



23-Jun-2020

Chris McKisson  
LT Environmental, Inc  
820 Megan Ave. Unit B  
Rifle, CO 81650

Re: **Emerald "C" 275 Pit**

Work Order: **20061201**

Dear Chris,

ALS Environmental received 2 samples on 12-Jun-2020 10:00 AM for the analyses presented in the following report.

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

Sample results are compliant with industry accepted practices and Quality Control 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 23.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

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

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

## Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

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**Client:** LT Environmental, Inc  
**Project:** Emerald "C" 275 Pit  
**Work Order:** 20061201

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**Work Order Sample Summary**

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<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>
20061201-01	PH-04 @ 8'	Soil		6/11/2020 10:15	6/12/2020 10:00	<input type="checkbox"/>
20061201-02	SP-01	Soil		6/11/2020 10:30	6/12/2020 10:00	<input type="checkbox"/>

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<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
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.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
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

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

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s.u.      Standard Units

# ALS Group, USA

Date: 23-Jun-20

**Client:** LT Environmental, Inc  
**Project:** Emerald "C" 275 Pit  
**Sample ID:** PH-04 @ 8'  
**Collection Date:** 6/11/2020 10:15 AM

**Work Order:** 20061201  
**Lab ID:** 20061201-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
DRO (C10-C28)	ND		<b>SW8015D</b> 12	mg/Kg-dry	1	Analyst: <b>JZB</b> 6/18/2020 06:55 PM
Surr: 4-Terphenyl-d14	78.2		33-111	%REC	1	6/18/2020 06:55 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
GRO (C6-C10)	ND		<b>SW8015D</b> 6.7	mg/Kg	1	Analyst: <b>JZB</b> 6/17/2020 05:13 AM
Surr: Toluene-d8	94.9		71-123	%REC	1	6/17/2020 05:13 AM
<b>MERCURY BY CVAA</b>						
Mercury	<b>0.23</b>		<b>SW7471B</b> 0.018	mg/Kg-dry	1	Analyst: <b>MAC</b> 6/16/2020 04:05 PM
<b>METALS BY ICP-MS</b>						
Arsenic	<b>4.9</b>		<b>SW6020B</b> 0.40	mg/Kg-dry	1	Analyst: <b>STP</b> 6/16/2020 07:51 PM
Barium	<b>48</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Cadmium	ND		0.16	mg/Kg-dry	1	6/16/2020 07:51 PM
Chromium	<b>6.6</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Copper	<b>9.3</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Lead	<b>14</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Nickel	<b>12</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Selenium	<b>1.2</b>		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Silver	ND		0.40	mg/Kg-dry	1	6/16/2020 07:51 PM
Zinc	<b>48</b>		0.80	mg/Kg-dry	1	6/16/2020 07:51 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
Calcium	<b>480</b>		<b>SW6020B</b> 5.0	mg/L	10	Analyst: <b>STP</b> 6/17/2020 08:01 PM
Magnesium	<b>390</b>		2.0	mg/L	10	6/17/2020 08:01 PM
Sodium	<b>460</b>		2.0	mg/L	10	6/17/2020 08:01 PM
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	<b>3.8</b>		<b>USDA H60 MET</b> 0.010	none	1	Analyst: <b>STP</b> 6/17/2020
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)</b>						
Acenaphthene	ND		<b>SW8270E</b> 0.0049	mg/Kg-dry	1	Analyst: <b>EEW</b> 6/20/2020 03:34 AM
Anthracene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Benzo(a)anthracene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Benzo(a)pyrene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Benzo(b)fluoranthene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Benzo(k)fluoranthene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Chrysene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Dibenzo(a,h)anthracene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Fluoranthene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM

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

# ALS Group, USA

Date: 23-Jun-20

**Client:** LT Environmental, Inc  
**Project:** Emerald "C" 275 Pit  
**Sample ID:** PH-04 @ 8'  
**Collection Date:** 6/11/2020 10:15 AM

**Work Order:** 20061201  
**Lab ID:** 20061201-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Indeno(1,2,3-cd)pyrene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Naphthalene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Pyrene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:34 AM
Surr: 2-Fluorobiphenyl	86.0		20-140	%REC	1	6/20/2020 03:34 AM
Surr: 4-Terphenyl-d14	110		22-172	%REC	1	6/20/2020 03:34 AM
Surr: Nitrobenzene-d5	90.9		28-140	%REC	1	6/20/2020 03:34 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>	Prep: SW5035 6/15/20 14:43		Analyst: <b>SJB</b>
Benzene	ND		0.030	mg/Kg-dry	1	6/16/2020 06:19 PM
Ethylbenzene	ND		0.030	mg/Kg-dry	1	6/16/2020 06:19 PM
m,p-Xylene	ND		0.059	mg/Kg-dry	1	6/16/2020 06:19 PM
o-Xylene	ND		0.030	mg/Kg-dry	1	6/16/2020 06:19 PM
Toluene	ND		0.030	mg/Kg-dry	1	6/16/2020 06:19 PM
Xylenes, Total	ND		0.089	mg/Kg-dry	1	6/16/2020 06:19 PM
Surr: 1,2-Dichloroethane-d4	99.2		70-130	%REC	1	6/16/2020 06:19 PM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	6/16/2020 06:19 PM
Surr: Dibromofluoromethane	90.7		70-130	%REC	1	6/16/2020 06:19 PM
Surr: Toluene-d8	98.3		70-130	%REC	1	6/16/2020 06:19 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 MET</b>	Prep: USDA Method 20B 6/17/20 15:34		Analyst: <b>QTN</b>
Electrical Conductivity @ Saturation	8.0		0.10	mmhos/cm @2	20	6/18/2020 01:52 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JB</b>
Chromium, Trivalent	6.6		1.2	mg/Kg-dry	1	6/18/2020 05:20 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A 6/18/20 07:00		Analyst: <b>KTP</b>
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	6/18/2020 03:15 PM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>KTP</b>
Moisture	15		0.10	% of sample	1	6/16/2020 01:59 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT 6/15/20 20:32		Analyst: <b>QTN</b>
pH	7.86		0.100	s.u.	1	6/16/2020 12:37 PM
Temperature	20.5		0.100	°C	1	6/16/2020 12:37 PM

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

# ALS Group, USA

Date: 23-Jun-20

Client: LT Environmental, Inc  
Project: Emerald "C" 275 Pit  
Sample ID: SP-01  
Collection Date: 6/11/2020 10:30 AM

Work Order: 20061201  
Lab ID: 20061201-02  
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>220</b>		<b>SW8015D</b>		Prep: SW3550 6/17/20 19:59	Analyst: <b>JZB</b>
<i>Surr: 4-Terphenyl-d14</i>	66.7		11	mg/Kg-dry	1	6/18/2020 06:16 PM
			33-111	%REC	1	6/18/2020 06:16 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015D</b>		Prep: SW5035 6/15/20 14:53	Analyst: <b>JZB</b>
<i>Surr: Toluene-d8</i>	97.8		6.7	mg/Kg	1	6/17/2020 05:35 AM
			71-123	%REC	1	6/17/2020 05:35 AM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.14</b>		<b>SW7471B</b>		Prep: SW7471 6/16/20 09:15	Analyst: <b>MAC</b>
			0.019	mg/Kg-dry	1	6/16/2020 04:07 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.9</b>		<b>SW6020B</b>		Prep: SW3050B 6/16/20 09:58	Analyst: <b>STP</b>
<b>Barium</b>	<b>100</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Cadmium</b>	<b>ND</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Chromium</b>	<b>9.4</b>		0.17	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Copper</b>	<b>12</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Lead</b>	<b>17</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Nickel</b>	<b>15</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Selenium</b>	<b>0.96</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Silver</b>	<b>ND</b>		0.43	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>Zinc</b>	<b>57</b>		0.86	mg/Kg-dry	1	6/16/2020 07:53 PM
<b>SOLUBLE CATIONS FOR SAR</b>						
<b>Calcium</b>	<b>620</b>		<b>SW6020B</b>		Prep: USDA Method 20B 6/17/20 15:34	Analyst: <b>STP</b>
<b>Magnesium</b>	<b>200</b>		5.0	mg/L	10	6/17/2020 08:03 PM
<b>Sodium</b>	<b>160</b>		2.0	mg/L	10	6/17/2020 08:03 PM
			2.0	mg/L	10	6/17/2020 08:03 PM
<b>SODIUM ADSORPTION RATIO</b>						
<b>Sodium Adsorption Ratio</b>	<b>1.4</b>		<b>USDA H60 MET</b>		Prep: USDA Method 20B 6/17/20 15:34	Analyst: <b>STP</b>
			0.010	none	1	6/17/2020
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270E</b>		Prep: SW3546 6/17/20 18:18	Analyst: <b>EEW</b>
<b>Anthracene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Benzo(a)anthracene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Benzo(a)pyrene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Chrysene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Fluoranthene</b>	<b>ND</b>		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM

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

# ALS Group, USA

Date: 23-Jun-20

**Client:** LT Environmental, Inc  
**Project:** Emerald "C" 275 Pit  
**Sample ID:** SP-01  
**Collection Date:** 6/11/2020 10:30 AM

**Work Order:** 20061201  
**Lab ID:** 20061201-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Fluorene</b>	<b>0.090</b>		<b>0.0049</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/20/2020 03:49 AM
Indeno(1,2,3-cd)pyrene	ND		0.0049	mg/Kg-dry	1	6/20/2020 03:49 AM
<b>Naphthalene</b>	<b>0.017</b>		<b>0.0049</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/20/2020 03:49 AM
<b>Pyrene</b>	<b>0.014</b>		<b>0.0049</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/20/2020 03:49 AM
Surr: 2-Fluorobiphenyl	82.3		20-140	%REC	1	6/20/2020 03:49 AM
Surr: 4-Terphenyl-d14	120		22-172	%REC	1	6/20/2020 03:49 AM
Surr: Nitrobenzene-d5	83.3		28-140	%REC	1	6/20/2020 03:49 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260C</b>	Prep: SW5035 6/15/20 14:43		Analyst: <b>SJB</b>
Benzene	ND		0.029	mg/Kg-dry	1	6/16/2020 06:37 PM
Ethylbenzene	ND		0.029	mg/Kg-dry	1	6/16/2020 06:37 PM
m,p-Xylene	ND		0.058	mg/Kg-dry	1	6/16/2020 06:37 PM
o-Xylene	ND		0.029	mg/Kg-dry	1	6/16/2020 06:37 PM
Toluene	ND		0.029	mg/Kg-dry	1	6/16/2020 06:37 PM
Xylenes, Total	ND		0.087	mg/Kg-dry	1	6/16/2020 06:37 PM
Surr: 1,2-Dichloroethane-d4	97.8		70-130	%REC	1	6/16/2020 06:37 PM
Surr: 4-Bromofluorobenzene	102		70-130	%REC	1	6/16/2020 06:37 PM
Surr: Dibromofluoromethane	87.7		70-130	%REC	1	6/16/2020 06:37 PM
Surr: Toluene-d8	99.0		70-130	%REC	1	6/16/2020 06:37 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 MET</b>	Prep: USDA Method 20B 6/17/20 15:34		Analyst: <b>QTN</b>
Electrical Conductivity @ Saturation	<b>5.6</b>		<b>0.10</b>	<b>mmhos/cm @2</b>	<b>20</b>	6/18/2020 01:52 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>JB</b>
Chromium, Trivalent	<b>9.4</b>		<b>1.2</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/18/2020 05:20 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A 6/18/20 07:00		Analyst: <b>KTP</b>
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	6/18/2020 03:15 PM
<b>MOISTURE</b>			<b>SW3550C</b>			Analyst: <b>KTP</b>
Moisture	<b>16</b>		<b>0.10</b>	<b>% of sample</b>	<b>1</b>	6/16/2020 01:59 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT 6/15/20 20:32		Analyst: <b>QTN</b>
pH	<b>7.74</b>		<b>0.100</b>	<b>s.u.</b>	<b>1</b>	6/16/2020 12:37 PM
Temperature	<b>20.5</b>		<b>0.100</b>	<b>°C</b>	<b>1</b>	6/16/2020 12:37 PM

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



**Client:** LT Environmental, Inc  
**Work Order:** 20061201  
**Project:** Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157590** Instrument ID **GC8** Method: **SW8015D**

MBLK				Sample ID: <b>DBLKS1-157590-157590</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2020 05:46 PM</b>		
Client ID:		Run ID: <b>GC8_200617A</b>		SeqNo: <b>6492584</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	4.643	10								J
Surr: 4-Terphenyl-d14	2.875	0	3.33	0	86.3	33-111	0			

LCS				Sample ID: <b>DLCSS1-157590-157590</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2020 06:25 PM</b>		
Client ID:		Run ID: <b>GC8_200617A</b>		SeqNo: <b>6492585</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	343.4	10	333	0	103	80-121	0			
Surr: 4-Terphenyl-d14	2.186	0	3.33	0	65.6	33-111	0			

MS				Sample ID: <b>20061198-03A MS</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2020 07:04 PM</b>		
Client ID:		Run ID: <b>GC8_200617A</b>		SeqNo: <b>6492586</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	350.7	9.9	329.2	3.893	105	80-121	0			
Surr: 4-Terphenyl-d14	2.708	0	3.292	0	82.2	33-111	0			

MSD				Sample ID: <b>20061198-03A MSD</b>		Units: <b>mg/Kg</b>		Analysis Date: <b>6/17/2020 07:42 PM</b>		
Client ID:		Run ID: <b>GC8_200617A</b>		SeqNo: <b>6492587</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	320.5	9.8	326.3	3.893	97	80-121	350.7	9.01	30	
Surr: 4-Terphenyl-d14	2.408	0	3.263	0	73.8	33-111	2.708	11.7	30	

The following samples were analyzed in this batch:

20061201-01A	20061201-02A
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Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157464** Instrument ID **GC9** Method: **SW8015D**

<b>MBLK</b>		Sample ID: <b>MBLK-157464-157464</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/16/2020 10:54 PM</b>		
Client ID:		Run ID: <b>GC9_200616A</b>				SeqNo: <b>6489915</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000	0	0	0	0	0			
Surr: Toluene-d8	4874	0	5000	0	97.5	71-123	0			

<b>LCS</b>		Sample ID: <b>LCS-157464-157464</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/16/2020 10:09 PM</b>		
Client ID:		Run ID: <b>GC9_200616A</b>				SeqNo: <b>6489871</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	204300	5,000	250000	0	81.7	71-123	0			
Surr: Toluene-d8	4501	0	5000	0	90	71-123	0			

<b>MS</b>		Sample ID: <b>20061198-03A MS</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/17/2020 03:00 AM</b>		
Client ID:		Run ID: <b>GC9_200616A</b>				SeqNo: <b>6489926</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	270700	6,500	324400	0	83.4	71-123	0			
Surr: Toluene-d8	5785	0	6489	0	89.2	71-123	0			

<b>MSD</b>		Sample ID: <b>20061198-03A MSD</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/17/2020 03:22 AM</b>		
Client ID:		Run ID: <b>GC9_200616A</b>				SeqNo: <b>6489927</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	229100	6,400	321900	0	71.2	71-123	270700	16.6	30	
Surr: Toluene-d8	5705	0	6437	0	88.6	71-123	5785	1.39	30	

The following samples were analyzed in this batch: 20061201-01A 20061201-02A

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

**Client:** LT Environmental, Inc  
**Work Order:** 20061201  
**Project:** Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157503** Instrument ID **HG4** Method: **SW7471B**

<b>MBLK</b>		Sample ID: <b>MBLK-157503-157503</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 05:19 PM</b>		
Client ID:		Run ID: <b>HG4_200616A</b>		SeqNo: <b>6487862</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

<b>LCS</b>		Sample ID: <b>LCS-157503-157503</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 05:21 PM</b>		
Client ID:		Run ID: <b>HG4_200616A</b>		SeqNo: <b>6487863</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1867 0.020 0.1665 0 112 80-120 0

<b>MS</b>		Sample ID: <b>20061151-25BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 03:30 PM</b>		
Client ID:		Run ID: <b>HG4_200616A</b>		SeqNo: <b>6487810</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.3652 0.019 0.1566 0.2266 88.5 75-125 0 E

<b>MSD</b>		Sample ID: <b>20061151-25BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 03:32 PM</b>		
Client ID:		Run ID: <b>HG4_200616A</b>		SeqNo: <b>6487811</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.3617 0.019 0.1561 0.2266 86.6 75-125 0.3652 0.959 35 E

The following samples were analyzed in this batch:

20061201-01A 20061201-02A

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157511** Instrument ID **ICPMS3** Method: **SW6020B**

MBLK Sample ID: <b>MBLK-157511-157511</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 07:19 PM</b>				
Client ID:		Run ID: <b>ICPMS3_200616B</b>		SeqNo: <b>6489723</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
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	0.10								
Chromium	ND	0.25								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS Sample ID: <b>LCS-157511-157511</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 07:21 PM</b>				
Client ID:		Run ID: <b>ICPMS3_200616B</b>		SeqNo: <b>6489724</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.018	0.25	5	0	100	80-120	0			
Barium	5.075	0.25	5	0	102	80-120	0			
Cadmium	5.063	0.10	5	0	101	80-120	0			
Chromium	5.172	0.25	5	0	103	80-120	0			
Copper	5.245	0.25	5	0	105	80-120	0			
Lead	5.111	0.25	5	0	102	80-120	0			
Nickel	5.198	0.25	5	0	104	80-120	0			
Selenium	5.005	0.25	5	0	100	80-120	0			
Silver	5.076	0.25	5	0	102	80-120	0			
Zinc	5.058	0.50	5	0	101	80-120	0			

MS Sample ID: <b>20061295-05BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 08:07 PM</b>				
Client ID:		Run ID: <b>ICPMS3_200616B</b>		SeqNo: <b>6489749</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	190.7	0.40	7.974	137.1	672	75-125	0			SEO
Barium	130.2	0.40	7.974	154	-299	75-125	0			SO
Cadmium	8.106	0.16	7.974	0.4001	96.6	75-125	0			
Chromium	20.68	0.40	7.974	11.75	112	75-125	0			
Copper	69.38	0.40	7.974	67.13	28.1	75-125	0			SO
Lead	120.4	0.40	7.974	103.5	213	75-125	0			SO
Nickel	16.84	0.40	7.974	9.062	97.6	75-125	0			
Selenium	7.451	0.40	7.974	0.3632	88.9	75-125	0			
Silver	7.701	0.40	7.974	0.1173	95.1	75-125	0			
Zinc	178.9	0.80	7.974	136.3	534	75-125	0			SEO

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

**Client:** LT Environmental, Inc  
**Work Order:** 20061201  
**Project:** Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157511**      Instrument ID **ICPMS3**      Method: **SW6020B**

MSD				Sample ID: <b>20061295-05BM</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>6/16/2020 08:09 PM</b>	
Client ID:		Run ID: <b>ICPMS3_200616B</b>			SeqNo: <b>6489750</b>		Prep Date: <b>6/16/2020</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	137.3	0.40	7.936	137.1	1.98	75-125	190.7	32.6	20	SRO
Barium	167.6	0.40	7.936	154	171	75-125	130.2	25.1	20	SREO
Cadmium	7.581	0.16	7.936	0.4001	90.5	75-125	8.106	6.69	20	
Chromium	20.51	0.40	7.936	11.75	110	75-125	20.68	0.867	20	
Copper	46.82	0.40	7.936	67.13	-256	75-125	69.38	38.8	20	SRO
Lead	106.4	0.40	7.936	103.5	36.5	75-125	120.4	12.4	20	SO
Nickel	18.38	0.40	7.936	9.062	117	75-125	16.84	8.74	20	
Selenium	7.517	0.40	7.936	0.3632	90.1	75-125	7.451	0.878	20	
Silver	7.121	0.40	7.936	0.1173	88.2	75-125	7.701	7.82	20	
Zinc	124.5	0.79	7.936	136.3	-148	75-125	178.9	35.8	20	SRO

The following samples were analyzed in this batch:

20061201-01A      20061201-02A

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

**Client:** LT Environmental, Inc  
**Work Order:** 20061201  
**Project:** Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157622** Instrument ID **ICPMS4** Method: **SW6020B**

DUP		Sample ID: <b>20061198-04ADUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/18/2020 01:33 PM</b>		
Client ID:		Run ID: <b>ICPMS4_200618A</b>				SeqNo: <b>6494222</b>		Prep Date: <b>6/17/2020</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	19.68	5.0	0	0	0	0-0	18.52	6.12		
Magnesium	5.165	2.0	0	0	0	0-0	4.578	12.1		
Sodium	129.4	2.0	0	0	0	0-0	122.3	5.66		

The following samples were analyzed in this batch: 20061201-01A 20061201-02A

Batch ID: **157622** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP		Sample ID: <b>20061198-04ADUP</b>				Units: <b>none</b>		Analysis Date: <b>6/17/2020</b>		
Client ID:		Run ID: <b>SAR_200617A</b>				SeqNo: <b>6494315</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	6.711	0.010	0	0	0		6.596	1.72	50	

The following samples were analyzed in this batch: 20061201-01A 20061201-02A

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157613** Instrument ID **SVMS6** Method: **SW8270E**

MBLK				Sample ID: SBLKS1-157613-157613				Units: µg/Kg		Analysis Date: 6/19/2020 07:51 PM		
Client ID:			Run ID: SVMS6_200619A			SeqNo: 6500844		Prep Date: 6/17/2020		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		
Acenaphthene	ND	4.2										
Anthracene	ND	4.2										
Benzo(a)anthracene	ND	4.2										
Benzo(a)pyrene	ND	4.2										
Benzo(b)fluoranthene	ND	4.2										
Benzo(k)fluoranthene	ND	4.2										
Chrysene	ND	4.2										
Dibenzo(a,h)anthracene	ND	4.2										
Fluoranthene	ND	4.2										
Fluorene	ND	4.2										
Indeno(1,2,3-cd)pyrene	ND	4.2										
Naphthalene	ND	4.2										
Pyrene	ND	4.2										
Surr: 2-Fluorobiphenyl	2707	0	3333	0	81.2	20-140	0					
Surr: 4-Terphenyl-d14	3346	0	3333	0	100	22-172	0					
Surr: Nitrobenzene-d5	2581	0	3333	0	77.4	28-140	0					

LCS				Sample ID: SLCSS1-157613-157613		Units: µg/Kg		Analysis Date: 6/19/2020 08:06 PM		
Client ID:		Run ID: SVMS6_200619A			SeqNo: 6500845		Prep Date: 6/17/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1001	4.2	1333	0	75.1	40-140	0			
Anthracene	1088	4.2	1333	0	81.7	40-140	0			
Benzo(a)anthracene	1105	4.2	1333	0	82.9	40-140	0			
Benzo(a)pyrene	1067	4.2	1333	0	80.1	40-140	0			
Benzo(b)fluoranthene	1006	4.2	1333	0	75.5	40-140	0			
Benzo(k)fluoranthene	992.1	4.2	1333	0	74.4	40-140	0			
Chrysene	1110	4.2	1333	0	83.3	40-140	0			
Dibenzo(a,h)anthracene	1347	4.2	1333	0	101	40-140	0			
Fluoranthene	1054	4.2	1333	0	79.1	40-140	0			
Fluorene	1063	4.2	1333	0	79.7	40-140	0			
Indeno(1,2,3-cd)pyrene	1371	4.2	1333	0	103	40-140	0			
Naphthalene	1128	4.2	1333	0	84.6	40-140	0			
Pyrene	1029	4.2	1333	0	77.2	40-140	0			
Surr: 2-Fluorobiphenyl	2695	0	3333	0	80.9	20-140	0			
Surr: 4-Terphenyl-d14	3554	0	3333	0	107	22-172	0			
Surr: Nitrobenzene-d5	2169	0	3333	0	65.1	28-140	0			

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157613** Instrument ID **SVMS6** Method: **SW8270E**

MS				Sample ID: <b>20061198-05A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/19/2020 11:58 PM</b>	
Client ID:		Run ID: <b>SVMS6_200619A</b>			SeqNo: <b>6500847</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1011	4.1	1318	0	76.7	40-140	0			
Anthracene	1089	4.1	1318	0	82.7	40-140	0			
Benzo(a)anthracene	1083	4.1	1318	0	82.2	40-140	0			
Benzo(a)pyrene	1036	4.1	1318	0	78.6	40-140	0			
Benzo(b)fluoranthene	1007	4.1	1318	0	76.4	40-140	0			
Benzo(k)fluoranthene	987.7	4.1	1318	0	75	40-140	0			
Chrysene	1087	4.1	1318	0	82.5	40-140	0			
Dibenzo(a,h)anthracene	1174	4.1	1318	0	89.1	40-140	0			
Fluoranthene	1004	4.1	1318	0	76.2	40-140	0			
Fluorene	1047	4.1	1318	3.912	79.1	40-140	0			
Indeno(1,2,3-cd)pyrene	1166	4.1	1318	0	88.5	40-140	0			
Naphthalene	1166	4.1	1318	0	88.5	40-140	0			
Pyrene	1130	4.1	1318	0	85.8	40-140	0			
Surr: 2-Fluorobiphenyl	2704	0	3295	0	82.1	20-140	0			
Surr: 4-Terphenyl-d14	3795	0	3295	0	115	22-172	0			
Surr: Nitrobenzene-d5	2673	0	3295	0	81.1	28-140	0			

MSD				Sample ID: <b>20061198-05A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/20/2020 12:13 AM</b>	
Client ID:		Run ID: <b>SVMS6_200619A</b>			SeqNo: <b>6500848</b>		Prep Date: <b>6/17/2020</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	968.8	4.1	1317	0	73.6	40-140	1011	4.27	30	
Anthracene	1036	4.1	1317	0	78.6	40-140	1089	5.05	30	
Benzo(a)anthracene	1011	4.1	1317	0	76.8	40-140	1083	6.83	30	
Benzo(a)pyrene	933.2	4.1	1317	0	70.9	40-140	1036	10.4	30	
Benzo(b)fluoranthene	923.4	4.1	1317	0	70.1	40-140	1007	8.66	30	
Benzo(k)fluoranthene	922.5	4.1	1317	0	70	40-140	987.7	6.82	30	
Chrysene	1012	4.1	1317	0	76.8	40-140	1087	7.11	30	
Dibenzo(a,h)anthracene	1093	4.1	1317	0	83	40-140	1174	7.17	30	
Fluoranthene	956.7	4.1	1317	0	72.6	40-140	1004	4.78	30	
Fluorene	998.9	4.1	1317	3.912	75.5	40-140	1047	4.66	30	
Indeno(1,2,3-cd)pyrene	1078	4.1	1317	0	81.8	40-140	1166	7.89	30	
Naphthalene	1159	4.1	1317	0	88	40-140	1166	0.627	30	
Pyrene	1073	4.1	1317	0	81.5	40-140	1130	5.22	30	
Surr: 2-Fluorobiphenyl	2620	0	3293	0	79.6	20-140	2704	3.17	0	
Surr: 4-Terphenyl-d14	3557	0	3293	0	108	22-172	3795	6.47	0	
Surr: Nitrobenzene-d5	2661	0	3293	0	80.8	28-140	2673	0.454	0	

The following samples were analyzed in this batch:

20061201-01A 20061201-02A

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



Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

# QC BATCH REPORT

Batch ID: **157462** Instrument ID **VMS8** Method: **SW8260C**

Sample ID: <b>MBLK-157462-157462</b>				Units: <b>µg/Kg-dry</b>			Analysis Date: <b>6/16/2020 08:39 PM</b>			
Client ID:		Run ID: <b>VMS8_200616B</b>			SeqNo: <b>6488954</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>	
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>	<i>1004</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: 4-Bromofluorobenzene</i>	<i>1008</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>101</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: Dibromofluoromethane</i>	<i>990.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99</i>	<i>70-130</i>		<i>0</i>		
<i>Surr: Toluene-d8</i>	<i>952</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>95.2</i>	<i>70-130</i>		<i>0</i>		

LCS				Sample ID: LCS-157462-157462				Units: µg/Kg-dry		Analysis Date: 6/16/2020 07:50 PM	
Client ID:			Run ID: VMS8_200616B			SeqNo: 6488953		Prep Date: 6/15/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1031	30	1000	0	103	75-125	0				
Ethylbenzene	1044	30	1000	0	104	75-125	0				
m,p-Xylene	2090	60	2000	0	104	80-125	0				
o-Xylene	1014	30	1000	0	101	75-125	0				
Toluene	1034	30	1000	0	103	70-125	0				
Xylenes, Total	3104	90	3000	0	103	75-125	0				
Surr: 1,2-Dichloroethane-d4	947.5	0	1000	0	94.8	70-130	0				
Surr: 4-Bromofluorobenzene	1004	0	1000	0	100	70-130	0				
Surr: Dibromofluoromethane	997.5	0	1000	0	99.8	70-130	0				
Surr: Toluene-d8	1004	0	1000	0	100	70-130	0				

MS				Sample ID: 20061198-03A MS			Units: µg/Kg-dry		Analysis Date: 6/17/2020 02:52 AM		
Client ID:			Run ID: VMS8_200616B			SeqNo: 6488967		Prep Date: 6/15/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1011	30	999	0	101	75-125	0				
Ethylbenzene	992	30	999	0	99.3	75-125	0				
m,p-Xylene	2006	60	1998	0	100	80-125	0				
o-Xylene	963.5	30	999	0	96.5	75-125	0				
Toluene	982	30	999	0	98.3	70-125	0				
Xylenes, Total	2970	90	2997	0	99.1	75-125	0				
Surr: 1,2-Dichloroethane-d4	1012	0	999	0	101	70-130	0				
Surr: 4-Bromofluorobenzene	1026	0	999	0	103	70-130	0				
Surr: Dibromofluoromethane	958	0	999	0	95.9	70-130	0				
Surr: Toluene-d8	974.5	0	999	0	97.5	70-130	0				

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157462** Instrument ID **VMS8** Method: **SW8260C**

MSD				Sample ID: <b>20061198-03A MSD</b>			Units: <b>µg/Kg-dry</b>		Analysis Date: <b>6/17/2020 03:08 AM</b>	
Client ID:		Run ID: <b>VMS8_200616B</b>			SeqNo: <b>6488968</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1046	30	990.1	0	106	75-125	1011	3.31	30	
Ethylbenzene	1046	30	990.1	0	106	75-125	992	5.3	30	
m,p-Xylene	2081	59	1980	0	105	80-125	2006	3.65	30	
o-Xylene	1010	30	990.1	0	102	75-125	963.5	4.7	30	
Toluene	1023	30	990.1	0	103	70-125	982	4.11	30	
Xylenes, Total	3091	89	2970	0	104	75-125	2970	3.99	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>963.4</i>	<i>0</i>	<i>990.1</i>	<i>0</i>	<i>97.3</i>	<i>70-130</i>	<i>1012</i>	<i>4.92</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>1011</i>	<i>0</i>	<i>990.1</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>1026</i>	<i>1.53</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>935.6</i>	<i>0</i>	<i>990.1</i>	<i>0</i>	<i>94.5</i>	<i>70-130</i>	<i>958</i>	<i>2.37</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>957.9</i>	<i>0</i>	<i>990.1</i>	<i>0</i>	<i>96.8</i>	<i>70-130</i>	<i>974.5</i>	<i>1.72</i>	<i>30</i>	

The following samples were analyzed in this batch:

20061201-01A 20061201-02A

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

**Client:** LT Environmental, Inc  
**Work Order:** 20061201  
**Project:** Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157489** Instrument ID **WETCHEM** Method: **SW9045D**

<b>LCS</b>		Sample ID: <b>LCS-157489-157489</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/16/2020 12:37 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200616H</b>				SeqNo: <b>6486687</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	4.03	0.10	4	0	101	90-110	0			

<b>DUP</b>		Sample ID: <b>20061198-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/16/2020 12:37 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200616H</b>				SeqNo: <b>6486690</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.85	0.10	0	0	0	0-0	9.84	0.102	20	
Temperature	20.2	0.10	0	0	0		20.2	0		

<b>DUP</b>		Sample ID: <b>20061198-10A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>6/16/2020 12:37 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200616H</b>				SeqNo: <b>6486700</b>		Prep Date: <b>6/15/2020</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.78	0.10	0	0	0	0-0	8.8	0.228	20	
Temperature	20.4	0.10	0	0	0		20.4	0		

The following samples were analyzed in this batch: | 20061201-01A 20061201-02A

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **157704** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-157704-157704</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/18/2020 03:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200618N</b>		SeqNo: <b>6494590</b>		Prep Date: <b>6/18/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.99

<b>LCS</b>		Sample ID: <b>LCS-157704-157704</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/18/2020 03:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200618N</b>		SeqNo: <b>6494591</b>		Prep Date: <b>6/18/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.784 0.98 4.902 0 97.6 80-120 0

<b>MS</b>		Sample ID: <b>20061202-02A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/18/2020 03:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200618N</b>		SeqNo: <b>6494600</b>		Prep Date: <b>6/18/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2.912 0.98 4.902 0.2941 53.4 75-125 0 S

<b>MS</b>		Sample ID: <b>20061202-02A MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/18/2020 03:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200618N</b>		SeqNo: <b>6494602</b>		Prep Date: <b>6/18/2020</b>		DF: <b>100</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2399 100 2510 0.2941 95.6 75-125 0

<b>MSD</b>		Sample ID: <b>20061202-02A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/18/2020 03:15 PM</b>		
Client ID:		Run ID: <b>WETCHEM_200618N</b>		SeqNo: <b>6494601</b>		Prep Date: <b>6/18/2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 3.167 0.98 4.902 0.2941 58.6 75-125 2.912 8.39 20 S

The following samples were analyzed in this batch:

20061201-01A 20061201-02A

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

Client: LT Environmental, Inc  
 Work Order: 20061201  
 Project: Emerald "C" 275 Pit

## QC BATCH REPORT

Batch ID: **R290858** Instrument ID **MOIST** Method: **SW3550C**

<b>MBLK</b>		Sample ID: <b>WBLKS-R290858</b>				Units: % of sample		Analysis Date: <b>6/16/2020 01:59 PM</b>		
Client ID:		Run ID: <b>MOIST_200616C</b>				SeqNo: <b>6488118</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

<b>LCS</b>		Sample ID: <b>LCS-R290858</b>				Units: % of sample		Analysis Date: <b>6/16/2020 01:59 PM</b>		
Client ID:		Run ID: <b>MOIST_200616C</b>				SeqNo: <b>6488117</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.10	100	0	100	98-102	0			

<b>DUP</b>		Sample ID: <b>20061198-03A DUP</b>				Units: % of sample		Analysis Date: <b>6/16/2020 01:59 PM</b>		
Client ID:		Run ID: <b>MOIST_200616C</b>				SeqNo: <b>6488103</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.42	0.10	0	0	0	0-0	13.41	0.0745	10	

<b>DUP</b>		Sample ID: <b>20061198-04A DUP</b>				Units: % of sample		Analysis Date: <b>6/16/2020 01:59 PM</b>		
Client ID:		Run ID: <b>MOIST_200616C</b>				SeqNo: <b>6488105</b>		Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.01	0.10	0	0	0	0-0	18.04	0.166	10	

The following samples were analyzed in this batch:

20061201-01A	20061201-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Failure to complete all section of this form may delay analysis.

COC number (for client tracking)

7006120

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Note: (a) DW (Drinking water), SW (Surface water), GW (Ground water), WW (Waste water), S (Soil), SL (Sludge), SE (Sediment), OS (Other solid material)

Sample Receipt Checklist

Client Name: LTENV

Date/Time Received: 12-Jun-20 10:00

Work Order: 20061201

Received by: MJG

Checklist completed by Matthew Gaylord

15-Jun-20

Reviewed by: Chad Whelton

15-Jun-20

eSignature

Date

eSignature

Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Sample(s) received on ice?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

3.4/3.4C

SR1

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

6/15/2020 9:26:24 AM

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

pH adjusted?

Yes ☐

No ☐

N/A ☒

pH adjusted by:

-

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: