.0	0.41	
124-48-1	Dibromochloromethane	5.0	U	5.0	0.74	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.3	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	0.62	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.3	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	0.96	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.87	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.98	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.91	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.21	
100-41-4	Ethylbenzene	5.0	U	5.0	0.24	
591-78-6	2-Hexanone	5.0	U	5.0	1.3	
75-09-2	Methylene Chloride	5.0	U	5.0	0.58	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.99	
100-42-5	Styrene	5.0	U	5.0	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.82	
127-18-4	Tetrachloroethene	5.0	U	5.0	0.89	
108-88-3	Toluene	1.5	J	5.0	1.1	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	0.74	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	0.74	
79-01-6	Trichloroethene	5.0	U	5.0	1.1	
75-01-4	Vinyl Chloride	5.0	U	5.0	1.9	
95-47-6	o-Xylene	5.0	U	5.0	0.49	
179601-23-1	m,p-Xylenes	10	U	10	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 18:25

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9944.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .87

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.0 U	5.0	0.95	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	67	51-136	9/22/13 18:25	
Toluene-d8	103	66-138	9/22/13 18:25	
Dibromofluoromethane	100	63-138	9/22/13 18:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 19:42

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006  
 Run Type: Dilution

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9921.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.01

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.8	U	5.8	3.3	
71-43-2	Benzene	5.8	U	5.8	0.34	
75-27-4	Bromodichloromethane	5.8	U	5.8	0.71	
75-25-2	Bromoform	5.8	U	5.8	1.1	
74-83-9	Bromomethane	5.8	U	5.8	1.7	
78-93-3	2-Butanone (MEK)	5.8	U	5.8	2.7	
75-15-0	Carbon Disulfide	5.8	U	5.8	1.5	
56-23-5	Carbon Tetrachloride	5.8	U	5.8	1.1	
108-90-7	Chlorobenzene	5.8	U	5.8	0.34	
75-00-3	Chloroethane	5.8	U	5.8	3.4	
67-66-3	Chloroform	5.8	U	5.8	1.5	
74-87-3	Chloromethane	5.8	U	5.8	0.47	
124-48-1	Dibromochloromethane	5.8	U	5.8	0.85	
75-34-3	1,1-Dichloroethane	5.8	U	5.8	1.5	
107-06-2	1,2-Dichloroethane	5.8	U	5.8	0.71	
75-35-4	1,1-Dichloroethene	5.8	U	5.8	1.5	
156-59-2	cis-1,2-Dichloroethene	5.8	U	5.8	1.2	
156-60-5	trans-1,2-Dichloroethene	5.8	U	5.8	1.1	
78-87-5	1,2-Dichloropropane	5.8	U	5.8	1.2	
10061-01-5	cis-1,3-Dichloropropene	5.8	U	5.8	1.1	
10061-02-6	trans-1,3-Dichloropropene	5.8	U	5.8	0.24	
100-41-4	Ethylbenzene	5.8	U	5.8	0.27	
591-78-6	2-Hexanone	5.8	U	5.8	1.5	
75-09-2	Methylene Chloride	5.8	U	5.8	0.67	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.8	U	5.8	1.2	
100-42-5	Styrene	5.8	U	5.8	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U	5.8	0.95	
127-18-4	Tetrachloroethene	5.8	U	5.8	1.1	
108-88-3	Toluene	1.4	J	5.8	1.2	
71-55-6	1,1,1-Trichloroethane	5.8	U	5.8	0.85	
79-00-5	1,1,2-Trichloroethane	5.8	U	5.8	0.85	
79-01-6	Trichloroethene	5.8	U	5.8	1.2	
75-01-4	Vinyl Chloride	5.8	U	5.8	2.2	
95-47-6	o-Xylene	5.8	U	5.8	0.56	
179601-23-1	m,p-Xylenes	12	U	12	1.3	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 19:42

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006  
 Run Type: Dilution

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9921.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.01

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.8	U	5.8	1.1	
1330-20-7	Xylenes, Total	17	U	17	1.9	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	72	51-136	9/20/13 19:42	
Toluene-d8	107	66-138	9/20/13 19:42	
Dibromofluoromethane	106	63-138	9/20/13 19:42	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:53

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE021.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	39	
95-50-1	1,2-Dichlorobenzene	380	U	380	43	
541-73-1	1,3-Dichlorobenzene	380	U	380	58	
106-46-7	1,4-Dichlorobenzene	380	U	380	44	
95-95-4	2,4,5-Trichlorophenol	380	U	380	67	
88-06-2	2,4,6-Trichlorophenol	380	U	380	56	
120-83-2	2,4-Dichlorophenol	380	U	380	51	
105-67-9	2,4-Dimethylphenol	380	U	380	42	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	380	U	380	82	
606-20-2	2,6-Dinitrotoluene	380	U	380	64	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	40	
91-57-6	2-Methylnaphthalene	380	U	380	39	
95-48-7	2-Methylphenol	380	U	380	50	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	380	U	380	57	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	70	
	3- and 4-Methylphenol Coelution	380	U	380	58	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	68	
59-50-7	4-Chloro-3-methylphenol	380	U	380	42	
106-47-8	4-Chloroaniline	380	U	380	74	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	54	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	380	U	380	55	
208-96-8	Acenaphthylene	380	U	380	51	
120-12-7	Anthracene	380	U	380	60	
56-55-3	Benz(a)anthracene	380	U	380	59	
50-32-8	Benzo(a)pyrene	380	U	380	64	
205-99-2	Benzo(b)fluoranthene	380	U	380	92	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1553  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:53

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE021.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	72	
207-08-9	Benzo(k)fluoranthene	380	U	380	68	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	46	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	58	
86-74-8	Carbazole	380	U	380	53	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	73	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	380	U	380	61	
86-73-7	Fluorene	380	U	380	48	
118-74-1	Hexachlorobenzene	380	U	380	58	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	61	
67-72-1	Hexachloroethane	380	U	380	53	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	63	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	42	
129-00-0	Pyrene	380	U	380	74	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 15:53  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 16:53

Sample Name: E5329B02 (0-2)  
 Lab Code: R1306852-006

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.8

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5975E\data\092513\AE021.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	86	41-151	9/25/13 16:53	
2-Fluorobiphenyl	82	47-126	9/25/13 16:53	
2-Fluorophenol	70	16-129	9/25/13 16:53	
Nitrobenzene-d5	79	39-136	9/25/13 16:53	
Phenol-d6	77	10-145	9/25/13 16:53	
p-Terphenyl-d14	100	35-152	9/25/13 16:53	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10793

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>1007 US 30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Bunker</b>		Report CC <b>Dean Treibart</b>		PRESERVATIVE	
Company/Address <b>Ecology + Environment, Inc 33 W Monroe St #1410 Chicago, IL 60603</b>		Sample ID <b>312-578-9243</b>		PRELIMINARY RESULTS	
Phone # <b>312-578-9243</b>		Email <b>Jhughes@ene.com</b>		Total Metals <b>Total Metals</b>	
Sampled Signatory <b>J. Hughes</b>		Sampler's Printed Name <b>Jeff Hughes</b>		SVOCS <b>SVOCS</b>	
FOR OFFICE USE ONLY LAB ID		DATE		METALS, TOTAL (List in comments below)	
CLIENT SAMPLE ID		SAMPLING TIME		METALS, DISSOLVED (List in comments below)	
E5336604(0-2)		9/17/13 1350		PCBs 8082 • 808	
E5329804(2-4)		9/17/13 1445		PCBs 8081 • 808	
E5329804(12-14)		9/17/13 1510		PESTICIDES 8021 • 801/802	
E5329805(0-2)		9/17/13 1418		GC VOA 8270 • 825	
E5329803(2-4)		9/17/13 1530		GCMS SVOCs 8280 • 824 • CLP	
E5329802(0-2)		9/17/13 1553		GCMS VOA 8280 • 824 • CLP	
SPECIAL INSTRUCTIONS/COMMENTS Metals		MATRIX		REMARKS/ ALTERNATE DESCRIPTION	
Total WA/SWA/Met only		Soil		Preservative Key 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn, Acetate 6. MeOH 7. NaHSO4 8. Other	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		TURNAROUND REQUIREMENTS	
RECEIVED BY		RECEIVED BY		I. Results Only	
Signature <b>J. Hughes</b>		Signature		II. Results + QC Summaries (LCS, DUP, MSMSD as required)	
Printed Name <b>Jeff Hughes</b>		Printed Name		III. Results + QC and Calibration Summaries	
Firm <b>ENE</b>		Firm		IV. Data Validation Report with Raw Data	
Date/Time <b>9/17/13 1710</b>		Date/Time		Edate Yes	
RECEIVED BY		RECEIVED BY		REPORT REQUIREMENTS	
Signature		Signature		I. Results Only	
Printed Name		Printed Name		II. Results + QC Summaries (LCS, DUP, MSMSD as required)	
Firm		Firm		III. Results + QC and Calibration Summaries	
Date/Time		Date/Time		IV. Data Validation Report with Raw Data	

**R1306852**  
Ecoby And Environment, Incorporated  
1007 US30 Plainfield NJ



October 28, 2013

Service Request No: R1307556

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1307556**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 36

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307556  
 Date Collected: 9/17/13 1445  
 Date Received: 9/18/13  
 Pre-Prep Date: 10/20/13

Sample Name: E5329B04 (2-4)  
 Lab Code: R1307556-002

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.631	mg/L	0.010	1	10/21/13	10/24/13 23:06	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (2-4)  
**Lab Code:** R1307556-002  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

JWILLY

CWINKSTERN



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307556  
Date Collected: 9/17/13 1510  
Date Received: 9/18/13  
Pre-Prep Date: 10/20/13

Sample Name: E5329B04 (12-14)  
Lab Code: R1307556-003

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.010 U	mg/L	0.010	1	10/21/13	10/24/13 23:12	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B04 (12-14)  
**Lab Code:** R1307556-003  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307556  
Date Collected: 9/17/13 1418  
Date Received: 9/18/13  
Pre-Prep Date: 10/20/13

Sample Name: E5329B05 (0-2)  
Lab Code: R1307556-004

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.090	mg/L	0.010	1	10/21/13	10/24/13 23:52	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5329B05 (0-2)  
**Lab Code:** R1307556-004  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	CWINKSTERN

<b>Project Name</b> 1007 US 30		<b>Project Number</b> EE-004335-0001-01770		<b>ANALYSIS REQUESTED (Include Method Number and Container Preservative)</b>									
<b>Project Manager</b> Karen Barber		<b>Report QC</b> Dean Treibart		<b>PRESERVATIVE</b>		<b>NUMBER OF CONTAINERS</b>		<b>GCMS VOAS</b> 8260 & 624 & CLP 8270 & 625 GCMS SVOAS 8081 & 608 8082 & 608 <b>PCBS</b> 8081 & 608 <b>PESTICIDES</b> 8021 & 601/602 <b>GC VOAS</b> 8081 & 608 <b>METALS, TOTAL</b> (List in comments below) <b>METALS, DISSOLVED</b> (List in comments below)		<b>VOCS</b> SVOCS Total Alk Metals TCEP/BP/CP/MeTs pH/Solids		<b>Preservative Key</b> 0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zn Acetate 6. MeOH 7. NaHSO4 8. Other _____	
<b>Company/Address</b> Ecology + Environment, Inc 33 W Monroe ST #1410 Chicago, IL 60603		<b>Email</b> jhughes@ene.com <b>Sampler's Printed Name</b> Jeff Hughes <b>Sampler's Signature</b> 		<b>FOR OFFICE USE ONLY LAB ID</b>		<b>SAMPLING DATE</b>		<b>SAMPLING TIME</b>		<b>MATRIX</b>		<b>ALTERNATE DESCRIPTION</b>	
<b>CLIENT SAMPLE ID</b> E5336804(0-2)		[REDACTED]		9/17/13		1350		Soil		X		% Solids	
E5329804(2-4)		[REDACTED]		9/17/13		1445		Soil		X		X	
E5329804(12-14)		[REDACTED]		9/17/13		1510		Soil		X		X	
E5329805(0-2)		[REDACTED]		9/17/13		1418		Soil		X		X	
E5329803(2-4)		[REDACTED]		9/17/13		1530		Soil		X		X	
E5329802(0-2)		[REDACTED]		9/17/13		1553		Soil		X		X	
<b>SPECIAL INSTRUCTIONS/COMMENTS</b> Metals TCEP Metals & pH only SPL only 9/19/13		<b>RECEIVED BY</b>  Jeff Hughes		<b>RECEIVED BY</b>  Jeff Hughes		<b>RECEIVED BY</b> RECEIVED BY		<b>RECEIVED BY</b> RECEIVED BY		<b>RECEIVED BY</b> RECEIVED BY		<b>RECEIVED BY</b> RECEIVED BY	
<b>STATE WHERE SAMPLES WERE COLLECTED</b> IL		<b>RELINQUISHED BY</b> Signature Printed Name Firm		<b>RELINQUISHED BY</b> Signature Printed Name Firm		<b>RELINQUISHED BY</b> Signature Printed Name Firm		<b>RELINQUISHED BY</b> Signature Printed Name Firm		<b>RELINQUISHED BY</b> Signature Printed Name Firm		<b>RELINQUISHED BY</b> Signature Printed Name Firm	
<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710	
<b>See QAPP</b> <input type="checkbox"/>		<b>TURNAROUND REQUIREMENTS</b> RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____		<b>REPORT REQUIREMENTS</b> I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MSMSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____		<b>INVOICE INFORMATION</b> PO # _____ BILL TO: _____							
<b>RECEIVED BY</b>  Jeff Hughes		<b>RECEIVED BY</b>  Jeff Hughes		<b>RECEIVED BY</b> RECEIVED BY		<b>RECEIVED BY</b> RECEIVED BY							
<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene							
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<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710							
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<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710							
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<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710							
<b>RELINQUISHED BY</b> RECEIVED BY		<b>RELINQUISHED BY</b> RECEIVED BY		<b>RELINQUISHED BY</b> RECEIVED BY		<b>RELINQUISHED BY</b> RECEIVED BY							
<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene		<b>Signature</b>  <b>Printed Name</b> Jeff Hughes <b>Firm</b> Ene							
<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710		<b>DATE/TIME</b> 9/17/13 1710									



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16000 block of Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.583793° Longitude: -88.168631°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1974450090 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.583793° Longitude: -88.168631°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E5336B01, E5336B02, E5336B04, E5336B05, and E5336B06 were sampled within the construction zone adjacent to ISGS #2141A-36 (I-55). Refer to PSI Report for ISGS #2141A-36 (I-55) including Table 4-4, and Figures 4-1A and 4-1B.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306809, R1306810, R1306850, R1306852, R1307503, and R1307556.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation


Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

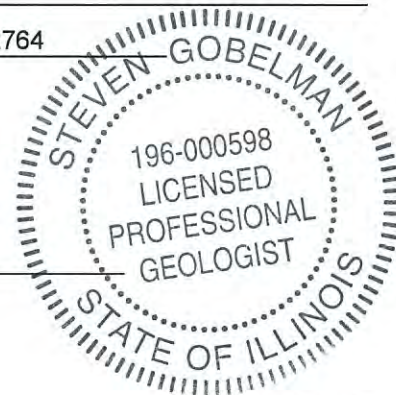
Phone: 217-785-4246

Steven Gobelman

Printed Name:

  
 Licensed Professional Engineer or  
 Licensed Professional Geologist Signature:

1/24/14  
 Date:



P.E. or L.P.G. Seal:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.

PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10  
CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-36 (I-55)						Comparison Criteria									
	E5336B01		E5336B02		E5336B04		E5336B05		E5336B06	MACs		TACO				
BORING	E5336B01 (2-4)		E5336B02 (2-4)		E5336B04 (0-2)		E5336B05 (0-2)		E5336B06 (0-2)		TACO					
SAMPLE	Soil		Soil		Soil		Soil		Soil		Within an MSA		Within Chicago			
MATRIX	0.6-1.2		0.6-1.2		0.0-0.6		0.0-0.6		0.0-0.6		Most Stringent		Within Chicago			
DEPTH (meters)	1.8-2.4		0.6-1.2		0.0-0.6		0.0-0.6		0.0-0.6		7.42		SCGIER			
pH	7.88		8.05		7.62		7.94		7.42							
<b>VOCs (µg/kg)</b>																
2-Butanone	ND	U	ND	U	9.9	ND	UJ	ND	UJ	ND	U	ND	U	--	--	--
Acetone	ND	U	6.2	J	41	ND	UJ	ND	UJ	ND	U	25,000		--	--	--
Bromomethane	ND	U	1.5	J	ND	U	ND	UJ	ND	U	ND	200		--	--	--
Chloromethane	ND	U	0.40	J	ND	U	ND	UJ	ND	U	ND			--	--	--
Toluene	1.4	J	1.7	J	ND	U	ND	U	5.2	ND	U	12,000		--	--	--
<b>SVOCs (µg/kg)</b>																
Dj-n-butyl Phthalate	ND	U	ND	U	ND	U	ND	U	ND	U	120	J		2,300,000		--
Fluoranthene	ND	U	ND	U	ND	U	ND	U	ND	U	68	J		3,100,000		--
<b>Inorganics (mg/kg)</b>																
Aluminum	15,300		10,200		12,800		10,400		7,310		12,900			--	--	--
Arsenic	9.1		8.9		5.5		4.3		6.8		6.2		11.3	13		--
Barium	133		28.9		63.1		73.0		109		137		1,500			--
Beryllium	0.84		0.58		0.68		0.51		0.39		0.80		22			--
Cadmium	0.36	J	0.19	J	0.22	J	ND	U	0.23	J	0.51	J	5.2			--
Calcium	8,670		66,500		49,600		99,600		107,000		17,000		--	--		--
Chromium	21.8	†	19.0		23.5	†	16.7		18.6		19.8		21			--
Cobalt	10.9		13.6		8.9		4.6	J	6.9		10.5		20			--
Copper	22.3		23.5		18.2		18.0		28.3		22.6		2,900			--
Iron	26,700	†m	24,000	†m	24,200	†m	20,500	†m	14,600		22,400	†m	15,000	15,900		--
Lead	12.3		13.5		11.7		9.7		118	†	22.0		107			--
Magnesium	7,460		31,900		22,200		54,300		68,200		12,200		325,000			--
Manganese	1,200	†m	547		294		605		640	†m	787	†m	630	636		--
Mercury	0.040		0.020	J	0.023	J	0.047		0.021	J	0.023	J	0.89			--
Nickel	26.0		30.5		27.2		14.0		13.8		23.1		100			--
Potassium	1,750		2,610		2,810		1,540		1,160		1,080		--			--
Vanadium	34.7		22.5		24.1		22.9		18.5		27.4		550			--
Zinc	53.6		47.1		53.5		47.7		92.0		69.0		5,100			--
<b>TCCLP Metals (mg/L)</b>																
Aluminum	0.29		0.53		1.45		6.10		ND	U	ND	U	--	--		--
Calcium	50		673		684		308		333		349		--	--		--
Iron	0.13		0.55		1.06		4.43		ND	U	ND	U	--	--		5
Magnesium	16.1		51.7		65.8		164		162		154		--	--		--
Manganese	ND	U	1.13	L	0.987	L	2.26	L	0.920	L	0.505	L	--	--		0.15
Potassium	13.5		10.1		5.4		6.6		ND	U	ND	U	--	--		--
Zinc	ND	U	ND	U	ND	U	ND	U	0.27		ND	U	--	--		5
<b>SPLP Metals (mg/L)</b>																
Aluminum	NA		NA		NA		363		NA		NA		--	--		3.5
Manganese	NA		0.525	L	0.463	L	7.86	L	0.134	L	0.069		--	--		0.15



October 07, 2013

Service Request No: R1306809

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306809**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 105



## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1306809-011

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1550  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.42	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306809-011

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:06	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:06	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:06	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:06	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:06	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:06	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Calcium	6010C	349		mg/L	10	10	9/25/13	9/29/13 16:31	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:06	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Magnesium	6010C	154		mg/L	10	10	9/25/13	9/29/13 16:31	
Manganese	6010C	0.505		mg/L	0.010	1	9/25/13	10/2/13 23:06	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:40	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 00:35	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:06	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:06	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:06	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:06	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1306809-011  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306809-012

**Service Request:** R1306809  
**Date Collected:** 9/16/13 1605  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.94	pH Units		1	NA	9/24/13 15:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306809  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Pre-Prep Date: 9/20/13

Sample Name: E5336B05 (0-2)  
 Lab Code: R1306809-012

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/25/13	10/2/13 23:13	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/25/13	10/2/13 23:13	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:13	
Barium	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:13	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/25/13	10/2/13 23:13	
Boron	6010C	1.0	U	mg/L	1.0	1	9/25/13	10/2/13 23:13	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Calcium	6010C	333		mg/L	10	10	9/25/13	9/29/13 16:39	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:13	
Copper	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Iron	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Lead	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Magnesium	6010C	162		mg/L	10	10	9/25/13	9/29/13 16:39	
Manganese	6010C	0.920		mg/L	0.010	1	9/25/13	10/2/13 23:13	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 15:42	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/25/13	10/4/13 00:42	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/25/13	10/2/13 23:13	
Silver	6010C	0.10	U	mg/L	0.10	1	9/25/13	10/2/13 23:13	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/25/13	10/2/13 23:13	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/25/13	10/2/13 23:13	
Zinc	6010C	0.27		mg/L	0.10	1	9/25/13	10/2/13 23:13	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306809-012  
**Matrix:** Soil

**Service Request:** R1306809

**Date Collected:** 9/16/13  
**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD







October 07, 2013

Service Request No: R1306810

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI  
TCLP's/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1306810**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 354

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1306810-011

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1550  
**Date Received:** 9/17/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	86.0	Percent	1.0	1	NA	9/18/13 08:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13

Basis: Dry  
 Percent Solids: 86.0

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12900		mg/Kg	12	4	1	9/27/13	10/2/13 02:25	
Antimony, Total	6010C	1.0	BJ	mg/Kg	6.9	0.3	1	9/27/13	10/2/13 02:25	
Arsenic, Total	6010C	6.2		mg/Kg	1.2	0.5	1	9/27/13	10/2/13 02:25	
Barium, Total	6010C	137		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 02:25	
Beryllium, Total	6010C	0.80		mg/Kg	0.35	0.03	1	9/27/13	10/2/13 02:25	
Boron, Total	6010C	10	BJ	mg/Kg	23	5	1	9/27/13	10/2/13 02:25	
Cadmium, Total	6010C	0.51	J	mg/Kg	0.58	0.07	1	9/27/13	10/2/13 02:25	
Calcium, Total	6010C	17000		mg/Kg	1200	400	10	9/27/13	10/1/13 22:16	
Chromium, Total	6010C	19.8		mg/Kg	1.2	0.2	1	9/27/13	10/2/13 02:25	
Cobalt, Total	6010C	10.5		mg/Kg	5.8	0.07	1	9/27/13	10/2/13 02:25	
Copper, Total	6010C	22.6		mg/Kg	2.3	0.8	1	9/27/13	10/2/13 02:25	
Iron, Total	6010C	22400		mg/Kg	120	70	10	9/27/13	10/1/13 22:16	
Lead, Total	6010C	22.0		mg/Kg	5.8	0.3	1	9/27/13	10/2/13 02:25	
Magnesium, Total	6010C	12200		mg/Kg	120	2	1	9/27/13	10/2/13 02:25	
Manganese, Total	6010C	787		mg/Kg	1.2	0.2	1	9/27/13	10/2/13 02:25	
Mercury, Total	7471B	0.023	J	mg/Kg	0.036	0.006	1	9/23/13	9/23/13 15:37	
Nickel, Total	6010C	23.1		mg/Kg	4.6	0.10	1	9/27/13	10/2/13 02:25	
Potassium, Total	6010C	1080		mg/Kg	230	20	1	9/27/13	10/2/13 02:25	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/27/13	10/2/13 02:25	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/27/13	10/2/13 02:25	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/27/13	10/2/13 02:25	
Vanadium, Total	6010C	27.4		mg/Kg	5.8	0.06	1	9/27/13	10/2/13 02:25	
Zinc, Total	6010C	69.0		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 02:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 14:58

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9912.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.6 U	4.6	2.6	
71-43-2	Benzene	4.6 U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6 U	4.6	0.57	
75-25-2	Bromoform	4.6 U	4.6	0.86	
74-83-9	Bromomethane	4.6 U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6 U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6 U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6 U	4.6	0.85	
108-90-7	Chlorobenzene	4.6 U	4.6	0.27	
75-00-3	Chloroethane	4.6 U	4.6	2.7	
67-66-3	Chloroform	4.6 U	4.6	1.2	
74-87-3	Chloromethane	4.6 U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6 U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6 U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6 U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6 U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6 U	4.6	0.88	
156-60-5	trans-1,2-Dichloroethene	4.6 U	4.6	0.79	
78-87-5	1,2-Dichloropropane	4.6 U	4.6	0.90	
10061-01-5	cis-1,3-Dichloropropene	4.6 U	4.6	0.83	
10061-02-6	trans-1,3-Dichloropropene	4.6 U	4.6	0.19	
100-41-4	Ethylbenzene	4.6 U	4.6	0.22	
591-78-6	2-Hexanone	4.6 U	4.6	1.2	
75-09-2	Methylene Chloride	4.6 U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6 U	4.6	0.91	
100-42-5	Styrene	4.6 U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6 U	4.6	0.75	
127-18-4	Tetrachloroethene	4.6 U	4.6	0.81	
108-88-3	Toluene	2.7 J	4.6	0.92	
71-55-6	1,1,1-Trichloroethane	4.6 U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6 U	4.6	0.68	
79-01-6	Trichloroethene	4.6 U	4.6	0.93	
75-01-4	Vinyl Chloride	4.6 U	4.6	1.7	
95-47-6	o-Xylene	4.6 U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.2 U	9.2	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 14:58

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.0

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9912.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .79

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.87	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/20/13 14:58	
Toluene-d8	106	66-138	9/20/13 14:58	
Dibromofluoromethane	103	63-138	9/20/13 14:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 16:35

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ771.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380 U	380	39	
95-50-1	1,2-Dichlorobenzene	380 U	380	43	
541-73-1	1,3-Dichlorobenzene	380 U	380	59	
106-46-7	1,4-Dichlorobenzene	380 U	380	44	
95-95-4	2,4,5-Trichlorophenol	380 U	380	67	
88-06-2	2,4,6-Trichlorophenol	380 U	380	57	
120-83-2	2,4-Dichlorophenol	380 U	380	52	
105-67-9	2,4-Dimethylphenol	380 U	380	43	
51-28-5	2,4-Dinitrophenol	2000 U	2000	170	
121-14-2	2,4-Dinitrotoluene	380 U	380	82	
606-20-2	2,6-Dinitrotoluene	380 U	380	64	
91-58-7	2-Chloronaphthalene	380 U	380	40	
95-57-8	2-Chlorophenol	380 U	380	41	
91-57-6	2-Methylnaphthalene	380 U	380	39	
95-48-7	2-Methylphenol	380 U	380	50	
88-74-4	2-Nitroaniline	2000 U	2000	320	
88-75-5	2-Nitrophenol	380 U	380	57	
91-94-1	3,3'-Dichlorobenzidine	380 U	380	70	
	3- and 4-Methylphenol Coelution	380 U	380	59	
99-09-2	3-Nitroaniline	2000 U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000 U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380 U	380	69	
59-50-7	4-Chloro-3-methylphenol	380 U	380	43	
106-47-8	4-Chloroaniline	380 U	380	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	380 U	380	55	
100-01-6	4-Nitroaniline	2000 U	2000	420	
100-02-7	4-Nitrophenol	2000 U	2000	280	
83-32-9	Acenaphthene	380 U	380	55	
208-96-8	Acenaphthylene	380 U	380	52	
120-12-7	Anthracene	380 U	380	61	
56-55-3	Benz(a)anthracene	380 U	380	60	
50-32-8	Benzo(a)pyrene	380 U	380	64	
205-99-2	Benzo(b)fluoranthene	380 U	380	93	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 16:35

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973D\DATA\092313\AQ771.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	73	
207-08-9	Benzo(k)fluoranthene	380	U	380	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	47	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	59	
86-74-8	Carbazole	380	U	380	54	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	120	J	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	74	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	42	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	68	J	380	62	
86-73-7	Fluorene	380	U	380	49	
118-74-1	Hexachlorobenzene	380	U	380	59	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	61	
67-72-1	Hexachloroethane	380	U	380	54	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	64	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	43	
129-00-0	Pyrene	380	U	380	75	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1550  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 16:35

Sample Name: E5336B06 (0-2)  
 Lab Code: R1306810-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 86.0

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973D\DATA\092313\AQ771.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	41-151	9/23/13 16:35	
2-Fluorobiphenyl	67	47-126	9/23/13 16:35	
2-Fluorophenol	58	16-129	9/23/13 16:35	
Nitrobenzene-d5	71	39-136	9/23/13 16:35	
Phenol-d6	63	10-145	9/23/13 16:35	
p-Terphenyl-d14	83	35-152	9/23/13 16:35	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1306810-011  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B05 (0-2)  
Lab Code: R1306810-012

Service Request: R1306810  
Date Collected: 9/16/13 1605  
Date Received: 9/17/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.9	Percent	1.0	1	NA	9/18/13 08:48	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306810-012

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1605  
**Date Received:** 9/17/13

**Basis:** Dry  
**Percent Solids:** 85.9

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	7310		mg/Kg	11	4	1	9/27/13	10/2/13 02:33	
Antimony, Total	6010C	1.2	BJ	mg/Kg	6.8	0.3	1	9/27/13	10/2/13 02:33	
Arsenic, Total	6010C	6.8		mg/Kg	1.1	0.5	1	9/27/13	10/2/13 02:33	
Barium, Total	6010C	109		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 02:33	
Beryllium, Total	6010C	0.39		mg/Kg	0.34	0.03	1	9/27/13	10/2/13 02:33	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/27/13	10/2/13 02:33	
Cadmium, Total	6010C	0.23	J	mg/Kg	0.57	0.07	1	9/27/13	10/2/13 02:33	
Calcium, Total	6010C	107000		mg/Kg	5700	1700	50	9/27/13	10/3/13 09:36	
Chromium, Total	6010C	18.6		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:33	
Cobalt, Total	6010C	6.9		mg/Kg	5.7	0.07	1	9/27/13	10/2/13 02:33	
Copper, Total	6010C	28.3		mg/Kg	2.3	0.8	1	9/27/13	10/2/13 02:33	
Iron, Total	6010C	14600		mg/Kg	110	60	10	9/27/13	10/1/13 22:22	
Lead, Total	6010C	118		mg/Kg	5.7	0.3	1	9/27/13	10/2/13 02:33	
Magnesium, Total	6010C	68200		mg/Kg	1100	20	10	9/27/13	10/1/13 22:22	
Manganese, Total	6010C	640		mg/Kg	1.1	0.2	1	9/27/13	10/2/13 02:33	
Mercury, Total	7471B	0.021	J	mg/Kg	0.038	0.006	1	9/23/13	9/23/13 15:39	
Nickel, Total	6010C	13.8		mg/Kg	4.6	0.10	1	9/27/13	10/2/13 02:33	
Potassium, Total	6010C	1160		mg/Kg	230	20	1	9/27/13	10/2/13 02:33	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/27/13	10/2/13 02:33	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.10	1	9/27/13	10/2/13 02:33	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/27/13	10/2/13 02:33	
Vanadium, Total	6010C	18.5		mg/Kg	5.7	0.06	1	9/27/13	10/2/13 02:33	
Zinc, Total	6010C	92.0		mg/Kg	2.3	0.09	1	9/27/13	10/2/13 02:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1605  
**Date Received:** 9/17/13  
**Date Analyzed:** 9/20/13 15:29

**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306810-012

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 85.9

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUDATA\msvoa12\Data\092013\T9913.D\

**Analysis Lot:** 359420  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.8	U	4.8	2.8	
71-43-2	Benzene	4.8	U	4.8	0.29	
75-27-4	Bromodichloromethane	4.8	U	4.8	0.59	
75-25-2	Bromoform	4.8	U	4.8	0.90	
74-83-9	Bromomethane	4.8	U	4.8	1.4	
78-93-3	2-Butanone (MEK)	4.8	U	4.8	2.3	
75-15-0	Carbon Disulfide	4.8	U	4.8	1.2	
56-23-5	Carbon Tetrachloride	4.8	U	4.8	0.89	
108-90-7	Chlorobenzene	4.8	U	4.8	0.29	
75-00-3	Chloroethane	4.8	U	4.8	2.8	
67-66-3	Chloroform	4.8	U	4.8	1.3	
74-87-3	Chloromethane	4.8	U	4.8	0.39	
124-48-1	Dibromochloromethane	4.8	U	4.8	0.71	
75-34-3	1,1-Dichloroethane	4.8	U	4.8	1.3	
107-06-2	1,2-Dichloroethane	4.8	U	4.8	0.59	
75-35-4	1,1-Dichloroethene	4.8	U	4.8	1.3	
156-59-2	cis-1,2-Dichloroethene	4.8	U	4.8	0.92	
156-60-5	trans-1,2-Dichloroethene	4.8	U	4.8	0.84	
78-87-5	1,2-Dichloropropane	4.8	U	4.8	0.94	
10061-01-5	cis-1,3-Dichloropropene	4.8	U	4.8	0.87	
10061-02-6	trans-1,3-Dichloropropene	4.8	U	4.8	0.20	
100-41-4	Ethylbenzene	4.8	U	4.8	0.23	
591-78-6	2-Hexanone	4.8	U	4.8	1.2	
75-09-2	Methylene Chloride	4.8	U	4.8	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.8	U	4.8	0.95	
100-42-5	Styrene	4.8	U	4.8	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	4.8	U	4.8	0.79	
127-18-4	Tetrachloroethene	4.8	U	4.8	0.86	
108-88-3	Toluene	5.2		4.8	0.97	
71-55-6	1,1,1-Trichloroethane	4.8	U	4.8	0.71	
79-00-5	1,1,2-Trichloroethane	4.8	U	4.8	0.71	
79-01-6	Trichloroethene	4.8	U	4.8	0.98	
75-01-4	Vinyl Chloride	4.8	U	4.8	1.8	
95-47-6	o-Xylene	4.8	U	4.8	0.47	
179601-23-1	m,p-Xylenes	9.7	U	9.7	1.1	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B05 (0-2)  
 Lab Code: R1306810-012

Service Request: R1306810  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Date Analyzed: 9/20/13 15:29  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9913.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.8 U	4.8	0.91	
1330-20-7	Xylenes, Total	14 U	14	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	63	51-136	9/20/13 15:29	
Toluene-d8	101	66-138	9/20/13 15:29	
Dibromofluoromethane	106	63-138	9/20/13 15:29	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B05 (0-2)  
 Lab Code: R1306810-012  
 Run Type: Dilution

Service Request: R1306810  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 19:25  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\091913\T9893.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.04

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	6.1	U	6.1	3.5	
71-43-2	Benzene	6.1	U	6.1	0.36	
75-27-4	Bromodichloromethane	6.1	U	6.1	0.74	
75-25-2	Bromoform	6.1	U	6.1	1.2	
74-83-9	Bromomethane	6.1	U	6.1	1.7	
78-93-3	2-Butanone (MEK)	6.1	U	6.1	2.8	
75-15-0	Carbon Disulfide	6.1	U	6.1	1.6	
56-23-5	Carbon Tetrachloride	6.1	U	6.1	1.2	
108-90-7	Chlorobenzene	6.1	U	6.1	0.36	
75-00-3	Chloroethane	6.1	U	6.1	3.5	
67-66-3	Chloroform	6.1	U	6.1	1.6	
74-87-3	Chloromethane	6.1	U	6.1	0.49	
124-48-1	Dibromochloromethane	6.1	U	6.1	0.89	
75-34-3	1,1-Dichloroethane	6.1	U	6.1	1.6	
107-06-2	1,2-Dichloroethane	6.1	U	6.1	0.74	
75-35-4	1,1-Dichloroethene	6.1	U	6.1	1.6	
156-59-2	cis-1,2-Dichloroethene	6.1	U	6.1	1.2	
156-60-5	trans-1,2-Dichloroethene	6.1	U	6.1	1.1	
78-87-5	1,2-Dichloropropane	6.1	U	6.1	1.2	
10061-01-5	cis-1,3-Dichloropropene	6.1	U	6.1	1.1	
10061-02-6	trans-1,3-Dichloropropene	6.1	U	6.1	0.25	
100-41-4	Ethylbenzene	6.1	U	6.1	0.28	
591-78-6	2-Hexanone	6.1	U	6.1	1.5	
75-09-2	Methylene Chloride	6.1	U	6.1	0.70	
108-10-1	4-Methyl-2-pentanone (MIBK)	6.1	U	6.1	1.2	
100-42-5	Styrene	6.1	U	6.1	0.37	
79-34-5	1,1,2,2-Tetrachloroethane	6.1	U	6.1	0.99	
127-18-4	Tetrachloroethene	6.1	U	6.1	1.1	
108-88-3	Toluene	9.3		6.1	1.3	
71-55-6	1,1,1-Trichloroethane	6.1	U	6.1	0.89	
79-00-5	1,1,2-Trichloroethane	6.1	U	6.1	0.89	
79-01-6	Trichloroethene	6.1	U	6.1	1.3	
75-01-4	Vinyl Chloride	6.1	U	6.1	2.3	
95-47-6	o-Xylene	6.1	U	6.1	0.59	
179601-23-1	m,p-Xylenes	12	U	12	1.4	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B05 (0-2)  
 Lab Code: R1306810-012  
 Run Type: Dilution

Service Request: R1306810  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Date Analyzed: 9/19/13 19:25  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\091913\T9893.D\

Analysis Lot: 359162  
 Instrument Name: R-MS-12  
 Dilution Factor: 1.04

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	6.1 U	6.1	1.2	
1330-20-7	Xylenes, Total	18 U	18	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	66	51-136	9/19/13 19:25	
Toluene-d8	101	66-138	9/19/13 19:25	
Dibromofluoromethane	107	63-138	9/19/13 19:25	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 17:08

Sample Name: E5336B05 (0-2)  
 Lab Code: R1306810-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\092313\AQ772.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	380	U	380	39	
95-50-1	1,2-Dichlorobenzene	380	U	380	43	
541-73-1	1,3-Dichlorobenzene	380	U	380	59	
106-46-7	1,4-Dichlorobenzene	380	U	380	45	
95-95-4	2,4,5-Trichlorophenol	380	U	380	68	
88-06-2	2,4,6-Trichlorophenol	380	U	380	57	
120-83-2	2,4-Dichlorophenol	380	U	380	52	
105-67-9	2,4-Dimethylphenol	380	U	380	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	380	U	380	82	
606-20-2	2,6-Dinitrotoluene	380	U	380	64	
91-58-7	2-Chloronaphthalene	380	U	380	40	
95-57-8	2-Chlorophenol	380	U	380	41	
91-57-6	2-Methylnaphthalene	380	U	380	39	
95-48-7	2-Methylphenol	380	U	380	50	
88-74-4	2-Nitroaniline	2000	U	2000	320	
88-75-5	2-Nitrophenol	380	U	380	58	
91-94-1	3,3'-Dichlorobenzidine	380	U	380	70	
	3- and 4-Methylphenol Coelution	380	U	380	59	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	560	
101-55-3	4-Bromophenyl Phenyl Ether	380	U	380	69	
59-50-7	4-Chloro-3-methylphenol	380	U	380	43	
106-47-8	4-Chloroaniline	380	U	380	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	380	U	380	55	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	380	U	380	55	
208-96-8	Acenaphthylene	380	U	380	52	
120-12-7	Anthracene	380	U	380	61	
56-55-3	Benz(a)anthracene	380	U	380	60	
50-32-8	Benzo(a)pyrene	380	U	380	64	
205-99-2	Benzo(b)fluoranthene	380	U	380	93	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306810  
 Date Collected: 9/16/13 1605  
 Date Received: 9/17/13  
 Date Extracted: 9/18/13  
 Date Analyzed: 9/23/13 17:08

Sample Name: E5336B05 (0-2)  
 Lab Code: R1306810-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973D\DATA\092313\AQ772.D\

Analysis Lot: 360073  
 Extraction Lot: 191975  
 Instrument Name: R-MS-54  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	380	U	380	73	
207-08-9	Benzo(k)fluoranthene	380	U	380	69	
108-60-1	2,2'-Oxybis(1-chloropropane)	380	U	380	47	
111-91-1	Bis(2-chloroethoxy)methane	380	U	380	53	
111-44-4	Bis(2-chloroethyl) Ether	380	U	380	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	380	U	380	53	
85-68-7	Butyl Benzyl Phthalate	380	U	380	59	
86-74-8	Carbazole	380	U	380	54	
218-01-9	Chrysene	380	U	380	54	
84-74-2	Di-n-butyl Phthalate	380	U	380	110	
117-84-0	Di-n-octyl Phthalate	380	U	380	74	
53-70-3	Dibenz(a,h)anthracene	380	U	380	110	
132-64-9	Dibenzofuran	380	U	380	43	
84-66-2	Diethyl Phthalate	380	U	380	50	
131-11-3	Dimethyl Phthalate	380	U	380	55	
206-44-0	Fluoranthene	380	U	380	62	
86-73-7	Fluorene	380	U	380	49	
118-74-1	Hexachlorobenzene	380	U	380	59	
87-68-3	Hexachlorobutadiene	380	U	380	43	
77-47-4	Hexachlorocyclopentadiene	380	U	380	62	
67-72-1	Hexachloroethane	380	U	380	54	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	380	64	
78-59-1	Isophorone	380	U	380	51	
621-64-7	N-Nitrosodi-n-propylamine	380	U	380	44	
86-30-6	N-Nitrosodiphenylamine	380	U	380	60	
91-20-3	Naphthalene	380	U	380	39	
98-95-3	Nitrobenzene	380	U	380	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	380	U	380	52	
108-95-2	Phenol	380	U	380	43	
129-00-0	Pyrene	380	U	380	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306810  
**Date Collected:** 9/16/13 1605  
**Date Received:** 9/17/13  
**Date Extracted:** 9/18/13  
**Date Analyzed:** 9/23/13 17:08

**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306810-012

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 85.9

Semivolatile Organic Compounds by GC/MS

**Analytical Method:** 8270D  
**Prep Method:** EPA 3541  
**Data File Name:** I:\ACQUADATA\5973D\DATA\092313\AQ772.D\

**Analysis Lot:** 360073  
**Extraction Lot:** 191975  
**Instrument Name:** R-MS-54  
**Dilution Factor:** 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	77	41-151	9/23/13 17:08	
2-Fluorobiphenyl	66	47-126	9/23/13 17:08	
2-Fluorophenol	58	16-129	9/23/13 17:08	
Nitrobenzene-d5	69	39-136	9/23/13 17:08	
Phenol-d6	63	10-145	9/23/13 17:08	
p-Terphenyl-d14	87	35-152	9/23/13 17:08	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI TCLP's/4500001345/EE-004335-0001-01  
**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1306810-012  
**Matrix:** Soil

**Service Request:** R1306810

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10792

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>100T US30</b>		Project Number <b>EE-004335-0001-01170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager <b>Karen Banher</b>		Report C# <b>Dean Tiebout</b>		PRESERVATIVE	
Company/Address <b>Ecology &amp; Environment 33 W Monroe St Chicago IL 60603</b>		Email <b>shughes@e.com</b>		PRELIMINARY TESTS	
Phone # <b>312-578-9243</b>		Sample & Printed Name <b>Jeff Hughes</b>		METALS TOTAL (List in comments below)	
Signature <b>Jeff Hughes</b>		FOR OFFICE USE ONLY LAB ID		METALS DISSOLVED (List in comments below)	
		CLIENT SAMPLE ID		GCMS VOAS 8260 • 824 • CLP	
		DATE		GCMS SVOA 8270 • 825	
		SAMPLING TIME		GC VOAS 9021 • 801/802	
		MATRIX		PESTICIDES 9081 • 808	
		Soil		PCBS 9082 • 808	
		Soil		VOCs	
		Soil		SVOCS	
		Soil		Total Metals	
		Soil		Total Metals	
				TCLP/SPLP Metals	
				PH	
				% Solids	
				REMARKS/ ALTERNATE DESCRIPTION	
				Preservative Key 0. NONE 1. HCl 2. HNO3 3. H2SO4 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO4 8. Other	

SPECIAL INSTRUCTIONS/COMMENTS  
Metals

See OAPP

STATE WHERE SAMPLES WERE COLLECTED **IL**

RECEIVED BY **Jeff Hughes** SIGNATURE  
Printed Name **Jeff Hughes**  
Firm **ALS**  
Date/Time **9/16/13 1710**

RECEIVED BY **Jeff Hughes** SIGNATURE  
Printed Name **Jeff Hughes**  
Firm **ALS**  
Date/Time **9/16/13 0950**

TURNAROUND REQUIREMENTS  
RUSH (SURCHARGES APPLY)  
1 day — 2 day — 3 day  
4 day — 5 day

REPORT REQUIREMENTS  
I. Results Only  
II. Results + QC Summaries (LCS, DUP, MSM/SD as required)  
III. Results + QC and Calibration Summaries  
IV. Data Validation Report with Raw Data

EDMO  Yes  No

RECEIVED BY **R1306809**

Signature  
Printed Name  
Firm  
Date/Time



October 04, 2013

Service Request No: R1306850

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306850**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

*KVB*

Karen Bunker  
Project Manager

Page I of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER



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Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B04 (0-2)  
Lab Code: R1306850-001

Service Request: R1306850  
Date Collected: 9/17/13 1350  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.62		pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306850-001

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	6.10	mg/L	0.20	1	9/23/13	9/27/13 12:10	
Antimony	6010C	0.060 U	mg/L	0.060	1	9/23/13	9/27/13 12:10	
Arsenic	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:10	
Barium	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:10	
Beryllium	6010C	0.0030 U	mg/L	0.0030	1	9/23/13	9/27/13 12:10	
Boron	6010C	1.0 U	mg/L	1.0	1	9/23/13	9/27/13 12:10	
Cadmium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Calcium	6010C	308	mg/L	10	10	9/23/13	10/1/13 10:18	
Chromium	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Cobalt	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:10	
Copper	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Iron	6010C	4.43	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Lead	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Magnesium	6010C	164	mg/L	1.0	1	9/23/13	9/27/13 12:10	
Manganese	6010C	2.26	mg/L	0.010	1	9/23/13	9/27/13 12:10	
Mercury	7470A	0.00030 U	mg/L	0.00030	1	9/24/13	9/24/13 14:30	
Nickel	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Potassium	6010C	6.6	mg/L	5.0	1	9/23/13	9/27/13 12:10	
Selenium	6010C	0.50 U	mg/L	0.50	1	9/23/13	9/27/13 12:10	
Silver	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	
Thallium	6010C	0.010 U	mg/L	0.010	1	9/23/13	9/27/13 12:10	
Vanadium	6010C	0.050 U	mg/L	0.050	1	9/23/13	9/27/13 12:10	
Zinc	6010C	0.10 U	mg/L	0.10	1	9/23/13	9/27/13 12:10	

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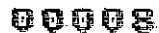
Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B04 (0-2)  
**Lab Code:** R1306850-001  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B01 (2-4)  
**Lab Code:** R1306850-010

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1130  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.01	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306850-010

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.29		mg/L	0.20	1	9/23/13	9/27/13 13:15	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 13:15	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:15	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:15	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 13:15	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:15	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Calcium	6010C	50		mg/L	10	10	9/23/13	10/1/13 11:13	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:15	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Iron	6010C	0.13		mg/L	0.10	1	9/23/13	9/27/13 13:15	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Magnesium	6010C	16.1		mg/L	1.0	1	9/23/13	9/27/13 13:15	
Manganese	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 13:15	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:48	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Potassium	6010C	13.5		mg/L	5.0	1	9/23/13	9/27/13 13:15	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:15	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 13:15	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:15	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:15	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B01 (2-4)  
**Lab Code:** R1306850-010  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B01 (6-8)  
Lab Code: R1306850-011

Service Request: R1306850  
Date Collected: 9/17/13 1140  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.88	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306850-011

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.53		mg/L	0.20	1	9/23/13	9/27/13 13:21	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 13:21	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:21	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:21	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 13:21	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:21	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Calcium	6010C	673		mg/L	20	20	9/23/13	10/2/13 18:11	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:21	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Iron	6010C	0.55		mg/L	0.10	1	9/23/13	9/27/13 13:21	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Magnesium	6010C	51.7		mg/L	1.0	1	9/23/13	9/27/13 13:21	
Manganese	6010C	1.13		mg/L	0.010	1	9/23/13	9/27/13 13:21	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:49	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Potassium	6010C	10.1		mg/L	5.0	1	9/23/13	9/27/13 13:21	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:21	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 13:21	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:21	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:21	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B01 (6-8)  
**Lab Code:** R1306850-011  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	TCHRIST
6010C	JWILLY	DBOND
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1306850-012

**Service Request:** R1306850  
**Date Collected:** 9/17/13 1230  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	8.05	pH Units		1	NA	10/1/13 15:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306850  
 Date Collected: 9/17/13 1230  
 Date Received: 9/18/13  
 Pre-Prep Date: 9/22/13

Sample Name: E5336B02 (2-4)  
 Lab Code: R1306850-012

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	1.45		mg/L	0.20	1	9/23/13	9/27/13 13:27	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/23/13	9/27/13 13:27	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:27	
Barium	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:27	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/23/13	9/27/13 13:27	
Boron	6010C	1.0	U	mg/L	1.0	1	9/23/13	9/27/13 13:27	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Calcium	6010C	684		mg/L	20	20	9/23/13	10/2/13 18:17	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:27	
Copper	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Iron	6010C	1.06		mg/L	0.10	1	9/23/13	9/27/13 13:27	
Lead	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Magnesium	6010C	65.8		mg/L	1.0	1	9/23/13	9/27/13 13:27	
Manganese	6010C	0.987		mg/L	0.010	1	9/23/13	9/27/13 13:27	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/24/13	9/24/13 14:51	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Potassium	6010C	5.4		mg/L	5.0	1	9/23/13	9/27/13 13:27	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/23/13	9/27/13 13:27	
Silver	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/23/13	9/27/13 13:27	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/23/13	9/27/13 13:27	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/23/13	9/27/13 13:27	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1306850-012  
**Matrix:** Soil

**Service Request:** R1306850

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND
6010C	JWILLY	TCHRIST
7470A	CWINKSTERN	CWINKSTERN
9045D		DWARD



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10793

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-004335-0001-01770</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																													
Project Manager <b>Karen Bunker</b>		Report CC <b>Dean Triebout</b>		PRESERVATIVE		NUMBER OF CONTAINERS		GCMS VOAs ° 8280 • 624 • CLP		GCMS SVoAs ° 8270 • 625		GC VOA's ° 8021 • 801/802		PESTICIDES ° 8081 • 808		PCBs ° 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		VOCs		SVOCs		Total TAL Metals		TCP/APP/MLs		pH		% Solids	
Company/Address <b>Ecology + Environment, Inc</b>		<b>33 W Monroe ST #1410</b>		<b>Chicago, IL 60603</b>		Email <b>Jshughes@ecy.com</b>		Sampler's Printed Name <b>Jeff Hughes</b>		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX																	
Phone # <b>312-578-9243</b>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>			
CLIENT SAMPLE ID		DATE		SAMPLING TIME		MATRIX																											
E5336804(0-2)		9/17/13		1350		Soil		4																									
E5329804(2-4)		9/17/13		1445		Soil		4																									
E5329809(12-14)		9/17/13		1510		Soil		4																									
E5329805(0-2)		9/17/13		1418		Soil		4																									
E5329803(2-4)		9/17/13		1530		Soil		4																									
E5329802(0-2)		9/17/13		1553		Soil		4																									
SPECIAL INSTRUCTIONS/COMMENTS Metals																																	
See OAPP <input type="checkbox"/>																																	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY			
IL		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>			
Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>			
Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>			
Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>			
TCLP metals & pH mly																																	
TURNAROUND REQUIREMENTS		RUSH (SURCHARGES APPLY)		1 day		2 day		3 day		4 day		5 day		REQUESTED REPORT DATE																			
REPORT REQUIREMENTS		I. Results Only		II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		III. Results + QC and Calibration Summaries		IV. Data Validation Report with Raw Data																									
INVOICE INFORMATION		PO #		BILL TO:																													
See OAPP <input type="checkbox"/>		R1306850		Ecology And Environment, Incorporated		IDOT US30 Plainfield PS1		5																									
RECEIVED BY		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>			
Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>		Printed Name <b>Jeff Hughes</b>			
Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>		Firm <b>EE</b>			
Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>		Date/Time <b>9/17/13 1710</b>			



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10795

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: **IDOT US 30**  
 Project Manager: **Baven Bunker**  
 Company/Address: **Ecology & Environment, Inc.**  
**33 W. Monroe St #1410**  
**Chicago, IL 60603**  
 Phone #: **312-578-9243**  
 Sample's Signature: *J. Hughes*  
 Sampler's Printed Name: **Jeff Hughes**  
 Email: **Jhughes@ecoe.com**

Project Number: **EE-004335-0001-01770**  
 Report CC: **Dean Tiebout**  
 ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VOAs 6200 • 624 • CLP	GCMS SVoAs 8270 • 825	GC VOAs 8021 • 801/802	PESTICIDES 8081 • 808	PCBs 8092 • 808	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	VOCs	SVOCs	Total TAL Metals	TCLP/SPLP Metals	pH	% Solids	REMARKS/ ALTERNATE DESCRIPTION
E5328B01(2-4)		9/17/13	0915	Soil	4								X	X	X	X	X	X	
E5328B01(10-12)		9/17/13	0945	Soil	4								X	X	X	X	X	X	
E5330B01(2-4)		9/17/13	1030	Soil	4								X	X	X	X	X	X	
E5336B01(2-4)		9/17/13	1130	Soil	4								X	X	X	X	X	X	
E5336B01(6-8)		9/17/13	1140	Soil	4								X	X	X	X	X	X	
E5336B02(2-4)		9/17/13	1230	Soil	4								X	X	X	X	X	X	
E5336B03(0-2)		9/17/13	1330	Soil	4								X	X	X	X	X	X	

Preservative Key  
 0. NONE  
 1. HCL  
 2. HNO3  
 3. H2SO4  
 4. NaOH  
 5. Zn Acetate  
 6. MeOH  
 7. NaHSO4  
 8. Other \_\_\_\_\_

SPECIAL INSTRUCTIONS/COMMENTS  
 Metals

TURNAROUND REQUIREMENTS  
 RUSH (SURCHARGES APPLY)  
 1 day \_\_\_\_\_ 2 day \_\_\_\_\_ 3 day \_\_\_\_\_  
 4 day \_\_\_\_\_ 5 day \_\_\_\_\_

REPORT REQUIREMENTS  
 I. Results Only \_\_\_\_\_  
 II. Results + QC Summaries (LCS, DUP, MSM/SD as required) \_\_\_\_\_  
 III. Results + QC and Calibration Summaries \_\_\_\_\_  
 IV. Data Validation Report with Raw Data \_\_\_\_\_

INVOICE INFORMATION  
 PO # \_\_\_\_\_  
 BILL TO: \_\_\_\_\_

REQUESTED REPORT DATE \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_

Edata Yes \_\_\_\_\_ No \_\_\_\_\_

STATE WHERE SAMPLES WERE COLLECTED \_\_\_\_\_

RELINQUISHED BY: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_

Signature: *J. Hughes* Signature: *[Signature]*  
 Printed Name: **Jeff Hughes** Printed Name: \_\_\_\_\_  
 Firm: **ALS** Firm: \_\_\_\_\_

Date/Time: **9/17/13 1710** Date/Time: **9/18/13 0950**

Signature: \_\_\_\_\_ Printed Name: \_\_\_\_\_ Firm: \_\_\_\_\_ Date/Time: \_\_\_\_\_





October 11, 2013

Service Request No: R1306852

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1306852**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

  
Karen Bunker  
Project Manager

Page 1 of 258

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475

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Environmental

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## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>





## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

### Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B04 (0-2)  
**Lab Code:** R1306852-001

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1350  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	74.9	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 74.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10400		mg/Kg	13	4	1	9/30/13	10/3/13 19:33	
Antimony, Total	6010C	0.4	BJ	mg/Kg	7.7	0.3	1	9/30/13	10/3/13 19:33	
Arsenic, Total	6010C	4.3		mg/Kg	1.3	0.6	1	9/30/13	10/3/13 19:33	
Barium, Total	6010C	73.0		mg/Kg	2.6	0.10	1	9/30/13	10/3/13 19:33	
Beryllium, Total	6010C	0.51		mg/Kg	0.39	0.04	1	9/30/13	10/3/13 19:33	
Boron, Total	6010C	26	U	mg/Kg	26	5	1	9/30/13	10/3/13 19:33	
Cadmium, Total	6010C	0.64	U	mg/Kg	0.64	0.08	1	9/30/13	10/3/13 19:33	
Calcium, Total	6010C	99600		mg/Kg	1300	400	10	9/30/13	10/3/13 15:53	
Chromium, Total	6010C	16.7		mg/Kg	1.3	0.2	1	9/30/13	10/3/13 19:33	
Cobalt, Total	6010C	4.6	J	mg/Kg	6.4	0.07	1	9/30/13	10/3/13 19:33	
Copper, Total	6010C	18.0		mg/Kg	2.6	0.9	1	9/30/13	10/3/13 19:33	
Iron, Total	6010C	20500		mg/Kg	130	70	10	9/30/13	10/3/13 15:53	
Lead, Total	6010C	9.7		mg/Kg	6.4	0.3	1	9/30/13	10/3/13 19:33	
Magnesium, Total	6010C	54300		mg/Kg	130	2	1	9/30/13	10/3/13 19:33	
Manganese, Total	6010C	605		mg/Kg	13	2	10	9/30/13	10/3/13 15:53	
Mercury, Total	7471B	0.047		mg/Kg	0.043	0.007	1	9/26/13	9/26/13 20:10	
Nickel, Total	6010C	14.0		mg/Kg	5.1	0.2	1	9/30/13	10/3/13 19:33	
Potassium, Total	6010C	1540		mg/Kg	260	20	1	9/30/13	10/3/13 19:33	
Selenium, Total	6010C	1.3	U	mg/Kg	1.3	0.4	1	9/30/13	10/3/13 19:33	
Silver, Total	6010C	1.3	U	mg/Kg	1.3	0.2	1	9/30/13	10/3/13 19:33	
Thallium, Total	6010C	1.3	U	mg/Kg	1.3	0.5	1	9/30/13	10/3/13 19:33	
Vanadium, Total	6010C	22.9		mg/Kg	6.4	0.07	1	9/30/13	10/3/13 19:33	
Zinc, Total	6010C	47.7		mg/Kg	2.6	0.10	1	9/30/13	10/3/13 19:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Date Analyzed: 9/23/13 10:32

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\092313\K5178.D

Analysis Lot: 359619  
 Instrument Name: R-MS-07  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	41		5.5	3.2	
71-43-2	Benzene	5.5	U	5.5	0.33	
75-27-4	Bromodichloromethane	5.5	U	5.5	0.68	
75-25-2	Bromoform	5.5	U	5.5	1.1	
74-83-9	Bromomethane	5.5	U	5.5	1.6	
78-93-3	2-Butanone (MEK)	9.9		5.5	2.6	
75-15-0	Carbon Disulfide	5.5	U	5.5	1.4	
56-23-5	Carbon Tetrachloride	5.5	U	5.5	1.1	
108-90-7	Chlorobenzene	5.5	U	5.5	0.33	
75-00-3	Chloroethane	5.5	U	5.5	3.2	
67-66-3	Chloroform	5.5	U	5.5	1.4	
74-87-3	Chloromethane	5.5	U	5.5	0.45	
124-48-1	Dibromochloromethane	5.5	U	5.5	0.81	
75-34-3	1,1-Dichloroethane	5.5	U	5.5	1.4	
107-06-2	1,2-Dichloroethane	5.5	U	5.5	0.68	
75-35-4	1,1-Dichloroethene	5.5	U	5.5	1.5	
156-59-2	cis-1,2-Dichloroethene	5.5	U	5.5	1.1	
156-60-5	trans-1,2-Dichloroethene	5.5	U	5.5	0.96	
78-87-5	1,2-Dichloropropane	5.5	U	5.5	1.1	
10061-01-5	cis-1,3-Dichloropropene	5.5	U	5.5	1.0	
10061-02-6	trans-1,3-Dichloropropene	5.5	U	5.5	0.23	
100-41-4	Ethylbenzene	5.5	U	5.5	0.26	
591-78-6	2-Hexanone	5.5	U	5.5	1.4	
75-09-2	Methylene Chloride	5.5	U	5.5	0.64	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.5	U	5.5	1.1	
100-42-5	Styrene	5.5	U	5.5	0.34	
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U	5.5	0.90	
127-18-4	Tetrachloroethene	5.5	U	5.5	0.98	
108-88-3	Toluene	5.5	U	5.5	1.2	
71-55-6	1,1,1-Trichloroethane	5.5	U	5.5	0.81	
79-00-5	1,1,2-Trichloroethane	5.5	U	5.5	0.81	
79-01-6	Trichloroethene	5.5	U	5.5	1.2	
75-01-4	Vinyl Chloride	5.5	U	5.5	2.1	
95-47-6	o-Xylene	5.5	U	5.5	0.54	
179601-23-1	m,p-Xylenes	11	U	11	1.3	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Date Analyzed: 9/23/13 10:32

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQU\DATA\MSVOA7\DATA\092313\K5178.D\

Analysis Lot: 359619  
 Instrument Name: R-MS-07  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.5	U	5.5	1.1	
1330-20-7	Xylenes, Total	17	U	17	1.8	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	51-136	9/23/13 10:32	
Toluene-d8	94	66-138	9/23/13 10:32	
Dibromofluoromethane	101	63-138	9/23/13 10:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 14:21

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE014.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	440	U	440	45	
95-50-1	1,2-Dichlorobenzene	440	U	440	49	
541-73-1	1,3-Dichlorobenzene	440	U	440	67	
106-46-7	1,4-Dichlorobenzene	440	U	440	51	
95-95-4	2,4,5-Trichlorophenol	440	U	440	77	
88-06-2	2,4,6-Trichlorophenol	440	U	440	65	
120-83-2	2,4-Dichlorophenol	440	U	440	59	
105-67-9	2,4-Dimethylphenol	440	U	440	49	
51-28-5	2,4-Dinitrophenol	2300	U	2300	190	
121-14-2	2,4-Dinitrotoluene	440	U	440	94	
606-20-2	2,6-Dinitrotoluene	440	U	440	74	
91-58-7	2-Chloronaphthalene	440	U	440	46	
95-57-8	2-Chlorophenol	440	U	440	47	
91-57-6	2-Methylnaphthalene	440	U	440	45	
95-48-7	2-Methylphenol	440	U	440	58	
88-74-4	2-Nitroaniline	2300	U	2300	370	
88-75-5	2-Nitrophenol	440	U	440	66	
91-94-1	3,3'-Dichlorobenzidine	440	U	440	81	
	3- and 4-Methylphenol Coelution	440	U	440	67	
99-09-2	3-Nitroaniline	2300	U	2300	410	
534-52-1	4,6-Dinitro-2-methylphenol	2300	U	2300	650	
101-55-3	4-Bromophenyl Phenyl Ether	440	U	440	79	
59-50-7	4-Chloro-3-methylphenol	440	U	440	49	
106-47-8	4-Chloroaniline	440	U	440	86	
7005-72-3	4-Chlorophenyl Phenyl Ether	440	U	440	63	
100-01-6	4-Nitroaniline	2300	U	2300	480	
100-02-7	4-Nitrophenol	2300	U	2300	320	
83-32-9	Acenaphthene	440	U	440	63	
208-96-8	Acenaphthylene	440	U	440	59	
120-12-7	Anthracene	440	U	440	69	
56-55-3	Benz(a)anthracene	440	U	440	68	
50-32-8	Benzo(a)pyrene	440	U	440	74	
205-99-2	Benzo(b)fluoranthene	440	U	440	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 14:21

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE014.D

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	440	U	440	84	
207-08-9	Benzo(k)fluoranthene	440	U	440	79	
108-60-1	2,2'-Oxybis(1-chloropropane)	440	U	440	53	
111-91-1	Bis(2-chloroethoxy)methane	440	U	440	61	
111-44-4	Bis(2-chloroethyl) Ether	440	U	440	45	
117-81-7	Bis(2-ethylhexyl) Phthalate	440	U	440	61	
85-68-7	Butyl Benzyl Phthalate	440	U	440	68	
86-74-8	Carbazole	440	U	440	61	
218-01-9	Chrysene	440	U	440	62	
84-74-2	Di-n-butyl Phthalate	140	BJ	440	130	
117-84-0	Di-n-octyl Phthalate	440	U	440	85	
53-70-3	Dibenz(a,h)anthracene	440	U	440	120	
132-64-9	Dibenzofuran	440	U	440	49	
84-66-2	Diethyl Phthalate	440	U	440	58	
131-11-3	Dimethyl Phthalate	440	U	440	63	
206-44-0	Fluoranthene	440	U	440	71	
86-73-7	Fluorene	440	U	440	56	
118-74-1	Hexachlorobenzene	440	U	440	68	
87-68-3	Hexachlorobutadiene	440	U	440	49	
77-47-4	Hexachlorocyclopentadiene	440	U	440	70	
67-72-1	Hexachloroethane	440	U	440	62	
193-39-5	Indeno(1,2,3-cd)pyrene	440	U	440	73	
78-59-1	Isophorone	440	U	440	59	
621-64-7	N-Nitrosodi-n-propylamine	440	U	440	50	
86-30-6	N-Nitrosodiphenylamine	440	U	440	69	
91-20-3	Naphthalene	440	U	440	45	
98-95-3	Nitrobenzene	440	U	440	47	
87-86-5	Pentachlorophenol (PCP)	2300	U	2300	370	
85-01-8	Phenanthrene	440	U	440	60	
108-95-2	Phenol	440	U	440	49	
129-00-0	Pyrene	440	U	440	86	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 14:21

Sample Name: E5336B04 (0-2)  
 Lab Code: R1306852-001

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 74.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE014.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	41-151	9/25/13 14:21	
2-Fluorobiphenyl	72	47-126	9/25/13 14:21	
2-Fluorophenol	69	16-129	9/25/13 14:21	
Nitrobenzene-d5	72	39-136	9/25/13 14:21	
Phenol-d6	72	10-145	9/25/13 14:21	
p-Terphenyl-d14	98	35-152	9/25/13 14:21	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B04 (0-2)  
**Lab Code:** R1306852-001  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		BWOJTASIEWICZ
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B01 (2-4)  
Lab Code: R1306852-010

Service Request: R1306852  
Date Collected: 9/17/13 1130  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	81.9	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 81.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	15300		mg/Kg	12	4	1	9/30/13	10/3/13 20:45	
Antimony, Total	6010C	7.0	U	mg/Kg	7.0	0.3	1	9/30/13	10/3/13 20:45	
Arsenic, Total	6010C	9.1		mg/Kg	1.2	0.5	1	9/30/13	10/3/13 20:45	
Barium, Total	6010C	133		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:45	
Beryllium, Total	6010C	0.84		mg/Kg	0.35	0.03	1	9/30/13	10/3/13 20:45	
Boron, Total	6010C	23	U	mg/Kg	23	5	1	9/30/13	10/3/13 20:45	
Cadmium, Total	6010C	0.36	J	mg/Kg	0.58	0.07	1	9/30/13	10/3/13 20:45	
Calcium, Total	6010C	8670		mg/Kg	120	40	1	9/30/13	10/3/13 20:45	
Chromium, Total	6010C	21.8		mg/Kg	1.2	0.2	1	9/30/13	10/3/13 20:45	
Cobalt, Total	6010C	10.9		mg/Kg	5.8	0.07	1	9/30/13	10/3/13 20:45	
Copper, Total	6010C	22.3		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 20:45	
Iron, Total	6010C	26700		mg/Kg	120	70	10	9/30/13	10/3/13 17:02	
Lead, Total	6010C	12.3		mg/Kg	5.8	0.3	1	9/30/13	10/3/13 20:45	
Magnesium, Total	6010C	7460		mg/Kg	120	2	1	9/30/13	10/3/13 20:45	
Manganese, Total	6010C	1200		mg/Kg	12	2	10	9/30/13	10/3/13 17:02	
Mercury, Total	7471B	0.040		mg/Kg	0.039	0.007	1	9/26/13	9/26/13 20:28	
Nickel, Total	6010C	26.0		mg/Kg	4.7	0.10	1	9/30/13	10/3/13 20:45	
Potassium, Total	6010C	1750		mg/Kg	230	20	1	9/30/13	10/3/13 20:45	
Selenium, Total	6010C	1.2	U	mg/Kg	1.2	0.4	1	9/30/13	10/3/13 20:45	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/30/13	10/3/13 20:45	
Thallium, Total	6010C	2.3	U	mg/Kg	2.3	0.9	2	9/30/13	10/4/13 10:26	
Vanadium, Total	6010C	34.7		mg/Kg	5.8	0.06	1	9/30/13	10/3/13 20:45	
Zinc, Total	6010C	53.6		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 21:48

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9925.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .69

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	4.2	U	4.2	2.4	
71-43-2	Benzene	4.2	U	4.2	0.25	
75-27-4	Bromodichloromethane	4.2	U	4.2	0.52	
75-25-2	Bromoform	4.2	U	4.2	0.79	
74-83-9	Bromomethane	4.2	U	4.2	1.2	
78-93-3	2-Butanone (MEK)	4.2	U	4.2	2.0	
75-15-0	Carbon Disulfide	4.2	U	4.2	1.1	
56-23-5	Carbon Tetrachloride	4.2	U	4.2	0.78	
108-90-7	Chlorobenzene	4.2	U	4.2	0.25	
75-00-3	Chloroethane	4.2	U	4.2	2.5	
67-66-3	Chloroform	4.2	U	4.2	1.1	
74-87-3	Chloromethane	4.2	U	4.2	0.34	
124-48-1	Dibromochloromethane	4.2	U	4.2	0.62	
75-34-3	1,1-Dichloroethane	4.2	U	4.2	1.1	
107-06-2	1,2-Dichloroethane	4.2	U	4.2	0.52	
75-35-4	1,1-Dichloroethene	4.2	U	4.2	1.1	
156-59-2	cis-1,2-Dichloroethene	4.2	U	4.2	0.81	
156-60-5	trans-1,2-Dichloroethene	4.2	U	4.2	0.73	
78-87-5	1,2-Dichloropropane	4.2	U	4.2	0.82	
10061-01-5	cis-1,3-Dichloropropene	4.2	U	4.2	0.76	
10061-02-6	trans-1,3-Dichloropropene	4.2	U	4.2	0.17	
100-41-4	Ethylbenzene	4.2	U	4.2	0.20	
591-78-6	2-Hexanone	4.2	U	4.2	1.1	
75-09-2	Methylene Chloride	4.2	U	4.2	0.49	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.2	U	4.2	0.83	
100-42-5	Styrene	4.2	U	4.2	0.26	
79-34-5	1,1,2,2-Tetrachloroethane	4.2	U	4.2	0.69	
127-18-4	Tetrachloroethene	4.2	U	4.2	0.75	
108-88-3	Toluene	1.4	J	4.2	0.85	
71-55-6	1,1,1-Trichloroethane	4.2	U	4.2	0.62	
79-00-5	1,1,2-Trichloroethane	4.2	U	4.2	0.62	
79-01-6	Trichloroethene	4.2	U	4.2	0.86	
75-01-4	Vinyl Chloride	4.2	U	4.2	1.6	
95-47-6	o-Xylene	4.2	U	4.2	0.41	
179601-23-1	m,p-Xylenes	8.4	U	8.4	0.92	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 21:48

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9925.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .69

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.2 U	4.2	0.80	
1330-20-7	Xylenes, Total	13 U	13	1.4	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	51-136	9/20/13 21:48	
Toluene-d8	104	66-138	9/20/13 21:48	
Dibromofluoromethane	96	63-138	9/20/13 21:48	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:19

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE025.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	400	U	400	41	
95-50-1	1,2-Dichlorobenzene	400	U	400	45	
541-73-1	1,3-Dichlorobenzene	400	U	400	62	
106-46-7	1,4-Dichlorobenzene	400	U	400	47	
95-95-4	2,4,5-Trichlorophenol	400	U	400	71	
88-06-2	2,4,6-Trichlorophenol	400	U	400	59	
120-83-2	2,4-Dichlorophenol	400	U	400	54	
105-67-9	2,4-Dimethylphenol	400	U	400	45	
51-28-5	2,4-Dinitrophenol	2100	U	2100	170	
121-14-2	2,4-Dinitrotoluene	400	U	400	86	
606-20-2	2,6-Dinitrotoluene	400	U	400	67	
91-58-7	2-Chloronaphthalene	400	U	400	42	
95-57-8	2-Chlorophenol	400	U	400	43	
91-57-6	2-Methylnaphthalene	400	U	400	41	
95-48-7	2-Methylphenol	400	U	400	53	
88-74-4	2-Nitroaniline	2100	U	2100	340	
88-75-5	2-Nitrophenol	400	U	400	60	
91-94-1	3,3'-Dichlorobenzidine	400	U	400	74	
	3- and 4-Methylphenol Coelution	400	U	400	61	
99-09-2	3-Nitroaniline	2100	U	2100	380	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	590	
101-55-3	4-Bromophenyl Phenyl Ether	400	U	400	72	
59-50-7	4-Chloro-3-methylphenol	400	U	400	45	
106-47-8	4-Chloroaniline	400	U	400	78	
7005-72-3	4-Chlorophenyl Phenyl Ether	400	U	400	57	
100-01-6	4-Nitroaniline	2100	U	2100	440	
100-02-7	4-Nitrophenol	2100	U	2100	300	
83-32-9	Acenaphthene	400	U	400	58	
208-96-8	Acenaphthylene	400	U	400	54	
120-12-7	Anthracene	400	U	400	64	
56-55-3	Benz(a)anthracene	400	U	400	63	
50-32-8	Benzo(a)pyrene	400	U	400	68	
205-99-2	Benzo(b)fluoranthene	400	U	400	98	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:19

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5975E\data\092513\AE025.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	400	U	400	76	
207-08-9	Benzo(k)fluoranthene	400	U	400	73	
108-60-1	2,2'-Oxybis(1-chloropropane)	400	U	400	49	
111-91-1	Bis(2-chloroethoxy)methane	400	U	400	56	
111-44-4	Bis(2-chloroethyl) Ether	400	U	400	41	
117-81-7	Bis(2-ethylhexyl) Phthalate	400	U	400	56	
85-68-7	Butyl Benzyl Phthalate	400	U	400	62	
86-74-8	Carbazole	400	U	400	56	
218-01-9	Chrysene	400	U	400	57	
84-74-2	Di-n-butyl Phthalate	400	U	400	120	
117-84-0	Di-n-octyl Phthalate	400	U	400	78	
53-70-3	Dibenz(a,h)anthracene	400	U	400	110	
132-64-9	Dibenzofuran	400	U	400	45	
84-66-2	Diethyl Phthalate	400	U	400	53	
131-11-3	Dimethyl Phthalate	400	U	400	58	
206-44-0	Fluoranthene	400	U	400	65	
86-73-7	Fluorene	400	U	400	51	
118-74-1	Hexachlorobenzene	400	U	400	62	
87-68-3	Hexachlorobutadiene	400	U	400	45	
77-47-4	Hexachlorocyclopentadiene	400	U	400	64	
67-72-1	Hexachloroethane	400	U	400	56	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	400	67	
78-59-1	Isophorone	400	U	400	54	
621-64-7	N-Nitrosodi-n-propylamine	400	U	400	46	
86-30-6	N-Nitrosodiphenylamine	400	U	400	63	
91-20-3	Naphthalene	400	U	400	41	
98-95-3	Nitrobenzene	400	U	400	43	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	340	
85-01-8	Phenanthrene	400	U	400	55	
108-95-2	Phenol	400	U	400	45	
129-00-0	Pyrene	400	U	400	79	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1130  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:19

Sample Name: E5336B01 (2-4)  
 Lab Code: R1306852-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 81.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE025.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	63	41-151	9/25/13 18:19	
2-Fluorobiphenyl	51	47-126	9/25/13 18:19	
2-Fluorophenol	52	16-129	9/25/13 18:19	
Nitrobenzene-d5	58	39-136	9/25/13 18:19	
Phenol-d6	61	10-145	9/25/13 18:19	
p-Terphenyl-d14	60	35-152	9/25/13 18:19	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B01 (2-4)  
**Lab Code:** R1306852-010  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B01 (6-8)  
**Lab Code:** R1306852-011

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1140  
**Date Received:** 9/18/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.5	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 85.5

Inorganic Parameters

Analyte Name	Method	Result Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	10200	mg/Kg	11	4	1	9/30/13	10/3/13 20:52	
Antimony, Total	6010C	6.9 U	mg/Kg	6.9	0.3	1	9/30/13	10/3/13 20:52	
Arsenic, Total	6010C	8.9	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 20:52	
Barium, Total	6010C	28.9	mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:52	
Beryllium, Total	6010C	0.58	mg/Kg	0.34	0.03	1	9/30/13	10/3/13 20:52	
Boron, Total	6010C	23 U	mg/Kg	23	5	1	9/30/13	10/3/13 20:52	
Cadmium, Total	6010C	0.19 J	mg/Kg	0.57	0.07	1	9/30/13	10/3/13 20:52	
Calcium, Total	6010C	66500	mg/Kg	1100	400	10	9/30/13	10/3/13 17:09	
Chromium, Total	6010C	19.0	mg/Kg	1.1	0.2	1	9/30/13	10/3/13 20:52	
Cobalt, Total	6010C	13.6	mg/Kg	5.7	0.07	1	9/30/13	10/3/13 20:52	
Copper, Total	6010C	23.5	mg/Kg	2.3	0.8	1	9/30/13	10/3/13 20:52	
Iron, Total	6010C	24000	mg/Kg	110	60	10	9/30/13	10/3/13 17:09	
Lead, Total	6010C	13.5	mg/Kg	5.7	0.3	1	9/30/13	10/3/13 20:52	
Magnesium, Total	6010C	31900	mg/Kg	110	2	1	9/30/13	10/3/13 20:52	
Manganese, Total	6010C	547	mg/Kg	11	2	10	9/30/13	10/3/13 17:09	
Mercury, Total	7471B	0.020 J	mg/Kg	0.038	0.006	1	9/26/13	9/26/13 20:29	
Nickel, Total	6010C	30.5	mg/Kg	4.6	0.10	1	9/30/13	10/3/13 20:52	
Potassium, Total	6010C	2610	mg/Kg	230	20	1	9/30/13	10/3/13 20:52	
Selenium, Total	6010C	1.1 U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 20:52	
Silver, Total	6010C	1.1 U	mg/Kg	1.1	0.10	1	9/30/13	10/3/13 20:52	
Thallium, Total	6010C	1.1 U	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 20:52	
Vanadium, Total	6010C	22.5	mg/Kg	5.7	0.06	1	9/30/13	10/3/13 20:52	
Zinc, Total	6010C	47.1	mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:52	

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Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 19:28

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092213\T9946.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	6.2		4.9	2.8	
71-43-2	Benzene	4.9	U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9	U	4.9	0.60	
75-25-2	Bromoform	4.9	U	4.9	0.91	
74-83-9	Bromomethane	1.5	J	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9	U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9	U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9	U	4.9	0.90	
108-90-7	Chlorobenzene	4.9	U	4.9	0.29	
75-00-3	Chloroethane	4.9	U	4.9	2.8	
67-66-3	Chloroform	4.9	U	4.9	1.3	
74-87-3	Chloromethane	0.40	J	4.9	0.39	
124-48-1	Dibromochloromethane	4.9	U	4.9	0.71	
75-34-3	1,1-Dichloroethane	4.9	U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9	U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9	U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9	U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9	U	4.9	0.84	
78-87-5	1,2-Dichloropropane	4.9	U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9	U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9	U	4.9	0.20	
100-41-4	Ethylbenzene	4.9	U	4.9	0.23	
591-78-6	2-Hexanone	4.9	U	4.9	1.2	
75-09-2	Methylene Chloride	4.9	U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9	U	4.9	0.96	
100-42-5	Styrene	4.9	U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9	U	4.9	0.79	
127-18-4	Tetrachloroethene	4.9	U	4.9	0.86	
108-88-3	Toluene	1.7	J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9	U	4.9	0.71	
79-00-5	1,1,2-Trichloroethane	4.9	U	4.9	0.71	
79-01-6	Trichloroethene	4.9	U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9	U	4.9	1.8	
95-47-6	o-Xylene	4.9	U	4.9	0.47	
179601-23-1	m,p-Xylenes	9.7	U	9.7	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 19:28

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092213\T9946.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9	U	4.9	0.92	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	54	51-136	9/22/13 19:28	
Toluene-d8	93	66-138	9/22/13 19:28	
Dibromofluoromethane	102	63-138	9/22/13 19:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 22:19  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9926.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .84

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.9 U	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.60	
75-25-2	Bromoform	4.9 U	4.9	0.92	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.91	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.9	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.40	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.94	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.85	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.96	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.89	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.97	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.80	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.87	
108-88-3	Toluene	4.9 U	4.9	0.99	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.72	
79-01-6	Trichloroethene	4.9 U	4.9	1.0	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.9	
95-47-6	o-Xylene	4.9 U	4.9	0.48	
179601-23-1	m,p-Xylenes	9.8 U	9.8	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 22:19  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9926.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .84

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9 U	4.9	0.93	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	59	51-136	9/20/13 22:19	
Toluene-d8	96	66-138	9/20/13 22:19	
Dibromofluoromethane	103	63-138	9/20/13 22:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:41

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE026.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	39	
95-50-1	1,2-Dichlorobenzene	390	U	390	43	
541-73-1	1,3-Dichlorobenzene	390	U	390	59	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	68	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	52	
105-67-9	2,4-Dimethylphenol	390	U	390	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	83	
606-20-2	2,6-Dinitrotoluene	390	U	390	64	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	39	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	69	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	420	
100-02-7	4-Nitrophenol	2000	U	2000	280	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	52	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	60	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	94	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:41

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE026.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	73	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	59	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	54	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	74	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	50	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	62	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	59	
87-68-3	Hexachlorobutadiene	390	U	390	43	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	54	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	64	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	44	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	39	
98-95-3	Nitrobenzene	390	U	390	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	320	
85-01-8	Phenanthrene	390	U	390	52	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1140  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 18:41

Sample Name: E5336B01 (6-8)  
 Lab Code: R1306852-011

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.5

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5975E\data\092513\AE026.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	86	41-151	9/25/13 18:41	
2-Fluorobiphenyl	69	47-126	9/25/13 18:41	
2-Fluorophenol	70	16-129	9/25/13 18:41	
Nitrobenzene-d5	68	39-136	9/25/13 18:41	
Phenol-d6	75	10-145	9/25/13 18:41	
p-Terphenyl-d14	99	35-152	9/25/13 18:41	

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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B01 (6-8)  
**Lab Code:** R1306852-011  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B02 (2-4)  
Lab Code: R1306852-012

Service Request: R1306852  
Date Collected: 9/17/13 1230  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.6	Percent	1.0	1	NA	9/24/13 16:45	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1306852-012

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1230  
**Date Received:** 9/18/13

**Basis:** Dry  
**Percent Solids:** 84.6

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12800		mg/Kg	11	4	1	9/30/13	10/3/13 20:59	
Antimony, Total	6010C	6.8	U	mg/Kg	6.8	0.3	1	9/30/13	10/3/13 20:59	
Arsenic, Total	6010C	5.5		mg/Kg	1.1	0.5	1	9/30/13	10/3/13 20:59	
Barium, Total	6010C	63.1		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 20:59	
Beryllium, Total	6010C	0.68		mg/Kg	0.34	0.03	1	9/30/13	10/3/13 20:59	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/30/13	10/3/13 20:59	
Cadmium, Total	6010C	0.22	J	mg/Kg	0.56	0.07	1	9/30/13	10/3/13 20:59	
Calcium, Total	6010C	49600		mg/Kg	1100	400	10	9/30/13	10/3/13 17:15	
Chromium, Total	6010C	23.5		mg/Kg	1.1	0.2	1	9/30/13	10/3/13 20:59	
Cobalt, Total	6010C	8.9		mg/Kg	5.6	0.06	1	9/30/13	10/3/13 20:59	
Copper, Total	6010C	18.2		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 20:59	
Iron, Total	6010C	24200		mg/Kg	110	60	10	9/30/13	10/3/13 17:15	
Lead, Total	6010C	11.7		mg/Kg	5.6	0.3	1	9/30/13	10/3/13 20:59	
Magnesium, Total	6010C	22200		mg/Kg	110	2	1	9/30/13	10/3/13 20:59	
Manganese, Total	6010C	294		mg/Kg	11	2	10	9/30/13	10/3/13 17:15	
Mercury, Total	7471B	0.023	J	mg/Kg	0.036	0.006	1	9/26/13	9/26/13 20:31	
Nickel, Total	6010C	27.2		mg/Kg	4.5	0.10	1	9/30/13	10/3/13 20:59	
Potassium, Total	6010C	2810		mg/Kg	230	20	1	9/30/13	10/3/13 20:59	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 20:59	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/30/13	10/3/13 20:59	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 20:59	
Vanadium, Total	6010C	24.1		mg/Kg	5.6	0.06	1	9/30/13	10/3/13 20:59	
Zinc, Total	6010C	53.5		mg/Kg	2.3	0.08	1	9/30/13	10/3/13 20:59	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1230  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 22:51

Sample Name: E5336B02 (2-4)  
 Lab Code: R1306852-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9927.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.7 J	4.6	2.6	
71-43-2	Benzene	4.6 U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6 U	4.6	0.56	
75-25-2	Bromoform	4.6 U	4.6	0.85	
74-83-9	Bromomethane	4.6 U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6 U	4.6	2.1	
75-15-0	Carbon Disulfide	4.6 U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6 U	4.6	0.84	
108-90-7	Chlorobenzene	4.6 U	4.6	0.27	
75-00-3	Chloroethane	4.6 U	4.6	2.7	
67-66-3	Chloroform	4.6 U	4.6	1.2	
74-87-3	Chloromethane	4.6 U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6 U	4.6	0.67	
75-34-3	1,1-Dichloroethane	4.6 U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6 U	4.6	0.56	
75-35-4	1,1-Dichloroethene	4.6 U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6 U	4.6	0.87	
156-60-5	trans-1,2-Dichloroethene	4.6 U	4.6	0.79	
78-87-5	1,2-Dichloropropane	4.6 U	4.6	0.89	
10061-01-5	cis-1,3-Dichloropropene	4.6 U	4.6	0.82	
10061-02-6	trans-1,3-Dichloropropene	4.6 U	4.6	0.19	
100-41-4	Ethylbenzene	4.6 U	4.6	0.21	
591-78-6	2-Hexanone	4.6 U	4.6	1.2	
75-09-2	Methylene Chloride	4.6 U	4.6	0.52	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6 U	4.6	0.90	
100-42-5	Styrene	4.6 U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6 U	4.6	0.74	
127-18-4	Tetrachloroethene	4.6 U	4.6	0.81	
108-88-3	Toluene	4.6 U	4.6	0.92	
71-55-6	1,1,1-Trichloroethane	4.6 U	4.6	0.67	
79-00-5	1,1,2-Trichloroethane	4.6 U	4.6	0.67	
79-01-6	Trichloroethene	4.6 U	4.6	0.92	
75-01-4	Vinyl Chloride	4.6 U	4.6	1.7	
95-47-6	o-Xylene	4.6 U	4.6	0.44	
179601-23-1	m,p-Xylenes	9.1 U	9.1	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306852  
**Date Collected:** 9/17/13 1230  
**Date Received:** 9/18/13  
**Date Analyzed:** 9/20/13 22:51

**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1306852-012

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 84.6

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\092013\T9927.D\

**Analysis Lot:** 359420  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .77

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6 U	4.6	0.86	
1330-20-7	Xylenes, Total	14 U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	51-136	9/20/13 22:51	
Toluene-d8	105	66-138	9/20/13 22:51	
Dibromofluoromethane	100	63-138	9/20/13 22:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1230  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:02

Sample Name: E5336B02 (2-4)  
 Lab Code: R1306852-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE027.D

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	40	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	60	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	69	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	53	
105-67-9	2,4-Dimethylphenol	390	U	390	44	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	84	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	40	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	53	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	61	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	95	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1230  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:02

Sample Name: E5336B02 (2-4)  
 Lab Code: R1306852-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE027.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	40	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	75	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	63	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	44	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	55	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	40	
98-95-3	Nitrobenzene	390	U	390	42	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1230  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:02

Sample Name: E5336B02 (2-4)  
 Lab Code: R1306852-012

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE027.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	80	41-151	9/25/13 19:02	
2-Fluorobiphenyl	63	47-126	9/25/13 19:02	
2-Fluorophenol	65	16-129	9/25/13 19:02	
Nitrobenzene-d5	64	39-136	9/25/13 19:02	
Phenol-d6	72	10-145	9/25/13 19:02	
p-Terphenyl-d14	64	35-152	9/25/13 19:02	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1306852-012  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13  
**Date Received:** 9/18/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil  
Sample Name: E5336B03 (0-2)  
Lab Code: R1306852-013

Service Request: R1306852  
Date Collected: 9/17/13 1330  
Date Received: 9/18/13

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	84.9	Percent	1.0	1	NA	9/24/13 16:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13

Basis: Dry  
 Percent Solids: 84.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12700		mg/Kg	11	4	1	9/30/13	10/3/13 21:05	
Antimony, Total	6010C	6.8	U	mg/Kg	6.8	0.3	1	9/30/13	10/3/13 21:05	
Arsenic, Total	6010C	7.5		mg/Kg	1.1	0.5	1	9/30/13	10/3/13 21:05	
Barium, Total	6010C	38.8		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 21:05	
Beryllium, Total	6010C	0.70		mg/Kg	0.34	0.03	1	9/30/13	10/3/13 21:05	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/30/13	10/3/13 21:05	
Cadmium, Total	6010C	0.26	J	mg/Kg	0.57	0.07	1	9/30/13	10/3/13 21:05	
Calcium, Total	6010C	49300		mg/Kg	1100	400	10	9/30/13	10/3/13 17:21	
Chromium, Total	6010C	23.2		mg/Kg	1.1	0.2	1	9/30/13	10/3/13 21:05	
Cobalt, Total	6010C	17.2		mg/Kg	5.7	0.07	1	9/30/13	10/3/13 21:05	
Copper, Total	6010C	21.2		mg/Kg	2.3	0.8	1	9/30/13	10/3/13 21:05	
Iron, Total	6010C	26100		mg/Kg	110	60	10	9/30/13	10/3/13 17:21	
Lead, Total	6010C	14.8		mg/Kg	5.7	0.3	1	9/30/13	10/3/13 21:05	
Magnesium, Total	6010C	22300		mg/Kg	110	2	1	9/30/13	10/3/13 21:05	
Manganese, Total	6010C	668		mg/Kg	11	2	10	9/30/13	10/3/13 17:21	
Mercury, Total	7471B	0.026	J	mg/Kg	0.036	0.006	1	9/26/13	9/26/13 20:33	
Nickel, Total	6010C	37.3		mg/Kg	4.5	0.10	1	9/30/13	10/3/13 21:05	
Potassium, Total	6010C	2930		mg/Kg	230	20	1	9/30/13	10/3/13 21:05	
Selenium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/30/13	10/3/13 21:05	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/30/13	10/3/13 21:05	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/30/13	10/3/13 21:05	
Vanadium, Total	6010C	25.4		mg/Kg	5.7	0.06	1	9/30/13	10/3/13 21:05	
Zinc, Total	6010C	53.3		mg/Kg	2.3	0.09	1	9/30/13	10/3/13 21:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 20:00

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092213\T9947.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .8

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	3.2 J	4.7	2.7	
71-43-2	Benzene	4.7 U	4.7	0.28	
75-27-4	Bromodichloromethane	4.7 U	4.7	0.58	
75-25-2	Bromoform	4.7 U	4.7	0.88	
74-83-9	Bromomethane	4.7 U	4.7	1.4	
78-93-3	2-Butanone (MEK)	4.7 U	4.7	2.2	
75-15-0	Carbon Disulfide	4.7 U	4.7	1.2	
56-23-5	Carbon Tetrachloride	4.7 U	4.7	0.87	
108-90-7	Chlorobenzene	4.7 U	4.7	0.28	
75-00-3	Chloroethane	4.7 U	4.7	2.8	
67-66-3	Chloroform	4.7 U	4.7	1.2	
74-87-3	Chloromethane	4.7 U	4.7	0.38	
124-48-1	Dibromochloromethane	4.7 U	4.7	0.69	
75-34-3	1,1-Dichloroethane	4.7 U	4.7	1.2	
107-06-2	1,2-Dichloroethane	4.7 U	4.7	0.58	
75-35-4	1,1-Dichloroethene	4.7 U	4.7	1.3	
156-59-2	cis-1,2-Dichloroethene	4.7 U	4.7	0.90	
156-60-5	trans-1,2-Dichloroethene	4.7 U	4.7	0.82	
78-87-5	1,2-Dichloropropane	4.7 U	4.7	0.92	
10061-01-5	cis-1,3-Dichloropropene	4.7 U	4.7	0.85	
10061-02-6	trans-1,3-Dichloropropene	4.7 U	4.7	0.19	
100-41-4	Ethylbenzene	4.7 U	4.7	0.22	
591-78-6	2-Hexanone	4.7 U	4.7	1.2	
75-09-2	Methylene Chloride	4.7 U	4.7	0.54	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.7 U	4.7	0.93	
100-42-5	Styrene	4.7 U	4.7	0.29	
79-34-5	1,1,2,2-Tetrachloroethane	4.7 U	4.7	0.77	
127-18-4	Tetrachloroethene	4.7 U	4.7	0.83	
108-88-3	Toluene	4.7 U	4.7	0.95	
71-55-6	1,1,1-Trichloroethane	4.7 U	4.7	0.69	
79-00-5	1,1,2-Trichloroethane	4.7 U	4.7	0.69	
79-01-6	Trichloroethene	4.7 U	4.7	0.96	
75-01-4	Vinyl Chloride	4.7 U	4.7	1.8	
95-47-6	o-Xylene	4.7 U	4.7	0.46	
179601-23-1	m,p-Xylenes	9.4 U	9.4	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Analyzed: 9/22/13 20:00

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092213\T9947.D\

Analysis Lot: 359583  
 Instrument Name: R-MS-12  
 Dilution Factor: .8

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.7	U	4.7	0.89	
1330-20-7	Xylenes, Total	14	U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	59	51-136	9/22/13 20:00	
Toluene-d8	95	66-138	9/22/13 20:00	
Dibromofluoromethane	101	63-138	9/22/13 20:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013  
 Run Type: Reanalysis

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 23:23  
 Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\092013\T9928.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.1	U	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.96	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.95	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.98	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.89	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	1.0	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.93	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.1	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.84	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.91	
108-88-3	Toluene	5.1	U	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.50	
179601-23-1	m,p-Xylenes	10	U	10	1.2	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Analyzed: 9/20/13 23:23

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

- Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\092013\T9928.D\

Analysis Lot: 359420  
 Instrument Name: R-MS-12  
 Dilution Factor: .87

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.97	
1330-20-7	Xylenes, Total	15	U	15	1.7	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	62	51-136	9/20/13 23:23	
Toluene-d8	96	66-138	9/20/13 23:23	
Dibromofluoromethane	100	63-138	9/20/13 23:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:24

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE028.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	39	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	59	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	68	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	52	
105-67-9	2,4-Dimethylphenol	390	U	390	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	83	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	39	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	370	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	76	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	52	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	60	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	94	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:24

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE028.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	390	U	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	75	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	62	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	60	
87-68-3	Hexachlorobutadiene	390	U	390	43	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	54	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	65	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	45	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	39	
98-95-3	Nitrobenzene	390	U	390	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	53	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	76	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306852  
 Date Collected: 9/17/13 1330  
 Date Received: 9/18/13  
 Date Extracted: 9/20/13  
 Date Analyzed: 9/25/13 19:24

Sample Name: E5336B03 (0-2)  
 Lab Code: R1306852-013

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 84.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5975E\data\092513\AE028.D\

Analysis Lot: 360139  
 Extraction Lot: 192208  
 Instrument Name: R-MS-56  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	78	41-151	9/25/13 19:24	
2-Fluorobiphenyl	59	47-126	9/25/13 19:24	
2-Fluorophenol	65	16-129	9/25/13 19:24	
Nitrobenzene-d5	60	39-136	9/25/13 19:24	
Phenol-d6	69	10-145	9/25/13 19:24	
p-Terphenyl-d14	60	35-152	9/25/13 19:24	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B03 (0-2)  
**Lab Code:** R1306852-013  
**Matrix:** Soil

**Service Request:** R1306852

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
160.3 Modified		ASIMMONS
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	SGOLBERG	JMISIUREWICZ







October 24, 2013

Service Request No: R1307503

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 17, 2013. For your reference, these analyses have been assigned our service request number **R1307503**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 50





## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	North Carolina #676
Delaware Accredited	Nevada ID # NY-00032	Pennsylvania ID# 68-786
DoD ELAP #65817	New Jersey ID # NY004	Rhode Island ID # 158
Florida ID # E87674	New York ID # 10145	Virginia #460167
Illinois ID #200047		

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307503  
**Date Collected:** 9/16/13 1550  
**Date Received:** 9/17/13  
**Pre-Prep Date:** 10/16/13

**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1307503-008

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.069		mg/L	0.010	1	10/18/13	10/22/13	10:39

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B06 (0-2)  
**Lab Code:** R1307503-008  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

**Analysis Method**

**Extracted/Digested By**

**Analyzed By**

6010C

JWILLY

DBOND

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307503  
**Date Collected:** 9/16/13 1605  
**Date Received:** 9/17/13  
**Pre-Prep Date:** 10/16/13

**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1307503-009

**Basis:** As Received

**Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters**

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.134	mg/L	0.010	1	10/18/13	10/22/13 10:45	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B05 (0-2)  
**Lab Code:** R1307503-009  
**Matrix:** Soil

**Service Request:** R1307503

**Date Collected:** 9/16/13

**Date Received:** 9/17/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	DBOND





October 28, 2013

Service Request No: R1307556

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory between September 18, 2013 and September 20, 2013. For your reference, these analyses have been assigned our service request number **R1307556**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 36

ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623 PHONE 585-288-5380 | FAX 585-288-8475

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Environmental

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>







# INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

## Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

## Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1307556  
 Date Collected: 9/17/13 1350  
 Date Received: 9/18/13  
 Pre-Prep Date: 10/20/13

Sample Name: E5336B04 (0-2)  
 Lab Code: R1307556-001

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	363	mg/L	0.10	1	10/21/13	10/24/13 22:59	
Manganese	6010C	7.86	mg/L	0.010	1	10/21/13	10/24/13 22:59	

ALS ENVIRONMENTAL

Analyst Summary Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Name: E5336B04 (0-2)  
Lab Code: R1307556-001  
Matrix: Soil

Service Request: R1307556

Date Collected: 9/17/13

Date Received: 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	CWINKSTERN

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1307556  
**Date Collected:** 9/17/13 1140  
**Date Received:** 9/18/13  
**Pre-Prep Date:** 10/20/13

**Sample Name:** E5336B01 (6-8)  
**Lab Code:** R1307556-006

**Basis:** As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

**Pre-Prep Method:** EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.525	mg/L	0.010	1	10/21/13	10/25/13 00:03	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B01 (6-8)  
**Lab Code:** R1307556-006  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
6010C	JWILLY	CWINKSTERN

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307556  
Date Collected: 9/17/13 1230  
Date Received: 9/18/13  
Pre-Prep Date: 10/20/13

Sample Name: E5336B02 (2-4)  
Lab Code: R1307556-007

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.463		mg/L	0.010	1	10/21/13	10/25/13 00:09	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E5336B02 (2-4)  
**Lab Code:** R1307556-007  
**Matrix:** Soil

**Service Request:** R1307556

**Date Collected:** 9/17/13

**Date Received:** 9/18/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	CWINKSTERN









Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

## Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

### I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: FAP 575: U.S. Route 30 Office Phone Number, if available: \_\_\_\_\_

Physical Site Location (address, including number and street):  
16001 (23248) Lincoln Highway

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.592430° Longitude: -88.184698°  
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS  Map Interpolation  Photo Interpolation  Survey  Other

IEPA Site Number(s), if assigned: BOL: 1970805084 BOW: \_\_\_\_\_ BOA: \_\_\_\_\_

### II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: \_\_\_\_\_

Street Address: 201 West Center Court

Street Address: \_\_\_\_\_

PO Box: \_\_\_\_\_

PO Box: \_\_\_\_\_

City: Schaumburg State: IL

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: 60196-1096 Phone: 847-705-4159

Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact: Sam Mead

Contact: \_\_\_\_\_

Email, if available: Sam.Mead@illinois.gov

Email, if available: \_\_\_\_\_

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: FAP 575: U.S. Route 30

Latitude: 41.592430° Longitude: -88.184698°

Uncontaminated Site Certification

**III. Basis for Certification and Attachments**

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations E53BBB02 and E53BBB03 were sampled within the construction zone adjacent to ISGS #2141A-B (Mega Sports). Refer to PSI Report for ISGS #2141A-B (Mega Sports) including Table 4-4, and Figure 4-4.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

See attached data summary table and associated laboratory data packages R1306449, R1306451, and R1307116.

**IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist**

I, Steven Gobelman (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

***Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))***

Company Name: Illinois Department of Transportation

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217-785-4246

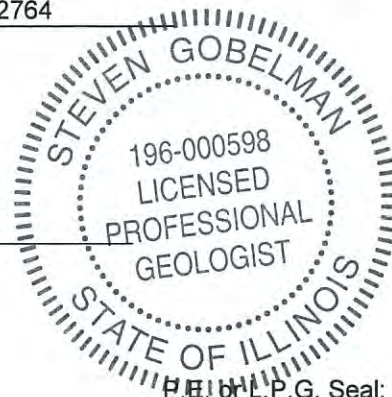
Steven Gobelman

Printed Name:



Licensed Professional Engineer or  
Licensed Professional Geologist Signature:

1/24/14  
Date:





**Analytical Data Summary**  
**PTB #162-32; Work Order 53 - IDOT Job # P-91-069-10**

**Key to Data Tables**

- µg/kg = Micrograms per kilogram.
- MAC = Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- mg/kg = Milligrams per kilogram.
- mg/L = Milligrams per liter.
- MSA = Metropolitan Statistical Area
- µg/L = Micrograms per liter.
- TCLP = Toxicity Characteristic Leaching Procedure.
- SCGIER = Soil Component of the Groundwater Ingestion Exposure Route
- SPLP = Synthetic Precipitation Leaching Procedure.
- ND = Not detected.
- NA = Not analyzed.
- J = Estimated value.
- B = Also present in blank.
- U = Analyte was analyzed for but not detected.

**Criteria Qualifiers**

- # = pH is outside of the acceptable range for a CCDD or uncontaminated soil fill operation.
- † = Concentration exceeds most stringent Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations
- m = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Metropolitan Statistical  
Areas.
- \* = Concentration exceeds the Maximum Allowable Concentration of Chemical Constituent in  
Uncontaminated Soil Used as Fill Material At Regulated Fill Operations for Chicago corporate limits.
  
- c = Concentration exceeds a TACO Tier 1 RO for the Construction Worker Exposure Route.
- L = The detected TCLP/SPLP concentration exceeds the TACO Tier 1 RO for the Soil Component of the  
Groundwater Ingestion Exposure Route (Class I groundwater) and the detected concentration is  
considered to exceed the MAC.
-  = Concentration exceeds the most Stringent MAC, but is below the MAC for an MSA.
-  = Soil: Concentration exceeds comparison criteria.



## CONTAMINANTS OF CONCERN

SITE	ISGS #2141A-B (Mega Sports)			Comparison Criteria			
	E53BBB02	E53BBB03		MACs			TACO
BORING	E53BBB02 (2-4)	E53BBB03 (0-2)	E53BBB03 (4-6)	Most Stringent	Within an MSA	Within Chicago	SCGIER
SAMPLE							
MATRIX	Soil	Soil	Soil				
DEPTH (meters)	0.6-1.2	0.0-0.6	1.2-1.8				
pH	7.71	7.24	7.32				
<b>VOCs (µg/kg)</b>							
Chloroform	ND U	ND UJ	ND U	300	--	--	--
Toluene	2.3 J	ND UJ	ND U	12,000	--	--	--
<b>SVOCs (µg/kg)</b>							
Benzo(a)anthracene	ND U	95 J	ND U	900	1,800	1,100	--
Benzo(a)pyrene	ND U	130 J †	ND U	90	2,100	1,300	--
Benzo(b)fluoranthene	ND U	160 J	ND U	900	2,100	1,500	--
Benzo(g,h,i)perylene	ND U	130 J	ND U	--	--	--	--
Benzo(k)fluoranthene	ND U	100 J	ND U	9,000	--	--	--
Chrysene	ND U	120 J	ND U	88,000	--	--	--
Di-n-butyl Phthalate	190 J	170 J	150 J	2,300,000	--	--	--
Fluoranthene	ND U	210 J	ND U	3,100,000	--	--	--
Indeno(1,2,3-cd)pyrene	ND U	110 J	ND U	900	1,600	900	--
Phenanthrene	ND U	85 J	ND U	--	--	--	--
Pyrene	ND U	160 J	ND U	2,300,000	--	--	--
<b>Inorganics (mg/kg)</b>							
Aluminum	18,000	11,200	12,000	--	--	--	--
Antimony	0.9 J	0.6 J	ND U	5	--	--	--
Arsenic	11.9 †	7.3	8.1	11.3	13	--	--
Barium	128	168	147	1,500	--	--	--
Beryllium	0.90	0.61	0.66	22	--	--	--
Boron	ND U	ND U	ND U	40	--	--	--
Cadmium	0.33 J	0.41 J	0.32 J	5.2	--	--	--
Calcium	2,500	16,700	12,800	--	--	--	--
Chromium	22.4 †	15.8	20.5	21	--	--	--
Cobalt	11.1	7.3	10.6	20	--	--	--
Copper	19.4	37.8	19.2	2,900	--	--	--
Iron	26,700 †m	15,800 †	19,700 †m	15,000	15,900	--	--
Lead	17.2	44.4	22.4	107	--	--	--
Magnesium	3,970	10,200	9,000	325,000	--	--	--
Manganese	775 †m	957 †m	986 †m	630	636	--	--
Mercury	0.042	0.045	0.032 J	0.89	--	--	--
Nickel	23.2	13.8	21.6	100	--	--	--
Potassium	990	1,460	1,020	--	--	--	--
Selenium	0.7 J	1.4 †	0.9 J	1.3	--	--	--
Silver	ND U	ND U	ND U	4.4	--	--	--
Vanadium	39.8	26.8	29.1	550	--	--	--
Zinc	62.9	118	65.2	5,100	--	--	--
<b>TCLP Metals (mg/L)</b>							
Aluminum	0.61	ND U	ND U	--	--	--	--
Calcium	67.7	302	358	--	--	--	--
Iron	0.32	ND U	ND U	--	--	--	5
Magnesium	25.9	157	190	--	--	--	--
Manganese	0.046	0.721 L	0.960 L	--	--	--	0.15
Zinc	ND U	0.10	ND U	--	--	--	5
<b>SPLP Metals (mg/L)</b>							
Manganese	NA	0.075	0.036	--	--	--	0.15



September 25, 2013

Service Request No: R1306449

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306449**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

*For:*

Page 1 of 240



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
\* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
# Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (>=100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications<sup>1</sup>

Table with 3 columns: State/Agency, ID #, and Certification details. Rows include Maine, Nebraska, New Hampshire, Delaware, Nevada, North Carolina, DoD ELAP, New Jersey, Pennsylvania, Florida, New York, Rhode Island, and Illinois.

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB03 (0-2)  
**Lab Code:** R1306449-008

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1520  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	88.9	Percent	1.0	1	NA	9/6/13 12:08	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil  
 Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13

Basis: Dry  
 Percent Solids: 88.9

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	11200		mg/Kg	11	4	1	9/11/13	9/19/13 10:15	
Antimony, Total	6010C	0.6	J	mg/Kg	6.7	0.3	1	9/11/13	9/19/13 10:15	
Arsenic, Total	6010C	7.3		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 10:15	
Barium, Total	6010C	168		mg/Kg	2.2	0.09	1	9/11/13	9/19/13 10:15	
Beryllium, Total	6010C	0.61		mg/Kg	0.33	0.03	1	9/11/13	9/19/13 10:15	
Boron, Total	6010C	22	U	mg/Kg	22	4	1	9/11/13	9/19/13 10:15	
Cadmium, Total	6010C	0.41	J	mg/Kg	0.56	0.07	1	9/11/13	9/19/13 10:15	
Calcium, Total	6010C	16700		mg/Kg	1100	400	10	9/11/13	9/18/13 10:29	
Chromium, Total	6010C	15.8		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:15	
Cobalt, Total	6010C	7.3		mg/Kg	5.6	0.06	1	9/11/13	9/19/13 10:15	
Copper, Total	6010C	37.8		mg/Kg	2.2	0.8	1	9/11/13	9/19/13 10:15	
Iron, Total	6010C	15800		mg/Kg	110	60	10	9/11/13	9/18/13 10:29	
Lead, Total	6010C	44.4		mg/Kg	5.6	0.3	1	9/11/13	9/19/13 10:15	
Magnesium, Total	6010C	10200		mg/Kg	1100	20	10	9/11/13	9/18/13 10:29	
Manganese, Total	6010C	957		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:15	
Mercury, Total	7471B	0.045		mg/Kg	0.035	0.006	1	9/12/13	9/12/13 18:48	
Nickel, Total	6010C	13.8		mg/Kg	4.5	0.10	1	9/11/13	9/19/13 10:15	
Potassium, Total	6010C	1460		mg/Kg	220	20	1	9/11/13	9/19/13 10:15	
Selenium, Total	6010C	1.4		mg/Kg	1.1	0.4	1	9/11/13	9/19/13 10:15	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.09	1	9/11/13	9/19/13 10:15	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.4	1	9/11/13	9/20/13 11:38	
Vanadium, Total	6010C	26.8		mg/Kg	5.6	0.06	1	9/11/13	9/19/13 10:15	
Zinc, Total	6010C	118		mg/Kg	2.2	0.08	1	9/11/13	9/19/13 10:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/9/13 16:24

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvov12\Data\090913\T9587.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .82

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.6 U	4.6	2.6	
71-43-2	Benzene	4.6 U	4.6	0.27	
75-27-4	Bromodichloromethane	4.6 U	4.6	0.57	
75-25-2	Bromoform	4.6 U	4.6	0.86	
74-83-9	Bromomethane	4.6 U	4.6	1.3	
78-93-3	2-Butanone (MEK)	4.6 U	4.6	2.2	
75-15-0	Carbon Disulfide	4.6 U	4.6	1.2	
56-23-5	Carbon Tetrachloride	4.6 U	4.6	0.85	
108-90-7	Chlorobenzene	4.6 U	4.6	0.27	
75-00-3	Chloroethane	4.6 U	4.6	2.7	
67-66-3	Chloroform	4.6 U	4.6	1.2	
74-87-3	Chloromethane	4.6 U	4.6	0.37	
124-48-1	Dibromochloromethane	4.6 U	4.6	0.68	
75-34-3	1,1-Dichloroethane	4.6 U	4.6	1.2	
107-06-2	1,2-Dichloroethane	4.6 U	4.6	0.57	
75-35-4	1,1-Dichloroethene	4.6 U	4.6	1.2	
156-59-2	cis-1,2-Dichloroethene	4.6 U	4.6	0.88	
156-60-5	trans-1,2-Dichloroethene	4.6 U	4.6	0.80	
78-87-5	1,2-Dichloropropane	4.6 U	4.6	0.90	
10061-01-5	cis-1,3-Dichloropropene	4.6 U	4.6	0.84	
10061-02-6	trans-1,3-Dichloropropene	4.6 U	4.6	0.19	
100-41-4	Ethylbenzene	4.6 U	4.6	0.22	
591-78-6	2-Hexanone	4.6 U	4.6	1.2	
75-09-2	Methylene Chloride	4.6 U	4.6	0.53	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.6 U	4.6	0.91	
100-42-5	Styrene	4.6 U	4.6	0.28	
79-34-5	1,1,2,2-Tetrachloroethane	4.6 U	4.6	0.75	
127-18-4	Tetrachloroethene	4.6 U	4.6	0.82	
108-88-3	Toluene	4.6 U	4.6	0.93	
71-55-6	1,1,1-Trichloroethane	4.6 U	4.6	0.68	
79-00-5	1,1,2-Trichloroethane	4.6 U	4.6	0.68	
79-01-6	Trichloroethene	4.6 U	4.6	0.94	
75-01-4	Vinyl Chloride	4.6 U	4.6	1.7	
95-47-6	o-Xylene	4.6 U	4.6	0.45	
179601-23-1	m,p-Xylenes	9.2 U	9.2	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/9/13 16:24

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090913\T9587.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .82

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.6	U	4.6	0.87	
1330-20-7	Xylenes, Total	14	U	14	1.5	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	79	28-150	9/9/13 16:24	
Toluene-d8	105	66-138	9/9/13 16:24	
Dibromofluoromethane	105	63-138	9/9/13 16:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 17:00

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9559.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.9 U	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.61	
75-25-2	Bromoform	4.9 U	4.9	0.93	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.92	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.9	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.40	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.73	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.61	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.95	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.86	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.97	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.90	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.57	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.98	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.81	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.88	
108-88-3	Toluene	4.9 U	4.9	0.99	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.73	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.73	
79-01-6	Trichloroethene	4.9 U	4.9	1.0	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.9	
95-47-6	o-Xylene	4.9 U	4.9	0.48	
179601-23-1	m,p-Xylenes	9.9 U	9.9	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 17:00

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008  
 Run Type: Reanalysis

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9559.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .88

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9 U	4.9	0.94	
1330-20-7	Xylenes, Total	15 U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	75	28-150	9/6/13 17:00	
Toluene-d8	108	66-138	9/6/13 17:00	
Dibromofluoromethane	105	63-138	9/6/13 17:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/4/13 1520  
 Date Received: 9/5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 13:50

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS912.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	370	U	370	38	
95-50-1	1,2-Dichlorobenzene	370	U	370	42	
541-73-1	1,3-Dichlorobenzene	370	U	370	57	
106-46-7	1,4-Dichlorobenzene	370	U	370	43	
95-95-4	2,4,5-Trichlorophenol	370	U	370	65	
88-06-2	2,4,6-Trichlorophenol	370	U	370	55	
120-83-2	2,4-Dichlorophenol	370	U	370	50	
105-67-9	2,4-Dimethylphenol	370	U	370	41	
51-28-5	2,4-Dinitrophenol	1900	U	1900	160	
121-14-2	2,4-Dinitrotoluene	370	U	370	80	
606-20-2	2,6-Dinitrotoluene	370	U	370	62	
91-58-7	2-Chloronaphthalene	370	U	370	39	
95-57-8	2-Chlorophenol	370	U	370	39	
91-57-6	2-Methylnaphthalene	370	U	370	38	
95-48-7	2-Methylphenol	370	U	370	49	
88-74-4	2-Nitroaniline	1900	U	1900	310	
88-75-5	2-Nitrophenol	370	U	370	56	
91-94-1	3,3'-Dichlorobenzidine	370	U	370	68	
	3- and 4-Methylphenol Coelution	370	U	370	57	
99-09-2	3-Nitroaniline	1900	U	1900	350	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	1900	540	
101-55-3	4-Bromophenyl Phenyl Ether	370	U	370	67	
59-50-7	4-Chloro-3-methylphenol	370	U	370	41	
106-47-8	4-Chloroaniline	370	U	370	72	
7005-72-3	4-Chlorophenyl Phenyl Ether	370	U	370	53	
100-01-6	4-Nitroaniline	1900	U	1900	410	
100-02-7	4-Nitrophenol	1900	U	1900	270	
83-32-9	Acenaphthene	370	U	370	53	
208-96-8	Acenaphthylene	370	U	370	50	
120-12-7	Anthracene	370	U	370	59	
56-55-3	Benz(a)anthracene	95	J	370	58	
50-32-8	Benzo(a)pyrene	130	J	370	62	
205-99-2	Benzo(b)fluoranthene	160	J	370	90	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 13:50

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS912.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	130 J	370	70	
207-08-9	Benzo(k)fluoranthene	100 J	370	67	
108-60-1	2,2'-Oxybis(1-chloropropane)	370 U	370	45	
111-91-1	Bis(2-chloroethoxy)methane	370 U	370	52	
111-44-4	Bis(2-chloroethyl) Ether	370 U	370	38	
117-81-7	Bis(2-ethylhexyl) Phthalate	370 U	370	52	
85-68-7	Butyl Benzyl Phthalate	370 U	370	57	
86-74-8	Carbazole	370 U	370	52	
218-01-9	Chrysene	120 J	370	52	
84-74-2	Di-n-butyl Phthalate	170 J	370	110	
117-84-0	Di-n-octyl Phthalate	370 U	370	72	
53-70-3	Dibenz(a,h)anthracene	370 U	370	100	
132-64-9	Dibenzofuran	370 U	370	41	
84-66-2	Diethyl Phthalate	370 U	370	49	
131-11-3	Dimethyl Phthalate	370 U	370	53	
206-44-0	Fluoranthene	210 J	370	60	
86-73-7	Fluorene	370 U	370	47	
118-74-1	Hexachlorobenzene	370 U	370	57	
87-68-3	Hexachlorobutadiene	370 U	370	42	
77-47-4	Hexachlorocyclopentadiene	370 U	370	59	
67-72-1	Hexachloroethane	370 U	370	52	
193-39-5	Indeno(1,2,3-cd)pyrene	110 J	370	62	
78-59-1	Isophorone	370 U	370	50	
621-64-7	N-Nitrosodi-n-propylamine	370 U	370	43	
86-30-6	N-Nitrosodiphenylamine	370 U	370	58	
91-20-3	Naphthalene	370 U	370	38	
98-95-3	Nitrobenzene	370 U	370	40	
87-86-5	Pentachlorophenol (PCP)	1900 U	1900	310	
85-01-8	Phenanthrene	85 J	370	50	
108-95-2	Phenol	370 U	370	41	
129-00-0	Pyrene	160 J	370	72	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1520  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 13:50

Sample Name: E53BBB03 (0-2)  
 Lab Code: R1306449-008

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 88.9

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091213\CS912.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	41-151	9/12/13 13:50	
2-Fluorobiphenyl	70	47-126	9/12/13 13:50	
2-Fluorophenol	54	16-129	9/12/13 13:50	
Nitrobenzene-d5	67	39-136	9/12/13 13:50	
Phenol-d6	59	10-145	9/12/13 13:50	
p-Terphenyl-d14	61	35-152	9/12/13 13:50	



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Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53BBB03 (0-2)  
**Lab Code:** R1306449-008  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	JWU

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1306449-009

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1525  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	79.6	Percent	1.0	1	NA	9/6/13 12:08	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1306449-009

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1525  
**Date Received:** 9/ 5/13

**Basis:** Dry  
**Percent Solids:** 79.6

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	12000		mg/Kg	12	4	1	9/11/13	9/19/13 10:22	
Antimony, Total	6010C	7.2	U	mg/Kg	7.2	0.3	1	9/11/13	9/19/13 10:22	
Arsenic, Total	6010C	8.1		mg/Kg	1.2	0.5	1	9/11/13	9/19/13 10:22	
Barium, Total	6010C	147		mg/Kg	2.4	0.09	1	9/11/13	9/19/13 10:22	
Beryllium, Total	6010C	0.66		mg/Kg	0.36	0.03	1	9/11/13	9/19/13 10:22	
Boron, Total	6010C	24	U	mg/Kg	24	5	1	9/11/13	9/19/13 10:22	
Cadmium, Total	6010C	0.32	J	mg/Kg	0.60	0.08	1	9/11/13	9/19/13 10:22	
Calcium, Total	6010C	12800		mg/Kg	1200	400	10	9/11/13	9/18/13 10:35	
Chromium, Total	6010C	20.5		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 10:22	
Cobalt, Total	6010C	10.6		mg/Kg	6.0	0.07	1	9/11/13	9/19/13 10:22	
Copper, Total	6010C	19.2		mg/Kg	2.4	0.8	1	9/11/13	9/19/13 10:22	
Iron, Total	6010C	19700		mg/Kg	120	70	10	9/11/13	9/18/13 10:35	
Lead, Total	6010C	22.4		mg/Kg	6.0	0.3	1	9/11/13	9/19/13 10:22	
Magnesium, Total	6010C	9000		mg/Kg	1200	20	10	9/11/13	9/18/13 10:35	
Manganese, Total	6010C	986		mg/Kg	1.2	0.2	1	9/11/13	9/19/13 10:22	
Mercury, Total	7471B	0.032	J	mg/Kg	0.041	0.007	1	9/12/13	9/12/13 18:50	
Nickel, Total	6010C	21.6		mg/Kg	4.8	0.10	1	9/11/13	9/19/13 10:22	
Potassium, Total	6010C	1020		mg/Kg	240	20	1	9/11/13	9/19/13 10:22	
Selenium, Total	6010C	0.9	J	mg/Kg	1.2	0.4	1	9/11/13	9/19/13 10:22	
Silver, Total	6010C	1.2	U	mg/Kg	1.2	0.10	1	9/11/13	9/19/13 10:22	
Thallium, Total	6010C	1.2	U	mg/Kg	1.2	0.5	1	9/11/13	9/20/13 11:44	
Vanadium, Total	6010C	29.1		mg/Kg	6.0	0.06	1	9/11/13	9/19/13 10:22	
Zinc, Total	6010C	65.2		mg/Kg	2.4	0.09	1	9/11/13	9/19/13 10:22	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1525  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/9/13 16:55

Sample Name: E53BBB03 (4-6)  
 Lab Code: R1306449-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090913\T9588.D\

Analysis Lot: 357464  
 Instrument Name: R-MS-12  
 Dilution Factor: .81

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
67-64-1	Acetone	5.1	U	5.1	2.9	
71-43-2	Benzene	5.1	U	5.1	0.30	
75-27-4	Bromodichloromethane	5.1	U	5.1	0.63	
75-25-2	Bromoform	5.1	U	5.1	0.95	
74-83-9	Bromomethane	5.1	U	5.1	1.5	
78-93-3	2-Butanone (MEK)	5.1	U	5.1	2.4	
75-15-0	Carbon Disulfide	5.1	U	5.1	1.3	
56-23-5	Carbon Tetrachloride	5.1	U	5.1	0.94	
108-90-7	Chlorobenzene	5.1	U	5.1	0.30	
75-00-3	Chloroethane	5.1	U	5.1	3.0	
67-66-3	Chloroform	5.1	U	5.1	1.3	
74-87-3	Chloromethane	5.1	U	5.1	0.41	
124-48-1	Dibromochloromethane	5.1	U	5.1	0.75	
75-34-3	1,1-Dichloroethane	5.1	U	5.1	1.3	
107-06-2	1,2-Dichloroethane	5.1	U	5.1	0.63	
75-35-4	1,1-Dichloroethene	5.1	U	5.1	1.4	
156-59-2	cis-1,2-Dichloroethene	5.1	U	5.1	0.97	
156-60-5	trans-1,2-Dichloroethene	5.1	U	5.1	0.88	
78-87-5	1,2-Dichloropropane	5.1	U	5.1	0.99	
10061-01-5	cis-1,3-Dichloropropene	5.1	U	5.1	0.92	
10061-02-6	trans-1,3-Dichloropropene	5.1	U	5.1	0.21	
100-41-4	Ethylbenzene	5.1	U	5.1	0.24	
591-78-6	2-Hexanone	5.1	U	5.1	1.3	
75-09-2	Methylene Chloride	5.1	U	5.1	0.59	
108-10-1	4-Methyl-2-pentanone (MIBK)	5.1	U	5.1	1.0	
100-42-5	Styrene	5.1	U	5.1	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	5.1	U	5.1	0.83	
127-18-4	Tetrachloroethene	5.1	U	5.1	0.90	
108-88-3	Toluene	5.1	U	5.1	1.1	
71-55-6	1,1,1-Trichloroethane	5.1	U	5.1	0.75	
79-00-5	1,1,2-Trichloroethane	5.1	U	5.1	0.75	
79-01-6	Trichloroethene	5.1	U	5.1	1.1	
75-01-4	Vinyl Chloride	5.1	U	5.1	1.9	
95-47-6	o-Xylene	5.1	U	5.1	0.49	
179601-23-1	m,p-Xylenes	10	U	10	1.2	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1525  
**Date Received:** 9/ 5/13  
**Date Analyzed:** 9/9/13 16:55

**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1306449-009

**Units:** µg/Kg  
**Basis:** Dry  
**Percent Solids:** 79.6

Volatile Organic Compounds by GC/MS

**Analytical Method:** 8260C  
**Data File Name:** I:\ACQUADATA\msvoa12\Data\090913\T9588.D\

**Analysis Lot:** 357464  
**Instrument Name:** R-MS-12  
**Dilution Factor:** .81

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	5.1	U	5.1	0.96	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	28-150	9/9/13 16:55	
Toluene-d8	105	66-138	9/9/13 16:55	
Dibromofluoromethane	100	63-138	9/9/13 16:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1525  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:41

Sample Name: E53BBB03 (4-6)  
 Lab Code: R1306449-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091113\CS903.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	410	U	410	42	
95-50-1	1,2-Dichlorobenzene	410	U	410	47	
541-73-1	1,3-Dichlorobenzene	410	U	410	63	
106-46-7	1,4-Dichlorobenzene	410	U	410	48	
95-95-4	2,4,5-Trichlorophenol	410	U	410	73	
88-06-2	2,4,6-Trichlorophenol	410	U	410	61	
120-83-2	2,4-Dichlorophenol	410	U	410	56	
105-67-9	2,4-Dimethylphenol	410	U	410	46	
51-28-5	2,4-Dinitrophenol	2100	U	2100	180	
121-14-2	2,4-Dinitrotoluene	410	U	410	89	
606-20-2	2,6-Dinitrotoluene	410	U	410	69	
91-58-7	2-Chloronaphthalene	410	U	410	44	
95-57-8	2-Chlorophenol	410	U	410	44	
91-57-6	2-Methylnaphthalene	410	U	410	42	
95-48-7	2-Methylphenol	410	U	410	54	
88-74-4	2-Nitroaniline	2100	U	2100	350	
88-75-5	2-Nitrophenol	410	U	410	62	
91-94-1	3,3'-Dichlorobenzidine	410	U	410	76	
	3- and 4-Methylphenol Coelution	410	U	410	63	
99-09-2	3-Nitroaniline	2100	U	2100	390	
534-52-1	4,6-Dinitro-2-methylphenol	2100	U	2100	610	
101-55-3	4-Bromophenyl Phenyl Ether	410	U	410	74	
59-50-7	4-Chloro-3-methylphenol	410	U	410	46	
106-47-8	4-Chloroaniline	410	U	410	81	
7005-72-3	4-Chlorophenyl Phenyl Ether	410	U	410	59	
100-01-6	4-Nitroaniline	2100	U	2100	450	
100-02-7	4-Nitrophenol	2100	U	2100	310	
83-32-9	Acenaphthene	410	U	410	60	
208-96-8	Acenaphthylene	410	U	410	56	
120-12-7	Anthracene	410	U	410	65	
56-55-3	Benz(a)anthracene	410	U	410	64	
50-32-8	Benzo(a)pyrene	410	U	410	69	
205-99-2	Benzo(b)fluoranthene	410	U	410	110	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1525  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:41

Sample Name: E53BBB03 (4-6)  
 Lab Code: R1306449-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091113\CS903.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	410	U	410	79	
207-08-9	Benzo(k)fluoranthene	410	U	410	75	
108-60-1	2,2'-Oxybis(1-chloropropane)	410	U	410	50	
111-91-1	Bis(2-chloroethoxy)methane	410	U	410	58	
111-44-4	Bis(2-chloroethyl) Ether	410	U	410	42	
117-81-7	Bis(2-ethylhexyl) Phthalate	410	U	410	58	
85-68-7	Butyl Benzyl Phthalate	410	U	410	64	
86-74-8	Carbazole	410	U	410	58	
218-01-9	Chrysene	410	U	410	58	
84-74-2	Di-n-butyl Phthalate	150	J	410	120	
117-84-0	Di-n-octyl Phthalate	410	U	410	80	
53-70-3	Dibenz(a,h)anthracene	410	U	410	120	
132-64-9	Dibenzofuran	410	U	410	46	
84-66-2	Diethyl Phthalate	410	U	410	54	
131-11-3	Dimethyl Phthalate	410	U	410	60	
206-44-0	Fluoranthene	410	U	410	67	
86-73-7	Fluorene	410	U	410	53	
118-74-1	Hexachlorobenzene	410	U	410	64	
87-68-3	Hexachlorobutadiene	410	U	410	46	
77-47-4	Hexachlorocyclopentadiene	410	U	410	66	
67-72-1	Hexachloroethane	410	U	410	58	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	410	69	
78-59-1	Isophorone	410	U	410	56	
621-64-7	N-Nitrosodi-n-propylamine	410	U	410	47	
86-30-6	N-Nitrosodiphenylamine	410	U	410	65	
91-20-3	Naphthalene	410	U	410	42	
98-95-3	Nitrobenzene	410	U	410	44	
87-86-5	Pentachlorophenol (PCP)	2100	U	2100	350	
85-01-8	Phenanthrene	410	U	410	56	
108-95-2	Phenol	410	U	410	46	
129-00-0	Pyrene	410	U	410	81	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1525  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/11/13 22:41

Sample Name: E53BBB03 (4-6)  
 Lab Code: R1306449-009

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 79.6

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUADATA\5973A\DATA\091113\CS903.D\

Analysis Lot: 358061  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	74	41-151	9/11/13 22:41	
2-Fluorobiphenyl	71	47-126	9/11/13 22:41	
2-Fluorophenol	60	16-129	9/11/13 22:41	
Nitrobenzene-d5	70	39-136	9/11/13 22:41	
Phenol-d6	65	10-145	9/11/13 22:41	
p-Terphenyl-d14	78	35-152	9/11/13 22:41	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1306449-009  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<u>Analysis Method</u>	<u>Extracted/Digested By</u>	<u>Analyzed By</u>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	ZMIAO

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB02 (2-4)  
**Lab Code:** R1306449-010

**Service Request:** R1306449  
**Date Collected:** 9/ 4/13 1550  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.2	Percent	1.0	1	NA	9/6/13 12:08	

**ALS Group USA, Corp. dba ALS Environmental**

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB02 (2-4)  
**Lab Code:** R1306449-010

**Service Request:** R1306449  
**Date Collected:** 9/4/13 1550  
**Date Received:** 9/5/13

**Basis:** Dry  
**Percent Solids:** 85.2

**Inorganic Parameters**

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum, Total	6010C	18000		mg/Kg	11	4	1	9/11/13	9/19/13 10:29	
Antimony, Total	6010C	0.9	J	mg/Kg	6.8	0.3	1	9/11/13	9/19/13 10:29	
Arsenic, Total	6010C	11.9		mg/Kg	1.1	0.5	1	9/11/13	9/19/13 10:29	
Barium, Total	6010C	128		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 10:29	
Beryllium, Total	6010C	0.90		mg/Kg	0.34	0.03	1	9/11/13	9/19/13 10:29	
Boron, Total	6010C	23	U	mg/Kg	23	4	1	9/11/13	9/19/13 10:29	
Cadmium, Total	6010C	0.33	J	mg/Kg	0.57	0.07	1	9/11/13	9/19/13 10:29	
Calcium, Total	6010C	2500		mg/Kg	110	40	1	9/11/13	9/19/13 10:29	
Chromium, Total	6010C	22.4		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:29	
Cobalt, Total	6010C	11.1		mg/Kg	5.7	0.07	1	9/11/13	9/19/13 10:29	
Copper, Total	6010C	19.4		mg/Kg	2.3	0.8	1	9/11/13	9/19/13 10:29	
Iron, Total	6010C	26700		mg/Kg	110	60	10	9/11/13	9/18/13 10:42	
Lead, Total	6010C	17.2		mg/Kg	5.7	0.3	1	9/11/13	9/19/13 10:29	
Magnesium, Total	6010C	3970		mg/Kg	110	2	1	9/11/13	9/19/13 10:29	
Manganese, Total	6010C	775		mg/Kg	1.1	0.2	1	9/11/13	9/19/13 10:29	
Mercury, Total	7471B	0.042		mg/Kg	0.037	0.006	1	9/12/13	9/12/13 18:52	
Nickel, Total	6010C	23.2		mg/Kg	4.6	0.10	1	9/11/13	9/19/13 10:29	
Potassium, Total	6010C	990		mg/Kg	230	20	1	9/11/13	9/19/13 10:29	
Selenium, Total	6010C	0.7	J	mg/Kg	1.1	0.4	1	9/11/13	9/19/13 10:29	
Silver, Total	6010C	1.1	U	mg/Kg	1.1	0.10	1	9/11/13	9/19/13 10:29	
Thallium, Total	6010C	1.1	U	mg/Kg	1.1	0.5	1	9/11/13	9/20/13 11:51	
Vanadium, Total	6010C	39.8		mg/Kg	5.7	0.06	1	9/11/13	9/19/13 10:29	
Zinc, Total	6010C	62.9		mg/Kg	2.3	0.09	1	9/11/13	9/19/13 10:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 18:03

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306449-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUDATA\msvoa12\Data\090613\T9561.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result Q	MRL	MDL	Note
67-64-1	Acetone	4.9 U	4.9	2.8	
71-43-2	Benzene	4.9 U	4.9	0.29	
75-27-4	Bromodichloromethane	4.9 U	4.9	0.60	
75-25-2	Bromoform	4.9 U	4.9	0.91	
74-83-9	Bromomethane	4.9 U	4.9	1.4	
78-93-3	2-Butanone (MEK)	4.9 U	4.9	2.3	
75-15-0	Carbon Disulfide	4.9 U	4.9	1.3	
56-23-5	Carbon Tetrachloride	4.9 U	4.9	0.90	
108-90-7	Chlorobenzene	4.9 U	4.9	0.29	
75-00-3	Chloroethane	4.9 U	4.9	2.8	
67-66-3	Chloroform	4.9 U	4.9	1.3	
74-87-3	Chloromethane	4.9 U	4.9	0.39	
124-48-1	Dibromochloromethane	4.9 U	4.9	0.72	
75-34-3	1,1-Dichloroethane	4.9 U	4.9	1.3	
107-06-2	1,2-Dichloroethane	4.9 U	4.9	0.60	
75-35-4	1,1-Dichloroethene	4.9 U	4.9	1.3	
156-59-2	cis-1,2-Dichloroethene	4.9 U	4.9	0.93	
156-60-5	trans-1,2-Dichloroethene	4.9 U	4.9	0.84	
78-87-5	1,2-Dichloropropane	4.9 U	4.9	0.95	
10061-01-5	cis-1,3-Dichloropropene	4.9 U	4.9	0.88	
10061-02-6	trans-1,3-Dichloropropene	4.9 U	4.9	0.20	
100-41-4	Ethylbenzene	4.9 U	4.9	0.23	
591-78-6	2-Hexanone	4.9 U	4.9	1.2	
75-09-2	Methylene Chloride	4.9 U	4.9	0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.9 U	4.9	0.96	
100-42-5	Styrene	4.9 U	4.9	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	4.9 U	4.9	0.79	
127-18-4	Tetrachloroethene	4.9 U	4.9	0.86	
108-88-3	Toluene	2.3 J	4.9	0.98	
71-55-6	1,1,1-Trichloroethane	4.9 U	4.9	0.72	
79-00-5	1,1,2-Trichloroethane	4.9 U	4.9	0.72	
79-01-6	Trichloroethene	4.9 U	4.9	0.99	
75-01-4	Vinyl Chloride	4.9 U	4.9	1.8	
95-47-6	o-Xylene	4.9 U	4.9	0.47	
179601-23-1	m,p-Xylenes	9.7 U	9.7	1.1	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Date Analyzed: 9/6/13 18:03

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306449-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.2

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C  
 Data File Name: I:\ACQUADATA\msvoa12\Data\090613\T9561.D\

Analysis Lot: 357136  
 Instrument Name: R-MS-12  
 Dilution Factor: .83

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
1634-04-4	Methyl tert-Butyl Ether	4.9	U	4.9	0.92	
1330-20-7	Xylenes, Total	15	U	15	1.6	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	28-150	9/6/13 18:03	
Toluene-d8	106	66-138	9/6/13 18:03	
Dibromofluoromethane	100	63-138	9/6/13 18:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 14:28

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306449-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS913.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
120-82-1	1,2,4-Trichlorobenzene	390	U	390	39	
95-50-1	1,2-Dichlorobenzene	390	U	390	44	
541-73-1	1,3-Dichlorobenzene	390	U	390	59	
106-46-7	1,4-Dichlorobenzene	390	U	390	45	
95-95-4	2,4,5-Trichlorophenol	390	U	390	68	
88-06-2	2,4,6-Trichlorophenol	390	U	390	57	
120-83-2	2,4-Dichlorophenol	390	U	390	52	
105-67-9	2,4-Dimethylphenol	390	U	390	43	
51-28-5	2,4-Dinitrophenol	2000	U	2000	170	
121-14-2	2,4-Dinitrotoluene	390	U	390	83	
606-20-2	2,6-Dinitrotoluene	390	U	390	65	
91-58-7	2-Chloronaphthalene	390	U	390	41	
95-57-8	2-Chlorophenol	390	U	390	41	
91-57-6	2-Methylnaphthalene	390	U	390	39	
95-48-7	2-Methylphenol	390	U	390	51	
88-74-4	2-Nitroaniline	2000	U	2000	330	
88-75-5	2-Nitrophenol	390	U	390	58	
91-94-1	3,3'-Dichlorobenzidine	390	U	390	71	
	3- and 4-Methylphenol Coelution	390	U	390	59	
99-09-2	3-Nitroaniline	2000	U	2000	360	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	2000	570	
101-55-3	4-Bromophenyl Phenyl Ether	390	U	390	70	
59-50-7	4-Chloro-3-methylphenol	390	U	390	43	
106-47-8	4-Chloroaniline	390	U	390	75	
7005-72-3	4-Chlorophenyl Phenyl Ether	390	U	390	55	
100-01-6	4-Nitroaniline	2000	U	2000	430	
100-02-7	4-Nitrophenol	2000	U	2000	290	
83-32-9	Acenaphthene	390	U	390	56	
208-96-8	Acenaphthylene	390	U	390	52	
120-12-7	Anthracene	390	U	390	61	
56-55-3	Benz(a)anthracene	390	U	390	60	
50-32-8	Benzo(a)pyrene	390	U	390	65	
205-99-2	Benzo(b)fluoranthene	390	U	390	94	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 14:28

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306449-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQUDATA\5973A\DATA\091213\CS913.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	MDL	Note
191-24-2	Benzo(g,h,i)perylene	390	U	390	74	
207-08-9	Benzo(k)fluoranthene	390	U	390	70	
108-60-1	2,2'-Oxybis(1-chloropropane)	390	U	390	47	
111-91-1	Bis(2-chloroethoxy)methane	390	U	390	54	
111-44-4	Bis(2-chloroethyl) Ether	390	U	390	39	
117-81-7	Bis(2-ethylhexyl) Phthalate	390	U	390	54	
85-68-7	Butyl Benzyl Phthalate	390	U	390	60	
86-74-8	Carbazole	390	U	390	54	
218-01-9	Chrysene	390	U	390	55	
84-74-2	Di-n-butyl Phthalate	190	J	390	110	
117-84-0	Di-n-octyl Phthalate	390	U	390	75	
53-70-3	Dibenz(a,h)anthracene	390	U	390	110	
132-64-9	Dibenzofuran	390	U	390	43	
84-66-2	Diethyl Phthalate	390	U	390	51	
131-11-3	Dimethyl Phthalate	390	U	390	56	
206-44-0	Fluoranthene	390	U	390	62	
86-73-7	Fluorene	390	U	390	49	
118-74-1	Hexachlorobenzene	390	U	390	59	
87-68-3	Hexachlorobutadiene	390	U	390	43	
77-47-4	Hexachlorocyclopentadiene	390	U	390	62	
67-72-1	Hexachloroethane	390	U	390	54	
193-39-5	Indeno(1,2,3-cd)pyrene	390	U	390	64	
78-59-1	Isophorone	390	U	390	52	
621-64-7	N-Nitrosodi-n-propylamine	390	U	390	44	
86-30-6	N-Nitrosodiphenylamine	390	U	390	61	
91-20-3	Naphthalene	390	U	390	39	
98-95-3	Nitrobenzene	390	U	390	41	
87-86-5	Pentachlorophenol (PCP)	2000	U	2000	330	
85-01-8	Phenanthrene	390	U	390	52	
108-95-2	Phenol	390	U	390	43	
129-00-0	Pyrene	390	U	390	75	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306449  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Date Extracted: 9/10/13  
 Date Analyzed: 9/12/13 14:28

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306449-010

Units: µg/Kg  
 Basis: Dry  
 Percent Solids: 85.2

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270D  
 Prep Method: EPA 3541  
 Data File Name: I:\ACQU\DATA\5973A\DATA\091213\CS913.D\

Analysis Lot: 358270  
 Extraction Lot: 191276  
 Instrument Name: R-MS-51  
 Dilution Factor: 1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	67	41-151	9/12/13 14:28	
2-Fluorobiphenyl	71	47-126	9/12/13 14:28	
2-Fluorophenol	61	16-129	9/12/13 14:28	
Nitrobenzene-d5	69	39-136	9/12/13 14:28	
Phenol-d6	63	10-145	9/12/13 14:28	
p-Terphenyl-d14	63	35-152	9/12/13 14:28	



ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53BBB02 (2-4)  
**Lab Code:** R1306449-010  
**Matrix:** Soil

**Service Request:** R1306449

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
160.3 Modified		KABBOTT
6010C	JWILLY	DBOND
7471B	CWINKSTERN	CWINKSTERN
8260C		KRUEST
8270D	LPRUNOSKE	JWU



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10462

E753-12

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>IDOT US 30</b>		Project Number <b>EE-00433S-0001-0170</b>		
Project Manager <b>Karen Bunker/Shev Johnson</b>		Report CC <b>Dean Trobust</b>		
Company/Address <b>Ecology - Environment 33 W Monroe St Suite 410 Chicago IL 60603</b>				
Phone # <b>312 578 9243</b>		Email <b>Johnson@ecy.com</b>		
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Shev Trobust</b>		
CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	DATE	SAMPLING TIME	MATRIX
ES313B04 (2-4)	006	9-4-13	1455	SL
ES313B04D (2-4)	007	9-4-13	1455	SL
ES313B03 (0-2)	008	9-4-13	1520	SL
ES313B03 (4-6)	009	9-4-13	1525	SL
ES313B02 (2-4)	010	9-4-13	1550	SL

ANALYSIS REQUESTED (Include Method Number and Container Preservative)		PRESERVATIVE	
METALS TOTAL (List in comments below) METALS DISSOLVED (List in comments below) PCBs 8082 & 808 PESTICIDES 8081 & 808 GC VOAS 8021 & 801/802 GCMS SVOAS 8270 & 825 GCMS VOAS 8260 & 824 & CLP		PREPARATIVE LAC SVOAC Total TAC Wkly Tmp/Temp TAC Wkly pH o/s p	
REMARKS/ALTERNATE DESCRIPTION		PRESERVATIVE KEY	
		0. NONE 1. HCL 2. HNO3 3. H2SO4 4. NaOH 5. Zr. Acetate 6. MeOH 7. NaHSO4 8. Other	

SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day REQUESTED REPORT DATE	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY	
RELINQUISHED BY		RELINQUISHED BY	
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	RECEIVED BY	
Printed Name <b>Shev Trobust</b>	Printed Name <b>Shev Trobust</b>	RECEIVED BY	
Firm <b>Ecology - Environment</b>	Firm <b>Ecology - Environment</b>	RECEIVED BY	
Date/Time <b>9-4-13/1700</b>	Date/Time <b>9-4-13 1020</b>	RECEIVED BY	

REPORT REQUIREMENTS		INVOICE INFORMATION	
I. Results Only II. Results + OC Summaries (LCS, DUP, MSMSD as required) III. Results + OC and Calibration Summaries IV. Data Verification Report with Raw Data		PO # BILL TO:	
Edata Yes No		RECEIVED BY	
RELINQUISHED BY		RECEIVED BY	
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	RECEIVED BY	
Printed Name <b>Shev Trobust</b>	Printed Name <b>Shev Trobust</b>	RECEIVED BY	
Firm <b>Ecology - Environment</b>	Firm <b>Ecology - Environment</b>	RECEIVED BY	
Date/Time <b>9-4-13/1700</b>	Date/Time <b>9-4-13 1020</b>	RECEIVED BY	



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 10460

753-10

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name <b>EDOT WS30</b>		Project Number <b>EE-004335-0001-0170</b>		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																					
Project Manager <b>Kevin Barker/Barrick Johnson</b>		Report CC		PRESERVATIVE		METALS TOTAL (List in comments below)								METALS DISSOLVED (List in comments below)											
Company/Address <b>Ecology and Environment 33 W Monroe St Suite 1410 Chicago IL 60603</b>		Phone # <b>312 576 9243</b>		Email <b>johnson@ec-environment.com</b>		GCMS VOA 8280 • 624 • CLP		GCMS SVOA 8270 • 825		PESTICIDES 8081 • 808		PCBS 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)									
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name <b>Scott Caple</b>		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GCMS VOA 8270 • 825		GCMS SVOA 8270 • 825		PESTICIDES 8021 • 801/802		PCBS 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)			
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GCMS VOA 8270 • 825		GCMS SVOA 8270 • 825		PESTICIDES 8021 • 801/802		PCBS 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		REMARKS/ ALTERNATE DESCRIPTION			
ES309B01(0-2)		01/ 9-4-13		0845		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
ES309B02(4-6)		01/ 9-4-13		0940		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
ES309B03(2-4)		01/ 9-4-13		1015		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
ES313B05(0-2)		01/ 9-4-13		1030		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
ES313B05(4-6)		01/ 9-4-13		1035		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
ES313B01(2-4)		01/ 9-4-13		1110		So-1		4		X		X		X		X		X		X		Total TRK Methyl Temp/Spgr TRK Methyl Total TRK Methyl VOC SLOC			
SPECIAL INSTRUCTIONS/COMMENTS Metals		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GCMS VOA 8270 • 825		GCMS SVOA 8270 • 825		PESTICIDES 8021 • 801/802		PCBS 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		REMARKS/ ALTERNATE DESCRIPTION	
See OAPP <input type="checkbox"/>		FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME		MATRIX		NUMBER OF CONTAINERS		GCMS VOA 8270 • 825		GCMS SVOA 8270 • 825		PESTICIDES 8021 • 801/802		PCBS 8082 • 808		METALS TOTAL (List in comments below)		METALS DISSOLVED (List in comments below)		REMARKS/ ALTERNATE DESCRIPTION	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY		RECEIVED BY			
Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>		Signature <i>[Signature]</i>			
Printed Name <b>Scott Caple</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>		Printed Name <b>Kevin Barker</b>			
Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>		Firm <b>ALS</b>			
Date/Time <b>9-4-12/1700</b>		Date/Time <b>9-4-13/1517</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>		Date/Time <b>9-4-13/1020</b>			
Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator		Distribution: White - Lab Copy; Yellow - Return to Originator			



September 25, 2013

Service Request No: R1306451

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1306451**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**

Karen Bunker  
Project Manager

Page 1 of 88

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB03 (0-2)  
**Lab Code:** R1306451-008

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1520  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.24	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1520  
**Date Received:** 9/ 5/13  
**Pre-Prep Date:** 9/11/13

**Sample Name:** E53BBB03 (0-2)  
**Lab Code:** R1306451-008

**Basis:** As Received

**Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters**

**Pre-Prep Method:** EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 02:50	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 02:50	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:50	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:50	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 02:50	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 02:50	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Calcium	6010C	302		mg/L	10	10	9/12/13	9/18/13 21:50	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:50	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Magnesium	6010C	157		mg/L	1.0	1	9/12/13	9/19/13 02:50	
Manganese	6010C	0.721		mg/L	0.010	1	9/12/13	9/19/13 02:50	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 10:59	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 02:50	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 02:50	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 02:50	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 02:50	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 02:50	
Zinc	6010C	0.10		mg/L	0.10	1	9/12/13	9/19/13 02:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1306451-009

**Service Request:** R1306451  
**Date Collected:** 9/ 4/13 1525  
**Date Received:** 9/ 5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.32	pH Units		1	NA	9/13/13 13:25	



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1525  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E53BBB03 (4-6)  
 Lab Code: R1306451-009

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.20	U	mg/L	0.20	1	9/12/13	9/19/13 03:00	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 03:00	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:00	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:00	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 03:00	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:00	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Calcium	6010C	358		mg/L	10	10	9/12/13	9/18/13 21:56	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:00	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Iron	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Magnesium	6010C	190		mg/L	1.0	1	9/12/13	9/19/13 03:00	
Manganese	6010C	0.960		mg/L	0.010	1	9/12/13	9/19/13 03:00	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:00	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 03:00	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:00	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 03:00	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:00	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Matrix:** Soil  
**Sample Name:** E53BBB02 (2-4)  
**Lab Code:** R1306451-010

**Service Request:** R1306451  
**Date Collected:** 9/4/13 1550  
**Date Received:** 9/5/13

**Basis:** As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
pH	9045D	7.71	pH Units		1	NA	9/13/13 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
 Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
 Sample Matrix: Soil

Service Request: R1306451  
 Date Collected: 9/ 4/13 1550  
 Date Received: 9/ 5/13  
 Pre-Prep Date: 9/11/13

Sample Name: E53BBB02 (2-4)  
 Lab Code: R1306451-010

Basis: As Received

Toxicity Characteristics Leachate Procedure (TCLP)  
 Inorganic Parameters

Pre-Prep Method: EPA 1311

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Aluminum	6010C	0.61		mg/L	0.20	1	9/12/13	9/19/13 03:08	
Antimony	6010C	0.060	U	mg/L	0.060	1	9/12/13	9/19/13 03:08	
Arsenic	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:08	
Barium	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:08	
Beryllium	6010C	0.0030	U	mg/L	0.0030	1	9/12/13	9/19/13 03:08	
Boron	6010C	1.0	U	mg/L	1.0	1	9/12/13	9/19/13 03:08	
Cadmium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Calcium	6010C	67.7		mg/L	1.0	1	9/12/13	9/19/13 03:08	
Chromium	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Cobalt	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:08	
Copper	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Iron	6010C	0.32		mg/L	0.10	1	9/12/13	9/19/13 03:08	
Lead	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Magnesium	6010C	25.9		mg/L	1.0	1	9/12/13	9/19/13 03:08	
Manganese	6010C	0.046		mg/L	0.010	1	9/12/13	9/19/13 03:08	
Mercury	7470A	0.00030	U	mg/L	0.00030	1	9/13/13	9/13/13 11:02	
Nickel	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Potassium	6010C	5.0	U	mg/L	5.0	1	9/12/13	9/19/13 03:08	
Selenium	6010C	0.50	U	mg/L	0.50	1	9/12/13	9/19/13 03:08	
Silver	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	
Thallium	6010C	0.010	U	mg/L	0.010	1	9/12/13	9/19/13 03:08	
Vanadium	6010C	0.050	U	mg/L	0.050	1	9/12/13	9/19/13 03:08	
Zinc	6010C	0.10	U	mg/L	0.10	1	9/12/13	9/19/13 03:08	





October 15, 2013

Service Request No: R1307116

Mr. Dean Tiebout  
Ecology And Environment, Incorporated  
33 West Monroe Street  
Suite 550  
Chicago, IL 60603

**Laboratory Results for: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO**

Dear Mr. Tiebout:

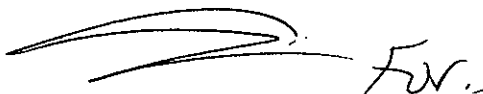
Enclosed are the results of the sample(s) submitted to our laboratory on September 5, 2013. For your reference, these analyses have been assigned our service request number **R1307116**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at [Karen.Bunker@alsglobal.com](mailto:Karen.Bunker@alsglobal.com).

Respectfully submitted,

**ALS Group USA Corp. dba ALS Environmental**



Karen Bunker  
Project Manager

Page 1 of 41

## REPORT QUALIFIERS AND DEFINITIONS

- |   |  |
|---|--|
| <p><b>U</b> Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p><b>J</b> Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration &gt;40% difference between two GC columns (pesticides/Aroclors).</p> <p><b>B</b> Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p><b>E</b> Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p><b>E</b> Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p><b>D</b> Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p><b>*</b> Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p><b>H</b> Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p><b>#</b> Spike was diluted out.</p> | <p><b>+</b> Correlation coefficient for MSA is &lt;0.995.</p> <p><b>N</b> Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p><b>N</b> Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p><b>S</b> Concentration has been determined using Method of Standard Additions (MSA).</p> <p><b>W</b> Post-Digestion Spike recovery is outside control limits and the sample absorbance is &lt;50% of the spike absorbance.</p> <p><b>P</b> Concentration &gt;40% (25% for CLP) difference between the two GC columns.</p> <p><b>C</b> Confirmed by GC/MS</p> <p><b>Q</b> DoD reports: indicates a pesticide/Aroclor is not confirmed (<math>\geq 100\%</math> Difference between two GC columns).</p> <p><b>X</b> See Case Narrative for discussion.</p> <p><b>MRL</b> Method Reporting Limit. Also known as:</p> <p><b>LOQ</b> Limit of Quantitation (LOQ)<br/>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p><b>MDL</b> Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p><b>LOD</b> Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p><b>ND</b> Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



### Rochester Lab ID # for State Certifications<sup>1</sup>

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1520  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E53BBB03 (0-2)  
Lab Code: R1307116-007

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.075	mg/L	0.010	1	10/ 1/13	10/11/13 01:40	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53BBB03 (0-2)  
**Lab Code:** R1307116-007  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

Analysis Method	Extracted/Digested By	Analyzed By
6010C	JWILLY	DBOND



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Ecology And Environment, Incorporated  
Project: IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
Sample Matrix: Soil

Service Request: R1307116  
Date Collected: 9/ 4/13 1525  
Date Received: 9/ 5/13  
Pre-Prep Date: 9/29/13

Sample Name: E53BBB03 (4-6)  
Lab Code: R1307116-008

Basis: As Received

Synthetic Precipitation Leachate Procedure (SPLP)  
Inorganic Parameters

Pre-Prep Method: EPA 1312

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese	6010C	0.036	mg/L	0.010	1	10/ 1/13	10/11/13 01:58	

ALS ENVIRONMENTAL

Analyst Summary Report

**Client:** Ecology And Environment, Incorporated  
**Project:** IDOT US30 Plainsfield PSI/4500001345/EE-004335-0001-01TTO  
**Sample Name:** E53BBB03 (4-6)  
**Lab Code:** R1307116-008  
**Matrix:** Soil

**Service Request:** R1307116

**Date Collected:** 9/4/13

**Date Received:** 9/5/13

<b>Analysis Method</b>	<b>Extracted/Digested By</b>	<b>Analyzed By</b>
6010C	JWILLY	DBOND



# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

10462

E753-12

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
EDOT US 30		EE-004333-0001-0170		PRESERVATIVE	
Project Manager		Report CC		PRELIMINARY RESULTS	
Karen Bunker Shaw Johnson		Dean Ziebert		PH	
Company/Address		Suite 1410		Total TRC Metals	
Ecology! Environment		33 W Market St		SVC	
Chicago IL 60607		Chicago IL 60607		VOC	
Phone #		Email		METALS, TOTAL (List in comments below)	
312 574 9293		Johnson@ecol.com		METALS, DISSOLVED (List in comments below)	
Sampler's Signature		Sampler's Printed Name		PCBS	
[Signature]		Scott Geaf		PCBS	
CLIENT SAMPLE ID		DATE		PESTICIDES	
FOR OFFICE USE ONLY LAB ID		SAMPLING TIME		PESTICIDES	
MATRIX		DATE		GC VOAs	
ES313B04(2-4)		9-4-13 1455		GC VOAs	
ES313B04D(2-4)		9-4-13 1455		GCMS SVOAs	
ES313B03(0-2)		9-4-13 1520		GCMS SVOAs	
ES313B03(4-6)		9-4-13 1525		GCMS VOAs	
ES313B02(2-4)		9-4-13 1550		GCMS VOAs	
SPECIAL INSTRUCTIONS/COMMENTS		RECEIVED BY		RECEIVED BY	
Metals		[Signature]		[Signature]	
STATE WHERE SAMPLES WERE COLLECTED		RECEIVED BY		RECEIVED BY	
IL		[Signature]		[Signature]	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY	
[Signature]		[Signature]		[Signature]	
Printed Name		Printed Name		Printed Name	
Scott Geaf		Scott Geaf		Scott Geaf	
Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time	
9-4-13/1700		9-4-13 1020		9-4-13 1020	
TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
RUSH (SURCHARGES APPLY)		I. Results Only		PO #	
1 day 2 day 3 day		II. Results + QC Summaries (LCS, DUP, MSMSD as required)		BILL TO:	
4 day 5 day		III. Results + QC and Calibration Summaries		[Signature]	
REQUESTED REPORT DATE		IV. Data Validation Report with Raw Data		RECEIVED BY	
		Extra Yes No		[Signature]	
		RELINQUISHED BY		RECEIVED BY	
		[Signature]		[Signature]	
		Printed Name		Printed Name	
		Firm		Firm	
		Date/Time		Date/Time	