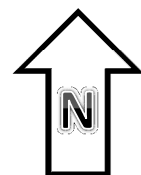


# Soldier Canyon 33-1 Pit

## COGCC Pit Number 109343



Soldier Canyon 33-1 Pit



**Table 910-1 Parameters**  
**Summary of Lab Results from Sample Collected from Soldier Canyon 33-1 Pit**  
**8/4/2014**

Contaminant of Concern in Soil	COGCC Table 910-1 Allowable Conc.	Sample Analysis Results Pit	Sample Analysis Results Background
Organic Compounds			
TPH (DRO + GRO) (mg/kg)	500	1100+ND <sup>1</sup> = <b>1100</b>	
Benzene (mg/kg)	0.17	ND (<0.036)	
Toluene (mg/kg)	85	ND (<0.036)	
Ethylbenzene (mg/kg)	100	ND (<0.036)	
Xylenes (total) (mg/kg)	175	ND (<0.11)	
Acenaphthene (mg/kg)	1,000	ND (<0.0079)	
Anthracene (mg/kg)	1,000	0.011	
Benzo(A)anthracene (mg/kg)	0.22	ND (<0.0079)	
Benzo(B)fluoranthene (mg/kg)	0.22	ND (<0.0079)	
Benzo(K)fluoranthene (mg/kg)	2.2	ND (<0.0079)	
Benzo(A)pyrene (mg/kg)	0.022	ND (<0.0079)	
Chrysene (mg/kg)	22	ND (<0.0079)	
Dibenzo(A,H)anthracene (mg/kg)	0.022	ND (<0.0079)	
Fluoranthene (mg/kg)	1,000	0.019	
Fluorene (mg/kg)	1,000	0.019	
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.22	ND (<0.0079)	
Napthalene (mg/kg)	23	0.0098	
Pyrene (mg/kg)	1,000	0.030	
Inorganics			
Electrical Conductivity (EC) (mmhos/cm)	<4 or 2x background	1.1	0.64
Sodium Adsorption Ratio (SAR)	<12	0.32	0.1
pH	6 to 9	8.2	7.2
Metals			
Arsenic (mg/kg)	0.39	<b>11</b>	<b>13</b>
Barium (LDNR True Total Barium) (mg/kg)	15,000	280	
Boron (Hot Water Soluble) mg/L	2	required only for orchard locations	
Cadmium (mg/kg)	70	0.92	
Chromium III (mg/kg)	120,000	30	
Chromium VI (mg/kg)	23	ND (<0.60)	
Copper (mg/kg)	3,100	38	
Lead (inorganic) (mg/kg)	400	25	
Mercury (mg/kg)	23	<b>230</b>	
Nickel (Soluble Salts) (mg/kg)	1,600	23	
Selenium (mg/kg)	390	2.5	
Silver (mg/kg)	390	ND (<1.7)	
Zinc (mg/kg)	23,000	170	

ND<sup>1</sup> - Report Limit 3.0



12-Aug-2014

Jana Nilsen  
InterTech  
743 Horizon Court, Suite 110  
Grand Junction, CO 81506

Re: **Soldier Canyon\_33\_1\_Pit 8.4.14**

Work Order: **1408178**

Dear Jana,

ALS Environmental received 2 samples on 05-Aug-2014 09:30 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 26.

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

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental The ALS logo, a small blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

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**Client:** InterTech  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14  
**Work Order:** 1408178

**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>
1408178-01	Soldier Canyon_33_1_Pit	Soil		8/4/2014 08:55	8/5/2014 09:30	<input type="checkbox"/>
1408178-02	Soldier Canyon_33_1_Background	Soil		8/4/2014 09:06	8/5/2014 09:30	<input type="checkbox"/>

---

**Client:** InterTech  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14  
**Work Order:** 1408178

---

**Case Narrative**

Batch 61376 MS/MSD data for BTEX is not related to this project's samples. No data requires qualification.

Batch 61444 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

Batch 61460 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	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

<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
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: 12-Aug-14

Client: InterTech

Project: Soldier Canyon\_33\_1\_Pit 8.4.14

Work Order: 1408178

Sample ID: Soldier Canyon\_33\_1\_Pit

Lab ID: 1408178-01

Collection Date: 8/4/2014 08:55 AM

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>1,100</b>		<b>SW8015M</b>		Prep: SW3541 / 8/8/14	Analyst: <b>IT</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>83.7</i>		<i>39-133</i>	<i>%REC</i>	<i>2</i>	<i>8/9/2014 12:41 PM</i>
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>		Prep: SW5035 / 8/6/14	Analyst: <b>IT</b>
<i>Surr: Toluene-d8</i>	<i>110</i>		<i>50-150</i>	<i>%REC</i>	<i>1</i>	<i>8/6/2014 06:05 PM</i>
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>230</b>		<b>SW7471</b>		Prep: SW7471 / 8/11/14	Analyst: <b>LR</b>
			<b>17</b>	<b>mg/Kg-dry</b>	<b>1000</b>	<b>8/11/2014 08:49 PM</b>
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>11</b>		<b>SW6020A</b>		Prep: SW3050B / 8/7/14	Analyst: <b>ML</b>
			<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Barium</b>	<b>280</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Cadmium</b>	<b>0.92</b>		<b>0.70</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Chromium</b>	<b>30</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Copper</b>	<b>38</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Lead</b>	<b>25</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Nickel</b>	<b>23</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Selenium</b>	<b>2.5</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Silver</b>	<b>ND</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>Zinc</b>	<b>170</b>		<b>3.5</b>	<b>mg/Kg-dry</b>	<b>4</b>	<b>8/8/2014 09:02 AM</b>
<b>SOLUBLE CATIONS FOR SAR</b>						
			<b>SW6020A</b>		Prep: USDA Method 20B / 8/11/14	Analyst: <b>ML</b>
<b>Calcium</b>	<b>150</b>		<b>10</b>	<b>mg/L</b>	<b>20</b>	<b>8/11/2014 03:27 PM</b>
<b>Magnesium</b>	<b>28</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>8/11/2014 03:27 PM</b>
<b>Sodium</b>	<b>16</b>		<b>4.0</b>	<b>mg/L</b>	<b>20</b>	<b>8/11/2014 03:27 PM</b>
<b>SODIUM ADSORPTION RATIO</b>						
			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 8/11/14	Analyst: <b>RH</b>
<b>Exchangeable Sodium Percentage</b>	<b>ND</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	<b>8/11/2014</b>
<b>Sodium Adsorption Ratio</b>	<b>0.32</b>		<b>0.010</b>	<b>none</b>	<b>1</b>	<b>8/11/2014</b>
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW846 8270D</b>		Prep: SW3541 / 8/8/14	Analyst: <b>RM</b>
<b>Acenaphthene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Anthracene</b>	<b>0.011</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Chrysene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>0.0079</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>8/12/2014 01:14 AM</b>

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

# ALS Group USA, Corp

Date: 12-Aug-14

Client: InterTech

Project: Soldier Canyon\_33\_1\_Pit 8.4.14

Work Order: 1408178

Sample ID: Soldier Canyon\_33\_1\_Pit

Lab ID: 1408178-01

Collection Date: 8/4/2014 08:55 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Fluoranthene	0.019		0.0079	mg/Kg-dry	1	8/12/2014 01:14 AM
Fluorene	0.019		0.0079	mg/Kg-dry	1	8/12/2014 01:14 AM
Indeno(1,2,3-cd)pyrene	ND		0.0079	mg/Kg-dry	1	8/12/2014 01:14 AM
Naphthalene	0.0098		0.0079	mg/Kg-dry	1	8/12/2014 01:14 AM
Pyrene	0.030		0.0079	mg/Kg-dry	1	8/12/2014 01:14 AM
Surr: 2-Fluorobiphenyl	83.0		12-100	%REC	1	8/12/2014 01:14 AM
Surr: 4-Terphenyl-d14	94.5		25-137	%REC	1	8/12/2014 01:14 AM
Surr: Nitrobenzene-d5	66.4		37-107	%REC	1	8/12/2014 01:14 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260B</b>	Prep: SW5035 / 8/6/14		Analyst: <b>RS</b>
Benzene	ND		0.036	mg/Kg-dry	1	8/9/2014 06:10 PM
Ethylbenzene	ND		0.036	mg/Kg-dry	1	8/9/2014 06:10 PM
m,p-Xylene	ND		0.073	mg/Kg-dry	1	8/9/2014 06:10 PM
o-Xylene	ND		0.036	mg/Kg-dry	1	8/9/2014 06:10 PM
Toluene	ND		0.036	mg/Kg-dry	1	8/9/2014 06:10 PM
Xylenes, Total	ND		0.11	mg/Kg-dry	1	8/9/2014 06:10 PM
Surr: 1,2-Dichloroethane-d4	97.4		70-130	%REC	1	8/9/2014 06:10 PM
Surr: 4-Bromofluorobenzene	99.8		70-130	%REC	1	8/9/2014 06:10 PM
Surr: Dibromofluoromethane	90.9		70-130	%REC	1	8/9/2014 06:10 PM
Surr: Toluene-d8	97.7		70-130	%REC	1	8/9/2014 06:10 PM
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>	Prep: USDA Method 20B / 8/11/14		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	1.1		0.050	mmhos/cm @25	10	8/11/2014 03:45 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	30		0.61	mg/Kg-dry	1	8/11/2014 02:25 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>	Prep: SW3060A / 8/7/14		Analyst: <b>EE</b>
Chromium, Hexavalent	ND		0.60	mg/Kg-dry	1	8/8/2014 09:00 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>TM</b>
Moisture	18		0.050	% of sample	1	8/8/2014 12:34 PM
<b>PH</b>			<b>SW9045D</b>	Prep: EXTRACT / 8/7/14		Analyst: <b>TM</b>
pH	8.2		s.u.		1	8/7/2014 12:33 PM

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



# ALS Group USA, Corp

Date: 12-Aug-14

Client: InterTech

Project: Soldier Canyon\_33\_1\_Pit 8.4.14

Work Order: 1408178

Sample ID: Soldier Canyon\_33\_1\_Background

Lab ID: 1408178-02

Collection Date: 8/4/2014 09:06 AM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep: SW3050B / 8/7/14	Analyst: <b>ML</b>
Arsenic	13		1.6	mg/Kg-dry	4	8/8/2014 09:08 AM
<b>SOLUBLE CATIONS FOR SAR</b>			<b>SW6020A</b>		Prep: USDA Method 20B / 8/11/14	Analyst: <b>ML</b>
Calcium	80		10	mg/L	20	8/11/2014 03:36 PM
Magnesium	13		4.0	mg/L	20	8/11/2014 03:36 PM
Sodium	ND		4.0	mg/L	20	8/11/2014 03:36 PM
<b>SODIUM ADSORPTION RATIO</b>			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 8/11/14	Analyst: <b>RH</b>
Exchangeable Sodium Percentage	ND		0.010	none	1	8/11/2014
Sodium Adsorption Ratio	0.10		0.010	none	1	8/11/2014
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			<b>USDA H60 METHOD</b>		Prep: USDA Method 20B / 8/11/14	Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	0.64		0.050	mmhos/cm @25	10	8/11/2014 03:45 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
Moisture	13		0.050	% of sample	1	8/6/2014 09:30 AM
<b>PH</b>			<b>SW9045D</b>		Prep: EXTRACT / 8/7/14	Analyst: <b>TM</b>
pH	7.2			s.u.	1	8/7/2014 12:33 PM

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

Client: InterTech

## QC BATCH REPORT

Work Order: 1408178

Project: Soldier Canyon\_33\_1\_Pit 8.4.14

Batch ID: 61460

Instrument ID GC8

Method: SW8015M

MBLK		Sample ID: DBLKS1-61460-61460				Units:mg/Kg		Analysis Date: 8/8/2014 10:07 PM		
Client ID:			Run ID: GC8_140808B		SeqNo:2883943		Prep Date: 8/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.21	0	1.667	0	72.6	39-133	0			

LCS		Sample ID: <b>DLCSS1-61460-61460</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 10:33 PM</b>		
Client ID:		Run ID: <b>GC8_140808B</b>				SeqNo: <b>2883944</b>		Prep Date: <b>8/8/2014</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)	127.2	4.2	166.7	0	76.3	61-109	0			
Surr: 4-Terphenyl-d14	1.106	0	1.667	0	66.4	39-133	0			

MS				Sample ID: 1408177-02B MS				Units:mg/Kg			Analysis Date: 8/8/2014 10:58 PM			
Client ID:				Run ID: GC8_140808B				SeqNo:2883945			Prep Date: 8/8/2014		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
DRO (C10-C28)				225.3	8.0	319.8	225	0.105	48-110	0			S	
Surr: 4-Terphenyl-d14				2.061	0	3.198	0	64.5	39-133	0				

MSD		Sample ID: 1408177-02B MSD				Units:mg/Kg		Analysis Date: 8/8/2014 11:24 PM		
Client ID:		Run ID: GC8_140808B				SeqNo:2883946		Prep Date: 8/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	464.5	7.9	314.9	225	76	48-110	225.3	69.3	30	R
Surr: 4-Terphenyl-d14	2.109	0	3.149	0	67	39-133	2.061	2.31	30	

The following samples were analyzed in this batch: 1408178-01B

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

# QC BATCH REPORT

Batch ID: **61379**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>		Sample ID: <b>MBLK-61379-61379</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/6/2014 03:54 PM</b>		
Client ID:		Run ID: <b>GC9_140806A</b>				SeqNo: <b>2879731</b>		Prep Date: <b>8/6/2014</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	2,500								
<i>Surr: Toluene-d8</i>	4698	0	5000	0	94	50-150	0			

<b>LCS</b>		Sample ID: <b>LCS-61379-61379</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/6/2014 03:29 PM</b>		
Client ID:		Run ID: <b>GC9_140806A</b>				SeqNo: <b>2879730</b>		Prep Date: <b>8/6/2014</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)	460000	2,500	500000	0	92	70-130	0			
<i>Surr: Toluene-d8</i>	4311	0	5000	0	86.2	50-150	0			

<b>MS</b>		Sample ID: <b>1408177-01A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/6/2014 06:31 PM</b>		
Client ID:		Run ID: <b>GC9_140806A</b>				SeqNo: <b>2879735</b>		Prep Date: <b>8/6/2014</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)	454100	2,500	500000	0	90.8	70-130	0			
<i>Surr: Toluene-d8</i>	4486	0	5000	0	89.7	50-150	0			

<b>MSD</b>		Sample ID: <b>1408177-01A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/6/2014 06:57 PM</b>		
Client ID:		Run ID: <b>GC9_140806A</b>				SeqNo: <b>2879736</b>		Prep Date: <b>8/6/2014</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)	499500	2,500	500000	0	99.9	70-130	454100	9.53	30	
<i>Surr: Toluene-d8</i>	4910	0	5000	0	98.2	50-150	4486	9.05	30	

The following samples were analyzed in this batch: 1408178-01A

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

# QC BATCH REPORT

Batch ID: **61511**      Instrument ID **HG1**      Method: **SW7471**

Sample ID: <b>MBLK-61511-61511</b>				Units: <b>mg/Kg</b>			Analysis Date: <b>8/11/2014 05:58 PM</b>				
Client ID:			Run ID: <b>HG1_140811A</b>			SeqNo: <b>2884854</b>		Prep Date: <b>8/11/2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury	0.00125	0.020								J	

LCS		Sample ID: LCS-61511-61511				Units:mg/Kg		Analysis Date: 8/11/2014 06:00 PM		
Client ID:		Run ID: HG1_140811A			SeqNo:2884866		Prep Date: 8/11/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1889	0.020	0.1665	0	113	80-120	0			

MS	Sample ID: 1408171-02AMS				Units:mg/Kg		Analysis Date: 8/11/2014 06:05 PM			
	Client ID:		Run ID: HG1_140811A		SeqNo:2884868		Prep Date: 8/11/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1225	0.012	0.1029	0.001342	118	75-125	0			

MSD				Sample ID: 1408171-02AMSD				Units:mg/Kg			Analysis Date: 8/11/2014 06:07 PM			
Client ID:				Run ID: HG1_140811A				SeqNo:2884870			Prep Date: 8/11/2014		DF: 1	
Analyte				Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Mercury				0.1248	0.013	0.1053	0.001342	117	75-125	0.1225	1.87	35		

The following samples were analyzed in this batch:

1408178-01B

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61398**      Instrument ID **ICPMS1**      Method: **SW6020A**

DUP		Sample ID: <b>1408153-07CDUP</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/11/2014 03:03 PM</b>		
Client ID:		Run ID: <b>ICPMS1_140811A</b>				SeqNo: <b>2885173</b>		Prep Date: <b>8/11/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	142.7	10	0	0	0	0-0	139.8	2.07		
Magnesium	53.92	4.0	0	0	0	0-0	52.34	2.97		
Sodium	5.584	4.0	0	0	0	0-0	5.226	6.62		

DUP		Sample ID: <b>1408153-07CDUP</b>				Units: <b>none</b>		Analysis Date: <b>8/11/2014</b>		
Client ID:		Run ID: <b>SAR_140811A</b>				SeqNo: <b>2885522</b>		Prep Date: <b>8/11/2014</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	0.101	0.010	0	0	0		0.09571	5.42	50	

The following samples were analyzed in this batch:      1408178-01C      1408178-02A

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

Client: InterTech  
 Work Order: 1408178  
 Project: Soldier Canyon\_33\_1\_Pit 8.4.14

# QC BATCH REPORT

Batch ID: **61428** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK		Sample ID: <b>MBLK-61428-61428</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 07:14 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140806A</b>				SeqNo: <b>2881396</b>		Prep Date: <b>8/7/2014</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	0.0562	0.50								J

LCS		Sample ID: <b>LCS-61428-61428</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 07:20 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140806A</b>				SeqNo: <b>2881397</b>		Prep Date: <b>8/7/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.858	0.25	5	0	97.2	80-120	0			
Barium	5.05	0.25	5	0	101	80-120	0			
Cadmium	5	0.10	5	0	100	80-120	0			
Chromium	4.987	0.25	5	0	99.7	80-120	0			
Copper	4.945	0.25	5	0	98.9	80-120	0			
Lead	4.945	0.25	5	0	98.9	80-120	0			
Nickel	4.968	0.25	5	0	99.4	80-120	0			
Selenium	4.932	0.25	5	0	98.6	80-120	0			
Silver	5.03	0.25	5	0	101	80-120	0			
Zinc	4.943	0.50	5	0	98.9	80-120	0			

MS		Sample ID: <b>1408171-05AMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 07:38 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140806A</b>				SeqNo: <b>2881400</b>		Prep Date: <b>8/7/2014</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	6.734	1.3	6.693	0.7189	89.9	75-125	0			
Barium	12.5	1.3	6.693	5.911	98.4	75-125	0			
Cadmium	6.327	0.54	6.693	0.02261	94.2	75-125	0			
Chromium	8.118	1.3	6.693	1.808	94.3	75-125	0			
Copper	7.082	1.3	6.693	1.138	88.8	75-125	0			
Lead	7.904	1.3	6.693	2.13	86.3	75-125	0			
Nickel	7.772	1.3	6.693	1.751	90	75-125	0			
Selenium	6.881	1.3	6.693	0.4504	96.1	75-125	0			
Silver	6.27	1.3	6.693	0.001883	93.7	75-125	0			
Zinc	9.754	2.7	6.693	3.685	90.7	75-125	0			

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61428**      Instrument ID **ICPMS1**      Method: **SW6020A**

MSD		Sample ID: <b>1408171-05AMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 08:27 AM</b>		
Client ID:		Run ID: <b>ICPMS1_140806A</b>				SeqNo: <b>2881408</b>		Prep Date: <b>8/7/2014</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	7.11	1.4	6.766	0.7189	94.5	75-125	6.734	5.43	25	
Barium	12.67	1.4	6.766	5.911	99.9	75-125	12.5	1.33	25	
Cadmium	6.871	0.54	6.766	0.02261	101	75-125	6.327	8.26	25	
Chromium	8.731	1.4	6.766	1.808	102	75-125	8.118	7.28	25	
Copper	7.683	1.4	6.766	1.138	96.7	75-125	7.082	8.15	25	
Lead	8.403	1.4	6.766	2.13	92.7	75-125	7.904	6.13	25	
Nickel	8.463	1.4	6.766	1.751	99.2	75-125	7.772	8.5	25	
Selenium	6.909	1.4	6.766	0.4504	95.5	75-125	6.881	0.413	25	
Silver	6.82	1.4	6.766	0.001883	101	75-125	6.27	8.4	25	
Zinc	10.45	2.7	6.766	3.685	100	75-125	9.754	6.94	25	

The following samples were analyzed in this batch:      1408178-01B      1408178-02B

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

Client: InterTech  
 Work Order: 1408178  
 Project: Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: 61459 Instrument ID SVMS8 Method: SW846 8270D

MBLK		Sample ID: SBLKS1-61459-61459				Units: µg/Kg		Analysis Date: 8/11/2014 04:26 PM		
Client ID:		Run ID: SVMS8_140811B				SeqNo: 2885980		Prep Date: 8/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1242	0	1667	0	74.5	12-100	0			
Surr: 4-Terphenyl-d14	1960	0	1667	0	118	25-137	0			
Surr: Nitrobenzene-d5	1201	0	1667	0	72	37-107	0			

LCS		Sample ID: SLCSS1-61459-61459				Units: µg/Kg		Analysis Date: 8/11/2014 04:46 PM		
Client ID:		Run ID: SVMS8_140811B				SeqNo: 2885981		Prep Date: 8/8/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	570	6.7	666.7	0	85.5	45-110	0			
Anthracene	668.3	6.7	666.7	0	100	55-105	0			
Benzo(a)anthracene	646.3	6.7	666.7	0	96.9	50-110	0			
Benzo(a)pyrene	714.7	6.7	666.7	0	107	50-110	0			
Benzo(b)fluoranthene	727.7	6.7	666.7	0	109	45-115	0			
Benzo(k)fluoranthene	687.3	6.7	666.7	0	103	45-115	0			
Chrysene	632.3	6.7	666.7	0	94.8	55-110	0			
Dibenzo(a,h)anthracene	605.7	6.7	666.7	0	90.8	40-125	0			
Fluoranthene	637.7	6.7	666.7	0	95.6	55-115	0			
Fluorene	624	6.7	666.7	0	93.6	50-110	0			
Indeno(1,2,3-cd)pyrene	674.3	6.7	666.7	0	101	40-120	0			
Naphthalene	558.7	6.7	666.7	0	83.8	40-105	0			
Pyrene	828.7	6.7	666.7	0	124	45-125	0			
Surr: 2-Fluorobiphenyl	1449	0	1667	0	87	12-100	0			
Surr: 4-Terphenyl-d14	2128	0	1667	0	128	25-137	0			
Surr: Nitrobenzene-d5	1419	0	1667	0	85.2	37-107	0			

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



Client: InterTech  
 Work Order: 1408178  
 Project: Soldier Canyon\_33\_1\_Pit 8.4.14

# QC BATCH REPORT

Batch ID: 61459 Instrument ID SVMS8 Method: SW846 8270D

MS				Sample ID: 1408252-04B MS				Units: µg/Kg		Analysis Date: 8/11/2014 05:06 PM	
Client ID:		Run ID: SVMS8_140811B			SeqNo:2885982		Prep Date: 8/8/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1063	13	1279	0	83.1	45-110	0				
Anthracene	1283	13	1279	0	100	55-105	0				
Benzo(a)anthracene	1211	13	1279	0	94.6	50-110	0				
Benzo(a)pyrene	1336	13	1279	0	104	50-110	0				
Benzo(b)fluoranthene	1374	13	1279	0	107	45-115	0				
Benzo(k)fluoranthene	1317	13	1279	0	103	45-115	0				
Chrysene	1189	13	1279	0	92.9	55-110	0				
Dibenzo(a,h)anthracene	1156	13	1279	0	90.3	40-125	0				
Fluoranthene	1207	13	1279	0	94.3	55-115	0				
Fluorene	1168	13	1279	0	91.3	50-110	0				
Indeno(1,2,3-cd)pyrene	1244	13	1279	0	97.2	40-120	0				
Naphthalene	1013	13	1279	0	79.2	40-105	0				
Pyrene	1570	13	1279	0	123	45-125	0				
Surr: 2-Fluorobiphenyl	2666	0	3198	0	83.4	12-100	0				
Surr: 4-Terphenyl-d14	4013	0	3198	0	125	25-137	0				
Surr: Nitrobenzene-d5	2487	0	3198	0	77.8	37-107	0				

MSD				Sample ID: 1408252-04B MSD				Units: µg/Kg		Analysis Date: 8/11/2014 05:27 PM	
Client ID:			Run ID: SVMS8_140811B			SeqNo:2885983		Prep Date: 8/8/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Acenaphthene	1098	13	1303	0	84.3	45-110	1063	3.26	30		
Anthracene	1297	13	1303	0	99.6	55-105	1283	1.13	30		
Benzo(a)anthracene	1208	13	1303	0	92.7	50-110	1211	0.255	30		
Benzo(a)pyrene	1348	13	1303	0	103	50-110	1336	0.913	30		
Benzo(b)fluoranthene	1368	13	1303	0	105	45-115	1374	0.432	30		
Benzo(k)fluoranthene	1331	13	1303	0	102	45-115	1317	0.998	30		
Chrysene	1157	13	1303	0	88.8	55-110	1189	2.68	30		
Dibenzo(a,h)anthracene	1170	13	1303	0	89.8	40-125	1156	1.27	30		
Fluoranthene	1226	13	1303	0	94.1	55-115	1207	1.56	30		
Fluorene	1202	13	1303	0	92.3	50-110	1168	2.86	30		
Indeno(1,2,3-cd)pyrene	1303	13	1303	0	100	40-120	1244	4.61	30		
Naphthalene	1053	13	1303	0	80.8	40-105	1013	3.89	30		
Pyrene	1596	13	1303	0	123	45-125	1570	1.66	30		
Surr: 2-Fluorobiphenyl	2715	0	3257	0	83.4	12-100	2666	1.83	40		
Surr: 4-Terphenyl-d14	4017	0	3257	0	123	25-137	4013	0.0904	40		
Surr: Nitrobenzene-d5	2562	0	3257	0	78.7	37-107	2487	2.98	40		

The following samples were analyzed in this batch:

1408178-01B

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

Client: InterTech  
 Work Order: 1408178  
 Project: Soldier Canyon\_33\_1\_Pit 8.4.14

# QC BATCH REPORT

Batch ID: 61376 Instrument ID VMS6 Method: SW8260B

MBLK Sample ID: MBLK-61376-61376				Units: µg/Kg			Analysis Date: 8/6/2014 04:36 PM			
Client ID:		Run ID: VMS6_140806A		SeqNo: 2879918		Prep Date: 8/6/2014		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	1008	0	1000	0	101	70-130	0			
Surr: 4-Bromofluorobenzene	997	0	1000	0	99.7	70-130	0			
Surr: Dibromofluoromethane	940	0	1000	0	94	70-130	0			
Surr: Toluene-d8	982.5	0	1000	0	98.2	70-130	0			

LCS Sample ID: LCS-61376-61376				Units: µg/Kg			Analysis Date: 8/6/2014 03:18 PM			
Client ID:		Run ID: VMS6_140806A		SeqNo: 2879917		Prep Date: 8/6/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1102	30	1000	0	110	75-125	0			
Ethylbenzene	1087	30	1000	0	109	75-125	0			
m,p-Xylene	2166	60	2000	0	108	80-125	0			
o-Xylene	1067	30	1000	0	107	75-125	0			
Toluene	1066	30	1000	0	107	70-125	0			
Xylenes, Total	3234	90	3000	0	108	75-125	0			
Surr: 1,2-Dichloroethane-d4	977.5	0	1000	0	97.8	70-130	0			
Surr: 4-Bromofluorobenzene	1007	0	1000	0	101	70-130	0			
Surr: Dibromofluoromethane	980.5	0	1000	0	98	70-130	0			
Surr: Toluene-d8	982	0	1000	0	98.2	70-130	0			

MS Sample ID: 1408210-04C MS				Units: µg/Kg			Analysis Date: 8/7/2014 12:03 PM			
Client ID:		Run ID: VMS6_140806A		SeqNo: 2879925		Prep Date: 8/6/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	814	30	1000	0	81.4	75-125	0			
Ethylbenzene	742.5	30	1000	0	74.2	75-125	0			S
m,p-Xylene	1456	60	2000	0	72.8	80-125	0			S
o-Xylene	733.5	30	1000	0	73.4	75-125	0			S
Toluene	765.5	30	1000	14	75.2	70-125	0			
Xylenes, Total	2190	90	3000	0	73	75-125	0			S
Surr: 1,2-Dichloroethane-d4	996.5	0	1000	0	99.6	70-130	0			
Surr: 4-Bromofluorobenzene	1043	0	1000	0	104	70-130	0			
Surr: Dibromofluoromethane	981	0	1000	0	98.1	70-130	0			
Surr: Toluene-d8	980.5	0	1000	0	98	70-130	0			

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61376**      Instrument ID **VMS6**      Method: **SW8260B**

MS				Sample ID: 1408117-02A MS				Units: µg/Kg		Analysis Date: 8/11/2014 02:39 AM	
Client ID:			Run ID: VMS6_140810A			SeqNo:2884045		Prep Date: 8/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1054	30	1000	0	105	75-125	0				
Ethylbenzene	971	30	1000	0	97.1	75-125	0				
m,p-Xylene	1912	60	2000	0	95.6	80-125	0				
o-Xylene	938.5	30	1000	0	93.8	75-125	0				
Toluene	964.5	30	1000	0	96.4	70-125	0				
Xylenes, Total	2850	90	3000	0	95	75-125	0				
Surr: 1,2-Dichloroethane-d4	956.5	0	1000	0	95.6	70-130	0				
Surr: 4-Bromofluorobenzene	1036	0	1000	0	104	70-130	0				
Surr: Dibromofluoromethane	971.5	0	1000	0	97.2	70-130	0				
Surr: Toluene-d8	979	0	1000	0	97.9	70-130	0				

MSD				Sample ID: 1408210-04C MSD			Units: µg/Kg		Analysis Date: 8/7/2014 12:29 PM		
Client ID:		Run ID: VMS6_140806A			SeqNo:2879928		Prep Date: 8/6/2014		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	771.5	30	1000	0	77.2	75-125	814	5.36	30		
Ethylbenzene	699	30	1000	0	69.9	75-125	742.5	6.04	30	S	
m,p-Xylene	1372	60	2000	0	68.6	80-125	1456	5.9	30	S	
o-Xylene	702.5	30	1000	0	70.2	75-125	733.5	4.32	30	S	
Toluene	719.5	30	1000	14	70.6	70-125	765.5	6.2	30		
Xylenes, Total	2075	90	3000	0	69.2	75-125	2190	5.37	30	S	
Surr: 1,2-Dichloroethane-d4	994	0	1000	0	99.4	70-130	996.5	0.251	30		
Surr: 4-Bromofluorobenzene	1040	0	1000	0	104	70-130	1043	0.288	30		
Surr: Dibromofluoromethane	985.5	0	1000	0	98.6	70-130	981	0.458	30		
Surr: Toluene-d8	978.5	0	1000	0	97.8	70-130	980.5	0.204	30		

MSD					Sample ID: 1408117-02A MSD		Units: µg/Kg		Analysis Date: 8/11/2014 03:05 AM		
Client ID:			Run ID: VMS6_140810A			SeqNo:2884046		Prep Date: 8/6/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	979	30	1000	0	97.9	75-125	1054	7.43	30		
Ethylbenzene	904	30	1000	0	90.4	75-125	971	7.15	30		
m,p-Xylene	1792	60	2000	0	89.6	80-125	1912	6.51	30		
o-Xylene	894	30	1000	0	89.4	75-125	938.5	4.86	30		
Toluene	901.5	30	1000	0	90.2	70-125	964.5	6.75	30		
Xylenes, Total	2686	90	3000	0	89.5	75-125	2850	5.96	30		
Surr: 1,2-Dichloroethane-d4	928.5	0	1000	0	92.8	70-130	956.5	2.97	30		
Surr: 4-Bromofluorobenzene	1006	0	1000	0	101	70-130	1036	2.84	30		
Surr: Dibromofluoromethane	959.5	0	1000	0	96	70-130	971.5	1.24	30		
Surr: Toluene-d8	972	0	1000	0	97.2	70-130	979	0.718	30		

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

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Batch ID: **61376** Instrument ID **VMS6** Method: **SW8260B**

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The following samples were analyzed in this batch:

1408178-01A
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**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61398** Instrument ID **WETCHEM** Method: **USDA H60 Method**

<b>DUP</b>		Sample ID: <b>1408153-07C DUP</b>				Units: <b>mmhos/cm @25°C</b>		Analysis Date: <b>8/11/2014 03:45 PM</b>		
Client ID:		Run ID: <b>WETCHEM_140811M</b>				SeqNo: <b>2884583</b>		Prep Date: <b>8/11/2014</b>		DF: <b>10</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.259	0.050	0	0	0		1.215	3.56	50	

The following samples were analyzed in this batch:

1408178-01C 1408178-02A

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61422**      Instrument ID **WETCHEM**      Method: **SW9045D**

LCS				Sample ID: LCS-61422-61422				Units:s.u.			Analysis Date: 8/7/2014 12:33 PM			
Client ID:				Run ID: WETCHEM_140807B				SeqNo:2880253			Prep Date: 8/7/2014		DF: 1	
Analyte				Result		PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

pH      4.01      0      4      0      100      90-110      0

DUP				Sample ID: 1408177-01B DUP				Units: s.u.			Analysis Date: 8/7/2014 12:33 PM			
Client ID:				Run ID: WETCHEM_140807B				SeqNo: 2880256			Prep Date: 8/7/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			

pH      8.3      0      0      0      0      0-0      8.31      0.12      20

DUP				Sample ID: 1408177-02B DUP				Units:s.u.		Analysis Date: 8/7/2014 12:33 PM			
Client ID:				Run ID: WETCHEM_140807B				SeqNo:2880258		Prep Date: 8/7/2014		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual		

pH      8.65      0      0      0      0      0-0      8.6      0.58      20

The following samples were analyzed in this batch:

1408178-01B      1408178-02B

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

Client: InterTech  
 Work Order: 1408178  
 Project: Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **61444** Instrument ID **WETCHEM** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MBLK-61444-61444</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881567</b>		Prep Date: <b>8/7/2014</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	0.156	0.50								J

<b>LCS</b>		Sample ID: <b>LCS-61444-61444</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881568</b>		Prep Date: <b>8/7/2014</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	2.02	0.50	2	0	101	80-120	0			

<b>MS</b>		Sample ID: <b>1408177-02B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881577</b>		Prep Date: <b>8/7/2014</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	1.591	0.49	1.969	0.3477	63.1	75-125	0			S

<b>MS</b>		Sample ID: <b>1408177-02B MSI</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881579</b>		Prep Date: <b>8/7/2014</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	1202	49	1356	0.3477	88.6	75-125	0			

<b>MSD</b>		Sample ID: <b>1408177-02B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881578</b>		Prep Date: <b>8/7/2014</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	1.584	0.49	1.961	0.3477	63.1	75-125	1.591	0.393	20	S

<b>DUP</b>		Sample ID: <b>1408114-02A DUP</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/8/2014 09:00 AM</b>		
Client ID:		Run ID: <b>WETCHEM_140808A</b>				SeqNo: <b>2881574</b>		Prep Date: <b>8/7/2014</b>		DF: <b>20</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	176.6	10	0	0	0	0-0	175.6	0.545	20	

The following samples were analyzed in this batch:

1408178-01B

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

**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **R145872** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>		Sample ID: <b>WBLKS-R145872</b>				Units: % of sample		Analysis Date: <b>8/6/2014 09:30 AM</b>		
Client ID:		Run ID: <b>MOIST_140806B</b>				SeqNo: <b>2880381</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 0.050

<b>LCS</b>		Sample ID: <b>LCS-R145872</b>				Units: % of sample		Analysis Date: <b>8/6/2014 09:30 AM</b>		
Client ID:		Run ID: <b>MOIST_140806B</b>				SeqNo: <b>2880380</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 100 0.050 100 0 100 99.5-100.5 0

<b>DUP</b>		Sample ID: <b>1408178-02B DUP</b>				Units: % of sample		Analysis Date: <b>8/6/2014 09:30 AM</b>		
Client ID: <b>Soldier Canyon_33_1_Background</b>		Run ID: <b>MOIST_140806B</b>				SeqNo: <b>2880370</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 12.82 0.050 0 0 0 0-0 13.18 2.77 20

The following samples were analyzed in this batch:

1408178-02B

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



**Client:** InterTech  
**Work Order:** 1408178  
**Project:** Soldier Canyon\_33\_1\_Pit 8.4.14

## QC BATCH REPORT

Batch ID: **R145986**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>				Sample ID: <b>WBLKS-R145986</b>				Units: % of sample			Analysis Date: <b>8/8/2014 12:34 PM</b>												
Client ID:				Run ID: <b>MOIST_140808A</b>				SeqNo: <b>2882670</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      0.050

LCS				Sample ID: LCS-R145986				Units: % of sample			Analysis Date: 8/8/2014 12:34 PM					
Client ID:				Run ID: MOIST_140808A				SeqNo: 2882669			Prep Date:		DF: 1			
Analyte				Result		PQL		SPK Val		SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      100      0.050      100      0      100      99.5-100.5      0

DUP				Sample ID: 1408356-01B DUP				Units: % of sample			Analysis Date: 8/8/2014 12:34 PM					
Client ID:				Run ID: MOIST_140808A				SeqNo: 2882659			Prep Date:		DF: 1			
Analyte				Result		PQL		SPK Val		SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      28.93      0.050      0      0      0      0-0      31.95      9.92      20

DUP				Sample ID: 1408371-06B DUP				Units: % of sample			Analysis Date: 8/8/2014 12:34 PM												
Client ID:				Run ID: MOIST_140808A				SeqNo: 2882666			Prep Date:		DF: 1										
Analyte				Result		PQL		SPK Val		SPK Ref Value		%REC		Control Limit		RPD Ref Value		%RPD		RPD Limit		Qual	

Moisture      12.45      0.050      0      0      0      0-0      12.01      3.6      20

The following samples were analyzed in this batch:

1408178-01B

**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

☐ Everett, WA  
+1 425 356 2600

☐ Fort Collins, CO  
+1 970 490 1511

☒ Holland, MI  
+1 616 399 6070

☐ Houston, TX  
+1 281 530 5656

☐ Middletown, PA  
+1 717 944 5541

☐ Salt Lake City, UT  
+1 801 266 7700

☐ Spring City, PA  
+1 610 948 4903

☐ York, PA  
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis															
Purchase Order		Project Name	SOLAR CANYON-33-1-PIT	A PH, SAR, EC															
Work Order		Project Number		B BTEX															
Company Name	Intertech E&E	Bill To Company	Intertech E&E	C GRO															
Send Report To	Jana Nilson	Invoice Attn.	Carrie Zhong	D DRD															
Address	743 Horizon Ct., Suite 110	Address	3821 Beech St.	E COBCC TABLE 910-1 METALS															
City/State/Zip	Grand Jet., CO. 81506	City/State/Zip	Laramie, WY. 82070	F COBCC TABLE 910-1 PAH															
Phone	970-263-8679	Phone	307-742-4991	G ARSENIC															
Cell/Fax	307-399-2870	Fax		H															
e-Mail Address	JNilson@cbmainc.com	e-Mail Address	CZhong@cbmainc.com	I															
				J															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	SOLAR CANYON-33-1-PIT	08/04/14	0855	SOIL	B	4	X	X	X	X	X	X							
2	SOLAR CANYON-33-1-BACKGROUN	08/04/14	0906	SOIL	B	4	X						X						
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:				Other				Results Due Date:							
JANA NILSON		FEDEX		<input checked="" type="checkbox"/> STD 10 Wk Days				<input type="checkbox"/> 5 Wk Days				<input type="checkbox"/> 2 Wk Days				<input type="checkbox"/> 24 Hour			
Relinquished by:		Date:	Time:	Received by:		Notes:													
JANA NILSON		08/04/14	1600	FED EX															
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler Temp.				QC Package: (Check Box Below)									
FED EX		8/5/14	0930	X		4.2°C				Level II: Standard QC									
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):						Level III: Std QC + Raw Data									
DFS		8/5/14	1315							Level IV: SW846 CLP-Like									
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																			
Other:																			

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

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Sample Receipt Checklist

Client Name: **INTERTECH**

Date/Time Received: **05-Aug-14 09:30**

Work Order: **1408178**

Received by: **DS**

Checklist completed by <u>Diane Shaw</u>	05-Aug-14	Reviewed by: <u>Ann Preston</u>	07-Aug-14
eSignature	Date	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>4.2 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>8/5/2014 1:49:30 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:			

Login Notes:

-----

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



**ALS Environmental**

18450 Stanchiff Road Suite 240  
Houston, Texas 77058  
Tel: 281-867-8000  
Fax: 281-867-8007

**CUSTODY SEAL**

Date: 08/04/14 Time: 1600  
Name: JEFF ALLEN  
Company: INSPECT

Seal Broken By:

Date: