ANALYTICAL REPORT

July 26, 2017

API# 083-06418
Location ID# 393155
Document 2496218

Colorado Oil & Gas Conservation

Sample Delivery Group:	L922515
Samples Received:	07/14/2017
Project Number:	083-06418
Description:	Pilcher #1
Site:	224353
Report To:	Jim Hughes 707 Wapiti Court, Ste 204 Rifle, CO 81650

Entire Report Reviewed By:

Nancy McLain
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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0713171220 L922515-01 Solid

Collected by: Jim Hughes | Collected date/time: 07/13/17 12:20 | Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG1000956	1	07/21/17 05:51	07/21/17 17:15	ST
Calculated Results	WG1000082	1	07/18/17 17:16	07/20/17 12:39	MA
Wet Chemistry by Method 3060A/7196A	WG999087	10	07/19/17 09:07	07/20/17 12:39	MA
Wet Chemistry by Method 9045D	WG998856	1	07/15/17 11:17	07/15/17 11:45	MA
Wet Chemistry by Method 9050AMod	WG999358	1	07/17/17 12:01	07/17/17 12:01	KK
Mercury by Method 7471A	WG999148	1	07/15/17 07:43	07/17/17 08:22	TRB
Metals (ICP) by Method 6010B	WG1000082	1	07/18/17 17:16	07/19/17 03:06	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG999993	25	07/15/17 15:24	07/20/17 03:59	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG999430	25	07/15/17 15:24	07/18/17 17:35	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG999467	500	07/19/17 11:31	07/20/17 11:31	DMW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG999477	200	07/19/17 08:22	07/24/17 19:19	CLG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG999477	50	07/19/17 08:22	07/24/17 03:53	CLG

0713171220 L922515-02 Waste

Collected by: Jim Hughes | Collected date/time: 07/13/17 12:20 | Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG999970	1	07/18/17 10:01	07/18/17 10:01	KK
Metals (ICP) by Method 6010B	WG1000412	1	07/19/17 15:56	07/19/17 20:20	ST

0713171245 L922515-03 Solid

Collected by: Jim Hughes | Collected date/time: 07/13/17 12:45 | Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG1000956	1	07/21/17 05:51	07/21/17 17:18	ST
Calculated Results	WG1000082	1	07/18/17 17:16	07/20/17 12:40	MA
Wet Chemistry by Method 3060A/7196A	WG999087	1	07/19/17 09:07	07/20/17 12:40	MA
Wet Chemistry by Method 9045D	WG998856	1	07/15/17 11:17	07/15/17 11:45	MA
Wet Chemistry by Method 9050AMod	WG999358	1	07/17/17 12:01	07/17/17 12:01	KK
Mercury by Method 7471A	WG999148	1	07/15/17 07:43	07/17/17 08:25	TRB
Metals (ICP) by Method 6010B	WG1000082	1	07/18/17 17:16	07/19/17 03:08	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG999993	1	07/15/17 15:24	07/20/17 05:28	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG999430	1	07/15/17 15:24	07/18/17 17:57	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG999467	10	07/19/17 11:31	07/20/17 04:06	DMW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG999477	1	07/19/17 08:22	07/20/17 22:00	CLG

0713171245 L922515-04 Waste

Collected by: Jim Hughes | Collected date/time: 07/13/17 12:45 | Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG999970	1	07/18/17 10:01	07/18/17 10:01	KK
Metals (ICP) by Method 6010B	WG1000412	1	07/19/17 15:56	07/19/17 20:24	ST

0713171310 L922515-05 Solid

Collected by: Jim Hughes | Collected date/time: 07/13/17 13:10 | Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Calculated Results	WG1000956	1	07/21/17 05:51	07/21/17 19:28	ST
Calculated Results	WG1000082	1	07/18/17 17:16	07/20/17 12:41	MA
Wet Chemistry by Method 3060A/7196A	WG999087	10	07/19/17 09:07	07/20/17 12:41	MA
Wet Chemistry by Method 9045D	WG998856	1	07/15/17 11:17	07/15/17 11:45	MA

0713171310 L922515-05 Solid

Collected by: Jim Hughes
Collected date/time: 07/13/17 13:10
Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 9050AMod	WG999358	1	07/17/17 12:01	07/17/17 12:01	KK
Mercury by Method 7471A	WG999148	1	07/15/17 07:43	07/17/17 07:41	TRB
Metals (ICP) by Method 6010B	WG1000082	1	07/18/17 17:16	07/19/17 03:11	CCE
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG999993	1	07/15/17 15:24	07/20/17 05:50	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG999430	1	07/15/17 15:24	07/16/17 14:32	LRL
Semi-Volatile Organic Compounds (GC) by Method 8015	WG999467	10	07/19/17 11:31	07/20/17 03:44	DMW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG999477	1	07/19/17 08:22	07/20/17 21:39	CLG

0713171310 L922515-06 Waste

Collected by: Jim Hughes
Collected date/time: 07/13/17 13:10
Received date/time: 07/14/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Preparation by Method 1311	WG999970	1	07/18/17 10:01	07/18/17 10:01	KK
Metals (ICP) by Method 6010B	WG1000412	1	07/19/17 15:56	07/19/17 20:27	ST

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy McLain
Technical Service Representative

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.657		1	07/21/2017 17:15	WG1000956

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	9.32		1.00	1	07/20/2017 12:39	WG1000082

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	ND		20.0	10	07/20/2017 12:39	WG999087

Sample Narrative:

L922515-01 WG999087: . SAMPLE WAS DARK AND TURBID AND HAD TO BE RUN AT A DILUTION

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.11	T8	1	07/15/2017 11:45	WG998856

Sample Narrative:

L922515-01 WG998856: 6.11 at 21.3c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1800		1	07/17/2017 12:01	WG999358

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0200	1	07/17/2017 08:22	WG999148

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	07/19/2017 03:06	WG1000082
Barium	95.5		0.500	1	07/19/2017 03:06	WG1000082
Cadmium	ND		0.500	1	07/19/2017 03:06	WG1000082
Chromium	9.32		1.00	1	07/19/2017 03:06	WG1000082
Copper	12.4		2.00	1	07/19/2017 03:06	WG1000082
Lead	28.3		0.500	1	07/19/2017 03:06	WG1000082
Nickel	8.08		2.00	1	07/19/2017 03:06	WG1000082
Selenium	ND		2.00	1	07/19/2017 03:06	WG1000082
Silver	ND		1.00	1	07/19/2017 03:06	WG1000082
Zinc	70.0		5.00	1	07/19/2017 03:06	WG1000082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	77.6		2.50	25	07/20/2017 03:59	WG999993
(S) a,a,a-Trifluorotoluene(FID)	*90.6*		*77.0-120*		*07/20/2017 03:59*	WG999993

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.0250	25	07/18/2017 17:35	WG999430
Toluene	ND		0.125	25	07/18/2017 17:35	WG999430
Ethylbenzene	0.0530		0.0250	25	07/18/2017 17:35	WG999430
Total Xylenes	0.840		0.0750	25	07/18/2017 17:35	WG999430
(S) Toluene-d8	*108*		*80.0-120*		*07/18/2017 17:35*	WG999430
(S) Dibromofluoromethane	*85.5*		*74.0-131*		*07/18/2017 17:35*	WG999430
(S) a,a,a-Trifluorotoluene	*103*		*80.0-120*		*07/18/2017 17:35*	WG999430
(S) 4-Bromofluorobenzene	*119*		*64.0-132*		*07/18/2017 17:35*	WG999430

Sample Narrative:

L922515-01 WG999430: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	121000		2000	500	07/20/2017 11:31	WG999467
(S) o-Terphenyl	*53.7*	J7	*18.0-148*		*07/20/2017 11:31*	WG999467

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	8.78		0.300	50	07/24/2017 03:53	WG999477
Acenaphthene	29.2		0.300	50	07/24/2017 03:53	WG999477
Acenaphthylene	ND		0.300	50	07/24/2017 03:53	WG999477
Benzo(a)anthracene	1.48		0.300	50	07/24/2017 03:53	WG999477
Benzo(a)pyrene	ND		0.300	50	07/24/2017 03:53	WG999477
Benzo(b)fluoranthene	ND		0.300	50	07/24/2017 03:53	WG999477
Benzo(g,h,i)perylene	ND		0.300	50	07/24/2017 03:53	WG999477
Benzo(k)fluoranthene	ND		0.300	50	07/24/2017 03:53	WG999477
Chrysene	1.10		0.300	50	07/24/2017 03:53	WG999477
Dibenz(a,h)anthracene	ND		0.300	50	07/24/2017 03:53	WG999477
Fluoranthene	0.641		0.300	50	07/24/2017 03:53	WG999477
Fluorene	55.7		0.300	50	07/24/2017 03:53	WG999477
Indeno(1,2,3-cd)pyrene	ND		0.300	50	07/24/2017 03:53	WG999477
Naphthalene	47.2		1.00	50	07/24/2017 03:53	WG999477
Phenanthrene	163		0.300	50	07/24/2017 03:53	WG999477
Pyrene	2.39		0.300	50	07/24/2017 03:53	WG999477
1-Methylnaphthalene	379		4.00	200	07/24/2017 19:19	WG999477
2-Methylnaphthalene	443		4.00	200	07/24/2017 19:19	WG999477
2-Chloronaphthalene	ND		1.00	50	07/24/2017 03:53	WG999477
(S) p-Terphenyl-d14	*147*	J7	*23.0-120*		*07/24/2017 19:19*	WG999477
(S) p-Terphenyl-d14	*86.5*	J7	*23.0-120*		*07/24/2017 03:53*	WG999477
(S) Nitrobenzene-d5	*12200*	J7	*14.0-149*		*07/24/2017 03:53*	WG999477
(S) Nitrobenzene-d5	*78.6*	J7	*14.0-149*		*07/24/2017 19:19*	WG999477
(S) 2-Fluorobiphenyl	*186*	J7	*34.0-125*		*07/24/2017 19:19*	WG999477
(S) 2-Fluorobiphenyl	*213*	J7	*34.0-125*		*07/24/2017 03:53*	WG999477

Sample Narrative:

L922515-01 WG999477: Dilution due to matrix

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/18/2017 10:01:22 AM	WG999970
Fluid	1		7/18/2017 10:01:22 AM	WG999970
Initial pH	6.26		7/18/2017 10:01:22 AM	WG999970
Final pH	5.02		7/18/2017 10:01:22 AM	WG999970

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Boron	ND		2.00		1	07/19/2017 20:20	WG1000412

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.642		1	07/21/2017 17:18	WG1000956

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	ND		1.00	1	07/20/2017 12:40	WG1000082

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	10.0		2.00	1	07/20/2017 12:40	WG999087

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	7.50	T8	1	07/15/2017 11:45	WG998856

Sample Narrative:

L922515-03 WG998856: 7.50 at 20.8c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	1210		1	07/17/2017 12:01	WG999358

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0200	1	07/17/2017 08:25	WG999148

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.37		2.00	1	07/19/2017 03:08	WG1000082
Barium	159		0.500	1	07/19/2017 03:08	WG1000082
Cadmium	ND		0.500	1	07/19/2017 03:08	WG1000082
Chromium	8.51		1.00	1	07/19/2017 03:08	WG1000082
Copper	17.5		2.00	1	07/19/2017 03:08	WG1000082
Lead	18.7		0.500	1	07/19/2017 03:08	WG1000082
Nickel	11.9		2.00	1	07/19/2017 03:08	WG1000082
Selenium	ND		2.00	1	07/19/2017 03:08	WG1000082
Silver	ND		1.00	1	07/19/2017 03:08	WG1000082
Zinc	70.6		5.00	1	07/19/2017 03:08	WG1000082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.145		0.100	1	07/20/2017 05:28	WG999993
(S) a,a,a-Trifluorotoluene(FID)	*89.1*		*77.0-120*		*07/20/2017 05:28*	WG999993

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/18/2017 17:57	WG999430
Toluene	ND		0.00500	1	07/18/2017 17:57	WG999430
Ethylbenzene	ND		0.00100	1	07/18/2017 17:57	WG999430
Total Xylenes	ND		0.00300	1	07/18/2017 17:57	WG999430
(S) Toluene-d8	*95.1*		*80.0-120*		*07/18/2017 17:57*	WG999430
(S) Dibromofluoromethane	*96.7*		*74.0-131*		*07/18/2017 17:57*	WG999430
(S) a,a,a-Trifluorotoluene	*94.9*		*80.0-120*		*07/18/2017 17:57*	WG999430
(S) 4-Bromofluorobenzene	*107*		*64.0-132*		*07/18/2017 17:57*	WG999430

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	54.3		40.0	10	07/20/2017 04:06	WG999467
(S) o-Terphenyl	*78.5*		*18.0-148*		*07/20/2017 04:06*	WG999467

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/20/2017 22:00	WG999477
Acenaphthene	ND		0.00600	1	07/20/2017 22:00	WG999477
Acenaphthylene	ND		0.00600	1	07/20/2017 22:00	WG999477
Benzo(a)anthracene	ND		0.00600	1	07/20/2017 22:00	WG999477
Benzo(a)pyrene	ND		0.00600	1	07/20/2017 22:00	WG999477
Benzo(b)fluoranthene	ND		0.00600	1	07/20/2017 22:00	WG999477
Benzo(g,h,i)perylene	ND		0.00600	1	07/20/2017 22:00	WG999477
Benzo(k)fluoranthene	ND		0.00600	1	07/20/2017 22:00	WG999477
Chrysene	0.00879		0.00600	1	07/20/2017 22:00	WG999477
Dibenz(a,h)anthracene	ND		0.00600	1	07/20/2017 22:00	WG999477
Fluoranthene	ND		0.00600	1	07/20/2017 22:00	WG999477
Fluorene	ND		0.00600	1	07/20/2017 22:00	WG999477
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/20/2017 22:00	WG999477
Naphthalene	ND		0.0200	1	07/20/2017 22:00	WG999477
Phenanthrene	0.0198		0.00600	1	07/20/2017 22:00	WG999477
Pyrene	0.00607		0.00600	1	07/20/2017 22:00	WG999477
1-Methylnaphthalene	0.0305		0.0200	1	07/20/2017 22:00	WG999477
2-Methylnaphthalene	0.0255		0.0200	1	07/20/2017 22:00	WG999477
2-Chloronaphthalene	ND		0.0200	1	07/20/2017 22:00	WG999477
(S) p-Terphenyl-d14	*75.0*		*23.0-120*		*07/20/2017 22:00*	WG999477
(S) Nitrobenzene-d5	*102*		*14.0-149*		*07/20/2017 22:00*	WG999477
(S) 2-Fluorobiphenyl	*84.0*		*34.0-125*		*07/20/2017 22:00*	WG999477

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/18/2017 10:01:22 AM	WG999970
Fluid	1		7/18/2017 10:01:22 AM	WG999970
Initial pH	6.29		7/18/2017 10:01:22 AM	WG999970
Final pH	5.66		7/18/2017 10:01:22 AM	WG999970

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Boron	ND		2.00		1	07/19/2017 20:24	WG1000412

Calculated Results

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Sodium Adsorption Ratio	0.0769		1	07/21/2017 19:28	WG1000956

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Trivalent	5.75		1.00	1	07/20/2017 12:41	WG1000082

Wet Chemistry by Method 3060A/7196A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chromium,Hexavalent	ND		20.0	10	07/20/2017 12:41	WG999087

Sample Narrative:

L922515-05 WG999087: . SAMPLE WAS DARK AND TURBID AND HAD TO BE RUN AT A DILTION

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	6.89	T8	1	07/15/2017 11:45	WG998856

Sample Narrative:

L922515-05 WG998856: 6.89 at 20.56c

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	Dilution	Analysis date / time	Batch
Specific Conductance	352		1	07/17/2017 12:01	WG999358

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0305		0.0200	1	07/17/2017 07:41	WG999148

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	07/19/2017 03:11	WG1000082
Barium	127		0.500	1	07/19/2017 03:11	WG1000082
Cadmium	ND		0.500	1	07/19/2017 03:11	WG1000082
Chromium	5.75		1.00	1	07/19/2017 03:11	WG1000082
Copper	12.3		2.00	1	07/19/2017 03:11	WG1000082
Lead	15.0		0.500	1	07/19/2017 03:11	WG1000082
Nickel	6.34		2.00	1	07/19/2017 03:11	WG1000082
Selenium	ND		2.00	1	07/19/2017 03:11	WG1000082
Silver	ND		1.00	1	07/19/2017 03:11	WG1000082
Zinc	49.9		5.00	1	07/19/2017 03:11	WG1000082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.247		0.100	1	07/20/2017 05:50	WG999993
(S) a,a,a-Trifluorotoluene(FID)	*86.3*		*77.0-120*		*07/20/2017 05:50*	WG999993

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.00100	1	07/16/2017 14:32	WG999430
Toluene	ND		0.00500	1	07/16/2017 14:32	WG999430
Ethylbenzene	ND		0.00100	1	07/16/2017 14:32	WG999430
Total Xylenes	ND		0.00300	1	07/16/2017 14:32	WG999430
(S) Toluene-d8	*97.3*		*80.0-120*		*07/16/2017 14:32*	WG999430
(S) Dibromofluoromethane	*118*		*74.0-131*		*07/16/2017 14:32*	WG999430
(S) α,α,α-Trifluorotoluene	*85.6*		*80.0-120*		*07/16/2017 14:32*	WG999430
(S) 4-Bromofluorobenzene	*64.0*		*64.0-132*		*07/16/2017 14:32*	WG999430

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	134		40.0	10	07/20/2017 03:44	WG999467
(S) o-Terphenyl	*85.3*		*18.0-148*		*07/20/2017 03:44*	WG999467

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	07/20/2017 21:39	WG999477
Acenaphthene	ND		0.00600	1	07/20/2017 21:39	WG999477
Acenaphthylene	ND		0.00600	1	07/20/2017 21:39	WG999477
Benzo(a)anthracene	ND		0.00600	1	07/20/2017 21:39	WG999477
Benzo(a)pyrene	ND		0.00600	1	07/20/2017 21:39	WG999477
Benzo(b)fluoranthene	ND		0.00600	1	07/20/2017 21:39	WG999477
Benzo(g,h,i)perylene	ND		0.00600	1	07/20/2017 21:39	WG999477
Benzo(k)fluoranthene	ND		0.00600	1	07/20/2017 21:39	WG999477
Chrysene	ND		0.00600	1	07/20/2017 21:39	WG999477
Dibenz(a,h)anthracene	ND		0.00600	1	07/20/2017 21:39	WG999477
Fluoranthene	ND		0.00600	1	07/20/2017 21:39	WG999477
Fluorene	0.0193		0.00600	1	07/20/2017 21:39	WG999477
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	07/20/2017 21:39	WG999477
Naphthalene	ND		0.0200	1	07/20/2017 21:39	WG999477
Phenanthrene	ND		0.00600	1	07/20/2017 21:39	WG999477
Pyrene	ND		0.00600	1	07/20/2017 21:39	WG999477
1-Methylnaphthalene	ND		0.0200	1	07/20/2017 21:39	WG999477
2-Methylnaphthalene	ND		0.0200	1	07/20/2017 21:39	WG999477
2-Chloronaphthalene	ND		0.0200	1	07/20/2017 21:39	WG999477
(S) p-Terphenyl-d14	*64.5*		*23.0-120*		*07/20/2017 21:39*	WG999477
(S) Nitrobenzene-d5	*145*		*14.0-149*		*07/20/2017 21:39*	WG999477
(S) 2-Fluorobiphenyl	*72.1*		*34.0-125*		*07/20/2017 21:39*	WG999477

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/18/2017 10:01:22 AM	WG999970
Fluid	1		7/18/2017 10:01:22 AM	WG999970
Initial pH	6.57		7/18/2017 10:01:22 AM	WG999970
Final pH	5.02		7/18/2017 10:01:22 AM	WG999970

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Boron	ND		2.00		1	07/19/2017 20:27	WG1000412

Method Blank (MB)

(MB) R3234818-1 07/20/17 12:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chromium,Hexavalent	U		0.64	2.00

L922265-07 Original Sample (OS) • Duplicate (DUP)

(OS) L922265-07 07/20/17 12:28 • (DUP) R3234818-4 07/20/17 12:28

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	U	0	1	0		20

L923141-04 Original Sample (OS) • Duplicate (DUP)

(OS) L923141-04 07/20/17 12:44 • (DUP) R3234818-8 07/20/17 12:44

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chromium,Hexavalent	ND	1.16	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234818-2 07/20/17 12:26 • (LCSD) R3234818-3 07/20/17 12:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	56.9	51.4	51.6	90	91	80-120			0	20

L922265-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922265-07 07/20/17 12:28 • (MS) R3234818-5 07/20/17 12:29 • (MSD) R3234818-6 07/20/17 12:30

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Hexavalent	21.4	U	18.7	18.7	87	87	1	75-125			0	20

L921556-08 Original Sample (OS) • Duplicate (DUP)

(OS) L921556-08 07/15/17 11:45 • (DUP) WG998856-3 07/15/17 11:45

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.85	7.86	1	0.127	T8	1

Sample Narrative:

OS: 7.85 at 22.1c

DUP: 7.86 at 22.1c

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG998856-1 07/15/17 11:45 • (LCSD) WG998856-2 07/15/17 11:45

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	su	su	su	%	%	%			%	%
pH	6.38	6.37	6.38	99.8	100	98.4-102			0.157	1

Sample Narrative:

LCS: 6.37 at 21.3c

LCSD: 6.38 at 21.3c

Method Blank (MB)

(MB) WG999358-1 07/17/17 12:01

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	2.62			

L922881-05 Original Sample (OS) • Duplicate (DUP)

(OS) L922881-05 07/17/17 12:01 • (DUP) WG999358-4 07/17/17 12:01

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	551	559	1	1.44		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) WG999358-2 07/17/17 12:01 • (LCSD) WG999358-3 07/17/17 12:01

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCSD Result umhos/cm	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Specific Conductance	1070	1080	1090	101	102	90.0-110			0.922	20

Method Blank (MB)

(MB) R3233714-1 07/17/17 07:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233714-2 07/17/17 07:36 • (LCSD) R3233714-3 07/17/17 07:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.284	0.284	95	95	80-120			0	20

L922515-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922515-05 07/17/17 07:41 • (MS) R3233714-4 07/17/17 07:43 • (MSD) R3233714-5 07/17/17 07:46

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.0305	0.285	0.279	85	83	1	75-125			2	20

Method Blank (MB)

(MB) R3234260-1 07/19/17 02:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Copper	U		0.53	2.00
Lead	U		0.19	0.500
Nickel	U		0.49	2.00
Selenium	U		0.74	2.00
Silver	U		0.28	1.00
Zinc	U		0.59	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234260-2 07/19/17 02:17 • (LCSD) R3234260-3 07/19/17 02:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	102	105	102	105	80-120			3	20
Barium	100	100	102	100	102	80-120			1	20
Cadmium	100	103	105	103	105	80-120			2	20
Chromium	100	107	110	107	110	80-120			3	20
Copper	100	102	103	102	103	80-120			1	20
Lead	100	104	106	104	106	80-120			2	20
Nickel	100	106	109	106	109	80-120			2	20
Selenium	100	107	111	107	111	80-120			4	20
Silver	20.0	19.2	19.8	96	99	80-120			3	20
Zinc	100	104	106	104	106	80-120			2	20

L923035-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L923035-26 07/19/17 02:23 • (MS) R3234260-6 07/19/17 02:31 • (MSD) R3234260-7 07/19/17 02:33

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	138	3.27	131	129	93	91	1	75-125			1	20
Barium	138	163	303	297	102	97	1	75-125			2	20
Cadmium	138	ND	132	131	96	95	1	75-125			1	20
Chromium	138	19.0	150	150	95	95	1	75-125			0	20
Copper	138	29.8	167	165	99	98	1	75-125			1	20
Lead	138	19.7	162	161	103	102	1	75-125			1	20

L923035-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L923035-26 07/19/17 02:23 • (MS) R3234260-6 07/19/17 02:31 • (MSD) R3234260-7 07/19/17 02:33

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel	138	23.6	171	169	107	105	1	75-125			1	20
Selenium	138	ND	134	132	97	96	1	75-125			1	20
Silver	27.6	ND	23.6	23.4	86	85	1	75-125			1	20
Zinc	138	87.5	220	217	96	94	1	75-125			1	20

Method Blank (MB)

(MB) R3234640-1 07/19/17 19:28

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Boron	U		0.667	2.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234640-2 07/19/17 19:31 • (LCSD) R3234640-3 07/19/17 19:35

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
Boron	10.0	9.91	9.89	99	99	80-120			0	20

L922139-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922139-01 07/19/17 19:38 • (MS) R3234640-5 07/19/17 19:45 • (MSD) R3234640-6 07/19/17 19:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	10.0	ND	10.3	10.1	103	101	1	75-125			2	20

Method Blank (MB)

(MB) R3234832-3 07/20/17 00:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.3*			*77.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234832-1 07/19/17 23:31 • (LCSD) R3234832-2 07/19/17 23:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%			%	%
TPH (GC/FID) Low Fraction	5.50	5.96	6.47	108	118	70.0-136			8.21	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*105*	*77.0-120*				

L922515-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922515-01 07/20/17 03:59 • (MS) R3234832-4 07/20/17 04:21 • (MSD) R3234832-5 07/20/17 04:43

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
TPH (GC/FID) Low Fraction	5.50	77.6	132	125	39.6	34.2	25	10.0-147			5.83	30
(S) a,a,a-Trifluorotoluene(FID)					*94.7*	*94.7*		*77.0-120*				

Method Blank (MB)

(MB) R3233952-3 07/16/17 12:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000270	0.00100
Ethylbenzene	U		0.000297	0.00100
Toluene	U		0.000434	0.00500
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*104*			*74.0-131*
(S) a,a,a-Trifluorotoluene	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.5*			*64.0-132*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3233952-1 07/16/17 10:47 • (LCSD) R3233952-2 07/16/17 11:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0309	0.0299	123	119	71.0-124			3.31	20
Ethylbenzene	0.0250	0.0282	0.0271	113	109	77.0-120			3.78	20
Toluene	0.0250	0.0287	0.0278	115	111	77.0-120			3.47	20
Xylenes, Total	0.0750	0.0833	0.0804	111	107	77.0-120			3.54	20
(S) Toluene-d8				*102*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*104*	*105*	*74.0-131*				
(S) a,a,a-Trifluorotoluene				*98.1*	*98.6*	*80.0-120*				
(S) 4-Bromofluorobenzene				*92.8*	*91.8*	*64.0-132*				

L922765-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922765-06 07/18/17 00:47 • (MS) R3233952-4 07/17/17 20:32 • (MSD) R3233952-5 07/17/17 20:54

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0299	U	0.810	0.870	108	116	25	13.0-146			7.10	27
Ethylbenzene	0.0299	U	0.762	0.773	102	104	25	10.0-147			1.49	31
Toluene	0.0299	U	0.786	0.829	105	111	25	10.0-144			5.35	28
Xylenes, Total	0.0896	U	2.24	2.29	99.8	102	25	10.0-150			2.59	31
(S) Toluene-d8					*102*	*103*		*80.0-120*				
(S) Dibromofluoromethane					*96.5*	*98.0*		*74.0-131*				
(S) a,a,a-Trifluorotoluene					*98.3*	*98.6*		*80.0-120*				
(S) 4-Bromofluorobenzene					*90.5*	*90.0*		*64.0-132*				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

Method Blank (MB)

(MB) R3234738-1 07/19/17 23:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	*55.7*			*18.0-148*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3234738-2 07/19/17 23:35 • (LCSD) R3234738-3 07/19/17 23:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	60.0	44.3	37.5	73.9	62.5	50.0-150			16.7	20
(S) o-Terphenyl				*72.0*	*63.0*	*18.0-148*				

L922725-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L922725-06 07/20/17 02:39 • (MS) R3234738-4 07/20/17 02:50 • (MSD) R3234738-5 07/20/17 03:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	60.0	1.02	40.4	36.2	65.6	58.7	1	50.0-150			10.9	20
(S) o-Terphenyl					*68.8*	*67.5*		*18.0-148*				

Method Blank (MB)

(MB) R3235331-3 07/20/17 16:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	*85.2*			*14.0-149*
(S) 2-Fluorobiphenyl	*83.1*			*34.0-125*
(S) p-Terphenyl-d14	*69.8*			*23.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3235331-1 07/20/17 15:17 • (LCSD) R3235331-2 07/20/17 15:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0669	0.0675	83.6	84.4	50.0-125			0.980	20
Acenaphthene	0.0800	0.0663	0.0672	82.9	84.0	52.0-120			1.32	20
Acenaphthylene	0.0800	0.0658	0.0673	82.2	84.1	51.0-120			2.25	20
Benzo(a)anthracene	0.0800	0.0592	0.0608	74.0	76.0	46.0-121			2.71	20
Benzo(a)pyrene	0.0800	0.0600	0.0598	75.0	74.7	42.0-121			0.320	20
Benzo(b)fluoranthene	0.0800	0.0574	0.0610	71.7	76.3	42.0-123			6.20	20
Benzo(g,h,i)perylene	0.0800	0.0668	0.0687	83.5	85.9	43.0-128			2.87	20
Benzo(k)fluoranthene	0.0800	0.0618	0.0644	77.3	80.5	45.0-128			4.13	20
Chrysene	0.0800	0.0647	0.0657	80.9	82.2	48.0-127			1.57	20
Dibenz(a,h)anthracene	0.0800	0.0682	0.0699	85.3	87.4	43.0-132			2.46	20
Fluoranthene	0.0800	0.0634	0.0648	79.3	81.0	49.0-129			2.13	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

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Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	0.0800	0.0635	0.0647	79.3	80.8	50.0-120			1.85	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0683	0.0696	85.4	87.1	44.0-131			1.96	20
Naphthalene	0.0800	0.0636	0.0661	79.5	82.6	50.0-120			3.85	20
Phenanthrene	0.0800	0.0603	0.0629	75.3	78.6	48.0-120			4.30	20
Pyrene	0.0800	0.0595	0.0618	74.4	77.2	48.0-135			3.72	20
1-Methylnaphthalene	0.0800	0.0661	0.0685	82.6	85.6	52.0-122			3.60	20
2-Methylnaphthalene	0.0800	0.0631	0.0653	78.9	81.6	52.0-120			3.31	20
2-Chloronaphthalene	0.0800	0.0665	0.0671	83.1	83.8	50.0-120			0.900	20
(S) Nitrobenzene-d5				*89.2*	*96.4*	*14.0-149*				
(S) 2-Fluorobiphenyl				*86.8*	*87.9*	*34.0-125*				
(S) p-Terphenyl-d14				*73.4*	*75.2*	*23.0-120*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

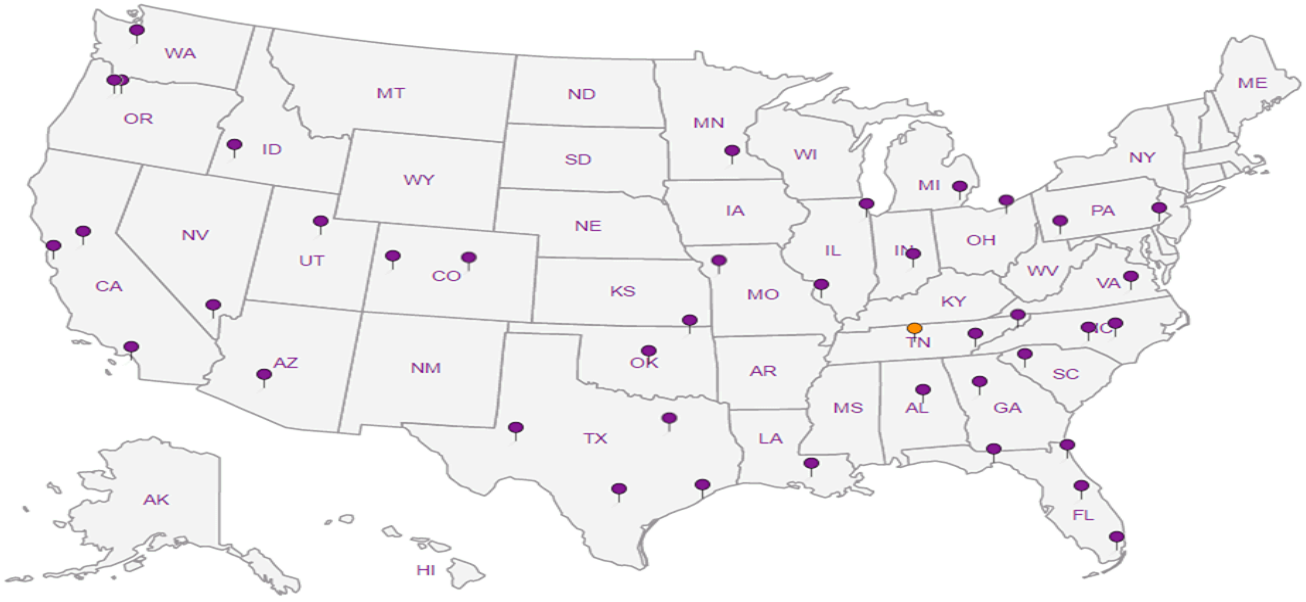
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Colorado Oil & Gas Conservation

707 Wapiti Court, Ste 204
Rifle, CO 81650

Billing Information:
Attn: Accounts Payable
1120 Lincoln St., Suite 801
Denver, CO 80203

Report to: Jim Hughes

Email To: jimo.hughes@state.co.us
stan.spencer@state.co.us

Project Description: Pilcher #1

City/State Collected: CO

Phone: 970-625-2497
Fax: 970-625-5682

Client Project # 083-06418

Lab Project # COILGASRCO-TABLE910

Collected by (print): Jim Hughes

Site/Facility ID # 224353

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X_Yes
FAX? ___No ___Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX,GRO/DRO 4ozClr-NoPres	Cr6,SPCON,pH 4ozClr-NoPres	Metals 2ozClr-NoPres	SAR 4ozClr-NoPres	SV8270PAHSIM 4ozAmb-NoPres	TCLP Boron 1L-Clr-NoPres					Rem./Contaminant	Sample # (lab only)
0713171220	G	SS	0-6"	7/13/17	12:20	5	X	X	X	X	X							-01
0713171220	G	SS	0-6"	7/13/17	12:20	1						X						-02
0713171245	G	SS	0-6"	7/13/17	12:45	5	X	X	X	X	X							-03
0713171245	G	SS	0-6"	7/13/17	12:45	1						X						-04
0713171310	G	SS	0-6"	7/13/17	1:10	5	X	X	X	X	X							-05
0713171310	G	SS	0-6"	7/13/17	1:10	1						X						-06

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ___

Remarks: AGICP,ASICP,BAICP,CDICP,CRICP,CUICP,HG,NIICP,PBICP,SEICP,ZNICP
TraCN 7136 2667 6419

pH ___ Temp ___
Flow ___ Other ___

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 922515
H172

Acctnum: COILGASRCO
Template: T111892
Prelogin: P551161
TSR: 288 - Daphne Richards
PB:
Shipped Via: FedEX Ground

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	7/13/17	1430	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Chris Work

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___
Temp: 1.3 +0.1 °C Bottles Received: 18
Date: 7/14/17 Time: 0845

Hold #
Condition: (lab use only)
COC Seal Intact: ___Y ___N ___NA
pH Checked: NCF: OK

ESC LAB SCIENCES
Cooler Receipt Form

Client:		SDG#	
Cooler Received/Opened On: 7/14/17	Temperature:	1.3	
Received By: **Chris Ward**			
Signature: Chris Ward			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			