



05-Dec-2019

Rob Rebel
LT Environmental, Inc
820 Megan Ave. Unit B
Rifle, CO 81650

Re: **Powder Wash North CS South Pit**

Work Order: **19111961**

Dear Rob,

ALS Environmental received 2 samples on 23-Nov-2019 10:30 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 26.

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 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Work Order: 19111961

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>
19111961-01	SB04 @ 15-17'	Soil		11/18/2019 14:30	11/23/2019 10:30	<input type="checkbox"/>
19111961-02	SB04 @ 20-22'	Soil		11/18/2019 14:40	11/23/2019 10:30	<input type="checkbox"/>

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Work Order: 19111961

Case Narrative

Batch 146211, Method VOC_8260_S, Sample 19111961-01A MSD: The MSD recovery was outside of the control limit for Toluene. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required.

Batch 146211, Method VOC_8260_S, Sample 19111961-02A: VOC surrogate recovery high due to matrix interference.

Batch 146213, Method GRO_8015_S, Sample 19111961-01a MS: The MS recovery was outside of the control limit for GRO. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required.

Batch 146213, Method GRO_8015_S, Sample 19111961-02a: GRO surrogate recovery high due to matrix interference.

Batch 146294, Method ICP_6020_S, Sample 19111961-02A: The concentration in the Method Blank was greater than the quantitation limit for Chromium. The sample result was greater than 10x the concentration in the Method Blank; therefore, no qualification is required.

Batch 146294, Method ICP_6020_S, Sample 19111961-02A MS/MSD: The MS/MSD recovery was above the upper control limit for Chromium. The corresponding result in the parent sample may be biased high for this analyte.

Batch 146294, Method ICP_6020_S, Sample 19111961-02A MS/MSD: The MS/MSD recoveries were outside of the control limits for Barium and Nickel; however, the results in the parent sample are greater than 4x the spike amount. No qualification is required.

Batch 146294, Method ICP_6020_S, Sample 19111961-02A MSD: The MSD recovery was outside of the control limit for Lead. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required.

<u>Qualifier</u>	<u>Description</u>
*	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.

<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
°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	

s.u. Standard Units

ALS Group, USA

Date: 05-Dec-19

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Sample ID: SB04 @ 15-17'
Collection Date: 11/18/2019 02:30 PM

Work Order: 19111961
Lab ID: 19111961-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3550 12/2/19 19:08	Analyst: BCM
DRO (C10-C28)	ND		5.5	mg/Kg-dry	1	12/3/2019 10:09 PM
Surr: 4-Terphenyl-d14	64.3		33-111	%REC	1	12/3/2019 10:09 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015D		Prep: SW5035 11/26/19 10:25	Analyst: BCM
GRO (C6-C10)	ND		5.3	mg/Kg	1	12/2/2019 07:25 PM
Surr: Toluene-d8	81.9		71-123	%REC	1	12/2/2019 07:25 PM
MERCURY BY CVAA						
			SW7471B		Prep: SW7471 11/27/19 15:40	Analyst: RSH
Mercury	ND		0.020	mg/Kg-dry	1	12/2/2019 01:44 PM
METALS BY ICP-MS						
			SW6020A		Prep: SW3050B 11/27/19 14:17	Analyst: STP
Arsenic	4.7		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Barium	47		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Cadmium	0.36		0.14	mg/Kg-dry	1	11/27/2019 07:38 PM
Chromium	6.3		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Copper	5.9		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Lead	11		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Nickel	6.2		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Selenium	1.0		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Silver	ND		0.36	mg/Kg-dry	1	11/27/2019 07:38 PM
Zinc	24		0.72	mg/Kg-dry	1	11/27/2019 07:38 PM
SOLUBLE CATIONS FOR SAR						
			SW6020A		Prep: USDA Method 20B 11/27/19 11:19	Analyst: STP
Calcium	230		5.0	mg/L	10	11/27/2019 02:48 PM
Magnesium	47		2.0	mg/L	10	11/27/2019 02:48 PM
Sodium	6.3		2.0	mg/L	10	11/27/2019 02:48 PM
SODIUM ADSORPTION RATIO						
			USDA H60 MET		Prep: USDA Method 20B 11/27/19 11:19	Analyst: STP
Sodium Adsorption Ratio	0.099		0.010	none	1	11/27/2019
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)						
			SW846 8270D		Prep: SW3546 11/26/19 15:11	Analyst: EEW
Acenaphthene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Anthracene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Benzo(a)anthracene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Benzo(a)pyrene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Benzo(b)fluoranthene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Benzo(k)fluoranthene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Chrysene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Dibenzo(a,h)anthracene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Fluoranthene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM

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

ALS Group, USA

Date: 05-Dec-19

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Sample ID: SB04 @ 15-17'
Collection Date: 11/18/2019 02:30 PM

Work Order: 19111961
Lab ID: 19111961-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Indeno(1,2,3-cd)pyrene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Naphthalene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Pyrene	ND		0.0046	mg/Kg-dry	1	11/26/2019 08:08 PM
Surr: 2-Fluorobiphenyl	57.8		20-140	%REC	1	11/26/2019 08:08 PM
Surr: 4-Terphenyl-d14	34.1		22-172	%REC	1	11/26/2019 08:08 PM
Surr: Nitrobenzene-d5	57.4		28-140	%REC	1	11/26/2019 08:08 PM
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035	11/26/19 10:20	Analyst: JNS
Benzene	ND		0.038	mg/Kg-dry	1	12/1/2019 02:40 PM
Ethylbenzene	ND		0.038	mg/Kg-dry	1	12/1/2019 02:40 PM
m,p-Xylene	ND		0.077	mg/Kg-dry	1	12/1/2019 02:40 PM
o-Xylene	ND		0.038	mg/Kg-dry	1	12/1/2019 02:40 PM
Toluene	ND		0.038	mg/Kg-dry	1	12/1/2019 02:40 PM
Xylenes, Total	ND		0.12	mg/Kg-dry	1	12/1/2019 02:40 PM
Surr: 1,2-Dichloroethane-d4	98.6		70-130	%REC	1	12/1/2019 02:40 PM
Surr: 4-Bromofluorobenzene	92.6		70-130	%REC	1	12/1/2019 02:40 PM
Surr: Dibromofluoromethane	88.9		70-130	%REC	1	12/1/2019 02:40 PM
Surr: Toluene-d8	96.3		70-130	%REC	1	12/1/2019 02:40 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 MET	Prep: USDA Method 20B	11/27/19 11:19	Analyst: QTN
Electrical Conductivity @ Saturation	1.8		0.10	mmhos/cm @2	20	11/27/2019 12:54 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JZB
Chromium, Trivalent	6.3		1.1	mg/Kg-dry	1	12/4/2019 02:42 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A	12/3/19 08:00	Analyst: RZM
Chromium, Hexavalent	ND		1.1	mg/Kg-dry	1	12/3/2019 03:55 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	9.9		0.10	% of sample	1	11/26/2019 02:48 PM
PH			SW9045D	Prep: EXTRACT	11/25/19 16:05	Analyst: DNW
pH	7.48		0.100	s.u.	1	11/26/2019 10:00 AM
Temperature	20.7		0.100	°C	1	11/26/2019 10:00 AM

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

ALS Group, USA

Date: 05-Dec-19

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Sample ID: SB04 @ 20-22'
Collection Date: 11/18/2019 02:40 PM

Work Order: 19111961
Lab ID: 19111961-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
DRO (C10-C28)	48		5.8	mg/Kg-dry	1	Analyst: BCM 12/3/2019 10:38 PM
Surr: 4-Terphenyl-d14	66.4		33-111	%REC	1	12/3/2019 10:38 PM
GASOLINE RANGE ORGANICS BY GC-FID						
GRO (C6-C10)	1,300		5.3	mg/Kg	1	Analyst: BCM 12/2/2019 07:54 PM
Surr: Toluene-d8	223	S	71-123	%REC	1	12/2/2019 07:54 PM
MERCURY BY CVAA						
Mercury	ND		0.023	mg/Kg-dry	1	Analyst: RSH 12/2/2019 01:57 PM
METALS BY ICP-MS						
Arsenic	4.7		0.40	mg/Kg-dry	1	Analyst: STP 11/27/2019 07:40 PM
Barium	82		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Cadmium	3.1		0.16	mg/Kg-dry	1	11/27/2019 07:40 PM
Chromium	7.5	B	0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Copper	8.4		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Lead	22		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Nickel	41		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Selenium	1.2		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Silver	ND		0.40	mg/Kg-dry	1	11/27/2019 07:40 PM
Zinc	58		0.81	mg/Kg-dry	1	11/27/2019 07:40 PM
SOLUBLE CATIONS FOR SAR						
Calcium	140		5.0	mg/L	10	Analyst: STP 11/27/2019 02:49 PM
Magnesium	43		2.0	mg/L	10	11/27/2019 02:49 PM
Sodium	17		2.0	mg/L	10	11/27/2019 02:49 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	0.31		0.010	none	1	Analyst: STP 11/27/2019
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)						
Acenaphthene	ND		0.0049	mg/Kg-dry	1	Analyst: EEW 11/27/2019 04:28 PM
Anthracene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Benzo(a)anthracene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Benzo(a)pyrene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Benzo(b)fluoranthene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Benzo(k)fluoranthene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Chrysene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Dibenzo(a,h)anthracene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Fluoranthene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM

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

ALS Group, USA

Date: 05-Dec-19

Client: LT Environmental, Inc
Project: Powder Wash North CS South Pit
Sample ID: SB04 @ 20-22'
Collection Date: 11/18/2019 02:40 PM

Work Order: 19111961
Lab ID: 19111961-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluorene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Indeno(1,2,3-cd)pyrene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Naphthalene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Pyrene	ND		0.0049	mg/Kg-dry	1	11/27/2019 04:28 PM
Surr: 2-Fluorobiphenyl	70.4		20-140	%REC	1	11/27/2019 04:28 PM
Surr: 4-Terphenyl-d14	43.2		22-172	%REC	1	11/27/2019 04:28 PM
Surr: Nitrobenzene-d5	79.9		28-140	%REC	1	11/27/2019 04:28 PM
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035	11/26/19 10:20	Analyst: BG
Benzene	0.34		0.045	mg/Kg-dry	1	11/28/2019 03:41 AM
Ethylbenzene	1.1		0.045	mg/Kg-dry	1	11/28/2019 03:41 AM
m,p-Xylene	130		0.91	mg/Kg-dry	10	12/5/2019 01:20 PM
o-Xylene	16		0.45	mg/Kg-dry	10	12/5/2019 01:20 PM
Toluene	16		0.45	mg/Kg-dry	10	12/5/2019 01:20 PM
Xylenes, Total	140		1.4	mg/Kg-dry	10	12/5/2019 01:20 PM
Surr: 1,2-Dichloroethane-d4	95.8		70-130	%REC	10	12/5/2019 01:20 PM
Surr: 1,2-Dichloroethane-d4	93.2		70-130	%REC	1	11/28/2019 03:41 AM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	10	12/5/2019 01:20 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	11/28/2019 03:41 AM
Surr: Dibromofluoromethane	95.3		70-130	%REC	10	12/5/2019 01:20 PM
Surr: Dibromofluoromethane	92.9		70-130	%REC	1	11/28/2019 03:41 AM
Surr: Toluene-d8	314	S	70-130	%REC	1	11/28/2019 03:41 AM
Surr: Toluene-d8	155	S	70-130	%REC	10	12/5/2019 01:20 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 MET	Prep: USDA Method 20B	11/27/19 11:19	Analyst: QTN
Electrical Conductivity @ Saturation	1.4		0.10	mmhos/cm @2	20	11/27/2019 12:54 PM
CHROMIUM, TRIVALENT			CALCULATION			Analyst: JZB
Chromium, Trivalent	7.5		1.2	mg/Kg-dry	1	12/4/2019 02:42 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A	12/3/19 08:00	Analyst: RZM
Chromium, Hexavalent	ND		1.2	mg/Kg-dry	1	12/3/2019 03:55 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	18		0.10	% of sample	1	11/26/2019 02:48 PM
PH			SW9045D	Prep: EXTRACT	11/25/19 16:05	Analyst: DNW
pH	6.71		0.100	s.u.	1	11/26/2019 10:00 AM
Temperature	20.9		0.100	°C	1	11/26/2019 10:00 AM

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

Client: LT Environmental, Inc

QC BATCH REPORT

Work Order: 19111961

Project: Powder Wash North CS South Pit

Batch ID: 146383

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-146383-146383				Units: mg/Kg		Analysis Date: 12/4/2019 02:03 AM		
Client ID:		Run ID: GC8_191203B				SeqNo: 6099998		Prep Date: 12/2/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)

ND

5.0

Surr: 4-Terphenyl-d14

2.13

0

3.33

0

64

33-111

0

LCS		Sample ID: DLCSS1-146383-146383				Units: mg/Kg		Analysis Date: 12/4/2019 02:32 AM		
Client ID:		Run ID: GC8_191203B				SeqNo: 6099999		Prep Date: 12/2/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)

343.6

5.0

333

0

103

58-111

0

Surr: 4-Terphenyl-d14

1.997

0

3.33

0

60

33-111

0

MS		Sample ID: 19111959-02a MS				Units: mg/Kg		Analysis Date: 12/4/2019 03:01 AM		
Client ID:		Run ID: GC8_191203B				SeqNo: 6100000		Prep Date: 12/2/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)

332.9

4.9

327.3

0

102

58-111

0

Surr: 4-Terphenyl-d14

1.834

0

3.273

0

56

33-111

0

MSD		Sample ID: 19111959-02a MSd				Units: mg/Kg		Analysis Date: 12/4/2019 03:30 AM		
Client ID:		Run ID: GC8_191203B				SeqNo: 6100001		Prep Date: 12/2/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

DRO (C10-C28)

340.7

4.8

318.3

0

107

58-111

332.9

2.33

30

Surr: 4-Terphenyl-d14

1.908

0

3.183

0

59.9

33-111

1.834

3.96

30

The following samples were analyzed in this batch:

19111961-01a

19111961-02a

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146213** Instrument ID **GC9** Method: **SW8015D**

MBLK		Sample ID: MBLK-146213-146213				Units: µg/Kg-dry		Analysis Date: 12/2/2019 12:37 PM		
Client ID:		Run ID: GC9_191202A				SeqNo: 6096150		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	5,000								
Surr: Toluene-d8	4158	0	5000	0	83.2	71-123	0			

LCS		Sample ID: LCS-146213-146213				Units: µg/Kg-dry		Analysis Date: 12/2/2019 11:10 AM		
Client ID:		Run ID: GC9_191202A				SeqNo: 6096148		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	478200	5,000	500000	0	95.6	71-123	0			
Surr: Toluene-d8	4708	0	5000	0	94.2	71-123	0			

MS		Sample ID: 19111961-01a MS				Units: µg/Kg-dry		Analysis Date: 12/2/2019 10:49 PM		
Client ID: SB04 @ 15-17'		Run ID: GC9_191202A				SeqNo: 6096169		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	647500	5,100	513900	0	126	71-123	0			S
Surr: Toluene-d8	4661	0	5139	0	90.7	71-123	0			

MSD		Sample ID: 19111961-01a MSD				Units: µg/Kg-dry		Analysis Date: 12/2/2019 11:18 PM		
Client ID: SB04 @ 15-17'		Run ID: GC9_191202A				SeqNo: 6096170		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	552900	4,600	464300	0	119	71-123	647500	15.8	30	
Surr: Toluene-d8	4379	0	4643	0	94.3	71-123	4661	6.24	30	

The following samples were analyzed in this batch:

19111961-01a	19111961-02a
--------------	--------------

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146308** Instrument ID **HG4** Method: **SW7471B**

MBLK		Sample ID: MBLK-146308-146308				Units: mg/Kg		Analysis Date: 12/2/2019 01:04 PM		
Client ID:		Run ID: HG4_191202A				SeqNo: 6094047		Prep Date: 11/27/2019		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-146308-146308				Units: mg/Kg		Analysis Date: 12/2/2019 01:06 PM		
Client ID:		Run ID: HG4_191202A				SeqNo: 6094048		Prep Date: 11/27/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1724 0.020 0.1665 0 104 80-120 0

MS				Sample ID: 19111961-01AMS				Units: mg/Kg			Analysis Date: 12/2/2019 01:46 PM												
Client ID: SB04 @ 15-17'				Run ID: HG4_191202A				SeqNo: 6094065			Prep Date: 11/27/2019		DF: 1										
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Mercury 0.157 0.018 0.1482 0.003971 103 75-125 0

MSD				Sample ID: 19111961-01AMSD				Units: mg/Kg			Analysis Date: 12/2/2019 01:48 PM			
Client ID: SB04 @ 15-17'				Run ID: HG4_191202A				SeqNo: 6094066			Prep Date: 11/27/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual				

Mercury 0.1515 0.018 0.1461 0.003971 101 75-125 0.157 3.57 35

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
Work Order: 19111961
Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146285** Instrument ID **ICPMS3** Method: **SW6020A**

DUP		Sample ID: 19111959-02ADUP				Units: mg/L		Analysis Date: 11/27/2019 02:30 P		
Client ID:		Run ID: ICPMS3_191127A				SeqNo: 6089584		Prep Date: 11/27/2019		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	178.9	5.0	0	0	0	0-0	184.1	2.85		
Magnesium	20.31	2.0	0	0	0	0-0	20.98	3.27		
Sodium	9.199	2.0	0	0	0	0-0	9.77	6.01		

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
Work Order: 19111961
Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146294** Instrument ID **ICPMS4** Method: **SW6020A**

MBLK		Sample ID: MBLK-146294-146294				Units: mg/Kg		Analysis Date: 11/27/2019 06:55 P		
Client ID:		Run ID: ICPMS4_191127B				SeqNo: 6092499		Prep Date: 11/27/2019		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	0.10								
Copper	ND	0.25								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

MBLK		Sample ID: MBLK-146294-146294				Units: mg/Kg		Analysis Date: 12/2/2019 02:03 PM		
Client ID:		Run ID: ICPMS3_191202B				SeqNo: 6094200		Prep Date: 11/27/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.2496	0.25								J

LCS		Sample ID: LCS-146294-146294				Units: mg/Kg		Analysis Date: 11/27/2019 06:57 P		
Client ID:		Run ID: ICPMS4_191127B				SeqNo: 6092500		Prep Date: 11/27/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.306	0.25	5	0	106	80-120	0			
Barium	5.312	0.25	5	0	106	80-120	0			
Cadmium	5.279	0.10	5	0	106	80-120	0			
Chromium	5.506	0.25	5	0	110	80-120	0			
Copper	5.138	0.25	5	0	103	80-120	0			
Lead	5.341	0.25	5	0	107	80-120	0			
Nickel	5.165	0.25	5	0	103	80-120	0			
Selenium	5.194	0.25	5	0	104	80-120	0			
Silver	5.325	0.25	5	0	106	80-120	0			
Zinc	5.369	0.50	5	0	107	80-120	0			

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146294** Instrument ID **ICPMS4** Method: **SW6020A**

MS				Sample ID: 19111961-02AMS			Units: mg/Kg		Analysis Date: 11/27/2019 07:42 P	
Client ID: SB04 @ 20-22'				Run ID: ICPMS4_191127B			SeqNo: 6092530		Prep Date: 11/27/2019	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.426	0.34	6.766	3.839	82.6	75-125	0			
Barium	74.7	0.34	6.766	67.72	103	75-125	0			O
Cadmium	8.116	0.14	6.766	2.529	82.6	75-125	0			
Chromium	16.05	0.34	6.766	6.149	146	75-125	0			S
Copper	14.48	0.34	6.766	6.915	112	75-125	0			
Lead	26.5	0.34	6.766	18.12	124	75-125	0			
Nickel	34.98	0.34	6.766	33.43	23	75-125	0			SO
Selenium	6.833	0.34	6.766	1.023	85.9	75-125	0			
Silver	6.006	0.34	6.766	0.1268	86.9	75-125	0			
Zinc	55.6	0.68	6.766	48.03	112	75-125	0			O

MSD				Sample ID: 19111961-02AMSD			Units: mg/Kg		Analysis Date: 11/27/2019 07:44 P	
Client ID: SB04 @ 20-22'				Run ID: ICPMS4_191127B			SeqNo: 6092531		Prep Date: 11/27/2019	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	8.867	0.33	6.51	3.839	77.2	75-125	9.426	6.11	20	
Barium	76.37	0.33	6.51	67.72	133	75-125	74.7	2.22	20	SO
Cadmium	7.691	0.13	6.51	2.529	79.3	75-125	8.116	5.38	20	
Chromium	15.33	0.33	6.51	6.149	141	75-125	16.05	4.64	20	S
Copper	13.32	0.33	6.51	6.915	98.4	75-125	14.48	8.36	20	
Lead	28.22	0.33	6.51	18.12	155	75-125	26.5	6.29	20	S
Nickel	36.43	0.33	6.51	33.43	46	75-125	34.98	4.04	20	SO
Selenium	6.42	0.33	6.51	1.023	82.9	75-125	6.833	6.24	20	
Silver	5.407	0.33	6.51	0.1268	81.1	75-125	6.006	10.5	20	
Zinc	55.9	0.65	6.51	48.03	121	75-125	55.6	0.523	20	O

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
Work Order: 19111961
Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: 146285 Instrument ID SAR Method: USDA H60 Metho

DUP		Sample ID: 19111959-02ADUP				Units: none		Analysis Date: 11/27/2019		
Client ID:		Run ID: SAR_191127A		SeqNo: 6089616		Prep Date: 11/27/2019		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.1738	0.010	0	0	0		0.1819	4.56	50	

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146205** Instrument ID **SVMS6** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-146205-146205				Units: µg/Kg		Analysis Date: 11/26/2019 04:47 P		
Client ID:		Run ID: SVMS6_191126A				SeqNo: 6088920		Prep Date: 11/26/2019		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	2763	0	3333	0	82.9	20-140	0			
Surr: 4-Terphenyl-d14	2175	0	3333	0	65.3	22-172	0			
Surr: Nitrobenzene-d5	2867	0	3333	0	86	28-140	0			

LCS		Sample ID: SLCSS1-146205-146205				Units: µg/Kg		Analysis Date: 11/26/2019 05:02 P		
Client ID:		Run ID: SVMS6_191126A				SeqNo: 6088921		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1035	4.2	1333	0	77.7	40-140	0			
Anthracene	1169	4.2	1333	0	87.7	40-140	0			
Benzo(a)anthracene	1094	4.2	1333	0	82.1	40-140	0			
Benzo(a)pyrene	1129	4.2	1333	0	84.7	40-140	0			
Benzo(b)fluoranthene	1067	4.2	1333	0	80.1	40-140	0			
Benzo(k)fluoranthene	1078	4.2	1333	0	80.8	40-140	0			
Chrysene	965.8	4.2	1333	0	72.5	40-140	0			
Dibenzo(a,h)anthracene	1247	4.2	1333	0	93.6	40-140	0			
Fluoranthene	1186	4.2	1333	0	89	40-140	0			
Fluorene	1138	4.2	1333	0	85.4	40-140	0			
Indeno(1,2,3-cd)pyrene	1414	4.2	1333	0	106	40-140	0			
Naphthalene	1074	4.2	1333	0	80.6	40-140	0			
Pyrene	966.5	4.2	1333	0	72.5	40-140	0			
Surr: 2-Fluorobiphenyl	2697	0	3333	0	80.9	20-140	0			
Surr: 4-Terphenyl-d14	1805	0	3333	0	54.2	22-172	0			
Surr: Nitrobenzene-d5	2573	0	3333	0	77.2	28-140	0			

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146205** Instrument ID **SVMS6** Method: **SW846 8270D**

MS				Sample ID: 19111853-02A MS			Units: µg/Kg		Analysis Date: 11/26/2019 05:18 P		
Client ID:			Run ID: SVMS6_191126A			SeqNo: 6088922		Prep Date: 11/26/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1051	4.1	1300	0	80.9	40-140	0				
Anthracene	1189	4.1	1300	0	91.5	40-140	0				
Benzo(a)anthracene	1116	4.1	1300	0	85.8	40-140	0				
Benzo(a)pyrene	1118	4.1	1300	0	86	40-140	0				
Benzo(b)fluoranthene	1131	4.1	1300	0	87	40-140	0				
Benzo(k)fluoranthene	1070	4.1	1300	0	82.4	40-140	0				
Chrysene	1016	4.1	1300	0	78.2	40-140	0				
Dibenzo(a,h)anthracene	1181	4.1	1300	0	90.9	40-140	0				
Fluoranthene	1235	4.1	1300	0	95	40-140	0				
Fluorene	1150	4.1	1300	0	88.5	40-140	0				
Indeno(1,2,3-cd)pyrene	1306	4.1	1300	0	100	40-140	0				
Naphthalene	1126	4.1	1300	0	86.6	40-140	0				
Pyrene	1083	4.1	1300	0	83.3	40-140	0				
Surr: 2-Fluorobiphenyl	2775	0	3249	0	85.4	20-140	0				
Surr: 4-Terphenyl-d14	2076	0	3249	0	63.9	22-172	0				
Surr: Nitrobenzene-d5	2889	0	3249	0	88.9	28-140	0				

MSD				Sample ID: 19111853-02A MSD			Units: µg/Kg		Analysis Date: 11/26/2019 05:33 P		
Client ID:			Run ID: SVMS6_191126A			SeqNo: 6088923		Prep Date: 11/26/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1049	4.1	1313	0	79.9	40-140	1051	0.16	30		
Anthracene	1172	4.1	1313	0	89.3	40-140	1189	1.4	30		
Benzo(a)anthracene	1121	4.1	1313	0	85.3	40-140	1116	0.474	30		
Benzo(a)pyrene	1116	4.1	1313	0	85	40-140	1118	0.151	30		
Benzo(b)fluoranthene	1074	4.1	1313	0	81.8	40-140	1131	5.13	30		
Benzo(k)fluoranthene	1111	4.1	1313	0	84.6	40-140	1070	3.69	30		
Chrysene	1012	4.1	1313	0	77.1	40-140	1016	0.33	30		
Dibenzo(a,h)anthracene	1171	4.1	1313	0	89.1	40-140	1181	0.906	30		
Fluoranthene	1210	4.1	1313	0	92.1	40-140	1235	2.06	30		
Fluorene	1136	4.1	1313	0	86.5	40-140	1150	1.21	30		
Indeno(1,2,3-cd)pyrene	1291	4.1	1313	0	98.3	40-140	1306	1.13	30		
Naphthalene	1115	4.1	1313	0	84.9	40-140	1126	0.968	30		
Pyrene	1011	4.1	1313	0	77	40-140	1083	6.85	30		
Surr: 2-Fluorobiphenyl	2748	0	3284	0	83.7	20-140	2775	0.994	0		
Surr: 4-Terphenyl-d14	1913	0	3284	0	58.2	22-172	2076	8.17	0		
Surr: Nitrobenzene-d5	2750	0	3284	0	83.8	28-140	2889	4.92	0		

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146211** Instrument ID **VMS9** Method: **SW8260C**

MBLK		Sample ID: MBLK-146211-146211				Units: µg/Kg-dry		Analysis Date: 12/1/2019 01:54 PM		
Client ID:		Run ID: VMS9_191201A				SeqNo: 6093742		Prep Date: 11/26/2019		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								
Surr: 1,2-Dichloroethane-d4	1039	0	1000	0	104	70-130	0			
Surr: 4-Bromofluorobenzene	1034	0	1000	0	103	70-130	0			
Surr: Dibromofluoromethane	894.5	0	1000	0	89.4	70-130	0			
Surr: Toluene-d8	973	0	1000	0	97.3	70-130	0			

LCS		Sample ID: LCS-146211-146211				Units: µg/Kg-dry		Analysis Date: 12/1/2019 01:07 PM		
Client ID:		Run ID: VMS9_191201A				SeqNo: 6093741		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1036	30	1000	0	104	75-125	0			
Ethylbenzene	994.5	30	1000	0	99.4	75-125	0			
m,p-Xylene	2046	60	2000	0	102	80-125	0			
o-Xylene	1020	30	1000	0	102	75-125	0			
Toluene	1044	30	1000	0	104	70-125	0			
Xylenes, Total	3066	90	3000	0	102	75-125	0			
Surr: 1,2-Dichloroethane-d4	1039	0	1000	0	104	70-130	0			
Surr: 4-Bromofluorobenzene	1074	0	1000	0	107	70-130	0			
Surr: Dibromofluoromethane	1092	0	1000	0	109	70-130	0			
Surr: Toluene-d8	1006	0	1000	0	101	70-130	0			

MS		Sample ID: 19111961-01A MS				Units: µg/Kg-dry		Analysis Date: 12/1/2019 07:21 PM		
Client ID: SB04 @ 15-17'		Run ID: VMS9_191201A				SeqNo: 6093755		Prep Date: 11/26/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1316	38	1251	0	105	75-125	0			
Ethylbenzene	1245	38	1251	0	99.6	75-125	0			
m,p-Xylene	2525	75	2501	0	101	80-125	0			
o-Xylene	1279	38	1251	0	102	75-125	0			
Toluene	1280	38	1251	0	102	70-125	0			
Xylenes, Total	3805	110	3752	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	1291	0	1251	0	103	70-130	0			
Surr: 4-Bromofluorobenzene	1347	0	1251	0	108	70-130	0			
Surr: Dibromofluoromethane	1192	0	1251	0	95.3	70-130	0			
Surr: Toluene-d8	1284	0	1251	0	103	70-130	0			

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146211** Instrument ID **VMS9** Method: **SW8260C**

MSD				Sample ID: 19111961-01A MSD			Units: µg/Kg-dry		Analysis Date: 12/1/2019 07:36 PM	
Client ID: SB04 @ 15-17'				Run ID: VMS9_191201A			SeqNo: 6093756		Prep Date: 11/26/2019	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1242	34	1140	0	109	75-125	1316	5.72	30	
Ethylbenzene	1115	34	1140	0	97.8	75-125	1245	11	30	
m,p-Xylene	2566	68	2281	0	113	80-125	2525	1.61	30	
o-Xylene	1198	34	1140	0	105	75-125	1279	6.57	30	
Toluene	1470	34	1140	0	129	70-125	1280	13.8	30	S
Xylenes, Total	3764	100	3421	0	110	75-125	3805	1.07	30	
Surr: 1,2-Dichloroethane-d4	1168	0	1140	0	102	70-130	1291	9.99	30	
Surr: 4-Bromofluorobenzene	1192	0	1140	0	104	70-130	1347	12.2	30	
Surr: Dibromofluoromethane	1160	0	1140	0	102	70-130	1192	2.67	30	
Surr: Toluene-d8	2561	0	1140	0	225	70-130	1284	66.4	30	SR

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
Work Order: 19111961
Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146168** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-146168-146168					Units: s.u.		Analysis Date: 11/26/2019 10:00 A	
Client ID:			Run ID: WETCHEM_191126E			SeqNo: 6085015		Prep Date: 11/25/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 3.97 0.10 4 0 99.2 90-110 0

DUP		Sample ID: 19111928-01A DUP					Units: s.u.		Analysis Date: 11/26/2019 10:00 A	
Client ID:		Run ID: WETCHEM_191126E			SeqNo: 6085017		Prep Date: 11/25/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 7.54 0.10 0 0 0 0-0 7.44 1.34 20

Temperature 20.5 0.10 0 0 0 20.6 0.487

DUP		Sample ID: 19111960-02A DUP					Units: s.u.		Analysis Date: 11/26/2019 10:00 A	
Client ID:			Run ID: WETCHEM_191126E			SeqNo: 6085028		Prep Date: 11/25/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH 6.71 0.10 0 0 0 0-0 6.8 1.33 20

Temperature 20.9 0.10 0 0 0 21 0.477

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
Work Order: 19111961
Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146285** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 19111959-02A DUP				Units: mmhos/cm @25°		Analysis Date: 11/27/2019 12:54 P		
Client ID:		Run ID: WETCHEM_191127J				SeqNo: 6088885		Prep Date: 11/27/2019		DF: 20
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.336	0.10	0	0	0		1.368	2.37	50	

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **146446** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-146446-146446				Units: mg/Kg		Analysis Date: 12/3/2019 03:55 PM		
Client ID:		Run ID: WETCHEM_191203V				SeqNo: 6097803		Prep Date: 12/3/2019		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-146446-146446				Units: mg/Kg		Analysis Date: 12/3/2019 03:55 PM		
Client ID:		Run ID: WETCHEM_191203V				SeqNo: 6097804		Prep Date: 12/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.67 1.0 5 0 93.4 80-120 0

MS		Sample ID: 19111959-07A MS				Units: mg/Kg		Analysis Date: 12/3/2019 03:55 PM		
Client ID:		Run ID: WETCHEM_191203V				SeqNo: 6097806		Prep Date: 12/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.67 1.0 5 0.17 90 75-125 0

MS		Sample ID: 19111959-07A MSI				Units: mg/Kg		Analysis Date: 12/3/2019 03:55 PM		
Client ID:		Run ID: WETCHEM_191203V				SeqNo: 6097808		Prep Date: 12/3/2019		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 2320 100 2269 0.17 102 75-125 0

MSD		Sample ID: 19111959-07A MSD				Units: mg/Kg		Analysis Date: 12/3/2019 03:55 PM		
Client ID:		Run ID: WETCHEM_191203V				SeqNo: 6097807		Prep Date: 12/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 4.54 1.0 5 0.17 87.4 75-125 4.67 2.82 20

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

Client: LT Environmental, Inc
 Work Order: 19111961
 Project: Powder Wash North CS South Pit

QC BATCH REPORT

Batch ID: **R276348** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R276348				Units: % of sample			Analysis Date: 11/26/2019 02:48 P		
Client ID:		Run ID: MOIST_191126C				SeqNo: 6088345			Prep Date:		
									DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture ND 0.10

LCS		Sample ID: LCS-R276348				Units: % of sample			Analysis Date: 11/26/2019 02:48 P		
Client ID:		Run ID: MOIST_191126C				SeqNo: 6088344			Prep Date:		
									DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 100 0.10 100 0 100 98-102 0

DUP		Sample ID: 19111645-01A DUP				Units: % of sample			Analysis Date: 11/26/2019 02:48 P		
Client ID:		Run ID: MOIST_191126C				SeqNo: 6088318			Prep Date:		
									DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 4.34 0.10 0 0 0 0-0 4.35 0.23 10

DUP		Sample ID: 19111961-01A DUP				Units: % of sample			Analysis Date: 11/26/2019 02:48 P		
Client ID: SB04 @ 15-17'		Run ID: MOIST_191126C				SeqNo: 6088342			Prep Date:		
									DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	

Moisture 9.8 0.10 0 0 0 0-0 9.87 0.712 10

The following samples were analyzed in this batch:

19111961-01A	19111961-02A
--------------	--------------

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

CHAIN OF CUSTODY

COC number (for client tracking)

Page 1 of 1

[illegible]

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

✱ DONT ANALYZE FOR BORON IN

3.4% SE2

Sample Receipt Checklist

Client Name: **LTENV**

Date/Time Received: **23-Nov-19 10:30**

Work Order: **19111961**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

25-Nov-19
Date

Reviewed by: Chad Whelton
eSignature

26-Nov-19
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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" 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>3.4/3.4 C</u>		<u>SR2</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/25/2019 2:49:59 PM</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: