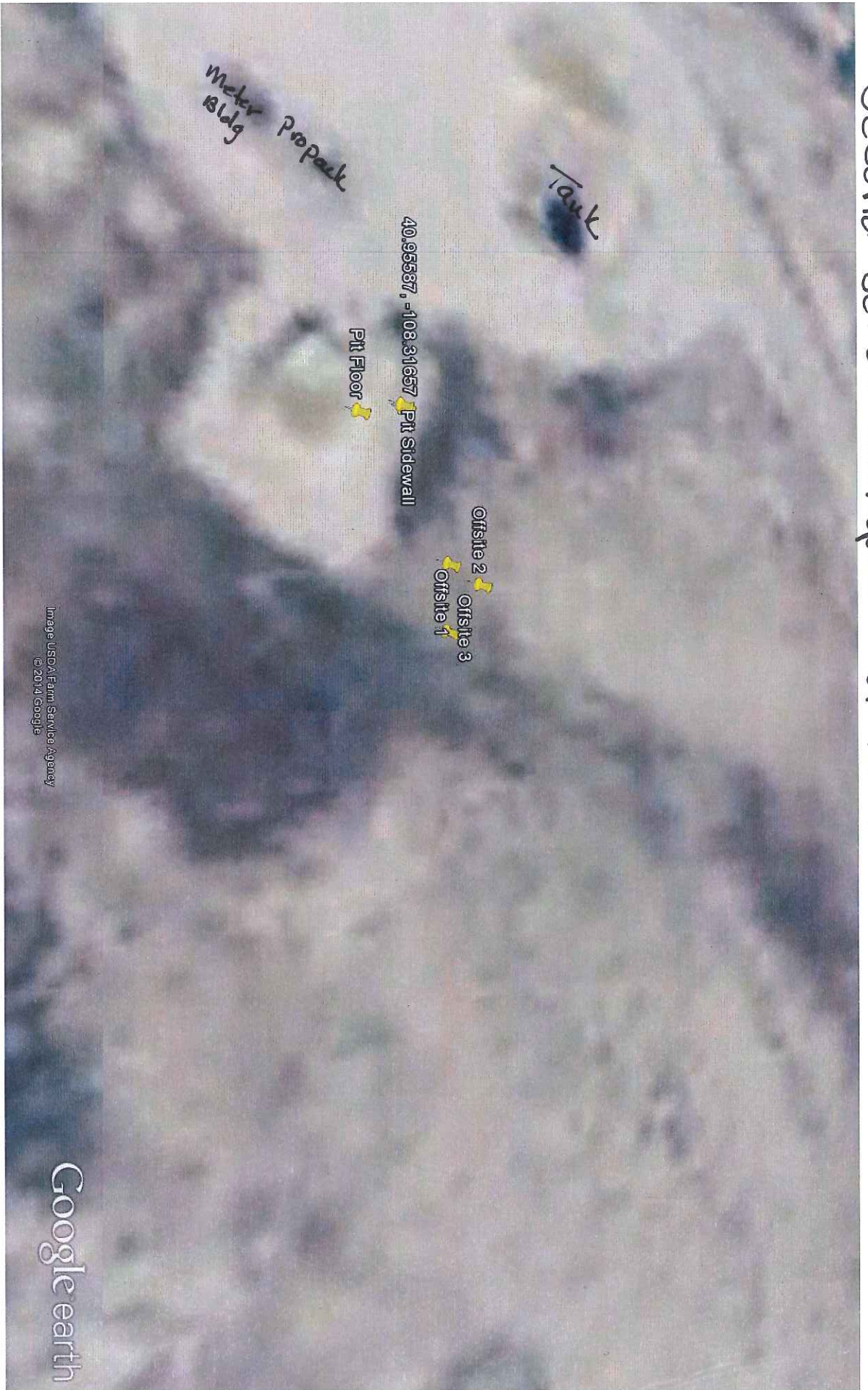


Second Set of Samples 8/19/2014



Google earth

feet  
meters



Google earth

Carl Allen 8

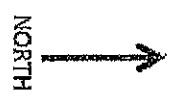
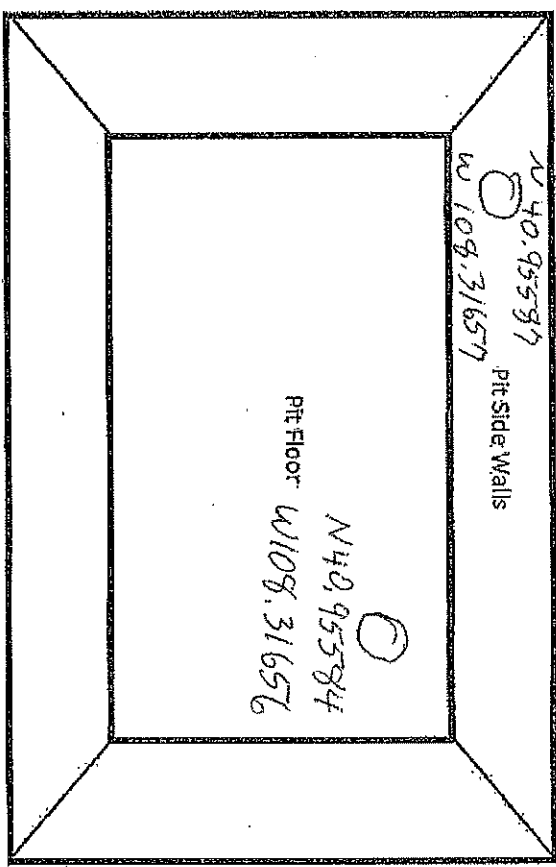
COLORADO PIT CLOSURE - SAMPLING MAP

8-19-2014

N 40.95591  
W 108.31642

WELL NAME: Carl Allen #8

N 40.95594 W 108.31640  
N 40.95591 W 108.31635



**LEGEND**

- ★ Pit Low Point - Sample Point
- Pit Side Wall - Sample Point
- Off Site - Sample Points (3)

Remember to put GPS coordinates on all sample sites

Tammy Fredrickson  
Wexpro  
PO Box 458  
Rock Springs, WY 82901

Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: P2665

Sample ID: Carl Allen 8 Pit Floor 8-19-14 1400

<b>BTEX</b>	Result, mg/kg	Reporting Limit, mg/kg	Method	Date Prepared	Date Analyzed
Benzene	ND	0.0020	8260B	08/21/14	08/22/14
Ethylbenzene	ND	0.0020	8260B	08/21/14	08/22/14
Total xylenes	0.0035	0.0030	8260B	08/21/14	08/22/14
Toluene	ND	0.0020	8260B	08/21/14	08/22/14

<b>Gasoline Range Organics</b>	1.91	0.398	8260B	08/21/14	08/22/14
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<b>PAH Compound</b>	Result, mg/kg	Reporting Limit, mg/kg	Method	Date Prepared	Date Analyzed
Acenaphthene	ND	0.0663	8270C	08/22/14	08/24/14
Acenaphthylene	ND	0.0663	8270C	08/22/14	08/24/14
Anthracene	ND	0.0663	8270C	08/22/14	08/24/14
Benzo(a)anthracene	ND	0.0663	8270C	08/22/14	08/24/14
Benzo(a)pyrene	ND	0.0663	8270C	08/22/14	08/24/14
Benzo(b)fluoranthene	ND	0.0663	8270C	08/22/14	08/24/14
Benzo(g,h,i)perylene	ND	0.0663	8270C	08/22/14	08/24/14
Benzo(k)fluoranthene	ND	0.0663	8270C	08/22/14	08/24/14
Chrysene	ND	0.0663	8270C	08/22/14	08/24/14
Dibenz(a,h)anthracene	ND	0.0663	8270C	08/22/14	08/24/14
Fluoranthene	ND	0.0663	8270C	08/22/14	08/24/14
Fluorene	ND	0.0663	8270C	08/22/14	08/24/14
Indeno(1,2,3-cd)pyrene	ND	0.0663	8270C	08/22/14	08/24/14
Naphthalene	ND	0.0663	8270C	08/22/14	08/24/14
Phenanthrene	ND	0.0663	8270C	08/22/14	08/24/14
Pyrene	ND	0.0663	8270C	08/22/14	08/24/14
1-Methylnaphthalene	ND	0.0663	8270C	08/22/14	08/24/14
2-Methylnaphthalene	ND	0.0663	8270C	08/22/14	08/24/14

ND: Not Detected

BTEX/PAH/GRO Analyzed by TestAmerica Labs in Nashville TN.  
TestAmerica Lab Number 490-57886-1  
Certification: Wyoming (UST), A2LA, Cert. ID:453.07



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Rock Springs, WY 82901

Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: P2665

Sample ID: Carl Allen 8 Pit Floor 8-19-14 1400

	Result	Units	Method	Date Analyzed	Analyst
Nickel	10.1	mg/kg	EPA 3050/6010	8/27/2014	***
Copper	17.0	mg/kg	EPA 3050/6010	8/27/2014	***
Zinc	55.4	mg/kg	EPA 3050/6010	8/27/2014	***
Arsenic	< 0.9	mg/kg	EPA 3050/6010	8/27/2014	***
Selenium	< 2.2	mg/kg	EPA 3050/6010	8/27/2014	***
Silver	< 0.5	mg/kg	EPA 3050/6010	8/27/2014	***
Cadmium	2.22	mg/kg	EPA 3050/6010	8/27/2014	***
Barium	2,020	mg/kg	EPA 3050/6010	8/27/2014	***
Mercury	< 0.2	mg/kg	EPA 3050/7471A	8/27/2014	***
Lead	11.0	mg/kg	EPA 3050/6010	8/27/2014	***
Total Chromium	20.4	mg/kg	EPA 3050/6010	8/27/2014	***
Chromium (VI)	0.25*	mg/kg	EPA 7196A	8/27/2014	CB
Chromium (III)	20.2	mg/kg	Calculated (ttl.Cr-CrVI)	9/3/2014	TB
Soluble, Boron	0.47	mg/L	Hot water ext./6020	8/22/2014	CB
pH	7.20	std. units	USDA 60-2,3/150.1	8/22/2014	DA
Conductivity	1,832	umhos/cm	USDA 60-2,3/120.1	8/22/2014	DA
Calcium	141*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Magnesium	11.9*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium	1,091*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium Absorption Ratio	23.1	Ratio	Calculated	8/22/2014	CB
Diesel Range Organics	8,747	mg/kg	8015C	9/3/2014	EB

\*Results are the average of 2 runs

\*\*Analyzed by Inter-Mountain Labs in Sheridan WY.

Inter-Mountain Labs number: S1408420-001

*Monte Z. Ellis*

End of Report  
MLE/tab

Laboratory Manager



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Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: P2666

Sample ID: Carl Allen 8 Pit Side Wall 8-19-14 1400

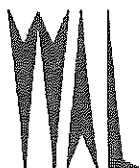
<b>BTEX</b>	Result, mg/kg	Reporting Limit, mg/kg	Method	Date Prepared	Date Analyzed
Benzene	ND	0.0020	8260B	08/21/14	08/22/14
Ethylbenzene	ND	0.0020	8260B	08/21/14	08/22/14
Total xylenes	0.0138	0.0030	8260B	08/21/14	08/22/14
Toluene	ND	0.0020	8260B	08/21/14	08/22/14

<b>Gasoline Range Organics</b>	0.477	0.399	8260B	08/21/14	08/22/14
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<b>PAH Compound</b>	Result, mg/kg	Reporting Limit, mg/kg	Method	Date Prepared	Date Analyzed
Acenaphthene	ND	0.0670	8270C	08/22/14	08/24/14
Acenaphthylene	ND	0.0670	8270C	08/22/14	08/24/14
Anthracene	ND	0.0670	8270C	08/22/14	08/24/14
Benzo(a)anthracene	ND	0.0670	8270C	08/22/14	08/24/14
Benzo(a)pyrene	ND	0.0670	8270C	08/22/14	08/24/14
Benzo(b)fluoranthene	ND	0.0670	8270C	08/22/14	08/24/14
Benzo(g,h,i)perylene	ND	0.0670	8270C	08/22/14	08/24/14
Benzo(k)fluoranthene	ND	0.0670	8270C	08/22/14	08/24/14
Chrysene	ND	0.0670	8270C	08/22/14	08/24/14
Dibenz(a,h)anthracene	ND	0.0670	8270C	08/22/14	08/24/14
Fluoranthene	ND	0.0670	8270C	08/22/14	08/24/14
Fluorene	ND	0.0670	8270C	08/22/14	08/24/14
Indeno(1,2,3-cd)pyrene	ND	0.0670	8270C	08/22/14	08/24/14
Naphthalene	ND	0.0670	8270C	08/22/14	08/24/14
Phenanthrene	ND	0.0670	8270C	08/22/14	08/24/14
Pyrene	ND	0.0670	8270C	08/22/14	08/24/14
1-Methylnaphthalene	ND	0.0670	8270C	08/22/14	08/24/14
2-Methylnaphthalene	ND	0.0670	8270C	08/22/14	08/24/14

ND: Not Detected

BTEX/PAH/GRO Analyzed by TestAmerica Labs in Nashville TN.  
TestAmerica Lab Number 490-57886-2  
Certification: Wyoming (UST), A2LA, Cert. ID:453.07



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Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: P2666

Sample ID: Carl Allen 8 Pit Side Wall 8-19-14 1400

	Result	Units	Method	Date Analyzed	Analyst
Nickel	10.8	mg/kg	EPA 3050/6010	8/27/2014	***
Copper	16.5	mg/kg	EPA 3050/6010	8/27/2014	***
Zinc	64.2	mg/kg	EPA 3050/6010	8/27/2014	***
Arsenic	< 0.9	mg/kg	EPA 3050/6010	8/27/2014	***
Selenium	< 2.2	mg/kg	EPA 3050/6010	8/27/2014	***
Silver	< 0.5	mg/kg	EPA 3050/6010	8/27/2014	***
Cadmium	2.0	mg/kg	EPA 3050/6010	8/27/2014	***
Barium	4,570	mg/kg	EPA 3050/6010	8/27/2014	***
Mercury	< 0.2	mg/kg	EPA 3050/7471A	8/27/2014	***
Lead	10.8	mg/kg	EPA 3050/6010	8/27/2014	***
Total Chromium	21.6	mg/kg	EPA 3050/6010	8/27/2014	***
Chromium (VI)	0.30	mg/kg	EPA 7196A	8/27/2014	CB
Chromium (III)	21.3	mg/kg	Calculated (ttl.Cr-CrVI)	9/3/2014	TB
Soluble, Boron	0.42*	mg/L	Hot water ext./6020	8/22/2014	CB
pH	6.95	std. units	USDA 60-2,3/150.1	8/22/2014	DA
Conductivity	88,000	umhos/cm	USDA 60-2,3/120.1	8/22/2014	DA
Calcium	1,115*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Magnesium	144*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium	8,676*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium Absorption Ratio	65.0	Ratio	Calculated	8/22/2014	CB
Diesel Range Organics	220	mg/kg	8015C	9/3/2014	EB

\*Results are the average of 2 runs

\*\*Analyzed by Inter-Mountain Labs in Sheridan WY.

Inter-Mountain Labs number: S1408420-002

End of Report  
MLE/tab

*Monte Z. Ellis*

Laboratory Manager



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Rock Springs, WY 82901

Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### **REPORT OF ANALYSIS**

Lab Number: P2667

Sample ID: Carl Allen 8 Off-Site #1 8-19-14 1420

	Result	Units	Method	Date Analyzed	Analyst
Arsenic	< 0.9	mg/kg	EPA 3050/6010	8/27/2014	**
pH	7.76	std. units	USDA 60-2,3/150.1	8/22/2014	DA
Conductivity	404	umhos/cm	USDA 60-2,3/120.1	8/22/2014	DA
Calcium	54.5*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Magnesium	7.32*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium	16.8*	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium Absorption Ratio	0.57	Ratio	Calculated	8/22/2014	CB

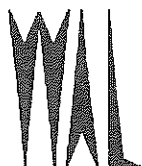
Lab Number: P2668

Sample ID: Carl Allen 8 Off-Site #2 8-19-14 1420

	Result	Units	Method	Date Analyzed	Analyst
Arsenic	3.31	mg/kg	EPA 3050/6010	8/27/2014	**
pH	7.72	std. units	USDA 60-2,3/150.1	8/22/2014	DA
Conductivity	518	umhos/cm	USDA 60-2,3/120.1	8/22/2014	DA
Calcium	104	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Magnesium	12.8	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium	85.5	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium Absorption Ratio	2.11	Ratio	Calculated	8/22/2014	CB

\*Results are the average of 2 runs

\*\*Arsenic analyzed by Inter-Mountain Labs in Sheridan WY.  
Inter-Mountain Labs number: S1408420-003 thru 004.



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Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

**REPORT OF ANALYSIS**

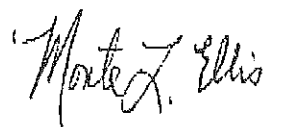
Lab Number: P2669

Sample ID: Carl Allen 8 Off-Site #3 8-19-14 1420

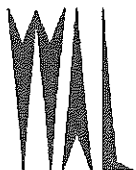
	Result	Units	Method	Date Analyzed	Analyst
Arsenic	< 0.9	mg/kg	EPA 3050/6010	8/27/2014	**
pH	7.80	std. units	USDA 60-2,3/150.1	8/22/2014	DA
Conductivity	412	umhos/cm	USDA 60-2,3/120.1	8/22/2014	DA
Calcium	72.5	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Magnesium	11.1	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium	45.3	mg/L	USDA 60-2,3/6010	8/22/2014	CB
Sodium Absorption Ratio	1.31	Ratio	Calculated	8/22/2014	CB

\*\*Arsenic analyzed by Inter-Mountain Labs in Sheridan WY.  
Inter-Mountain Labs number: S1408420-005

End of Report  
MLE/tab



Laboratory Manager



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Rock Springs, WY 82901

Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

### QUALITY CONTROL

	Lab Number	Result	Duplicate	RPD	RPD limit	LCS %	LCS Range %
Soluble, Boron	P2666	0.41	0.42	2.41	50	98	65-125
Calcium	P2666	1,096	1,133	3.32	50	100	65-125
Magnesium	P2666	142	146	2.78	50	102	65-125
Sodium	P2666	8,480	8,871	4.51	50	99	65-125

	Standard	Expected	Value	% Recovery
Conductivity	QCI 1096	1,085	1,088	100
pH	QC WAL	6.86	6.87	100

	Spike % Recovery	Spike Range
Chromium VI	80	75-125

### DRO LCS/LCSD

% Recovery	Dup. % Recovery	RPD %	RPD Limit
80	89	10.7	50

RPD: Relative % difference.

LCS: Lab Control Sample.



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Rock Springs, WY 82901

Date: September 4, 2014  
Request Number: 33210  
Date Received: 8-20-14  
Matrix: Soil

**QUALITY CONTROL**

<b>Surrogate Recoveries</b>		
<b>P2665 BTEX/GRO</b>		
<b>Compound</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
4-Bromofluorobenzene	158 X	70-130
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	130	70-130
<b>P2665 PAH</b>		
<b>Compound</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
Nitrobenzene-d5	58	27-120
Terphenyl-d14	67	13-120
2-Fluorobiphenyl	62	29-120

<b>Surrogate Recoveries</b>		
<b>P2666 BTEX/GRO</b>		
<b>Compound</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
4-Bromofluorobenzene	138 X*	70-130
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	112	70-130
<b>P2666 PAH</b>		
<b>Compound</b>	<b>% Recovery</b>	<b>% Recovery Limits</b>
Nitrobenzene-d5	59	27-120
Terphenyl-d14	75	13-120
2-Fluorobiphenyl	63	29-120

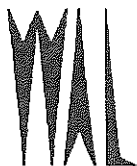
X-Surrogate is outside control limits\*

\* ISTD response or retention time outside acceptable limits.

End of QC Report  
MLE/tab

*Monte Z. Ellis*

Laboratory Manager



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