



October 15, 2014

Mr. Alex Fischer
West Environmental Supervisor
Colorado Oil & Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, Colorado

**RE: 3rd Quarter 2014 Groundwater Monitoring Report
Peakview Operating Company, LLC
Voloshin-Morton 1(-8)
Craig, Colorado**

Dear Mr. Fischer:

LT Environmental, Inc. (LTE) has been requested to submit this report on behalf of Peakview Operating Company, LLC (Peakview) detailing quarterly groundwater monitoring activities at the Voloshin-Morton 1(-8) well pad (Site).

QUARTERLY GROUNDWATER MONITORING ACTIVITIES

Depth to Groundwater Measurements

Depth to groundwater was measured in monitoring wells PMW01, MW02 through MW05, PMW09, MW16, MW17, PMW18, MW19 and MW20 on September 22, 2014. The recorded groundwater levels were used to calculate potentiometric surfaces and purge volumes. The depths to static groundwater level ranged from 2.44 feet below top of casing (BTOC) in PMW18 to 4.94 feet BTOC in MW03 (Table 1).

Calculating the difference in the top of casing and depth to groundwater, LTE determined the groundwater elevation in each monitoring well and generated a Groundwater Elevation Map (Figure 2). Based on the second quarter 2014 Groundwater Elevation Map, groundwater flow was generally to the north, toward the Yampa River.

Groundwater Sampling Procedures

Each monitoring well was purged of a minimum of three well casing volumes or until dry prior to collection of groundwater samples. Groundwater samples were collected from each monitoring well utilizing disposable polyethylene bailers. Groundwater samples were collected in laboratory-prepared sample bottles, placed on ice, and delivered under chain-of-custody protocol to ESC Lab Sciences of Mt. Juliet, Tennessee (ESC) for laboratory analysis of constituents identified in COGCC Table 910-1.



Groundwater Analytical Results

During the September 2014 groundwater monitoring event 12 groundwater samples were collected and submitted to ESC for constituents identified in COGCC Table 910-1. All analytes were either below the laboratory detection limits or were within COGCC standards. Groundwater analytical results for the September 2014 monitoring event are depicted on Figure 3. Table 2 summarizes historical analytical data for all groundwater sampling events. The laboratory analytical reports are included as an attachment.

The September 2014 groundwater monitoring event represents the first quarter of complaint groundwater data at the Site. Peakview and LTE understand that after four consecutive quarters of groundwater compliance with COGCC Table 910-1 allowable concentrations have been observed, the remediation number associated with the Site shall be closed. The next quarterly monitoring event is scheduled for December, 2014.

Should you have any questions regarding this report, please contact LTE at (970) 285-9985.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read "Chris McKisson".

Chris McKisson
Project Environmental Scientist

A handwritten signature in blue ink, appearing to read "Rob Fishburn".

Rob Fishburn, P.G.
Western Slope Office Manager/
Senior Hydrogeologist





Attachments:

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Map
Figure 3 – Groundwater Analytical Data
Table 1 – Groundwater Field Parameters
Table 2 – Groundwater Analytical Results
Laboratory Analytical Reports



IMAGE COURTESY OF ESRI

LEGEND

-  SOIL BORING/MONITORING WELL
-  REMOVED/DESTROYED MONITORING WELL
-  ESTIMATED GROUNDWATER FLOW DIRECTION
-  RELATIVE GROUNDWATER ELEVATION CONTOUR
CONTOUR INTERVAL = 0.50 FEET
GRADIENT = 0.025 FEET/FOOT
NM: NOT MEASURED

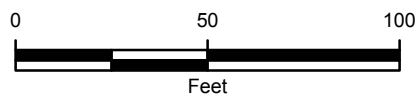
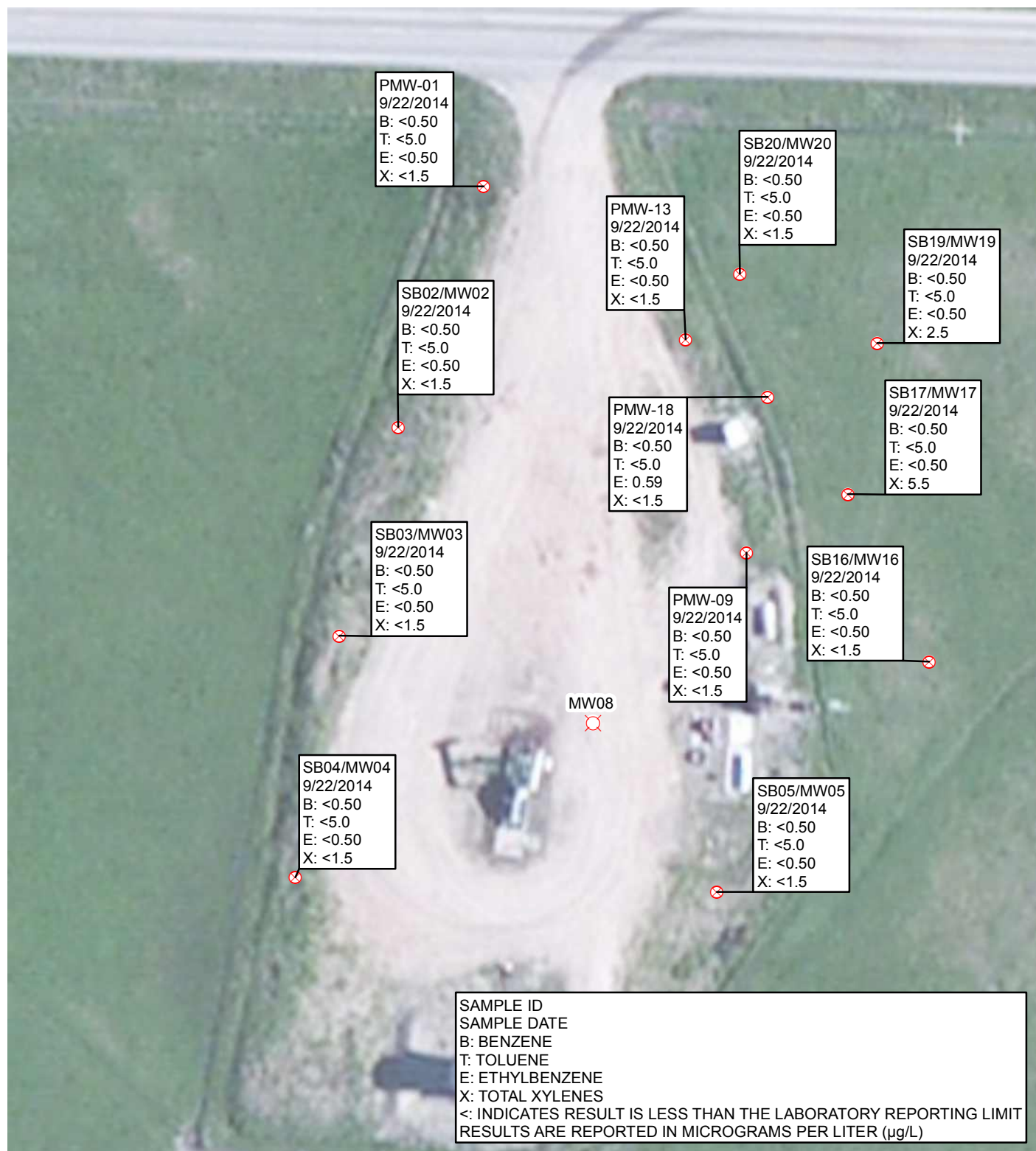


FIGURE 2
RELATIVE GROUNDWATER ELEVATION MAP
 SEPTEMBER 22, 2014
 VOLOSHIN MORTON 1-8
 MOFFAT COUNTY, COLORADO
PEAKVIEW OPERATING COMPANY





LEGEND

- ⊗ SOIL BORING/MONITORING WELL
- ⊗ REMOVED/DESTROYED MONITORING WELL

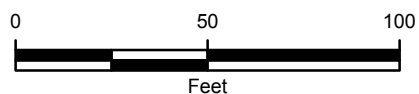


FIGURE 3
GROUNDWATER ANALYTICAL RESULTS
SEPTEMBER 22, 2014
VOLOSHIN MORTON 1-8
MOFFAT COUNTY, COLORADO
PEAKVIEW OPERATING COMPANY



TABLE 1
VOLOSHIN MORTON 1-8
GROUNWATER FIELD PARAMETERS
PEAKVIEW OPERATING COMPANY, LLC

Sample ID	Date	TD ft btoc	DTW ft btoc	DTP ft btoc	Temperature °C	Conductivity μS/cm	TDS g/L	pH
MW01	5/24/2013*	4.56	2.35	NM	NM	NM	NM	NM
	9/17/2013	5.32	1.73	NA	18.1	1,115	0.832	7.15
PMW01	6/16/2014	10.07	3.07	NA	9.64	1,303	1.196	7.12
	9/22/2014	10.06	3.12	NA	14.66	1,302.7	1.055	7.16
MW02	5/24/2013	9.63	4.76	NA	10.89	1,544	1.350	8.05
	6/11/2013	9.21	3.43	NA	9.57	1,274	1.176	7.75
	9/17/2013	9.20	4.48	NA	14.4	1,194	0.975	7.47
	3/12/2014	9.55	3.73	NA	5.62	937	0.911	7.97
	6/16/2014	9.55	3.70	NA	11.47	1,780	1.56	7.62
	9/22/2014	9.57	3.90	NA	14.65	1,800.8	1.420	7.69
MW03	5/24/2013	9.75	5.02	NA	11.00	627	0.533	7.50
	9/17/2013	9.75	5.29	NA	17.9	717	0.539	7.25
	6/16/2014	9.72	4.55	NA	11.70	662	0.572	7.57
	9/22/2014	9.74	4.94	NA	17.10	744.2	0.563	7.50
MW04	5/24/2013	9.74	5.42	NA	9.92	1,758	1.592	7.42
	9/17/2013	9.74	5.31	NA	17.2	1,278	0.981	8.26
	6/16/2014	9.75	4.50	NA	10.24	895	0.809	8.23
	9/22/2014	9.73	4.76	NA	16.23	1,123.7	0.877	8.51
MW05	5/24/2013	9.50	3.90	NA	10.72	1,379	1.229	7.93
	9/17/2013	9.55	3.95	NA	17.0	1,660	NM	7.17
	6/16/2014	9.55	3.50	NA	11.50	1,293	1.096	7.66
	9/22/2014	9.54	4.28	NA	15.97	1,523.9	0.988	7.33
MW08	5/24/2013	9.66	4.32	NA	NM	NM	NM	NM
	9/17/2013	9.66	6.40	NA	18.0	1,114	0.832	7.96
MW09	5/24/2013	7.61	4.30	NA	NM	NM	NM	NM
PMW09	6/16/2014	10.05	3.73	NA	8.53	1,418	1.344	7.84
	9/22/2014	10.04	3.39	NA	13.82	1,429.9	1.181	7.70
MW13	5/24/2013	9.75	4.66	NA	12.67	1,649	1.384	7.89
	6/11/2013	9.74	4.43	NA	10.43	1,568	1.409	7.66
	9/17/2013	9.75	5.44	NA	16.7	1,605	1.235	7.34
PMW13	6/16/2014	10.11	4.55	NA	9.93	2,421	2.231	7.53
	9/22/2014	10.10	4.91	NA	14.68	2,575.7	2.077	7.31



TABLE 1
VOLOSHIN MORTON 1-8
GROUNWATER FIELD PARAMETERS
PEAKVIEW OPERATING COMPANY, LLC

Sample ID	Date	TD ft btoc	DTW ft btoc	DTP ft btoc	Temperature °C	Conductivity μS/cm	TDS g/L	pH
MW16	5/24/2013	9.43	4.06	NA	12.30	3,371	2.868	8.92
	6/11/2013	9.43	2.14	NA	10.38	3,884	3.489	8.85
	9/17/2013	9.44	4.20	NA	13.8	4,416	3.646	8.22
	6/16/2014	9.43	3.04	NA	9.22	4,872	4.534	8.42
	9/22/2014	9.42	3.76	NA	12.25	2,969.4	2.551	8.46
MW17	5/24/2013	9.39	3.91	NA	10.49	1,711	1.538	7.90
	6/11/2013	9.06	2.61	NA	10.60	4,014	3.591	6.71
	9/17/2013	9.14	3.80	NA	13.6	1,371	1.137	7.66
	6/16/2014	9.15	2.41	NA	11.09	1,365	1.216	7.64
	9/22/2014	9.15	3.21	NA	12.89	1,491.0	1.260	7.83
MW18	5/24/2013	9.38	3.93	3.57	10.92	1,652	1.445	8.06
	6/11/2013	9.14	2.50	2.44	10.09	4,041	3.670	6.78
	9/17/2013	9.21	3.88	3.76	NM	NM	NM	NM
PMW18	6/16/2014	9.90	2.20	NA	9.77	1,967	1.806	7.75
	9/22/2014	9.91	2.44	NA	12.66	2,109.4	1.794	7.45
MW19	5/24/2013	9.70	3.82	NA	10.35	1,507	1.355	7.72
	6/11/2013	9.46	2.19	NA	10.15	1,210	1.093	7.68
	9/17/2013	9.46	3.60	NA	13.3	1,108	0.929	7.53
	3/12/2014	9.45	2.90	NA	3.77	750	0.820	7.29
	6/16/2014	9.45	2.60	NA	10.30	1,022	0.924	7.51
	9/22/2014	9.45	3.09	NA	12.38	1,136.4	0.973	7.64
MW20	5/24/2013	9.20	3.78	NA	9.56	1,161	1.066	7.94
	6/11/2013	9.20	1.70	NA	9.47	1,449	1.338	8.42
	9/17/2013	9.20	3.44	NA	13.0	1,139	0.955	8.09
	3/12/2014	9.21	2.78	NA	4.46	1,331	1.423	8.23
	6/16/2014	9.20	2.52	NA	10.20	1,105	0.984	8.20
	9/22/2014	9.20	2.86	NA	12.55	1,024.6	0.873	7.86

Notes:

< - less than the stated reporting limit

BOLD - indicates result exceeds the COGCC concentration level

COGCC - Colorado Oil and Gas Conservation Commission

g/L - grams per liter

μS/cm - microsiemens per centimeter

NA - not applicable

SU - standard unit

ft - feet

btoc - below top of casing

NM - not measured

TD - total depth

DTW - depth to water

DTP - depth to product (estimated based on visual observation)

* - well casing filled with silt after installation



TABLE 2
VOLOSHIN MORTON 1-8
GROUNDWATER ANALYTICAL RESULTS
PEAKVIEW OPERATING COMPANY, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Chlorides µg/L	Sulfates µg/L	TDS µg/L
MW01	9/17/2013	<0.50	<5.0	<0.50	<1.5	68,000	43,000	740,000
PMW01	6/16/2014	5.2	<5.0	<0.50	<1.5	140,000	43,000	1,000,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW02	5/24/2013	460	<5.0	<0.50	2.7	NA	NA	NA
	6/11/2013	160	<25	<2.5	12	NA	NA	NA
	9/17/2014	7.4	<5.0	<0.50	<1.5	46,000	320,000	1,000,000
	3/12/2014	<1.0	<5.0	<1.0	<3.0	NA	NA	NA
	6/16/2014	<0.50	<5.0	<0.50	<1.5	70,000	820,000	1,900,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW03	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2014	<0.50	<5.0	<0.50	<1.5	22,000	35,000	570,000
	6/16/2014	0.70	<5.0	<0.50	<1.5	22,000	38,000	540,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW04	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	21,000	66,000	1,300,000
	6/16/2014	0.53	<5.0	<0.50	<1.5	20,000	52,000	1,000,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW05	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	9,500	190,000	890,000
	6/16/2014	0.77	<5.0	<0.50	<1.5	7,300	140,000	1,100,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW08	5/24/2013	<0.50	<5.0	1.1	4.1	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW09	5/24/2013	2,200	310	390	540	NA	NA	NA
PMW09	6/16/2014	<0.50	<5.0	<0.50	<1.5	71,000	680,000	1,500,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW13	5/24/2013	8.9	<5.0	<0.50	1.8	NA	NA	NA
	6/11/2013	31	<5.0	<0.50	1.6	NA	NA	NA
	9/17/2013	7.1	<5.0	<0.50	<1.5	100,000	150,000	1,200,000
PMW13	6/16/2014	<0.50	<5.0	<0.50	<1.5	130,000	1,200,000	2,300,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
MW16	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	6/11/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	76,000	990,000	3,400,000
	6/16/2014	<0.50	<5.0	<0.50	<1.5	140,000	1,600,000	4,600,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA



TABLE 2
VOLOSHIN MORTON 1-8
GROUNDWATER ANALYTICAL RESULTS
PEAKVIEW OPERATING COMPANY, LLC

Sample ID	Date	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Chlorides µg/L	Sulfates µg/L	TDS µg/L
MW17	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	6/11/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	43,000	310,000	1,200,000
	6/16/2014	<0.50	<5.0	<0.50	<1.5	44,000	330,000	1,200,000
	9/22/2014	<0.50	<5.0	<0.50	5.5	NA	NA	NA
MW18	5/24/2013	5,700	5,800	470	2,400	82,000	360,000	1,400,000
	6/11/2013	4,700	5,200	490	2,500	NA	NA	NA
PMW18	6/16/2014	10	<5.0	1.8	<1.5	53,000	1,000,000	1,800,000
	9/22/2014	<0.50	<5.0	0.59	<1.5	NA	NA	NA
MW19	5/24/2013	0.72	<5.0	<0.50	<1.5	NA	NA	NA
	6/11/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	26,000	320,000	1,000,000
	3/12/2014	<1.0	<5.0	<1.0	<3.0	NA	NA	NA
	6/16/2014	<0.50	<5.0	<0.50	<1.5	23,000	260,000	880,000
	9/22/2014	<0.50	<5.0	<0.50	2.5	NA	NA	NA
MW20	5/24/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	6/11/2013	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
	9/17/2013	<0.50	<5.0	<0.50	<1.5	26,000	220,000	860,000
	3/12/2014	<1.0	<5.0	<1.0	<3.0	NA	NA	NA
	6/16/2014	<0.50	<5.0	<0.50	<1.5	38,000	280,000	970,000
	9/22/2014	<0.50	<5.0	<0.50	<1.5	NA	NA	NA
COGCC CONCENTRATION LEVELS	X	5	560	700	1,400	<1.25 x background	<1.25 x background	<1.25 x background

Notes:
< - less than the stated reporting limit
BOLD - indicates result exceeds the COGCC concentration level
COGCC - Colorado Oil and Gas Conservation Commission
µg/L - micrograms per liter
NA - not analyzed
SU - standard unit





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Tax I.D. 62-0814289

Est. 1970

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

Report Summary

Wednesday October 01, 2014

Report Number: L723478


Samples Received: 09/24/14

Client Project: 047813001

Description: Voloshin Morton 1(-8)

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:


Jared Willis , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-IN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364, EPA - TN002

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : PMW01
Collected By : Dustin Held
Collection Date : 09/22/14 16:35

ESC Sample # : L723478-01

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

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Reported: 10/01/14 09:47 Printed: 10/01/14 09:48



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Est. 1970

REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW02
Collected By : Dustin Held
Collection Date : 09/22/14 16:40

ESC Sample # : L723478-02

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW03
Collected By : Dustin Held
Collection Date : 09/22/14 16:45

ESC Sample # : L723478-03

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW04
Collected By : Dustin Held
Collection Date : 09/22/14 16:50

ESC Sample # : L723478-04

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%) a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW05
Collected By : Dustin Held
Collection Date : 09/22/14 17:00

ESC Sample # : L723478-05

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : PMW09
Collected By : Dustin Held
Collection Date : 09/22/14 16:30

ESC Sample # : L723478-06

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : PMW13
Collected By : Dustin Held
Collection Date : 09/22/14 16:20

ESC Sample # : L723478-07

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Rob Fishburn
LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW16
Collected By : Dustin Held
Collection Date : 09/22/14 17:05

ESC Sample # : L723478-08

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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820 Megan Ave, Unit B
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October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW17
Collected By : Dustin Held
Collection Date : 09/22/14 17:10

ESC Sample # : L723478-09

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/25/14	1
Total Xylene	5.5	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : PMW18
Collected By : Dustin Held
Collection Date : 09/22/14 16:25

ESC Sample # : L723478-10

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/25/14	1
Toluene	BDL	5.0	ug/l	8021B	09/25/14	1
Ethylbenzene	0.59	0.50	ug/l	8021B	09/25/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/25/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	100.		% Rec.	8021B	09/25/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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LT Environmental- Rifle, CO
820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW19
Collected By : Dustin Held
Collection Date : 09/22/14 17:15

ESC Sample # : L723478-11

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	10/01/14	1
Toluene	BDL	5.0	ug/l	8021B	10/01/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	10/01/14	1
Total Xylene	2.5	1.5	ug/l	8021B	10/01/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	102.		% Rec.	8021B	10/01/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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820 Megan Ave, Unit B
Rifle, CO 81650

October 01, 2014

Date Received : September 24, 2014
Description : Voloshin Morton 1(-8)
Sample ID : MW20
Collected By : Dustin Held
Collection Date : 09/22/14 17:20

ESC Sample # : L723478-12

Site ID :

Project # : 047813001

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.50	ug/l	8021B	09/29/14	1
Toluene	BDL	5.0	ug/l	8021B	09/29/14	1
Ethylbenzene	BDL	0.50	ug/l	8021B	09/29/14	1
Total Xylene	BDL	1.5	ug/l	8021B	09/29/14	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021B	09/29/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Summary of Remarks For Samples Printed
10/01/14 at 09:48:10

TSR Signing Reports: 358
R5 - Desired TAT

Sample: L723478-01 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-02 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-03 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-04 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-05 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-06 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-07 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-08 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-09 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-10 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-11 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47
Sample: L723478-12 Account: LTENVRCO Received: 09/24/14 09:00 Due Date: 10/01/14 00:00 RPT Date: 10/01/14 09:47



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LT Environmental- Rifle, CO
Rob Fishburn
820 Megan Ave, Unit B

Rifle, CO 81650

Quality Assurance Report
Level II

L723478

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October 01, 2014

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .0005	mg/l			WG744827	09/25/14 11:33
Ethylbenzene	< .0005	mg/l			WG744827	09/25/14 11:33
Toluene	< .005	mg/l			WG744827	09/25/14 11:33
Total Xylene	< .0015	mg/l			WG744827	09/25/14 11:33
a,a,a-Trifluorotoluene(PID)		% Rec.	100.0	55-122	WG744827	09/25/14 11:33
Benzene	< .0005	mg/l			WG745110	09/29/14 12:20
Ethylbenzene	< .0005	mg/l			WG745110	09/29/14 12:20
Toluene	< .005	mg/l			WG745110	09/29/14 12:20
Total Xylene	< .0015	mg/l			WG745110	09/29/14 12:20
a,a,a-Trifluorotoluene(PID)		% Rec.	99.30	55-122	WG745110	09/29/14 12:20
Benzene	< .0005	mg/l			WG745157	10/01/14 00:25
Ethylbenzene	< .0005	mg/l			WG745157	10/01/14 00:25
Toluene	< .005	mg/l			WG745157	10/01/14 00:25
Total Xylene	< .0015	mg/l			WG745157	10/01/14 00:25
a,a,a-Trifluorotoluene(PID)		% Rec.	102.0	55-122	WG745157	10/01/14 00:25

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/l	.05	0.0496	99.2	70-130	WG744827
Ethylbenzene	mg/l	.05	0.0492	98.5	70-130	WG744827
Toluene	mg/l	.05	0.0483	96.6	70-130	WG744827
Total Xylene	mg/l	.15	0.150	100.	70-130	WG744827
a,a,a-Trifluorotoluene(PID)				99.20	55-122	WG744827
Benzene	mg/l	.05	0.0417	83.3	70-130	WG745110
Ethylbenzene	mg/l	.05	0.0426	85.1	70-130	WG745110
Toluene	mg/l	.05	0.0412	82.5	70-130	WG745110
Total Xylene	mg/l	.15	0.130	86.6	70-130	WG745110
a,a,a-Trifluorotoluene(PID)				98.60	55-122	WG745110
Benzene	mg/l	.05	0.0459	91.8	70-130	WG745157
Ethylbenzene	mg/l	.05	0.0454	90.9	70-130	WG745157
Toluene	mg/l	.05	0.0456	91.2	70-130	WG745157
Total Xylene	mg/l	.15	0.138	91.9	70-130	WG745157
a,a,a-Trifluorotoluene(PID)				102.0	55-122	WG745157

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/l	0.0458	0.0496	92.0	70-130	7.92	20	WG744827
Ethylbenzene	mg/l	0.0454	0.0492	91.0	70-130	8.15	20	WG744827
Toluene	mg/l	0.0446	0.0483	89.0	70-130	8.06	20	WG744827
Total Xylene	mg/l	0.139	0.150	92.0	70-130	8.03	20	WG744827
a,a,a-Trifluorotoluene(PID)				98.90	55-122			WG744827
Benzene	mg/l	0.0454	0.0417	91.0	70-130	8.52	20	WG745110
Ethylbenzene	mg/l	0.0458	0.0426	92.0	70-130	7.41	20	WG745110
Toluene	mg/l	0.0445	0.0412	89.0	70-130	7.58	20	WG745110
Total Xylene	mg/l	0.140	0.130	93.0	70-130	7.54	20	WG745110
a,a,a-Trifluorotoluene(PID)				99.30	55-122			WG745110

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/l	0.0463	0.0459	93.0	70-130	0.960	20	WG745157
Ethylbenzene	mg/l	0.0463	0.0454	92.0	70-130	1.78	20	WG745157
Toluene	mg/l	0.0462	0.0456	92.0	70-130	1.22	20	WG745157
Total Xylene	mg/l	0.141	0.138	94.0	70-130	1.89	20	WG745157
a,a,a-Trifluorotoluene(PID)				102.0	55-122			WG745157

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
Benzene	mg/l	0.0483	0.00111	.05	94.0	57.2-131	L723233-04	WG744827
Ethylbenzene	mg/l	0.0464	0.0	.05	93.0	67.5-135	L723233-04	WG744827
Toluene	mg/l	0.0453	0.000169	.05	90.0	63.7-134	L723233-04	WG744827
Total Xylene	mg/l	0.143	0.000183	.15	95.0	65.9-138	L723233-04	WG744827
a,a,a-Trifluorotoluene(PID)					96.80	55-122		WG744827
Benzene	mg/l	0.0905	0.0454	.05	90.0	57.2-131	L723556-01	WG745110
Ethylbenzene	mg/l	0.0611	0.0158	.05	91.0	67.5-135	L723556-01	WG745110
Toluene	mg/l	0.0495	0.00462	.05	90.0	63.7-134	L723556-01	WG745110
Total Xylene	mg/l	0.189	0.0508	.15	92.0	65.9-138	L723556-01	WG745110
a,a,a-Trifluorotoluene(PID)					98.70	55-122		WG745110
Benzene	mg/l	0.0457	0.0000338	.05	91.0	57.2-131	L723478-11	WG745157
Ethylbenzene	mg/l	0.0447	0.0000503	.05	89.0	67.5-135	L723478-11	WG745157
Toluene	mg/l	0.0447	0.0000777	.05	89.0	63.7-134	L723478-11	WG745157
Total Xylene	mg/l	0.136	0.00252	.15	89.0	65.9-138	L723478-11	WG745157
a,a,a-Trifluorotoluene(PID)					102.0	55-122		WG745157

Analyte	Units	Matrix Spike Duplicate			Limit	RPD	Limit	Ref Samp	Batch
		MSD	Ref	%Rec					
Benzene	mg/l	0.0484	0.0483	94.6	57.2-131	0.230	20	L723233-04	WG744827
Ethylbenzene	mg/l	0.0465	0.0464	93.1	67.5-135	0.280	20	L723233-04	WG744827
Toluene	mg/l	0.0461	0.0453	91.9	63.7-134	1.80	20	L723233-04	WG744827
Total Xylene	mg/l	0.144	0.143	95.7	65.9-138	0.810	20	L723233-04	WG744827
a,a,a-Trifluorotoluene(PID)				96.80	55-122				WG744827
Benzene	mg/l	0.0837	0.0905	76.6	57.2-131	7.83	20	L723556-01	WG745110
Ethylbenzene	mg/l	0.0570	0.0611	82.3	67.5-135	7.09	20	L723556-01	WG745110
Toluene	mg/l	0.0463	0.0495	83.4	63.7-134	6.60	20	L723556-01	WG745110
Total Xylene	mg/l	0.177	0.189	84.1	65.9-138	6.72	20	L723556-01	WG745110
a,a,a-Trifluorotoluene(PID)				97.40	55-122				WG745110
Benzene	mg/l	0.0452	0.0457	90.3	57.2-131	1.25	20	L723478-11	WG745157
Ethylbenzene	mg/l	0.0443	0.0447	88.5	67.5-135	0.960	20	L723478-11	WG745157
Toluene	mg/l	0.0441	0.0447	88.0	63.7-134	1.25	20	L723478-11	WG745157
Total Xylene	mg/l	0.136	0.136	88.7	65.9-138	0.550	20	L723478-11	WG745157
a,a,a-Trifluorotoluene(PID)				102.0	55-122				WG745157

Batch number /Run number / Sample number cross reference

WG744827: R2993000: L723478-01 02 03 04 05 06 07 08 09 10

WG745110: R2993671: L723478-12

WG745157: R2994113: L723478-11

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.