

Tammy Fredrickson  
Wexpro  
PO Box 458  
Rock Springs, WY 82901

Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: R3658

Sample ID: F. Wilson 26, Sample 1 4/25/18 9:45am

	Result	Units	Method	Date Analyzed	Analyst
Nickel	8.51	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Copper	11.9	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Zinc	58.8	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Arsenic	8.84	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Selenium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Silver	64.1	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Cadmium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Barium	0.18	mg/kg	SW846 EPA 3051/6010	5/8/2018	CB
Mercury	0.785	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Lead	92.3	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Total Chromium	21.1	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Chromium (VI)	1.2*	mg/kg	EPA 7196A	5/9/2018	CB
Chromium (III)	19.9	mg/kg	Calculated (ttl.Cr-CrVI)	5/31/2018	TB
Soluble, Boron	0.11	mg/L	Hot water ext./6010	5/8/2018	CB
pH	7.28	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	3,910	µmhos/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	779	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	792	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium	1,150	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	6.94	Ratio	Calculated	5/24/2018	TB

\*Results are the average of 2 runs

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-1



## WYOMING ANALYTICAL LABORATORIES, INC

1660 Harrison Street  
Laramie, WY 82070

www.wal-lab.com  
laramie@wal-lab.com

ph: 307-742-7995  
fax: 307-721-8956

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Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: R3659

Sample ID: F. Wilson 26, Sample 2 4/25/18 9:50am

	Result	Units	Method	Date Analyzed	Analyst
Nickel	15.9	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Copper	173	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Zinc	119	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Arsenic	10.5	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Selenium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Silver	33.1	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Cadmium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Barium	0.13	mg/kg	SW846 EPA 3051/6020	5/8/2018	CB
Mercury	0.295	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Lead	78.5	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Total Chromium	25.3	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Chromium (VI)	0.50	mg/kg	EPA 7196A	5/9/2018	CB
Chromium (III)	24.8	mg/kg	Calculated (ttl.Cr-CrVI)	5/31/2018	TB
Soluble, Boron	0.15	mg/L	Hot water ext./6010	5/8/2018	CB
pH	6.71	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	2,840	µmhos/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	910	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	182	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium	191	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	1.51	Ratio	Calculated	5/24/2018	TB

\*Results are the average of 2 runs

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-2



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1660 Harrison Street  
Laramie, WY 82070

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laramie@wal-lab.com

ph: 307-742-7995  
fax: 307-721-8956

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PO Box 458  
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Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: R3660

Sample ID: F. Wilson 26, Sample 3 4/25/18 10:00am

	Result	Units	Method	Date Analyzed	Analyst
Nickel	14.3*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Copper	26.2	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Zinc	54.1	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Arsenic	11.0*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Selenium	< 0.01*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Silver	25.0*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Cadmium	< 0.01*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Barium	0.12	mg/kg	SW846 EPA 3051/6020	5/8/2018	CB
Mercury	0.414*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Lead	63.2*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Total Chromium	24.0*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Chromium (VI)	0.70	mg/kg	EPA 7196A	5/9/2018	CB
Chromium (III)	23.3	mg/kg	Calculated (ttl.Cr-CrVI)	5/31/2018	TB
Soluble, Boron	0.13	mg/L	Hot water ext./6010	5/8/2018	CB
pH	6.82	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	3,610	µmhos/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	864	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	706	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium	1,020	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	6.24	Ratio	Calculated	5/24/2018	TB

\*Results are the average of 2 runs

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-3

End of Report  
MLE/tab



Laboratory Manager



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Laramie, WY 82070

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Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

### REPORT OF ANALYSIS

Lab Number: R3661

Sample ID: F. Wilson 26, Sample 4 4/25/18 10:06am

	Result	Units	Method	Date Analyzed	Analyst
Nickel	27.2	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Copper	26.0	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Zinc	111	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Arsenic	5.21	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Selenium	0.14	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Silver	21.2	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Cadmium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Barium	0.22	mg/kg	SW846 EPA 3051/6020	5/8/2018	CB
Mercury	0.629	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Lead	61.8	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Total Chromium	23.2	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Chromium (VI)	0.70	mg/kg	EPA 7196A	5/9/2018	CB
Chromium (III)	22.5	mg/kg	Calculated (ttl.Cr-CrVI)	5/31/2018	TB
Soluble, Boron	< 0.10	mg/L	Hot water ext./6010	5/8/2018	CB
pH	7.08	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	3,380	µmhos/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	1310	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	513	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium	163	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	0.97	Ratio	Calculated	5/24/2018	TB

\*Results are the average of 2 runs

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-4



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1660 Harrison Street  
Laramie, WY 82070

www.wal-lab.com  
laramie@wal-lab.com

ph: 307-742-7995  
fax: 307-721-8956

Tammy Fredrickson  
Dominion Energy/Wexpro  
PO Box 458  
Rock Springs, WY 82901

Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

### REPORT OF ANALYSIS

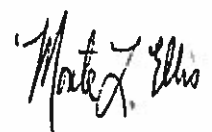
Lab Number: R3662

Sample ID: F. Wilson 26, Sample 5 4/25/18 10:15am

	Result	Units	Method	Date Analyzed	Analyst
Nickel	32.2	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Copper	39.3*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Zinc	110*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Arsenic	14.7*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Selenium	0.33*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Silver	21.4*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Cadmium	< 0.01	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Barium	0.25	mg/kg	SW846 EPA 3051/6020	5/8/2018	CB
Mercury	0.406*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Lead	62.6	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Total Chromium	35.3*	mg/kg	SW846 EPA 3051/6020	5/7/2018	MLE
Chromium (VI)	0.80	mg/kg	EPA 7196A	5/9/2018	CB
Chromium (III)	34.5	mg/kg	Calculated (ttl.Cr-CrVI)	5/31/2018	TB
Soluble, Boron	0.15	mg/L	Hot water ext./6010	5/8/2018	CB
pH	7.47	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	3,770	µmhos/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	969	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	481	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium	650	mg/L	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	4.27	Ratio	Calculated	5/24/2018	TB

\*Results are the average of 2 runs

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-5



End of Report  
MLE/tab

Monte L. Ellis  
Laboratory Manager



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Laramie, WY 82070

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Date: May 31, 2018  
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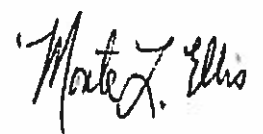
**REPORT OF ANALYSIS**

Lab Number: R3663

Sample ID: F. Wilson 26, Off Site Sample 1 4/25/18 10:20am

	Result	Units	Method	Date Analyzed	Analyst
pH	7.81	std. units	USDA 60-2,3/150.1	5/1/2018	CB
Conductivity	2,990	µS/cm	USDA 60-2,3/120.1	5/1/2018	CB
Calcium	1,363	mg/kg	USDA 60-2,3/6010	5/8/2018	CB
Magnesium	184	mg/kg	USDA 60-2,3/6010	5/8/2018	CB
Sodium	363	mg/kg	USDA 60-2,3/6010	5/8/2018	CB
Sodium Absorption Ratio	2.44	Ratio	Calculated	5/24/2018	TB
Arsenic	#	mg/kg	EPA 3051/6020	-----	MLE

# Whole sample saturated for SAR. No sample left to analyze Arsenic.



End of Report  
MLE/tab

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Date: May 31, 2018  
Request Number: 37241R  
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Matrix: Soil

**QUALITY CONTROL**

	Reference	Expected	Value	% Recovery
Nickel	LSQC001-10755	145	123	85
Copper	LSQC001-10755	10.0	10.2	102
Zinc	LSQC001-10755	10.0	10.2	102
Arsenic	LSQC001-10755	10.2	10.0	98
Selenium	LSQC001-10755	128	138	108
Silver	LSQC001-10755	79.0	88.2	112
Cadmium	LSQC001-10755	94.0	104	111
Barium	LSQC001-10755	403	324	80
Mercury	LSQC001-10755	149	120	81
Lead	LSQC001-10755	107	78.2	73
Total Chromium	LSQC001-10755	79.0	69.3	88
Soluble, Boron	ESI QC	1.00	1.08	108
pH	pH-QC	6.03	6.05	100
Conductivity	QCI-027-12	756	742	98
Calcium	ESI QC	20.0	20.4	102
Magnesium	ESI QC	50.0	50.8	102
Sodium	ESI QC	50.0	50.9	102

BTEX, GRO, & PAH Analyzed by ALS Lab in Fort Collins Colorado. See attached Report.  
ALS Lab Sample ID 1805001-1 thru 5

End of QC Report  
MLE/tab



Monte L. Ellis  
Laboratory Manager



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Laramie, WY 82070

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laramie@wal-lab.com

ph: 307-742-7995  
fax: 307-721-8956

Tammy Fredrickson  
Dominion Energy Wexpro  
2251 Westgate Dr.  
Rock Springs, WY 82901

Date: May 31, 2018  
Request Number: 37241R  
Date Received: 4/26/18  
Matrix: Soil

BTEX, GRO, DRO & PAH Analyzed by ALS Lab in Fort Collins Colorado.  
The following pages apply to the samples listed below.

WAL Lab Number	ALS Lab Number	Wexpro Sample ID
R3658	1805001-1	F. Wilson 26, Sample 1 4/25/18 9:45am
R3659	1805001-2	F. Wilson 26, Sample 2 4/25/18 9:50am
R3660	1805001-3	F. Wilson 26, Sample 3 4/25/18 10:00am
R3661	1805001-4	F. Wilson 26, Sample 4 4/25/18 10:06am
R3662	1805001-5	F. Wilson 26, Sample 5 4/25/18 10:15am



Monte L. Ellis  
Laboratory Manager



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Laramie, WY 82070

[www.wal-lab.com](http://www.wal-lab.com)  
[laramie@wal-lab.com](mailto:laramie@wal-lab.com)

ph: 307-742-7995  
fax: 307-721-8956





Friday, May 04, 2018

Monte Ellis  
Wyoming Analytical Laboratories, Inc.  
1660 Harrison St.  
Laramie, WY 82070

Re: ALS Workorder: 1805001  
Project Name:  
Project Number: 37241R

Dear Mr. Ellis:

Five soil samples were received from Wyoming Analytical Laboratories, Inc., on 4/30/2018. The samples were scheduled for the following analyses:

GC/MS Semivolatiles

GC/MS Volatiles

Total Extractable Petroleum Hydrocarbons (Diesel)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental  
Katie M. OBrien  
Project Manager

ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
AIHA	214884
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Louisiana (LA)	05057
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



## 1805001

### **GC/MS Volatiles:**

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

### **GC/MS Semivolatiles:**

The samples were analyzed using GC/MS following the current revision of SOP 506 based on SW-846 Method 8270D.

All acceptance criteria were met.

### **DRO:**

The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

## ALS -- Fort Collins

## SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.

Date: 04-May-18

Project: 37241R

Work Order: 1805001

Sample ID: R3658

Lab ID: 1805001-1

Legal Location:

Matrix: SOIL

Collection Date: 4/25/2018 09:45

Percent Moisture: 8.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: LML</b>
Diesel Range Organics	230	L	5.4	MG/KG	1	5/2/2018 18:20
Surr: O-TERPHENYL	84		49-114	%REC	1	5/2/2018 18:20
<b>GC/MS Semi-volatiles</b>			<b>SW8270</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: KJP</b>
NAPHTHALENE	ND		11000	UG/KG	5	5/3/2018 12:46
2-METHYLNAPHTHALENE	ND		11000	UG/KG	5	5/3/2018 12:46
ACENAPHTHYLENE	ND		11000	UG/KG	5	5/3/2018 12:46
ACENAPHTHENE	ND		11000	UG/KG	5	5/3/2018 12:46
FLUORENE	ND		11000	UG/KG	5	5/3/2018 12:46
PHENANTHRENE	ND		11000	UG/KG	5	5/3/2018 12:46
ANTHRACENE	ND		11000	UG/KG	5	5/3/2018 12:46
FLUORANTHENE	ND		11000	UG/KG	5	5/3/2018 12:46
PYRENE	ND		11000	UG/KG	5	5/3/2018 12:46
BENZO(A)ANTHRACENE	ND		11000	UG/KG	5	5/3/2018 12:46
CHRYSENE	ND		11000	UG/KG	5	5/3/2018 12:46
BENZO(B)FLUORANTHENE	ND		11000	UG/KG	5	5/3/2018 12:46
BENZO(K)FLUORANTHENE	ND		11000	UG/KG	5	5/3/2018 12:46
BENZO(A)PYRENE	ND		11000	UG/KG	5	5/3/2018 12:46
INDENO(1,2,3-CD)PYRENE	ND		11000	UG/KG	5	5/3/2018 12:46
DIBENZO(A,H)ANTHRACENE	ND		11000	UG/KG	5	5/3/2018 12:46
BENZO(G,H,I)PERYLENE	ND		11000	UG/KG	5	5/3/2018 12:46
Surr: NITROBENZENE-D5		X	32-110	%REC	5	5/3/2018 12:46
Surr: 2-FLUOROBIPHENYL		X	41-111	%REC	5	5/3/2018 12:46
Surr: TERPHENYL-D14		X	23-159	%REC	5	5/3/2018 12:46
<b>GC/MS Volatiles</b>			<b>SW8260</b>		<b>Prep Date: 5/1/2018</b>	<b>PrepBy: JXK</b>
BENZENE	ND		34	UG/KG	1	5/1/2018 19:11
TOLUENE	ND		34	UG/KG	1	5/1/2018 19:11
ETHYLBENZENE	ND		34	UG/KG	1	5/1/2018 19:11
M+P-XYLENE	310		34	UG/KG	1	5/1/2018 19:11
O-XYLENE	150		34	UG/KG	1	5/1/2018 19:11
TOTAL XYLENES	460		5	UG/KG	1	5/1/2018 19:11
Surr: DIBROMOFLUOROMETHANE	109		61-134	%REC	1	5/1/2018 19:11
Surr: TOLUENE-D8	100		57-135	%REC	1	5/1/2018 19:11
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	5/1/2018 19:11
GASOLINE RANGE ORGANICS	14000		3400	UG/KG	1	5/1/2018 19:11

## ALS – Fort Collins

## SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.  
 Project: 37241R  
 Sample ID: R3659  
 Legal Location:  
 Collection Date: 4/25/2018 09:50

Date: 04-May-18  
 Work Order: 1805001  
 Lab ID: 1805001-2  
 Matrix: SOIL  
 Percent Moisture: 16.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: LML</b>
Diesel Range Organics	230	DM	6	MG/KG	1	5/2/2018 14:42
Surr: O-TERPHENYL	88		49-114	%REC	1	5/2/2018 14:42
<b>GC/MS Semi-volatiles</b>			<b>SW8270</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: KJP</b>
NAPHTHALENE	ND		9900	UG/KG	5	5/3/2018 13:07
2-METHYLNAPHTHALENE	ND		9900	UG/KG	5	5/3/2018 13:07
ACENAPHTHYLENE	ND		9900	UG/KG	5	5/3/2018 13:07
ACENAPHTHENE	ND		9900	UG/KG	5	5/3/2018 13:07
FLUORENE	ND		9900	UG/KG	5	5/3/2018 13:07
PHENANTHRENE	ND		9900	UG/KG	5	5/3/2018 13:07
ANTHRACENE	ND		9900	UG/KG	5	5/3/2018 13:07
FLUORANTHENE	ND		9900	UG/KG	5	5/3/2018 13:07
PYRENE	ND		9900	UG/KG	5	5/3/2018 13:07
BENZO(A)ANTHRACENE	ND		9900	UG/KG	5	5/3/2018 13:07
CHRYSENE	ND		9900	UG/KG	5	5/3/2018 13:07
BENZO(B)FLUORANTHENE	ND		9900	UG/KG	5	5/3/2018 13:07
BENZO(K)FLUORANTHENE	ND		9900	UG/KG	5	5/3/2018 13:07
BENZO(A)PYRENE	ND		9900	UG/KG	5	5/3/2018 13:07
INDENO(1,2,3-CD)PYRENE	ND		9900	UG/KG	5	5/3/2018 13:07
DIBENZO(A,H)ANTHRACENE	ND		9900	UG/KG	5	5/3/2018 13:07
BENZO(G,H,I)PERYLENE	ND		9900	UG/KG	5	5/3/2018 13:07
Surr: NITROBENZENE-D5		X	32-110	%REC	5	5/3/2018 13:07
Surr: 2-FLUOROBIPHENYL		X	41-111	%REC	5	5/3/2018 13:07
Surr: TERPHENYL-D14		X	23-159	%REC	5	5/3/2018 13:07
<b>GC/MS Volatiles</b>			<b>SW8260</b>		<b>Prep Date: 5/1/2018</b>	<b>PrepBy: JXK</b>
BENZENE	ND		6	UG/KG	1	5/1/2018 19:39
TOLUENE	ND		6	UG/KG	1	5/1/2018 19:39
ETHYLBENZENE	ND		6	UG/KG	1	5/1/2018 19:39
M+P-XYLENE	24		6	UG/KG	1	5/1/2018 19:39
O-XYLENE	120		6	UG/KG	1	5/1/2018 19:39
TOTAL XYLENES	150		5	UG/KG	1	5/1/2018 19:39
Surr: DIBROMOFLUOROMETHANE	109		61-134	%REC	1	5/1/2018 19:39
Surr: TOLUENE-D8	100		57-135	%REC	1	5/1/2018 19:39
Surr: 4-BROMOFLUOROBENZENE	96		52-151	%REC	1	5/1/2018 19:39
GASOLINE RANGE ORGANICS	5200		600	UG/KG	1	5/1/2018 19:39

## ALS -- Fort Collins

## SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.

Date: 04-May-18

Project: 37241R

Work Order: 1805001

Sample ID: R3660

Lab ID: 1805001-3

Legal Location:

Matrix: SOIL

Collection Date: 4/25/2018 10:00

Percent Moisture: 17.6

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>			<b>Prep Date: 5/2/2018</b>
Diesel Range Organics	250	DM	6	MG/KG	1	PrepBy: LML 5/2/2018 15:04
Surr: O-TERPHENYL	84		49-114	%REC	1	5/2/2018 15:04
<b>GC/MS Semi-volatiles</b>			<b>SW8270</b>			<b>Prep Date: 5/2/2018</b>
NAPHTHALENE	ND		12000	UG/KG	5	PrepBy: KJP 5/3/2018 13:14
2-METHYLNAPHTHALENE	ND		12000	UG/KG	5	5/3/2018 13:14
ACENAPHTHYLENE	ND		12000	UG/KG	5	5/3/2018 13:14
ACENAPHTHENE	ND		12000	UG/KG	5	5/3/2018 13:14
FLUORENE	ND		12000	UG/KG	5	5/3/2018 13:14
PHENANTHRENE	ND		12000	UG/KG	5	5/3/2018 13:14
ANTHRACENE	ND		12000	UG/KG	5	5/3/2018 13:14
FLUORANTHENE	ND		12000	UG/KG	5	5/3/2018 13:14
PYRENE	ND		12000	UG/KG	5	5/3/2018 13:14
BENZO(A)ANTHRACENE	ND		12000	UG/KG	5	5/3/2018 13:14
CHRYSENE	ND		12000	UG/KG	5	5/3/2018 13:14
BENZO(B)FLUORANTHENE	ND		12000	UG/KG	5	5/3/2018 13:14
BENZO(K)FLUORANTHENE	ND		12000	UG/KG	5	5/3/2018 13:14
BENZO(A)PYRENE	ND		12000	UG/KG	5	5/3/2018 13:14
INDENO(1,2,3-CD)PYRENE	ND		12000	UG/KG	5	5/3/2018 13:14
DIBENZO(A,H)ANTHRACENE	ND		12000	UG/KG	5	5/3/2018 13:14
BENZO(G,H,I)PERYLENE	ND		12000	UG/KG	5	5/3/2018 13:14
Surr: NITROBENZENE-D5		X	32-110	%REC	5	5/3/2018 13:14
Surr: 2-FLUOROBIPHENYL		X	41-111	%REC	5	5/3/2018 13:14
Surr: TERPHENYL-D14		X	23-159	%REC	5	5/3/2018 13:14
<b>GC/MS Volatiles</b>			<b>SW8260</b>			<b>Prep Date: 5/1/2018</b>
BENZENE	ND		14	UG/KG	1	PrepBy: JXK 5/1/2018 20:07
TOLUENE	ND		14	UG/KG	1	5/1/2018 20:07
ETHYLBENZENE	ND		14	UG/KG	1	5/1/2018 20:07
M+P-XYLENE	99		14	UG/KG	1	5/1/2018 20:07
O-XYLENE	880		55	UG/KG	1	5/2/2018 15:35
TOTAL XYLENES	99		5	UG/KG	1	5/1/2018 20:07
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	5/1/2018 20:07
Surr: DIBROMOFLUOROMETHANE	106		61-134	%REC	1	5/2/2018 15:35
Surr: TOLUENE-D8	101		57-135	%REC	1	5/2/2018 15:35
Surr: TOLUENE-D8	100		57-135	%REC	1	5/1/2018 20:07
Surr: 4-BROMOFLUOROBENZENE	97		52-151	%REC	1	5/2/2018 15:35
Surr: 4-BROMOFLUOROBENZENE	91		52-151	%REC	1	5/1/2018 20:07
GASOLINE RANGE ORGANICS	59000	J	5500	UG/KG	1	5/2/2018 15:35

**ALS -- Fort Collins**
**SAMPLE SUMMARY REPORT**

**Client:** Wyoming Analytical Laboratories, Inc.  
**Project:** 37241R  
**Sample ID:** R3661  
**Legal Location:**  
**Collection Date:** 4/25/2018 10:06

**Date:** 04-May-18  
**Work Order:** 1805001  
**Lab ID:** 1805001-4  
**Matrix:** SOIL  
**Percent Moisture:** 12.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>			
Diesel Range Organics	52	LD	5.6	MG/KG	1	5/2/2018 15:26
Surr: O-TERPHENYL	85		49-114	%REC	1	5/2/2018 15:26
<b>GC/MS Semi-volatiles</b>			<b>SW8270</b>			
NAPHTHALENE	ND		9400	UG/KG	5	5/3/2018 13:28
2-METHYLNAPHTHALENE	ND		9400	UG/KG	5	5/3/2018 13:28
ACENAPHTHYLENE	ND		9400	UG/KG	5	5/3/2018 13:28
ACENAPHTHENE	ND		9400	UG/KG	5	5/3/2018 13:28
FLUORENE	ND		9400	UG/KG	5	5/3/2018 13:28
PHENANTHRENE	ND		9400	UG/KG	5	5/3/2018 13:28
ANTHRACENE	ND		9400	UG/KG	5	5/3/2018 13:28
FLUORANTHENE	ND		9400	UG/KG	5	5/3/2018 13:28
PYRENE	ND		9400	UG/KG	5	5/3/2018 13:28
BENZO(A)ANTHRACENE	ND		9400	UG/KG	5	5/3/2018 13:28
CHRYSENE	ND		9400	UG/KG	5	5/3/2018 13:28
BENZO(B)FLUORANTHENE	ND		9400	UG/KG	5	5/3/2018 13:28
BENZO(K)FLUORANTHENE	ND		9400	UG/KG	5	5/3/2018 13:28
BENZO(A)PYRENE	ND		9400	UG/KG	5	5/3/2018 13:28
INDENO(1,2,3-CD)PYRENE	ND		9400	UG/KG	5	5/3/2018 13:28
DIBENZO(A,H)ANTHRACENE	ND		9400	UG/KG	5	5/3/2018 13:28
BENZO(G,H,I)PERYLENE	ND		9400	UG/KG	5	5/3/2018 13:28
Surr: NITROBENZENE-D5		X	32-110	%REC	5	5/3/2018 13:28
Surr: 2-FLUOROBIPHENYL		X	41-111	%REC	5	5/3/2018 13:28
Surr: TERPHENYL-D14		X	23-159	%REC	5	5/3/2018 13:28
<b>GC/MS Volatiles</b>			<b>SW8260</b>			
BENZENE	ND		5.6	UG/KG	1	5/1/2018 20:36
TOLUENE	ND		5.6	UG/KG	1	5/1/2018 20:36
ETHYLBENZENE	6.8		5.6	UG/KG	1	5/1/2018 20:36
M+P-XYLENE	110		5.6	UG/KG	1	5/1/2018 20:36
O-XYLENE	43		5.6	UG/KG	1	5/1/2018 20:36
TOTAL XYLENES	150		5	UG/KG	1	5/1/2018 20:36
Surr: DIBROMOFLUOROMETHANE	107		61-134	%REC	1	5/1/2018 20:36
Surr: TOLUENE-D8	99		57-135	%REC	1	5/1/2018 20:36
Surr: 4-BROMOFLUOROBENZENE	100		52-151	%REC	1	5/1/2018 20:36
GASOLINE RANGE ORGANICS	1200		560	UG/KG	1	5/1/2018 20:36

## ALS -- Fort Collins

## SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.  
 Project: 37241R  
 Sample ID: R3662  
 Legal Location:  
 Collection Date: 4/25/2018 10:15

Date: 04-May-18  
 Work Order: 1805001  
 Lab ID: 1805001-5  
 Matrix: SOIL  
 Percent Moisture: 5.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Diesel Range Organics</b>			<b>SW8015M</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: LML</b>
Diesel Range Organics	780	DM	11	MG/KG	2	5/2/2018 14:20
Surr: O-TERPHENYL	75		49-114	%REC	2	5/2/2018 14:20
<b>GC/MS Semi-volatiles</b>			<b>SW8270</b>		<b>Prep Date: 5/2/2018</b>	<b>PrepBy: KJP</b>
NAPHTHALENE	ND		10000	UG/KG	5	5/3/2018 13:37
2-METHYLNAPHTHALENE	ND		10000	UG/KG	5	5/3/2018 13:37
ACENAPHTHYLENE	ND		10000	UG/KG	5	5/3/2018 13:37
ACENAPHTHENE	ND		10000	UG/KG	5	5/3/2018 13:37
FLUORENE	ND		10000	UG/KG	5	5/3/2018 13:37
PHENANTHRENE	ND		10000	UG/KG	5	5/3/2018 13:37
ANTHRACENE	ND		10000	UG/KG	5	5/3/2018 13:37
FLUORANTHENE	ND		10000	UG/KG	5	5/3/2018 13:37
PYRENE	ND		10000	UG/KG	5	5/3/2018 13:37
BENZO(A)ANTHRACENE	ND		10000	UG/KG	5	5/3/2018 13:37
CHRYSENE	ND		10000	UG/KG	5	5/3/2018 13:37
BENZO(B)FLUORANTHENE	ND		10000	UG/KG	5	5/3/2018 13:37
BENZO(K)FLUORANTHENE	ND		10000	UG/KG	5	5/3/2018 13:37
BENZO(A)PYRENE	ND		10000	UG/KG	5	5/3/2018 13:37
INDENO(1,2,3-CD)PYRENE	ND		10000	UG/KG	5	5/3/2018 13:37
DIBENZO(A,H)ANTHRACENE	ND		10000	UG/KG	5	5/3/2018 13:37
BENZO(G,H,I)PERYLENE	ND		10000	UG/KG	5	5/3/2018 13:37
Surr: NITROBENZENE-D5		X	32-110	%REC	5	5/3/2018 13:37
Surr: 2-FLUOROBIPHENYL		X	41-111	%REC	5	5/3/2018 13:37
Surr: TERPHENYL-D14		X	23-159	%REC	5	5/3/2018 13:37
<b>GC/MS Volatiles</b>			<b>SW8260</b>		<b>Prep Date: 5/1/2018</b>	<b>PrepBy: JXK</b>
BENZENE	ND		5.3	UG/KG	1	5/1/2018 21:04
TOLUENE	25		5.3	UG/KG	1	5/1/2018 21:04
ETHYLBENZENE	11		5.3	UG/KG	1	5/1/2018 21:04
M+P-XYLENE	130		5.3	UG/KG	1	5/1/2018 21:04
O-XYLENE	32		5.3	UG/KG	1	5/1/2018 21:04
TOTAL XYLENES	160		5	UG/KG	1	5/1/2018 21:04
Surr: DIBROMOFLUOROMETHANE	109		61-134	%REC	1	5/1/2018 21:04
Surr: TOLUENE-D8	98		57-135	%REC	1	5/1/2018 21:04
Surr: 4-BROMOFLUOROBENZENE	102		52-151	%REC	1	5/1/2018 21:04
GASOLINE RANGE ORGANICS	1000		530	UG/KG	1	5/1/2018 21:04



# ALS -- Fort Collins

# SAMPLE SUMMARY REPORT

Client: Wyoming Analytical Laboratories, Inc.  
 Project: 37241R  
 Sample ID: R3662  
 Legal Location:  
 Collection Date: 4/25/2018 10:15

Date: 04-May-18  
 Work Order: 1805001  
 Lab ID: 1805001-5  
 Matrix: SOIL  
 Percent Moisture: 5.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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## Explanation of Qualifiers

### Radiochemistry:

- "Report Limit" is the MDC
- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- \* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- LT - Result is less than requested MDC but greater than achieved MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

### Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate Injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- \* - Duplicate analysis (relative percent difference) not within control limits.
- S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

### Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- \* - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.
- G - A pattern resembling gasoline was detected in this sample.
- D - A pattern resembling diesel was detected in this sample.
- M - A pattern resembling motor oil was detected in this sample.
- C - A pattern resembling crude oil was detected in this sample.
- 4 - A pattern resembling JP-4 was detected in this sample.
- 5 - A pattern resembling JP-5 was detected in this sample.
- H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
  - gasoline
  - JP-8
  - diesel
  - mineral spirits
  - motor oil
  - Stoddard solvent
  - bunker C

## ALS -- Fort Collins

Date: 5/4/2018 12:06:

Client: Wyoming Analytical Laboratories, Inc.

## QC BATCH REPORT

Work Order: 1805001

Project: 37241R

Batch ID: HC180502-81-1 Instrument ID: FUELS-1 Method: SW8015M

LCS Sample ID: HC180502-81 Units: MG/KG Analysis Date: 5/2/2018 17:37

Client ID: Run ID: HC180502-8A Prep Date: 5/2/2018 DF: 1

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	66.8	5	62.5		107	81-129				20	
Surr: O-TERPHENYL	9.58		12.5		76	49-114					

MB Sample ID: HC180502-81 Units: MG/KG Analysis Date: 5/2/2018 13:37

Client ID: Run ID: HC180502-8A Prep Date: 5/2/2018 DF: 1

Analyte	Result	ReportLimit	Qual
Diesel Range Organics	ND	5	
Surr: O-TERPHENYL	9.84		79 49-114

The following samples were analyzed in this batch:

1805001-1	1805001-2	1805001-3
1805001-4	1805001-5	

Client: Wyoming Analytical Laboratories, Inc.  
 Work Order: 1805001  
 Project: 37241R

## QC BATCH REPORT

Batch ID: EX180502-3-1 Instrument ID HPSV4 Method: SW8270

LCS		Sample ID: EX180502-3		Units: UG/KG		Analysis Date: 5/3/2018 12:26					
Client ID:		Run ID: SV180503-44				Prep Date: 5/2/2018			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
NAPHTHALENE	1320	333	1670		79	51-100				30	
2-METHYLNAPHTHALENE	1310	333	1670		79	51-100				30	
ACENAPHTHYLENE	1320	333	1670		79	60-109				30	
ACENAPHTHENE	1340	333	1670		80	38-103				30	
FLUORENE	1360	333	1670		81	65-106				30	
PHENANTHRENE	1330	333	1670		80	66-107				30	
ANTHRACENE	1360	333	1670		81	65-108				30	
FLUORANTHENE	1390	333	1670		83	64-109				30	
PYRENE	1310	333	1670		79	48-118				30	
BENZO(A)ANTHRACENE	1320	333	1670		79	64-107				30	
CHRYSENE	1400	333	1670		84	65-108				30	
BENZO(B)FLUORANTHENE	1400	333	1670		84	60-111				30	
BENZO(K)FLUORANTHENE	1360	333	1670		82	62-111				30	
BENZO(A)PYRENE	1410	333	1670		85	63-109				30	
INDENO(1,2,3-CD)PYRENE	1340	333	1670		80	55-117				30	
DIBENZO(A,H)ANTHRACENE	1340	333	1670		81	55-120				30	
BENZO(G,H,I)PERYLENE	1280	333	1670		77	37-123				30	
Surr: NITROBENZENE-D5	1160		1670		69	32-110					
Surr: 2-FLUOROBIPHENYL	1400		1670		84	41-111					
Surr: TERPHENYL-D14	1430		1670		86	23-159					

Client: Wyoming Analytical Laboratories, Inc.  
Work Order: 1805001  
Project: 37241R

## QC BATCH REPORT

Batch ID: EX180502-3-1 Instrument ID HPSV4 Method: SW8270

MB Sample ID: EX180502-3 Units: UG/KG Analysis Date: 5/3/2018 12:05  
Client ID: Run ID: SV180503-44 Prep Date: 5/2/2018 DF: 1

Analyte	Result	ReportLimit	Qual
NAPHTHALENE	ND	330	
2-METHYLNAPHTHALENE	ND	330	
ACENAPHTHYLENE	ND	330	
ACENAPHTHENE	ND	330	
FLUORENE	ND	330	
PHENANTHRENE	ND	330	
ANTHRACENE	ND	330	
FLUORANTHENE	ND	330	
PYRENE	ND	330	
BENZO(A)ANTHRACENE	ND	330	
CHRYSENE	ND	330	
BENZO(B)FLUORANTHENE	ND	330	
BENZO(K)FLUORANTHENE	ND	330	
BENZO(A)PYRENE	ND	330	
INDENO(1,2,3-CD)PYRENE	ND	330	
DIBENZO(A,H)ANTHRACENE	ND	330	
BENZO(G,H,I)PERYLENE	ND	330	
Sum: NITROBENZENE-D5	1160	71	32-110
Sum: 2-FLUOROBIPHENYL	1450	87	41-111
Sum: TERPHENYL-D14	1590	95	23-159

The following samples were analyzed in this batch:

1805001-1	1805001-2	1805001-3
1805001-4	1805001-5	

Client: Wyoming Analytical Laboratories, Inc.  
 Work Order: 1805001  
 Project: 37241R

## QC BATCH REPORT

Batch ID: VL180501-2-1 Instrument ID HPV2 Method: SW8260

LCS	Sample ID: VL180501-2			Units: UG/KG		Analysis Date: 5/1/2018 11:55					
Client ID:	Run ID: VL180501-2A				Prep Date: 5/1/2018				DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	40.3	5	40		101	73-126				30	
TOLUENE	38.7	5	40		92	71-127				30	
ETHYLBENZENE	37.7	5	40		94	74-127				30	
M+P-XYLENE	71	5	80		89	79-126				30	
O-XYLENE	36.1	5	40		90	77-125				30	
Surr: DIBROMOFLUOROMETHANE	55.8		50		112	61-134					
Surr: TOLUENE-D8	48.8		50		97	57-135					
Surr: 4-BROMOFLUOROBENZENE	52.9		50		108	52-151					

LCSD	Sample ID: VL180501-2			Units: UG/KG			Analysis Date: 5/1/2018 12:18				
Client ID:	Run ID: VL180501-2A			Prep Date: 5/1/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	42.5	5	40		106	73-126		40.3	6	30	
TOLUENE	39.3	5	40		98	71-127		36.7	7	30	
ETHYLBENZENE	41.8	5	40		105	74-127		37.7	10	30	
M+P-XYLENE	77.1	5	80		96	79-126		71	8	30	
O-XYLENE	38.4	5	40		96	77-125		36.1	6	30	
Surr: DIBROMOFLUOROMETHANE	55		50		110	61-134			1		
Surr: TOLUENE-D8	49.7		50		99	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	52.8		50		106	52-151			0		

MB	Sample ID: VL180501-2	Units: UG/KG	Analysis Date: 5/1/2018 14:34
Client ID:	Run ID: VL180501-2A	Prep Date: 5/1/2018	DF: 1
Analyte	Result	ReportLimit	Qual
BENZENE	ND	5	
TOLUENE	ND	5	
ETHYLBENZENE	ND	5	
M+P-XYLENE	ND	5	
O-XYLENE	ND	5	
TOTAL XYLENES	ND	5	
Surr: DIBROMOFLUOROMETHANE	54.9	110	61-134
Surr: TOLUENE-D8	48.9	98	57-135
Surr: 4-BROMOFLUOROBENZENE	50.1	100	52-151

**Client:** Wyoming Analytical Laboratories, Inc.  
**Work Order:** 1805001  
**Project:** 37241R

## QC BATCH REPORT

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**Batch ID:** VL180501-2-1      **Instrument ID:** HPV2      **Method:** SW8260

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The following samples were analyzed in this batch:

1805001-1	1805001-2	1805001-3
1805001-4	1805001-5	

Client: Wyoming Analytical Laboratories, Inc.  
Work Order: 1805001  
Project: 37241R

## QC BATCH REPORT

Batch ID: VL180501-2-3 Instrument ID HPV2 Method: SW8260

LCS	Sample ID: VL180501-5			Units: UG/KG			Analysis Date: 5/1/2018 13:03				
Client ID:	Run ID: VL180501-2A			Prep Date: 5/1/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1760	500	2000		88	80-120				20	

LCSD	Sample ID: VL180501-5			Units: UG/KG			Analysis Date: 5/1/2018 13:26				
Client ID:	Run ID: VL180501-2A						Prep Date: 5/1/2018		DF: 1		
Analyte	Result	Report Limit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1760	500	2000		88	80-120		1760	0	20	

MB	Sample ID: VL180501-2	Units: UG/KG	Analysis Date: 5/1/2018 14:34	
Client ID:	Run ID: VL180501-2A	Prep Date: 5/1/2018	DF: 1	
Analyte	Result	ReportLimit	Qual	
GASOLINE RANGE ORGANICS	ND	500		

The following samples were analyzed in this batch:

1805001-1	1805001-2	1805001-3
1805001-4	1805001-5	

Client: Wyoming Analytical Laboratories, Inc.  
 Work Order: 1805001  
 Project: 37241R

## QC BATCH REPORT

Batch ID: VL180502-2-1 Instrument ID HPV2 Method: SW8260

LCS Sample ID: VL180502-2		Units: UG/KG				Analysis Date: 5/2/2018 10:43					
Client ID:		Run ID: VL180502-2A				Prep Date: 5/2/2018		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	38.6	5	40		96	73-126				30	
TOLUENE	38.2	5	40		90	71-127				30	
ETHYLBENZENE	37.8	5	40		94	74-127				30	
M+P-XYLENE	71.1	5	80		89	79-126				30	
O-XYLENE	35.6	5	40		89	77-125				30	
Surr: DIBROMOFLUOROMETHANE	52.9		50		106	61-134					
Surr: TOLUENE-D8	50.8		50		102	57-135					
Surr: 4-BROMOFLUOROBENZENE	51.4		50		103	52-151					

LCSD Sample ID: VL180502-2		Units: UG/KG				Analysis Date: 5/2/2018 11:06					
Client ID:		Run ID: VL180502-2A				Prep Date: 5/2/2018		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	42.6	5	40		107	73-126		38.6	10	30	
TOLUENE	40.1	5	40		100	71-127		36.2	10	30	
ETHYLBENZENE	41.4	5	40		104	74-127		37.8	9	30	
M+P-XYLENE	78.7	5	80		98	79-126		71.1	10	30	
O-XYLENE	38.8	5	40		97	77-125		35.6	9	30	
Surr: DIBROMOFLUOROMETHANE	53.5		50		107	61-134			1		
Surr: TOLUENE-D8	49.8		50		100	57-135			2		
Surr: 4-BROMOFLUOROBENZENE	50.2		50		100	52-151			3		

MB	Sample ID: VL180502-2	Units: UG/KG	Analysis Date: 5/2/2018 13:02	
Client ID:	Run ID: VL180502-2A	Prep Date: 5/2/2018	DF: 1	
Analyte	Result	ReportLimit	Qual	
BENZENE	ND	5		
TOLUENE	ND	5		
ETHYLBENZENE	ND	5		
M+P-XYLENE	ND	5		
O-XYLENE	ND	5		
TOTAL XYLENES	ND	5		
Surr:	54.2		108	61-134
DIBROMOFLUOROMETHANE				
Surr: TOLUENE-D8	49.3		99	57-135
Surr: 4-	51.2		102	52-151
BROMOFLUOROBENZENE				

The following samples were analyzed in this batch: 1805001-3



Client: Wyoming Analytical Laboratories, Inc.  
Work Order: 1805001  
Project: 37241R

## QC BATCH REPORT

Batch ID: VL180502-2-4 Instrument ID HPV2 Method: SW8260

LCS	Sample ID: VL180502-5			Units: UG/KG			Analysis Date: 5/2/2018 11:52				
Client ID:	Run ID: VL180502-2A			Prep Date: 5/2/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	1870	500	2000		98	80-120				20	

LCSD	Sample ID: VL180502-5			Units: UG/KG			Analysis Date: 5/2/2018 12:14				
Client ID:	Run ID: VL180502-2A			Prep Date: 5/2/2018			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	2020	500	2000		101	80-120		1970	2	20	

MB	Sample ID: VL180502-2			Units: UG/KG	Analysis Date: 5/2/2018 13:02		
Client ID:	Run ID: VL180502-2A			Prep Date: 5/2/2018		DF: 1	
Analyte	Result	ReportLimit	Qual				
GASOLINE RANGE ORGANICS	ND	500					

The following samples were analyzed in this batch:

1805001-3