



04-Nov-2016

Tim Dobransky
Olsson Associates
760 Horizon Drive
Suite 102
Grand Junction, CO 81506

Re: **Emerald 22 Spill**

Work Order: **16061154**

Dear Tim,

ALS Environmental received 4 samples on 20-Jun-2016 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 30.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Chad Whelton".

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager



Certificate No: MN 998501

Report of Laboratory Analysis

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Environmental ALS Environmental logo icon consisting of a stylized green and blue shape.

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Client: Olsson Associates
Project: Emerald 22 Spill
Work Order: 16061154

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
16061154-01	EM22-SS1	Soil		6/16/2016 15:00	6/20/2016 09:00	<input type="checkbox"/>
16061154-02	EM22-SS2	Soil		6/16/2016 15:10	6/20/2016 09:00	<input type="checkbox"/>
16061154-03	EM22-SS3	Soil		6/16/2016 15:20	6/20/2016 09:00	<input type="checkbox"/>
16061154-04	EM22-BG1	Soil		6/16/2016 15:30	6/20/2016 09:00	<input type="checkbox"/>

Client: Olsson Associates

Project: Emerald 22 Spill

Work Order: 16061154

Case Narrative

Batch 87649, Method SVO_8270_S, Sample 16061154-02A: The PNA reporting limits are elevated due to dilution needed to eliminate matrix-related interference.

Batch 87649, Method SVO_8270_S, Sample 16061154-02A MS/MSD: The MS and MSD recoveries were above the upper control limits for Benzo(a)pyrene and Indeno(1,2,3-cd)pyrene. The corresponding results in the parent sample were non-detect. No qualification is required.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates

Project: Emerald 22 Spill

Sample ID: EM22-SS1

Collection Date: 6/16/2016 03:00 PM

Work Order: 16061154

Lab ID: 16061154-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3546 / 6/24/16	Analyst: IT
DRO (C10-C28)	210		91	mg/Kg-dry	10	6/24/2016 07:27 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>82.2</i>		<i>39-133</i>	<i>%REC</i>	10	6/24/2016 07:27 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D		Prep: SW5035 / 6/21/16	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	6/21/2016 04:55 PM
<i>Surr: Toluene-d8</i>	<i>93.2</i>		<i>50-150</i>	<i>%REC</i>	1	6/21/2016 04:55 PM
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 6/28/16	Analyst: LR
Mercury	0.035		0.015	mg/Kg-dry	1	6/28/2016 04:49 PM
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 6/21/16	Analyst: JEC
Arsenic	7.5		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Barium	230		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Cadmium	ND		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Chromium	12		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Copper	15		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Lead	20		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Nickel	20		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Selenium	1.1		0.84	mg/Kg-dry	1	6/25/2016 07:01 AM
Silver	ND		0.42	mg/Kg-dry	1	6/25/2016 07:01 AM
Zinc	89		0.84	mg/Kg-dry	1	6/25/2016 07:01 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Calcium	540		5.0	mg/L	10	6/28/2016 06:20 PM
Magnesium	220		2.0	mg/L	10	6/28/2016 06:20 PM
Sodium	730		2.0	mg/L	10	6/28/2016 06:20 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Sodium Adsorption Ratio	6.7		0.010	none	1	6/28/2016
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3546 / 6/22/16	Analyst: RS
Acenaphthene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Anthracene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Benzo(a)anthracene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Benzo(a)pyrene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Benzo(b)fluoranthene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Benzo(k)fluoranthene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Chrysene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Dibenzo(a,h)anthracene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Fluoranthene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates
Project: Emerald 22 Spill
Sample ID: EM22-SS1
Collection Date: 6/16/2016 03:00 PM

Work Order: 16061154
Lab ID: 16061154-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Indeno(1,2,3-cd)pyrene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Naphthalene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Pyrene	ND		0.015	mg/Kg-dry	1	6/23/2016 02:23 AM
Surr: 2-Fluorobiphenyl	66.3		12-100	%REC	1	6/23/2016 02:23 AM
Surr: 4-Terphenyl-d14	76.9		25-137	%REC	1	6/23/2016 02:23 AM
Surr: Nitrobenzene-d5	59.4		37-107	%REC	1	6/23/2016 02:23 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 6/21/16	Analyst: AK
Benzene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:10 PM
Ethylbenzene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:10 PM
m,p-Xylene	ND		0.073	mg/Kg-dry	1	6/28/2016 10:10 PM
o-Xylene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:10 PM
Toluene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:10 PM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	6/28/2016 10:10 PM
Surr: 1,2-Dichloroethane-d4	110		70-130	%REC	1	6/28/2016 10:10 PM
Surr: 4-Bromofluorobenzene	96.0		70-130	%REC	1	6/28/2016 10:10 PM
Surr: Dibromofluoromethane	114		70-130	%REC	1	6/28/2016 10:10 PM
Surr: Toluene-d8	95.0		70-130	%REC	1	6/28/2016 10:10 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JB
Electrical Conductivity @ Saturation	9.0		0.050	mmhos/cm @2	10	6/28/2016 11:15 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	12		0.55	mg/Kg-dry	1	6/29/2016 02:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 6/20/16	Analyst: LW
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/22/2016 10:00 AM
MOISTURE			SW3550C			Analyst: EDL
Moisture	9.5		0.050	% of sample	1	6/22/2016 03:20 PM
PH			SW9045D		Prep: EXTRACT / 6/22/16	Analyst: EDL
pH	7.8			s.u.	1	6/22/2016 08:59 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates

Project: Emerald 22 Spill

Sample ID: EM22-SS2

Collection Date: 6/16/2016 03:10 PM

Work Order: 16061154

Lab ID: 16061154-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3546 / 6/29/16	Analyst: IT
DRO (C10-C28)	630		180	mg/Kg-dry	20	6/30/2016 02:08 PM
<i>Surr: 4-Terphenyl-d14</i>	108		39-133	%REC	20	6/30/2016 02:08 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D		Prep: SW5035 / 6/21/16	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	6/21/2016 05:20 PM
<i>Surr: Toluene-d8</i>	97.4		50-150	%REC	1	6/21/2016 05:20 PM
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 6/28/16	Analyst: LR
Mercury	0.046		0.015	mg/Kg-dry	1	6/28/2016 04:52 PM
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 6/21/16	Analyst: JEC
Arsenic	7.8		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Barium	420		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Cadmium	ND		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Chromium	13		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Copper	15		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Lead	34		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Nickel	18		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Selenium	ND		0.86	mg/Kg-dry	1	6/25/2016 07:06 AM
Silver	ND		0.43	mg/Kg-dry	1	6/25/2016 07:06 AM
Zinc	95		0.86	mg/Kg-dry	1	6/25/2016 07:06 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Calcium	410		5.0	mg/L	10	6/28/2016 06:25 PM
Magnesium	76		2.0	mg/L	10	6/28/2016 06:25 PM
Sodium	2,800		2.0	mg/L	10	6/28/2016 06:25 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Sodium Adsorption Ratio	34		0.010	none	1	6/28/2016
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3546 / 6/22/16	Analyst: RS
Acenaphthene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Anthracene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Benzo(a)anthracene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Benzo(a)pyrene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Benzo(b)fluoranthene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Benzo(k)fluoranthene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Chrysene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Dibenzo(a,h)anthracene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Fluoranthene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates

Project: Emerald 22 Spill

Sample ID: EM22-SS2

Collection Date: 6/16/2016 03:10 PM

Work Order: 16061154

Lab ID: 16061154-02

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Naphthalene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Pyrene	ND		0.15	mg/Kg-dry	10	6/22/2016 06:34 PM
Surr: 2-Fluorobiphenyl	60.2		12-100	%REC	10	6/22/2016 06:34 PM
Surr: 4-Terphenyl-d14	65.4		25-137	%REC	10	6/22/2016 06:34 PM
Surr: Nitrobenzene-d5	50.4		37-107	%REC	10	6/22/2016 06:34 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 6/21/16	Analyst: AK
Benzene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:34 PM
Ethylbenzene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:34 PM
m,p-Xylene	ND		0.072	mg/Kg-dry	1	6/28/2016 10:34 PM
o-Xylene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:34 PM
Toluene	ND		0.036	mg/Kg-dry	1	6/28/2016 10:34 PM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	6/28/2016 10:34 PM
Surr: 1,2-Dichloroethane-d4	112		70-130	%REC	1	6/28/2016 10:34 PM
Surr: 4-Bromofluorobenzene	94.8		70-130	%REC	1	6/28/2016 10:34 PM
Surr: Dibromofluoromethane	113		70-130	%REC	1	6/28/2016 10:34 PM
Surr: Toluene-d8	94.6		70-130	%REC	1	6/28/2016 10:34 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JB
Electrical Conductivity @ Saturation	21		0.050	mmhos/cm @2	10	6/28/2016 11:15 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	13		0.55	mg/Kg-dry	1	6/29/2016 02:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 6/20/16	Analyst: LW
Chromium, Hexavalent	ND		1.0	mg/Kg-dry	1	6/22/2016 10:00 AM
MOISTURE			SW3550C			Analyst: EDL
Moisture	9.3		0.050	% of sample	1	6/22/2016 03:20 PM
PH			SW9045D		Prep: EXTRACT / 6/22/16	Analyst: EDL
pH	8.1			s.u.	1	6/22/2016 08:59 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates

Project: Emerald 22 Spill

Sample ID: EM22-SS3

Collection Date: 6/16/2016 03:20 PM

Work Order: 16061154

Lab ID: 16061154-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			SW8015M		Prep: SW3546 / 6/29/16	Analyst: IT
DRO (C10-C28)	58		8.8	mg/Kg-dry	1	6/30/2016 02:40 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>64.8</i>		<i>39-133</i>	<i>%REC</i>	1	6/30/2016 02:40 PM
GASOLINE RANGE ORGANICS BY GC-FID			SW8015D		Prep: SW5035 / 6/21/16	Analyst: IT
GRO (C6-C10)	ND		2.8	mg/Kg-dry	1	6/21/2016 05:45 PM
<i>Surr: Toluene-d8</i>	<i>92.2</i>		<i>50-150</i>	<i>%REC</i>	1	6/21/2016 05:45 PM
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 6/29/16	Analyst: LR
Mercury	0.022		0.015	mg/Kg-dry	1	6/29/2016 03:31 PM
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 6/21/16	Analyst: BL
Arsenic	7.2		0.36	mg/Kg-dry	1	6/27/2016 04:17 PM
Barium	150		0.36	mg/Kg-dry	1	6/25/2016 07:29 AM
Cadmium	ND		0.36	mg/Kg-dry	1	6/27/2016 04:17 PM
Chromium	9.9		0.36	mg/Kg-dry	1	6/27/2016 04:17 PM
Copper	13		0.36	mg/Kg-dry	1	6/25/2016 07:29 AM
Lead	17		0.36	mg/Kg-dry	1	6/25/2016 07:29 AM
Nickel	16		0.36	mg/Kg-dry	1	6/25/2016 07:29 AM
Selenium	ND		0.71	mg/Kg-dry	1	6/27/2016 04:17 PM
Silver	ND		0.36	mg/Kg-dry	1	6/25/2016 07:29 AM
Zinc	80		0.71	mg/Kg-dry	1	6/25/2016 07:29 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Calcium	370		5.0	mg/L	10	6/28/2016 06:37 PM
Magnesium	88		2.0	mg/L	10	6/28/2016 06:37 PM
Sodium	1,800		2.0	mg/L	10	6/28/2016 06:37 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Sodium Adsorption Ratio	22		0.010	none	1	6/28/2016
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D		Prep: SW3546 / 6/22/16	Analyst: RS
Acenaphthene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Anthracene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Benzo(a)anthracene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Benzo(a)pyrene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Benzo(b)fluoranthene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Benzo(k)fluoranthene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Chrysene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Dibenzo(a,h)anthracene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Fluoranthene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates

Project: Emerald 22 Spill

Sample ID: EM22-SS3

Collection Date: 6/16/2016 03:20 PM

Work Order: 16061154

Lab ID: 16061154-03

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Indeno(1,2,3-cd)pyrene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Naphthalene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Pyrene	ND		0.014	mg/Kg-dry	1	6/23/2016 02:50 AM
Surr: 2-Fluorobiphenyl	55.6		12-100	%REC	1	6/23/2016 02:50 AM
Surr: 4-Terphenyl-d14	66.8		25-137	%REC	1	6/23/2016 02:50 AM
Surr: Nitrobenzene-d5	49.8		37-107	%REC	1	6/23/2016 02:50 AM
VOLATILE ORGANIC COMPOUNDS			SW8260B		Prep: SW5035 / 6/21/16	Analyst: AK
Benzene	ND		0.034	mg/Kg-dry	1	6/28/2016 10:58 PM
Ethylbenzene	ND		0.034	mg/Kg-dry	1	6/28/2016 10:58 PM
m,p-Xylene	ND		0.068	mg/Kg-dry	1	6/28/2016 10:58 PM
o-Xylene	ND		0.034	mg/Kg-dry	1	6/28/2016 10:58 PM
Toluene	ND		0.034	mg/Kg-dry	1	6/28/2016 10:58 PM
Xylenes, Total	ND		0.10	mg/Kg-dry	1	6/28/2016 10:58 PM
Surr: 1,2-Dichloroethane-d4	112		70-130	%REC	1	6/28/2016 10:58 PM
Surr: 4-Bromofluorobenzene	97.2		70-130	%REC	1	6/28/2016 10:58 PM
Surr: Dibromofluoromethane	115		70-130	%REC	1	6/28/2016 10:58 PM
Surr: Toluene-d8	92.4		70-130	%REC	1	6/28/2016 10:58 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JB
Electrical Conductivity @ Saturation	18		0.050	mmhos/cm @2	10	6/28/2016 11:15 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	9.9		0.53	mg/Kg-dry	1	6/29/2016 02:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 6/20/16	Analyst: LW
Chromium, Hexavalent	ND		1.0	mg/Kg-dry	1	6/22/2016 10:00 AM
MOISTURE			SW3550C			Analyst: EDL
Moisture	5.9		0.050	% of sample	1	6/22/2016 03:20 PM
PH			SW9045D		Prep: EXTRACT / 6/22/16	Analyst: EDL
pH	7.6			s.u.	1	6/22/2016 08:59 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 04-Nov-16

Client: Olsson Associates
Project: Emerald 22 Spill
Sample ID: EM22-BG1
Collection Date: 6/16/2016 03:30 PM

Work Order: 16061154
Lab ID: 16061154-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MERCURY BY CVAA			SW7471B		Prep: SW7471 / 6/29/16	Analyst: LR
Mercury	0.033		0.017	mg/Kg-dry	1	6/29/2016 03:33 PM
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 6/21/16	Analyst: JEC
Arsenic	9.1		0.71	mg/Kg-dry	2	6/29/2016 11:31 AM
Barium	170		0.35	mg/Kg-dry	1	6/25/2016 07:34 AM
Cadmium	ND		0.35	mg/Kg-dry	1	6/27/2016 04:24 PM
Chromium	17		0.71	mg/Kg-dry	2	6/29/2016 11:31 AM
Copper	18		0.35	mg/Kg-dry	1	6/25/2016 07:34 AM
Lead	19		0.35	mg/Kg-dry	1	6/25/2016 07:34 AM
Nickel	23		0.35	mg/Kg-dry	1	6/25/2016 07:34 AM
Selenium	1.7		1.4	mg/Kg-dry	2	6/29/2016 11:31 AM
Silver	ND		0.35	mg/Kg-dry	1	6/25/2016 07:34 AM
Zinc	100		0.71	mg/Kg-dry	1	6/25/2016 07:34 AM
SOLUBLE CATIONS FOR SAR			SW846 6010C		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Calcium	540		5.0	mg/L	10	6/28/2016 07:10 PM
Magnesium	320		2.0	mg/L	10	6/28/2016 07:10 PM
Sodium	2,200		2.0	mg/L	10	6/28/2016 07:10 PM
SODIUM ADSORPTION RATIO			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JEC
Sodium Adsorption Ratio	19		0.010	none	1	6/28/2016
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO		Prep: USDA Method 20B / 6/27/16	Analyst: JB
Electrical Conductivity @ Saturation	18		0.050	mmhos/cm @2	10	6/28/2016 11:15 AM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: MB
Chromium, Trivalent	17		0.56	mg/Kg-dry	1	6/29/2016 02:30 PM
CHROMIUM, HEXAVALENT			SW7196A		Prep: SW3060A / 6/20/16	Analyst: LW
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/22/2016 10:00 AM
MOISTURE			SW3550C			Analyst: EDL
Moisture	11		0.050	% of sample	1	6/22/2016 03:20 PM
PH			SW9045D		Prep: EXTRACT / 6/22/16	Analyst: EDL
pH	8.0			s.u.	1	6/22/2016 08:59 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87783** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-87783-87783				Units: mg/Kg		Analysis Date: 6/24/2016 12:58 PM			
Client ID:		Run ID: GC8_160624A		SeqNo: 3893579		Prep Date: 6/24/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	ND	8.3									
<i>Surr: 4-Terphenyl-d14</i>	2.565	0	3.333	0	76.9	39-133	0				

LCS		Sample ID: DLCSS1-87783-87783				Units: mg/Kg		Analysis Date: 6/24/2016 01:28 PM			
Client ID:		Run ID: GC8_160624A		SeqNo: 3893581		Prep Date: 6/24/2016		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	324.2	8.3	333.3	0	97.2	61-109	0				
<i>Surr: 4-Terphenyl-d14</i>	1.983	0	3.333	0	59.5	39-133	0				

MS		Sample ID: 16061108-01A MS				Units: mg/Kg		Analysis Date: 6/24/2016 01:58 PM			
Client ID:		Run ID: GC8_160624A		SeqNo: 3893582		Prep Date: 6/24/2016		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	8632	330	331.9	8248	116	48-110	0			SO	
<i>Surr: 4-Terphenyl-d14</i>	7.779	0	3.319	0	234	39-133	0			S	

MSD		Sample ID: 16061108-01A MSD				Units: mg/Kg		Analysis Date: 6/24/2016 02:28 PM			
Client ID:		Run ID: GC8_160624A		SeqNo: 3893583		Prep Date: 6/24/2016		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)	8660	330	328.9	8248	125	48-110	8632	0.322	30	SO	
<i>Surr: 4-Terphenyl-d14</i>	7.447	0	3.289	0	226	39-133	7.779	4.36	30	S	

The following samples were analyzed in this batch: 16061154-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87930** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-87930-87930				Units: mg/Kg		Analysis Date: 6/30/2016 10:05 AM		
Client ID:		Run ID: GC8_160630A				SeqNo: 3901820		Prep Date: 6/29/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	8.3								
<i>Surr: 4-Terphenyl-d14</i>	2.634	0	3.333	0	79	39-133	0			

LCS		Sample ID: DLCSS1-87930-87930				Units: mg/Kg		Analysis Date: 6/30/2016 10:35 AM		
Client ID:		Run ID: GC8_160630A				SeqNo: 3901821		Prep Date: 6/29/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	321.1	8.3	333.3	0	96.3	61-109	0			
<i>Surr: 4-Terphenyl-d14</i>	2.157	0	3.333	0	64.7	39-133	0			

MS		Sample ID: 16061539-01C MS				Units: mg/Kg		Analysis Date: 6/30/2016 11:05 AM		
Client ID:		Run ID: GC8_160630A				SeqNo: 3901822		Prep Date: 6/29/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	310.2	8.3	331.8	43.48	80.4	48-110	0			
<i>Surr: 4-Terphenyl-d14</i>	2.3	0	3.318	0	69.3	39-133	0			

MSD		Sample ID: 16061539-01C MSD				Units: mg/Kg		Analysis Date: 6/30/2016 11:35 AM		
Client ID:		Run ID: GC8_160630A				SeqNo: 3901823		Prep Date: 6/29/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	299.7	8.2	329.4	43.48	77.8	48-110	310.2	3.44	30	
<i>Surr: 4-Terphenyl-d14</i>	2.235	0	3.294	0	67.9	39-133	2.3	2.86	30	

The following samples were analyzed in this batch:

16061154-02A	16061154-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87604** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-87604-87604				Units: µg/Kg-dry		Analysis Date: 6/21/2016 03:16 PM		
Client ID:		Run ID: GC9_160621A		SeqNo: 3886859		Prep Date: 6/21/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	4908	0	5000	0	98.2	50-150	0			

LCS		Sample ID: LCS-87604-87604				Units: µg/Kg-dry		Analysis Date: 6/21/2016 02:51 PM		
Client ID:		Run ID: GC9_160621A		SeqNo: 3886858		Prep Date: 6/21/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	512700	2,500	500000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	5182	0	5000	0	104	50-150	0			

MS		Sample ID: 16061154-01A MS				Units: µg/Kg-dry		Analysis Date: 6/21/2016 06:09 PM		
Client ID: EM22-SS1		Run ID: GC9_160621A		SeqNo: 3886865		Prep Date: 6/21/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	610300	3,000	605000	0	101	70-130	0			
<i>Surr: Toluene-d8</i>	5899	0	6050	0	97.5	50-150	0			

MSD		Sample ID: 16061154-01A MSD				Units: µg/Kg-dry		Analysis Date: 6/21/2016 06:34 PM		
Client ID: EM22-SS1		Run ID: GC9_160621A		SeqNo: 3886866		Prep Date: 6/21/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	699200	3,000	605000	0	116	70-130	610300	13.6	30	
<i>Surr: Toluene-d8</i>	6727	0	6050	0	111	50-150	5899	13.1	30	

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87911** Instrument ID **HG1** Method: **SW7471B**

MBLK	Sample ID: MBLK-87911-87911				Units: mg/Kg			Analysis Date: 6/28/2016 04:05 PM		
Client ID:	Run ID: HG1_160628A			SeqNo: 3897269		Prep Date: 6/28/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS	Sample ID: LCS-87911-87911				Units: mg/Kg			Analysis Date: 6/28/2016 04:07 PM		
Client ID:	Run ID: HG1_160628A			SeqNo: 3897270		Prep Date: 6/28/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.18 0.020 0.1665 0 108 80-120 0

MS	Sample ID: 16061431-01CMS				Units: mg/Kg			Analysis Date: 6/28/2016 04:18 PM		
Client ID:	Run ID: HG1_160628A			SeqNo: 3897275		Prep Date: 6/28/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1297 0.014 0.1147 0.0004005 113 75-125 0

MSD	Sample ID: 16061431-01CMSD				Units: mg/Kg			Analysis Date: 6/28/2016 04:20 PM		
Client ID:	Run ID: HG1_160628A			SeqNo: 3897276		Prep Date: 6/28/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1269 0.014 0.1147 0.0004005 110 75-125 0.1297 2.24 35

The following samples were analyzed in this batch:

16061154-01A	16061154-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87964** Instrument ID **HG1** Method: **SW7471B**

MBLK	Sample ID: MBLK-87964-87964				Units: mg/Kg			Analysis Date: 6/29/2016 02:10 PM		
Client ID:	Run ID: HG1_160629A			SeqNo: 3899605		Prep Date: 6/29/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS	Sample ID: LCS-87964-87964				Units: mg/Kg			Analysis Date: 6/29/2016 02:12 PM		
Client ID:	Run ID: HG1_160629A			SeqNo: 3899613		Prep Date: 6/29/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1783 0.020 0.1665 0 107 80-120 0

MS	Sample ID: 16061555-04BMS				Units: mg/Kg			Analysis Date: 6/29/2016 02:23 PM		
Client ID:	Run ID: HG1_160629A			SeqNo: 3899618		Prep Date: 6/29/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1278 0.013 0.111 0.00324 112 75-125 0

MSD	Sample ID: 16061555-04BMSD				Units: mg/Kg			Analysis Date: 6/29/2016 02:25 PM		
Client ID:	Run ID: HG1_160629A			SeqNo: 3899619		Prep Date: 6/29/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.129 0.014 0.113 0.00324 111 75-125 0.1278 0.92 35

The following samples were analyzed in this batch:

16061154-03A	16061154-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87603** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-87603-87603				Units: mg/Kg		Analysis Date: 6/25/2016 06:15 AM		
Client ID:		Run ID: ICP2_160625A				SeqNo: 3893963		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	0.01574	0.25								J
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	0.04273	0.50								J

LCS		Sample ID: LCS-87603-87603				Units: mg/Kg		Analysis Date: 6/25/2016 06:21 AM		
Client ID:		Run ID: ICP2_160625A				SeqNo: 3893964		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.848	0.25	5	0	97	80-120	0			
Barium	5.216	0.25	5	0	104	80-120	0			
Cadmium	4.76	0.50	5	0	95.2	80-120	0			
Chromium	5.189	0.25	5	0	104	80-120	0			
Copper	4.89	0.50	5	0	97.8	80-120	0			
Lead	5.017	0.25	5	0	100	80-120	0			
Nickel	5.095	0.25	5	0	102	80-120	0			
Selenium	4.909	0.50	5	0	98.2	80-120	0			
Zinc	5.096	0.50	5	0	102	80-120	0			

MS		Sample ID: 16061175-06BMS				Units: mg/Kg		Analysis Date: 6/25/2016 08:51 AM		
Client ID:		Run ID: ICP2_160625A				SeqNo: 3894024		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	13.14	0.78	7.788	3.763	120	75-125	0			
Lead	35.65	0.39	7.788	41.12	-70.2	75-125	0			SO
Nickel	9.495	0.39	7.788	1.615	101	75-125	0			
Silver	7.884	0.39	7.788	-0.01478	101	75-125	0			
Zinc	40.96	0.78	7.788	25.67	196	75-125	0			S

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87603** Instrument ID **ICP2** Method: **SW846 6010C**

MS		Sample ID: 16061175-06BMS				Units: mg/Kg		Analysis Date: 6/27/2016 05:51 PM		
Client ID:		Run ID: ICP2_160627B				SeqNo: 3895669		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.718	0.39	7.788	2.838	88.3	75-125	0			
Cadmium	7.466	0.78	7.788	0.1771	93.6	75-125	0			
Chromium	11.64	0.39	7.788	1.592	129	75-125	0			S
Selenium	8.056	0.78	7.788	-0.2213	106	75-125	0			

MSD		Sample ID: 16061175-06BMSD				Units: mg/Kg		Analysis Date: 6/25/2016 08:56 AM		
Client ID:		Run ID: ICP2_160625A				SeqNo: 3894025		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Copper	12.4	0.78	7.837	3.763	110	75-125	13.14	5.75	20	
Lead	37.17	0.39	7.837	41.12	-50.4	75-125	35.65	4.15	20	SO
Nickel	9.881	0.39	7.837	1.615	105	75-125	9.495	3.99	20	
Silver	7.981	0.39	7.837	-0.01478	102	75-125	7.884	1.23	20	
Zinc	38.13	0.78	7.837	25.67	159	75-125	40.96	7.16	20	S

MSD		Sample ID: 16061175-06BMSD				Units: mg/Kg		Analysis Date: 6/27/2016 05:56 PM		
Client ID:		Run ID: ICP2_160627B				SeqNo: 3895670		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.17	0.39	7.837	2.838	93.5	75-125	9.718	4.52	20	
Cadmium	7.575	0.78	7.837	0.1771	94.4	75-125	7.466	1.45	20	
Chromium	10.96	0.39	7.837	1.592	120	75-125	11.64	6.02	20	
Selenium	8.363	0.78	7.837	-0.2213	110	75-125	8.056	3.75	20	

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
16061154-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
Work Order: 16061154
Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87776** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 16061154-02BDUP				Units: mg/L		Analysis Date: 6/28/2016 06:31 PM		
Client ID: EM22-SS2		Run ID: ICP2_160628A				SeqNo: 3898045		Prep Date: 6/27/2016		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	474.7	5.0	0	0	0	0-0	373	24		
Magnesium	89.33	2.0	0	0	0	0-0	87.57	1.99		
Sodium	3150	2.0	0	0	0	0-0	1788	55.2		

DUP		Sample ID: 16061154-02BDUP				Units: none		Analysis Date: 6/28/2016		
Client ID: EM22-SS2		Run ID: SAR_160628A				SeqNo: 3898918		Prep Date: 6/27/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	34.78	0.010	0	0	0		33.82	2.82	50	

The following samples were analyzed in this batch:

16061154-01B	16061154-02B	16061154-03B
16061154-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87649** Instrument ID **SVMS7** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-87649-87649				Units: µg/Kg		Analysis Date: 6/22/2016 04:48 PM		
Client ID:		Run ID: SVMS7_160622A		SeqNo: 3889331		Prep Date: 6/22/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	13								
Anthracene	ND	13								
Benzo(a)anthracene	ND	13								
Benzo(a)pyrene	ND	13								
Benzo(b)fluoranthene	ND	13								
Benzo(k)fluoranthene	ND	13								
Chrysene	ND	13								
Dibenzo(a,h)anthracene	ND	13								
Fluoranthene	ND	13								
Fluorene	ND	13								
Indeno(1,2,3-cd)pyrene	ND	13								
Naphthalene	ND	13								
Pyrene	ND	13								
<i>Surr: 2-Fluorobiphenyl</i>	2629	0	3333	0	78.9	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	3461	0	3333	0	104	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2392	0	3333	0	71.8	37-107	0			

LCS		Sample ID: SLCSS1-87649-87649				Units: µg/Kg		Analysis Date: 6/22/2016 05:13 PM		
Client ID:		Run ID: SVMS7_160622A		SeqNo: 3889332		Prep Date: 6/22/2016		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1141	13	1333	0	85.5	45-110	0			
Anthracene	1253	13	1333	0	93.9	55-105	0			
Benzo(a)anthracene	1234	13	1333	0	92.5	50-110	0			
Benzo(a)pyrene	1184	13	1333	0	88.8	50-110	0			
Benzo(b)fluoranthene	1209	13	1333	0	90.6	45-115	0			
Benzo(k)fluoranthene	1188	13	1333	0	89.1	45-115	0			
Chrysene	1171	13	1333	0	87.8	55-110	0			
Dibenzo(a,h)anthracene	1207	13	1333	0	90.5	40-125	0			
Fluoranthene	1191	13	1333	0	89.3	55-115	0			
Fluorene	1201	13	1333	0	90	50-110	0			
Indeno(1,2,3-cd)pyrene	1276	13	1333	0	95.7	40-120	0			
Naphthalene	1045	13	1333	0	78.4	40-105	0			
Pyrene	1302	13	1333	0	97.6	45-125	0			
<i>Surr: 2-Fluorobiphenyl</i>	2577	0	3333	0	77.3	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	3020	0	3333	0	90.6	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2388	0	3333	0	71.6	37-107	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: 87649 Instrument ID SVMS7 Method: SW846 8270D

MS				Sample ID: 16061154-02A MS			Units: µg/Kg		Analysis Date: 6/22/2016 05:40 PM		
Client ID: EM22-SS2				Run ID: SVMS7_160622A			SeqNo: 3889333		Prep Date: 6/22/2016		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1066	130	1325	0	80.5	45-110	0				
Anthracene	1093	130	1325	0	82.5	55-105	0				
Benzo(a)anthracene	1258	130	1325	0	95	50-110	0				
Benzo(a)pyrene	1583	130	1325	0	119	50-110	0			S	
Benzo(b)fluoranthene	1517	130	1325	0	114	45-115	0				
Benzo(k)fluoranthene	1146	130	1325	0	86.5	45-115	0				
Chrysene	1040	130	1325	0	78.5	55-110	0				
Dibenzo(a,h)anthracene	1523	130	1325	0	115	40-125	0				
Fluoranthene	1205	130	1325	0	91	55-115	0				
Fluorene	1093	130	1325	0	82.5	50-110	0				
Indeno(1,2,3-cd)pyrene	1709	130	1325	0	129	40-120	0			S	
Naphthalene	920.7	130	1325	0	69.5	40-105	0				
Pyrene	1093	130	1325	0	82.5	45-125	0				
Surr: 2-Fluorobiphenyl	2411	0	3312	0	72.8	12-100	0				
Surr: 4-Terphenyl-d14	2464	0	3312	0	74.4	25-137	0				
Surr: Nitrobenzene-d5	2086	0	3312	0	63	37-107	0				

MSD				Sample ID: 16061154-02A MSD			Units: µg/Kg		Analysis Date: 6/22/2016 06:07 PM		
Client ID: EM22-SS2				Run ID: SVMS7_160622A			SeqNo: 3889334		Prep Date: 6/22/2016		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	953.1	130	1324	0	72	45-110	1066	11.2	30		
Anthracene	986.2	130	1324	0	74.5	55-105	1093	10.3	30		
Benzo(a)anthracene	1145	130	1324	0	86.5	50-110	1258	9.44	30		
Benzo(a)pyrene	1463	130	1324	0	110	50-110	1583	7.9	30	S	
Benzo(b)fluoranthene	1363	130	1324	0	103	45-115	1517	10.6	30		
Benzo(k)fluoranthene	992.8	130	1324	0	75	45-115	1146	14.3	30		
Chrysene	939.8	130	1324	0	71	55-110	1040	10.1	30		
Dibenzo(a,h)anthracene	1397	130	1324	0	105	40-125	1523	8.69	30		
Fluoranthene	1125	130	1324	0	85	55-115	1205	6.89	30		
Fluorene	972.9	130	1324	0	73.5	50-110	1093	11.6	30		
Indeno(1,2,3-cd)pyrene	1602	130	1324	0	121	40-120	1709	6.47	30	S	
Naphthalene	820.7	130	1324	0	62	40-105	920.7	11.5	30		
Pyrene	939.8	130	1324	0	71	45-125	1093	15.1	30		
Surr: 2-Fluorobiphenyl	2078	0	3309	0	62.8	12-100	2411	14.8	40		
Surr: 4-Terphenyl-d14	2131	0	3309	0	64.4	25-137	2464	14.5	40		
Surr: Nitrobenzene-d5	1913	0	3309	0	57.8	37-107	2086	8.68	40		

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
--------------	--------------	--------------

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87602** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: MBLK-87602-87602				Units: µg/Kg-dry		Analysis Date: 6/21/2016 02:45 PM		
Client ID:		Run ID: VMS6_160621A			SeqNo: 3887090		Prep Date: 6/21/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	30								
Ethylbenzene	ND	30								
m,p-Xylene	ND	60								
o-Xylene	ND	30								
Toluene	ND	30								
Xylenes, Total	ND	90								
<i>Surr: 1,2-Dichloroethane-d4</i>	1032	0	1000	0	103	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	968.5	0	1000	0	96.8	70-130	0			
<i>Surr: Dibromofluoromethane</i>	974	0	1000	0	97.4	70-130	0			
<i>Surr: Toluene-d8</i>	976.5	0	1000	0	97.6	70-130	0			

LCS		Sample ID: LCS-87602-87602				Units: µg/Kg-dry		Analysis Date: 6/21/2016 01:27 PM		
Client ID:		Run ID: VMS6_160621A			SeqNo: 3887089		Prep Date: 6/21/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1059	30	1000	0	106	75-125	0			
Ethylbenzene	1004	30	1000	0	100	75-125	0			
m,p-Xylene	2040	60	2000	0	102	80-125	0			
o-Xylene	997.5	30	1000	0	99.8	75-125	0			
Toluene	995	30	1000	0	99.5	70-125	0			
Xylenes, Total	3037	90	3000	0	101	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1016	0	1000	0	102	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1002	0	1000	0	100	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1022	0	1000	0	102	70-130	0			
<i>Surr: Toluene-d8</i>	1013	0	1000	0	101	70-130	0			

MS		Sample ID: 16061154-01A MS				Units: µg/Kg-dry		Analysis Date: 6/29/2016 04:40 AM		
Client ID: EM22-SS1		Run ID: VMS10_160628B			SeqNo: 3897949		Prep Date: 6/21/2016		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1507	36	1210	0	125	75-125	0			
Ethylbenzene	1223	36	1210	0	101	75-125	0			
m,p-Xylene	2566	73	2420	0	106	80-125	0			
o-Xylene	1203	36	1210	0	99.4	75-125	0			
Toluene	1200	36	1210	0	99.2	70-125	0			
Xylenes, Total	3770	110	3630	0	104	75-125	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	1500	0	1210	0	124	70-130	0			
<i>Surr: 4-Bromofluorobenzene</i>	1250	0	1210	0	103	70-130	0			
<i>Surr: Dibromofluoromethane</i>	1695	0	1210	0	140	70-130	0			S
<i>Surr: Toluene-d8</i>	1160	0	1210	0	95.8	70-130	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87602** Instrument ID **VMS6** Method: **SW8260B**

MSD		Sample ID: 16061154-01A MSD				Units: $\mu\text{g}/\text{Kg-dry}$		Analysis Date: 6/29/2016 05:05 AM		
Client ID: EM22-SS1		Run ID: VMS10_160628B				SeqNo: 3897950		Prep Date: 6/21/2016		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1300	36	1210	0	107	75-125	1507	14.7	30	
Ethylbenzene	1233	36	1210	0	102	75-125	1223	0.788	30	
m,p-Xylene	2545	73	2420	0	105	80-125	2566	0.829	30	
o-Xylene	1206	36	1210	0	99.6	75-125	1203	0.201	30	
Toluene	1198	36	1210	0	99	70-125	1200	0.151	30	
Xylenes, Total	3751	110	3630	0	103	75-125	3770	0.499	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	1344	0	1210	0	111	70-130	1500	11	30	
<i>Surr: 4-Bromofluorobenzene</i>	1247	0	1210	0	103	70-130	1250	0.242	30	
<i>Surr: Dibromofluoromethane</i>	1468	0	1210	0	121	70-130	1695	14.3	30	
<i>Surr: Toluene-d8</i>	1148	0	1210	0	94.9	70-130	1160	0.996	30	

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87580** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK	Sample ID: MBLK-87580-87580		Units: mg/Kg		Analysis Date: 6/22/2016 10:00 AM					
Client ID:	Run ID: WETCHEM_160622C		SeqNo: 3887794		Prep Date: 6/20/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 1.0

LCS	Sample ID: LCS-87580-87580		Units: mg/Kg		Analysis Date: 6/22/2016 10:00 AM					
Client ID:	Run ID: WETCHEM_160622C		SeqNo: 3887795		Prep Date: 6/20/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.667 0.98 4.902 0 95.2 80-120 0

MS	Sample ID: 1606977-04B MS		Units: mg/Kg		Analysis Date: 6/22/2016 10:00 AM					
Client ID:	Run ID: WETCHEM_160622C		SeqNo: 3887805		Prep Date: 6/20/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.235 0.98 4.902 0.1275 63.4 75-125 0 S

MS	Sample ID: 1606977-04B MSI		Units: mg/Kg		Analysis Date: 6/22/2016 10:00 AM					
Client ID:	Run ID: WETCHEM_160622C		SeqNo: 3887807		Prep Date: 6/20/2016 DF: 100					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2450 97 2640 0.1275 92.8 75-125 0

MSD	Sample ID: 1606977-04B MSD		Units: mg/Kg		Analysis Date: 6/22/2016 10:00 AM					
Client ID:	Run ID: WETCHEM_160622C		SeqNo: 3887806		Prep Date: 6/20/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.386 0.99 4.95 0.1275 65.8 75-125 3.235 4.56 20 S

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
16061154-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
Work Order: 16061154
Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87658** Instrument ID **WETCHEM** Method: **SW9045D**

LCS	Sample ID: LCS-87658-87658		Units: s.u.		Analysis Date: 6/22/2016 08:59 AM					
Client ID:	Run ID: WETCHEM_160622J		SeqNo: 3888239		Prep Date: 6/22/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	3.98	0	4	0	99.5	90-110	0			

DUP	Sample ID: 16061109-01A DUP		Units: s.u.		Analysis Date: 6/22/2016 08:59 AM					
Client ID:	Run ID: WETCHEM_160622J		SeqNo: 3888242		Prep Date: 6/22/2016 DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.14	0	0	0	0	0-0	7.3	2.22	20	

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
16061154-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
Work Order: 16061154
Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **87776** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 16061154-02B DUP				Units: mmhos/cm @25°		Analysis Date: 6/28/2016 11:15 AM		
Client ID: EM22-SS2		Run ID: WETCHEM_160628F		SeqNo: 3896678		Prep Date: 6/27/2016		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	23.3	0.050	0	0	0		21.2	9.44	50	

The following samples were analyzed in this batch:

16061154-01B	16061154-02B	16061154-03B
16061154-04B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Olsson Associates
 Work Order: 16061154
 Project: Emerald 22 Spill

QC BATCH REPORT

Batch ID: **R190146** Instrument ID **MOIST** Method: **SW3550C**

MBLK	Sample ID: WBLKS-R190146		Units: % of sample			Analysis Date: 6/22/2016 03:20 PM				
Client ID:	Run ID: MOIST_160622D		SeqNo: 3889573			Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS	Sample ID: LCS-R190146		Units: % of sample			Analysis Date: 6/22/2016 03:20 PM				
Client ID:	Run ID: MOIST_160622D		SeqNo: 3889572			Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 99.99 0.050 100 0 100 99.5-100.5 0

DUP	Sample ID: 16061109-03A DUP		Units: % of sample			Analysis Date: 6/22/2016 03:20 PM				
Client ID:	Run ID: MOIST_160622D		SeqNo: 3889553			Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 30.34 0.050 0 0 0 31.58 4.01 20

DUP	Sample ID: 16061257-33A DUP		Units: % of sample			Analysis Date: 6/22/2016 03:20 PM				
Client ID:	Run ID: MOIST_160622D		SeqNo: 3889563			Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 20.17 0.050 0 0 0 20.15 0.0992 20

The following samples were analyzed in this batch:

16061154-01A	16061154-02A	16061154-03A
16061154-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Chain of Custody Form

Page 1 of 1

COC ID: 123456

- Cincinnati, OH +1 513 733 5336
- Holland, MI +1 616 399 6070
- Salt Lake City, UT +1 801 266 7700
- Everett, WA +1 425 356 2600
- Houston, TX +1 281 530 3656
- Spring City, PA +1 610 948 4903
- Fort Collins, CO +1 970 490 1511
- Middletown, PA +1 717 944 5541
- York, PA +1 717 505 5280

1154

Customer Information			ALS Project Manager:				Work Order #: <u>1606</u>												
Project Information			Parameter/Method Request for Analysis																
Purchase Order	Project Name: Gray B 5 Spill		A TPH (GRO & DRO)																
Work Order	Project Number: 013.3287.100.100004		B BTEX																
Company Name: Olsson Associates	Bill To Company: Olsson Associates		C PAH (See Attached List) CO Table 910																
Send Report To: Tim Dobransky	Invoice Att: Tim Dobransky		D Electrical Conductivity																
Address: 760 Horizon Drive, Ste. 102	Address: 760 Horizon Drive, Ste. 102		E Sodium Adsorption Ratio																
City/State/Zip: Grand Junction, CO 81506	City/State/Zip: Grand Junction, CO 81506		F pH																
Phone: 970.283.7800	Phone: 970.283.7800		G Metals (See Attached List) CO Table 910																
Fax: 970.283.7456	Fax: 970.283.7456		H Arsenic Only																
e-Mail Address: tdobransk@olssonassoc.com	e-Mail Address:		I																
			J																
No.	Sample Description	Date	Time	Matrix	Pres.	#Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	EM22-SS1	08/16/16	1500	Soil	8	2	X	X	X	X	X	X	X						
2	EM22-SS2	08/16/16	1510	Soil	8	2	X	X	X	X	X	X	X						
3	EM22-SS3	08/16/16	1520	Soil	8	2	X	X	X	X	X	X	X						
4	EM22-BG1	08/16/16	1530	Soil	8	2				X	X	X	X						
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			

Sampler(s): Please Print & Sign Jason McLarty <i>Jason McLarty</i>		Shipment Method: FedEx		Required Turnaround Time: <input type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:	
Relinquished by: <i>Jason McLarty</i>		Date: 8/17/16	Time: 4:00	Received by: <i>[Signature]</i>		Notes: Chevron Pricing Applies - Per Bruce Schlatter			
Relinquished by: <i>[Signature]</i>		Date: 6-17-16	Time: 4:00	Received by (Laboratory): <i>[Signature]</i>		Cooler Temp. 5.6°C		QC Package: (Check Box Below)	
Logged by (Laboratory): <i>DES</i>		Date: 6/20/16	Time: 1100	Checked by (Laboratory): <i>[Signature]</i>				<input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> Level IV: SW846 CLP-Like Other:	
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5935									

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

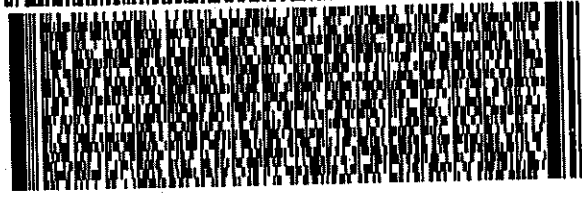
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ORIGIN ID: RILA (616) 288-1033
NICK MARTINEZ
ALS ENVIRONMENTAL PARACHUTE
PARACHUTE SERVICE CENTER
127 EAST 1ST ST
PARACHUTE, CO 81635
UNITED STATES US

SHIP DATE: 17 JUN 16
ACTWGT: 40.00 LB
CAD: 22044401NET13730
DIMS: 13x16x10 IN
BILL SENDER

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE

HOLLAND MI 49424
(616) 399-6070 REF: 061716-1
INV. PO: PARACHUTE DEPT:



REL# 3765346

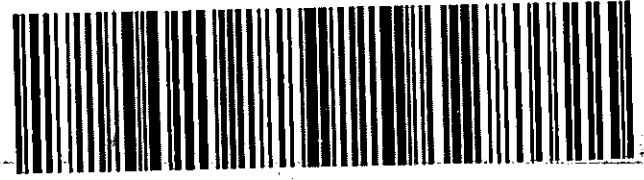
SATURDAY 12:00P
PRIORITY OVERNIGHT

2 of 2
MPS# 7765 5311 3840
0263
Mstr# 7765 5311 3942

0201

XO HLMA

MI-US **49424**
GRR



640J260607ZTF

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ALS Environmental
3362 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: _____ Time: _____
Name: SALES
Company: _____

Seal Broken By: _____
Date: _____

Sample Receipt Checklist

Client Name: **OLSSON**

Date/Time Received: **20-Jun-16 09:00**

Work Order: **16061154**

Received by: **DS**

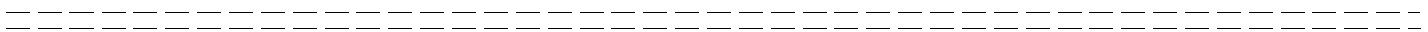
Checklist completed by Diane Shaw 20-Jun-16
eSignature Date

Reviewed by: Chad Whelton 20-Jun-16
eSignature Date

Matrices: Soil
 Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.6/5.6 c</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>6/20/2016 11:30:00 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<u></u>		

Login Notes:



Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

CorrectiveAction: