

Kerr-McGee Oil & Gas Onshore LP
1099 18th Street, Suite 1800
Denver, Colorado 80202
720-929-6000 Fax 720-929-7000

March 12, 2015

Mr. Robert Chesson
Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

**Re: No Further Action Status Request
HSR-Hunt 1-18, Root 26-18, HSR-Malina 8-18, Noel Jack C Unit #2
COGCC Remediation No. 4449
NENE 18-T4N-R65W**

Dear Mr. Chesson:

Kerr-McGee Oil and Gas Onshore LP (Kerr-McGee) is submitting this letter report as an update to the Form 27, submitted on March 30, 2009, for the HSR-Hunt 1-18, Root 26-18, HSR-Malina 8-18, Noel Jack C Unit #2 tank battery (Site). We are requesting a No Further Action (NFA) status for this Site for the impacts discovered in December 2008 (Remediation No. 4449). A NFA request for the impacts subsequently discovered at a different area of the Site in April 2011 (Remediation No. 6850) was submitted on August 6, 2013 and subsequently approved by the Colorado Oil and Gas Conservation Commission's (COGCC) on September 16, 2013.

On December 11, 2008, soil with historical petroleum hydrocarbon impacts was discovered while tying new production wells into the tank battery. The volume and source of the release are unknown. Kerr-McGee contracted LT Environmental, Inc. (LTE) to oversee excavation activities, collect confirmation soil samples, perform quarterly groundwater monitoring, and track the analytical results. Approximately 260 cubic yards of petroleum hydrocarbon impacted soil was excavated and transported to Kerr-McGee's land treatment facility in Weld County, Colorado.

Confirmation soil samples were collected from the excavation sidewalls and submitted for total extractable petroleum hydrocarbon (TEPH) analysis by Environmental Protection Agency (EPA) Method 8015. The analytical results confirmed that total petroleum hydrocarbon (TPH) concentrations were below the COGCC sensitive area allowable level of 1,000 milligrams per kilogram (mg/kg) at the extent of the excavation. The sensitive area allowable level was the applicable standard prior to April 1, 2009. However, the TPH concentrations in all of the confirmation soil samples were also below the current allowable level for TPH of 500 mg/kg.

Groundwater was encountered in the excavation at approximately 5 feet below ground surface. A groundwater sample (GW01) was collected from the excavation and submitted for benzene, toluene, ethylbenzene and total xylenes (BTEX) analysis by EPA Method 8260B on December 12, 2008. Benzene, toluene, and total xylenes concentrations in the excavation groundwater

sample (GW01) exceeded the Colorado Groundwater Quality Standards (CGWQS). Approximately 400 bbls of impacted groundwater were removed from the excavation using a vacuum truck. Prior to backfilling the excavation, ten gallons of MicroBlaze[®] microbial solution were applied to the groundwater in the open excavation. The excavation area was restored to its pre-release grade and Kerr-McGee's production facility remained at the Site.

In order to assess the extent and magnitude of the dissolved phase groundwater impacts, four monitoring wells (MW01 through MW04) were installed at the Site on February 26, 2009. BTEX concentrations were below the CGWQS and the laboratory reporting limit of 1.0 micrograms per liter (µg/L) in monitoring wells MW01 through MW03 during the initial March 2009 monitoring event. The benzene concentration in the source well (MW04) exceeded the CGWQS of 5.0 µg/L at 51 µg/L during the March 2009 monitoring event. Based on the March 2009 groundwater analytical results, MW01 through MW03 were designated as point of compliance wells. Groundwater monitoring continued on a quarterly basis.

On November 12, 2013, the groundwater monitoring wells were surveyed to determine the groundwater flow direction at the Site. The survey confirmed the groundwater flow direction is to the northeast. The relative groundwater elevations recorded during each quarterly monitoring event are provided in Table 1. A groundwater elevation contour map is provided as Figure 2.

As of the December 2013 quarterly monitoring event, BTEX concentrations in all site monitoring wells associated with the 2008 release (MW01 through MW04) have remained below the CGWQS for four consecutive quarterly monitoring events. A Site Map showing the general site layout, excavation outline, and monitoring well locations is provided as Figure 1. The groundwater analytical results are summarized in Table 1 and the laboratory analytical reports are attached.

Remedial actions employed at the site included excavation of the source area, removal of impacted groundwater from the excavation, and application of the MicroBlaze[®] groundwater amendment. Based on these remedial actions and groundwater analytical results showing BTEX concentrations below the CGWQS for four consecutive quarterly monitoring events, Kerr-McGee is requesting NFA status for this site.

Feel free to contact me at 720-929-6726 if you have any questions regarding this information.

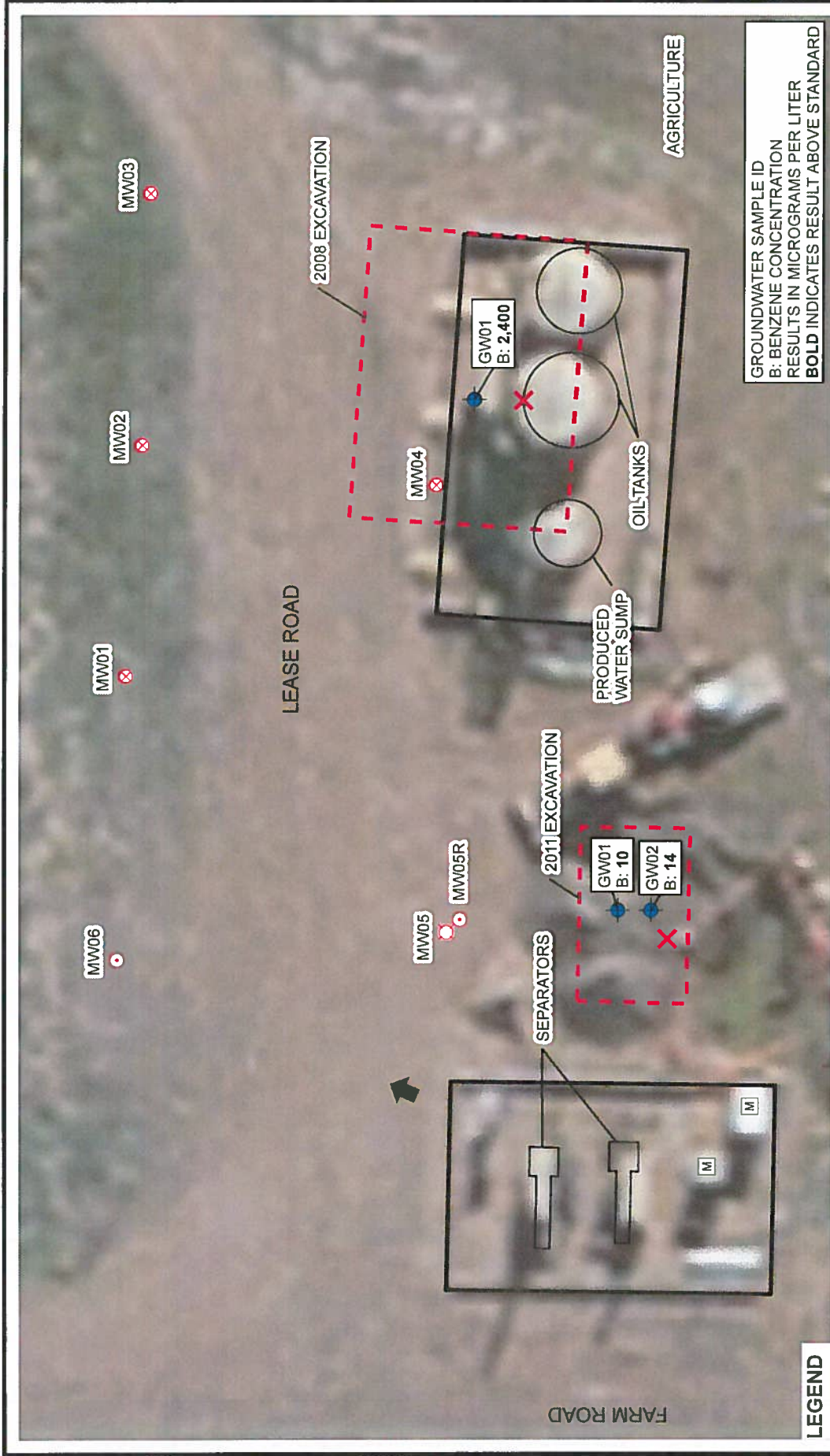
Sincerely,

Kerr-McGee Oil & Gas Onshore LP



Paul D. Schneider, P.G.
HSE Manager

Attachments



LEGEND

- X RELEASE
- ⊗ MONITORING WELL
- ⊗ DESTROYED MONITORING WELL
- GROUNDWATER SAMPLE
- ⊙ REMOVED FROM MONITORING PROGRAM FOLLOWING APPROVAL OF NO FURTHER ACTION REQUEST ASSOCIATED WITH REMEDIATION #6850.

FIGURE 1
SITE MAP

HSR-HUNT 1-18, ROOT 26-18, HSR-MALINA 8-18,
NOEL JACK C UNIT #2
NENE SEC 18-T4N-R65W
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

GROUNDWATER SAMPLE ID
B: BENZENE CONCENTRATION
RESULTS IN MICROGRAMS PER LITER
BOLD INDICATES RESULT ABOVE STANDARD

IMAGE COURTESY OF ESRI

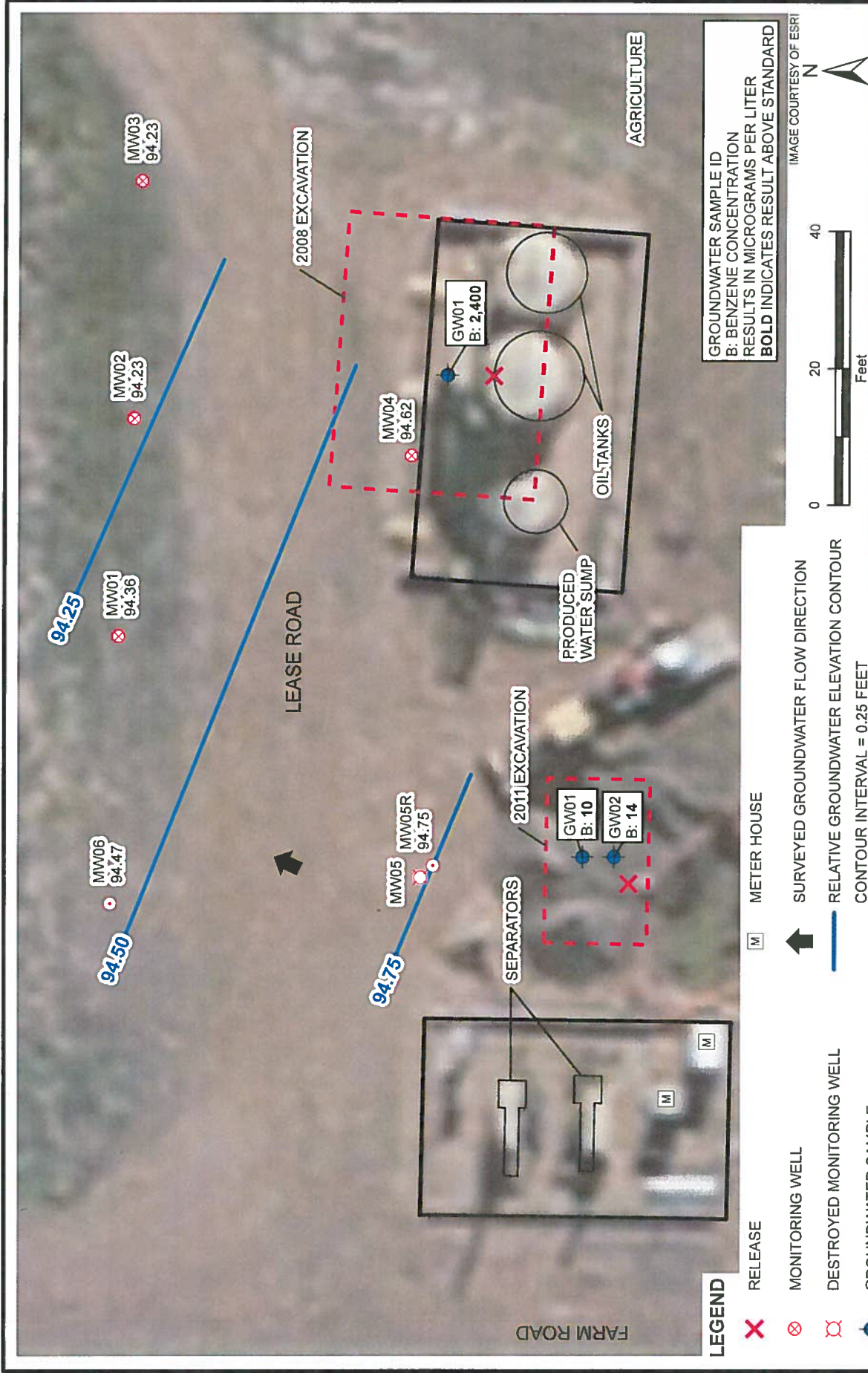


TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-HUNT 1-18, ROOT 26-18, HSR-MALINA 8-18, NOEL JACK C UNIT #2
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Depth to GW (ft bgs)	Relative GW Elev. (ft)
GW01	12/12/2008	2400	7700	620	67000	NM	NA
	04/25/2011	10	16	12	120	NM	NA
GW02	04/27/2011	14	44	2.9	66	NM	NA
MW01	03/02/2009	<1.0	<1.0	<1.0	<1.0	5.28	92.62
	06/24/2009	1.0	<1.0	<1.0	<1.0	4.20	93.70
	09/25/2009	<1.0	<1.0	<1.0	<1.0	2.36	95.54
	12/07/2009	<1.0	<1.0	<1.0	<1.0	2.95	94.95
	03/11/2010	<1.0	<1.0	<1.0	<1.0	4.26	93.64
	06/18/2010	<1.0	<1.0	<1.0	<1.0	2.53	95.37
	09/14/2010	<1.0	<1.0	<1.0	<1.0	2.22	95.68
	12/08/2010	<1.0	<1.0	<1.0	<1.0	2.15	95.75
	03/08/2011	<1.0	<1.0	<1.0	<1.0	3.40	94.50
	06/28/2011	<1.0	<1.0	<1.0	<1.0	2.30	95.60
	09/09/2011	<1.0	<1.0	<1.0	<1.0	.50	97.40
	12/28/2011	<1.0	<1.0	<1.0	<1.0	PVC Broken	NA
	03/13/2012	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	06/05/2012	<1.0	<1.0	<1.0	<1.0	2.69	95.21
	09/18/2012	<1.0	<1.0	<1.0	<1.0	3.93	93.97
	12/13/2012	<1.0	<1.0	<1.0	<1.0	5.55	92.35
	03/18/2013	<1.0	<1.0	<1.0	<1.0	6.14	91.76
	07/29/2013	<1.0	<1.0	<1.0	<1.0	4.28	93.62
	09/17/2013	<1.0	<1.0	<1.0	<1.0	.74	97.16
	12/16/2013	<1.0	<1.0	<1.0	<1.0	3.75	94.15
MW02	03/02/2009	<1.0	<1.0	<1.0	<1.0	4.79	92.89
	06/24/2009	1.0	<1.0	<1.0	<1.0	4.09	93.59
	09/25/2009	<1.0	<1.0	<1.0	<1.0	2.25	95.43
	12/07/2009	<1.0	<1.0	<1.0	<1.0	2.83	94.85
	03/11/2010	<1.0	<1.0	<1.0	<1.0	4.15	93.53
	06/18/2010	5.7	<1.0	<1.0	<1.0	2.50	95.18
	09/14/2010	1.7	<1.0	<1.0	<1.0	2.86	94.82
	12/08/2010	<1.0	<1.0	<1.0	<1.0	3.10	94.58
	03/08/2011	3.9	<1.0	<1.0	<1.0	4.32	93.36
	06/28/2011	21	<1.0	<1.0	<1.0	3.29	94.39
	09/09/2011	<1.0	<1.0	<1.0	<1.0	1.45	96.23
	12/28/2011	<1.0	<1.0	<1.0	<1.0	2.66	95.02
	03/13/2012	<1.0	<1.0	<1.0	<1.0	3.65	94.03



TABLE 1 (Continued)
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-HUNT 1-18, ROOT 26-18, HSR-MALINA 8-18, NOEL JACK C UNIT #2
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Depth to GW (ft bgs)	Relative GW Elev. (ft)
MW02	06/05/2012	1.6	<1.0	<1.0	<1.0	3.69	93.99
	09/18/2012	<1.0	<1.0	<1.0	<1.0	4.91	92.77
	12/13/2012	<1.0	<1.0	<1.0	<1.0	6.52	91.16
	03/18/2013	1.4	<1.0	<1.0	<1.0	7.14	90.54
	07/29/2013	<1.0	<1.0	<1.0	<1.0	4.10	93.58
	09/17/2013	<1.0	<1.0	<1.0	<1.0	1.75	95.93
	12/16/2013	<1.0	<1.0	<1.0	<1.0	4.45	93.23
MW03	03/02/2009	<1.0	<1.0	<1.0	<1.0	7.64	90.28
	06/24/2009	<1.0	<1.0	<1.0	<1.0	4.50	93.42
	09/25/2009	<1.0	<1.0	<1.0	<1.0	2.62	95.30
	12/07/2009	<1.0	<1.0	<1.0	<1.0	3.26	94.66
	03/11/2010	<1.0	<1.0	<1.0	<1.0	4.50	93.42
	06/18/2010	<1.0	<1.0	<1.0	<1.0	2.90	95.02
	09/14/2010	<1.0	<1.0	<1.0	<1.0	1.87	96.05
	12/08/2010	<1.0	<1.0	<1.0	<1.0	3.57	94.35
	03/08/2011	<1.0	<1.0	<1.0	<1.0	4.61	93.31
	06/28/2011	<1.0	<1.0	<1.0	<1.0	3.80	94.12
	09/09/2011	<1.0	<1.0	<1.0	<1.0	1.83	96.09
	12/28/2011	<1.0	<1.0	<1.0	<1.0	2.14	95.78
	03/13/2012	<1.0	<1.0	<1.0	<1.0	4.10	93.82
	06/05/2012	<1.0	<1.0	<1.0	<1.0	4.03	93.89
	09/18/2012	<1.0	<1.0	<1.0	<1.0	5.38	92.54
	12/13/2012	<1.0	<1.0	<1.0	<1.0	6.89	91.03
	03/18/2013	<1.0	<1.0	<1.0	<1.0	7.49	90.43
	07/29/2013	<1.0	<1.0	<1.0	<1.0	4.51	93.41
	09/17/2013	<1.0	<1.0	<1.0	<1.0	2.43	95.49
	12/16/2013	<1.0	<1.0	<1.0	<1.0	4.20	93.72
MW04	03/02/2009	51	<1.0	<1.0	9.6	4.98	93.20
	06/24/2009	12	<1.0	<1.0	<1.0	4.27	93.91
	09/25/2009	9.7	<1.0	<1.0	<1.0	2.51	95.67
	12/07/2009	11	<1.0	<1.0	<1.0	3.07	95.11
	03/11/2010	3.6	<1.0	<1.0	<1.0	4.31	93.87
	06/18/2010	9.8	<1.0	<1.0	<1.0	2.65	95.53
	09/14/2010	13	<1.0	<1.0	<1.0	2.27	95.91
	12/08/2010	3.5	<1.0	<1.0	<1.0	3.33	94.85
	03/08/2011	12	<1.0	<1.0	<1.0	4.50	93.68



TABLE 1 (Continued)
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-HUNT 1-18, ROOT 26-18, HSR-MALINA 8-18, NOEL JACK C UNIT #2
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Depth to GW (ft bgs)	Relative GW Elev. (ft)
MW04	06/28/2011	2.3	<1.0	<1.0	<1.0	3.70	94.48
	09/09/2011	<1.0	<1.0	<1.0	<1.0	1.80	96.38
	12/28/2011	8.9	<1.0	<1.0	<1.0	2.97	95.21
	03/13/2012	11	<1.0	<1.0	<1.0	3.85	94.33
	06/05/2012	1.3	<1.0	<1.0	<1.0	3.83	94.35
	09/18/2012	1.5	<1.0	<1.0	<1.0	5.32	92.86
	12/13/2012	5.7	<1.0	<1.0	<1.0	6.60	91.58
	03/18/2013	<1.0	<1.0	<1.0	<1.0	7.30	90.88
	07/29/2013	1.2	<1.0	<1.0	<1.0	4.82	93.36
	09/17/2013	<1.0	<1.0	<1.0	<1.0	2.40	95.78
	12/16/2013	<1.0	<1.0	<1.0	<1.0	3.95	94.23
MW05	06/28/2011	9.0	<1.0	<1.0	<1.0	3.28	NA
	09/09/2011	<1.0	<1.0	<1.0	<1.0	1.66	NA
	12/28/2011	<1.0	<1.0	<1.0	<1.0	2.92	NA
MW05 destroyed as of 3/13/2012							
MW05R	04/17/2012	<1.0	<1.0	<1.0	<1.0	3.31	95.13
	06/05/2012	1.6	<1.0	<1.0	<1.0	3.88	94.56
	09/18/2012	<1.0	<1.0	<1.0	<1.0	5.26	93.18
	12/13/2012	<1.0	<1.0	<1.0	<1.0	6.61	91.83
	03/18/2013	<1.0	<1.0	<1.0	<1.0	7.17	91.27
Removed from monitoring as of 7/29/2013							
MW06	06/28/2011	<1.0	<1.0	<1.0	<1.0	3.31	94.61
	09/09/2011	<1.0	<1.0	<1.0	<1.0	1.57	96.35
	12/28/2011	<1.0	<1.0	<1.0	<1.0	2.68	95.24
	03/13/2012	<1.0	<1.0	<1.0	<1.0	3.67	94.25
	06/05/2012	<1.0	<1.0	<1.0	<1.0	3.68	94.24
	09/18/2012	<1.0	<1.0	<1.0	<1.0	4.98	92.94
	12/13/2012	<1.0	<1.0	<1.0	<1.0	6.58	91.34
	03/18/2013	<1.0	<1.0	<1.0	<1.0	7.14	90.78
Removed from monitoring as of 7/29/2013							
Colo GW Quality Standards		5	1000	700	1400		

Notes: < - less than
ug/L - micrograms per Liter
NA - Not Analyzed/Not Available

GW - Groundwater Elev. - Elevation
Bold numbers indicate result equaled or exceeded standard.
NM - Not Measured ft bgs - feet below ground surface



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

March 25, 2013

John Cocroft
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: KMG - HSR-Hunt 1-18

Enclosed are the results of analyses for samples received by Summit Scientific on 03/18/13 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

S₂

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R303103-01	Water	03/18/13 13:05	03/18/13 16:00
MW02	R303103-02	Water	03/18/13 13:10	03/18/13 16:00
MW03	R303103-03	Water	03/18/13 13:15	03/18/13 16:00
MW04	R303103-04	Water	03/18/13 13:20	03/18/13 16:00
MW05R	R303103-05	Water	03/18/13 13:25	03/18/13 16:00
MW06	R303103-06	Water	03/18/13 13:30	03/18/13 16:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

744 Corporate Circle - Suite 1
Golden, Colorado 80601
303-277-9710 - 303-274-9933 Fax

Summit Scientific

R303103 Page 1 of 1

Client:	LT Environmental, Inc.	Project Manager:	John Cocroft						
Project:	KMG - HSR-Road 1-18	Project Number:	KMG 08449						
Number	Sample Identification	Matrix	Type	Sample Date	Sample Time	Sampled By	Container	Qty	Analysis
01-401	JYTH1	Water	Field Sample	3/18/13	1305	JK	New 15L - HC	3	12000 BTX, TMTL
02-401	JYTH2	Water	Field Sample		1310		New 15L - HC	3	12000 BTX, TMTL
03-401	JYTH3	Water	Field Sample		1315		New 15L - HC	3	12000 BTX, TMTL
04-401	JYTH4	Water	Field Sample		1310		New 15L - HC	3	12000 BTX, TMTL
05-401	JYTH5	Water	Field Sample		1325		New 15L - HC	4	12000 BTX, TMTL
06-401	JYTH6	Water	Field Sample		1330	V	New 15L - HC	3	12000 BTX, TMTL

Turn Around Time (Check)

See By 7:00am
21 Hours
48 Hours

Sample Integrity:

Temperature Log Entry: S₂
Hour (H) Min

Received By: [Signature]
Date/Time: 3/18/13 1600
Received By: [Signature]
Date/Time: 3/18/13 1600

Summit Scientific

[Signature]

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW01
R303103-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 03/18/13 13:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S₂

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW02
R303103-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.4	1.0	ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 03/18/13 13:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.6 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S₂

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW03
R303103-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:15

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 03/18/13 13:15

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		99.5 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S₂

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW04
R303103-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:20

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 03/18/13 13:20

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		111 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	45-146		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW05R
R303103-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:25

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 03/18/13 13:25

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		109 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		99.8 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %		45-146		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

MW06
R303103-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 03/18/13 13:30

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	3032304	03/23/13	03/24/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 03/18/13 13:30

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		108 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	45-146		"	"	"	"	

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3032304 - EPA 5030 Water MS

Blank (3032304-BLK1)

Prepared: 03/23/13 Analyzed: 03/24/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.2		106	37-154			
Surrogate: Toluene-d8	13.4		"	13.3		100	45-149			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.1	45-146			

LCS (3032304-BS1)

Prepared: 03/23/13 Analyzed: 03/24/13

Benzene	22.8	1.0	ug/l	33.3		68.5	51-132			
Toluene	22.1	1.0	"	33.3		66.2	51-138			
Ethylbenzene	21.8	1.0	"	33.3		65.5	58-146			
m,p-Xylene	49.8	2.0	"	66.7		74.7	57-144			
o-Xylene	23.5	1.0	"	33.3		70.5	53-146			
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.2		115	37-154			
Surrogate: Toluene-d8	13.5		"	13.3		102	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

LCS Dup (3032304-BSD1)

Prepared: 03/23/13 Analyzed: 03/24/13

Benzene	21.9	1.0	ug/l	33.3		65.8	51-132	4.07	17	
Toluene	22.9	1.0	"	33.3		68.7	51-138	3.78	17	
Ethylbenzene	23.8	1.0	"	33.3		71.4	58-146	8.68	16	
m,p-Xylene	49.1	2.0	"	66.7		73.7	57-144	1.37	16	
o-Xylene	24.6	1.0	"	33.3		73.9	53-146	4.74	15	
Surrogate: 1,2-Dichloroethane-d4	14.5		"	13.2		109	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.9	45-149			
Surrogate: 4-Bromofluorobenzene	14.0		"	13.3		105	45-146			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3032304 - EPA 5030 Water MS

Matrix Spike (3032304-MS1)		Source: R303103-01			Prepared: 03/23/13		Analyzed: 03/24/13			
Benzene	24.1	1.0	ug/l	33.3	ND	72.2	34-141			
Toluene	25.0	1.0	"	33.3	ND	75.0	27-151			
Ethylbenzene	25.7	1.0	"	33.3	ND	77.2	29-160			
m,p-Xylene	53.0	2.0	"	66.7	ND	79.4	20-166			
o-Xylene	26.7	1.0	"	33.3	ND	80.2	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.2		109	37-154			
Surrogate: Toluene-d8	13.7		"	13.3		103	45-149			
Surrogate: 4-Bromofluorobenzene	13.3		"	13.3		100	45-146			
Matrix Spike Dup (3032304-MSD1)		Source: R303103-01			Prepared: 03/23/13		Analyzed: 03/24/13			
Benzene	23.6	1.0	ug/l	33.3	ND	70.7	34-141	2.02	32	
Toluene	24.4	1.0	"	33.3	ND	73.2	27-151	2.43	25	
Ethylbenzene	25.0	1.0	"	33.3	ND	75.0	29-160	2.84	50	
m,p-Xylene	51.3	2.0	"	66.7	ND	77.0	20-166	3.13	36	
o-Xylene	26.2	1.0	"	33.3	ND	78.6	33-159	2.00	26	
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2		113	37-154			
Surrogate: Toluene-d8	13.4		"	13.3		100	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
03/25/13 14:45

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 05, 2013

John Cocroft
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: KMG - HSR-Hunt 1-18

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R307296-01	Water	07/29/13 13:45	07/30/13 17:00
MW02	R307296-02	Water	07/29/13 13:50	07/30/13 17:00
MW03	R307296-03	Water	07/29/13 13:55	07/30/13 17:00
MW04	R307296-04	Water	07/29/13 14:00	07/30/13 17:00

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

Summit Scientific
R307296

7141 Corporate Circle Suite 1 • Golden, Colorado 80401
303-277-9310 • 303-277-9531 Fax

Client:	L7 Environmental, Inc.	Project Manager:	John Correll	Page	1	of	1
Address:	4400 West 66th Avenue	E-Mail:	jcorrell@l7env.com				
City/State/Zip:	Aurora, CO 80003	Project Name:	Highway 108				
Phone:	(303) 431-4778	Fax:	(303) 431-4332				
Sample Name:	36	Project Number:	10000081				
							10017644

[illegible]

www.sciencedirect.com

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Sept 1994 IV

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

MW01
R307296-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/29/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3080115	08/02/13	08/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 07/29/13 13:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.7 %	45-146		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

MW02
R307296-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/29/13 13:50

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3080115	08/02/13	08/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 07/29/13 13:50

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		102 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.3 %	45-146		"	"	"	"	

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

MW03
R307296-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/29/13 13:55

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3080115	08/02/13	08/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 07/29/13 13:55

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	45-146		"	"	"	"	

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

MW04
R307296-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/29/13 14:00

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	1.2	1.0	ug/l	1	3080115	08/02/13	08/02/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 07/29/13 14:00

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		105 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3080115 - EPA 5030 Water MS

Blank (3080115-BLK1)

Prepared & Analyzed: 08/01/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	15.1		"	13.2		114	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.5	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146			

Blank (3080115-BLK2)

Prepared & Analyzed: 08/01/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.2		115	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.4	45-149			
Surrogate: 4-Bromofluorobenzene	14.1		"	13.3		106	45-146			

LCS (3080115-BS1)

Prepared & Analyzed: 08/02/13

Benzene	24.5	1.0	ug/l	33.3		73.6	51-132			
Toluene	26.0	1.0	"	33.3		77.9	51-138			
Ethylbenzene	26.8	1.0	"	33.3		80.5	58-146			
m,p-Xylene	54.2	2.0	"	66.7		81.3	57-144			
o-Xylene	26.5	1.0	"	33.3		79.5	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2		111	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.2	45-146			

LCS (3080115-BS2)

Prepared & Analyzed: 08/02/13

Benzene	21.6	1.0	ug/l	33.3		64.7	51-132			
Toluene	23.0	1.0	"	33.3		69.1	51-138			
Ethylbenzene	24.0	1.0	"	33.3		71.9	58-146			
m,p-Xylene	48.1	2.0	"	66.7		72.1	57-144			
o-Xylene	24.7	1.0	"	33.3		74.1	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2		111	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.3	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3080115 - EPA 5030 Water MS

LCS Dup (3080115-BSD1)

Prepared & Analyzed: 08/02/13

Benzene	23.2	1.0	ug/l	33.3		69.6	51-132	5.53	17	
Toluene	24.5	1.0	"	33.3		73.6	51-138	5.70	17	
Ethylbenzene	25.2	1.0	"	33.3		75.6	58-146	6.26	16	
m,p-Xylene	50.0	2.0	"	66.7		75.0	57-144	8.14	16	
o-Xylene	25.0	1.0	"	33.3		75.0	53-146	5.82	15	
Surrogate: 1,2-Dichloroethane-d4	14.7		"	13.2		111	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.4	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.3	45-146			

LCS Dup (3080115-BSD2)

Prepared & Analyzed: 08/02/13

Benzene	22.8	1.0	ug/l	33.3		68.5	51-132	5.77	17	
Toluene	24.4	1.0	"	33.3		73.3	51-138	5.94	17	
Ethylbenzene	25.5	1.0	"	33.3		76.4	58-146	6.03	16	
m,p-Xylene	51.6	2.0	"	66.7		77.4	57-144	7.00	16	
o-Xylene	25.6	1.0	"	33.3		76.7	53-146	3.38	15	
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.2		114	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.6	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

Matrix Spike (3080115-MS1)

Source: R307287-03

Prepared & Analyzed: 08/02/13

Benzene	21.1	1.0	ug/l	33.3	ND	63.4	34-141			
Toluene	22.6	1.0	"	33.3	ND	67.9	27-151			
Ethylbenzene	23.6	1.0	"	33.3	ND	71.0	29-160			
m,p-Xylene	47.6	2.0	"	66.7	ND	71.4	20-166			
o-Xylene	23.5	1.0	"	33.3	ND	70.6	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.2		106	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.3	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.4	45-146			

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S2

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3080115 - EPA 5030 Water MS

Matrix Spike (3080115-MS2)		Source: R307287-04			Prepared & Analyzed: 08/02/13					
Benzene	20.3	1.0	ug/l	33.3	ND	60.9	34-141			
Toluene	21.6	1.0	"	33.3	ND	65.0	27-151			
Ethylbenzene	22.8	1.0	"	33.3	ND	68.5	29-160			
m,p-Xylene	46.0	2.0	"	66.7	ND	69.0	20-166			
o-Xylene	22.6	1.0	"	33.3	ND	67.7	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.2		104	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		95.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.1	45-146			
Matrix Spike Dup (3080115-MSD1)		Source: R307287-03			Prepared & Analyzed: 08/02/13					
Benzene	23.5	1.0	ug/l	33.3	ND	70.6	34-141	10.7	32	
Toluene	25.1	1.0	"	33.3	ND	75.3	27-151	10.4	25	
Ethylbenzene	27.3	1.0	"	33.3	ND	81.8	29-160	14.3	50	
m,p-Xylene	55.2	2.0	"	66.7	ND	82.8	20-166	14.9	36	
o-Xylene	26.9	1.0	"	33.3	ND	80.6	33-159	13.3	26	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.2		104	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.6	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			
Matrix Spike Dup (3080115-MSD2)		Source: R307287-04			Prepared & Analyzed: 08/02/13					
Benzene	23.8	1.0	ug/l	33.3	ND	71.4	34-141	15.9	32	
Toluene	25.3	1.0	"	33.3	ND	75.8	27-151	15.5	25	
Ethylbenzene	27.3	1.0	"	33.3	ND	82.0	29-160	18.0	50	
m,p-Xylene	54.6	2.0	"	66.7	ND	81.9	20-166	17.1	36	
o-Xylene	27.0	1.0	"	33.3	ND	80.9	33-159	17.9	26	
Surrogate: 1,2-Dichloroethane-d4	11.2		"	13.2		84.6	37-154			
Surrogate: Toluene-d8	12.8		"	13.3		96.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.5	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

S₂

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
08/05/13 14:43

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 20, 2013

John Cocroft
LT Environmental, Inc.
4600 West 60th Avenue
Arvada, CO 80003
RE: KMG - HSR-Hunt 1-18

Enclosed are the results of analyses for samples received by Summit Scientific on 09/17/13 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Joseph J Egry IV
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written approval of Summit Scientific. Test results relate only to samples analyzed.

Summit Scientific is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	R309109-01	Water	09/17/13 10:30	09/17/13 17:00
MW02	R309109-02	Water	09/17/13 10:40	09/17/13 17:00
MW03	R309109-03	Water	09/17/13 10:50	09/17/13 17:00
MW04	R309109-04	Water	09/17/13 10:58	09/17/13 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

740 Corporate Circle - Suite 1
Golden, Colorado 80401
303-277-8110 - 303-374-5933 Fax

Summit Scientific R309109 Page 1 of 1

Client:	LT Environmental, Inc.	Project Manager:	John Cocroft	Project Number:	KMG 08449	Container:	QTY	Analysis
Project:	KMG - HSR-Hunt 1-18							
Number	Sample Identification	Matrix	Type	Sample Date	Sample Time	Sampled By		
01-401	MFW01	Water	Field Sample	9/17/13	10:30	DS/A	100 mL - 100	10000 BTX, THTL
02-401	MFW02	Water	Field Sample	10:40			100 mL - 100	10000 BTX, THTL
03-401	MFW03	Water	Field Sample	10:50			100 mL - 100	10000 BTX, THTL
04-401	MFW04	Water	Field Sample	10:58			100 mL - 100	10000 BTX, THTL
05-401	MFW05 removed take off form	Water	Field Sample				100 mL - 100	10000 BTX, THTL
06-401	MFW06	Water	Field Sample				100 mL - 100	10000 BTX, THTL

Total Assayed Time (Clock)

71 Min
21 Min
42 Min

Sample Integrity: 61

Temperature Range: 61
Unit: °C

Revised By: _____ Date: _____

Revised By: _____ Date: _____

Revised By: _____ Date: 9/17/13 17:00

Revised By: _____ Date: 9/17/13 17:00

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

MW01
R309109-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 09/17/13 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	3091809	09/20/13	09/20/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 09/17/13 10:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.7 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.5 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

MW02
R309109-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 09/17/13 10:40

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3091809	09/20/13	09/20/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 09/17/13 10:40

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.8 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

MW03
R309109-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 09/17/13 10:50

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3091809	09/20/13	09/20/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 09/17/13 10:50

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		98.2 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

MW04
R309109-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 09/17/13 10:58

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	3091809	09/20/13	09/20/13	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 09/17/13 10:58

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		100 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18
Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3091809 - EPA 5030 Water MS

Blank (3091809-BLK1)

Prepared & Analyzed: 09/18/13

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.6		"	13.2		95.4	37-154			
Surrogate: Toluene-d8	13.5		"	13.3		101	45-149			
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3		103	45-146			

LCS (3091809-BS1)

Prepared & Analyzed: 09/18/13

Benzene	37.9	1.0	ug/l	33.3		114	51-132			
Toluene	36.2	1.0	"	33.3		109	51-138			
Ethylbenzene	34.2	1.0	"	33.3		102	58-146			
m,p-Xylene	70.6	2.0	"	66.7		106	57-144			
o-Xylene	33.8	1.0	"	33.3		101	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.2		94.2	37-154			
Surrogate: Toluene-d8	13.7		"	13.3		103	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

LCS (3091809-BS2)

Prepared & Analyzed: 09/18/13

Benzene	38.0	1.0	ug/l	33.3		114	51-132			
Toluene	36.0	1.0	"	33.3		108	51-138			
Ethylbenzene	34.3	1.0	"	33.3		103	58-146			
m,p-Xylene	71.4	2.0	"	66.7		107	57-144			
o-Xylene	34.2	1.0	"	33.3		102	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.2		96.8	37-154			
Surrogate: Toluene-d8	13.4		"	13.3		101	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

Summit Scientific

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3091809 - EPA 5030 Water MS

LCS Dup (3091809-BSD1)

Prepared & Analyzed: 09/18/13

Benzene	37.8	1.0	ug/l	33.3	114	51-132	0.0528	17	
Toluene	36.2	1.0	"	33.3	109	51-138	0.0276	17	
Ethylbenzene	34.3	1.0	"	33.3	103	58-146	0.292	16	
m,p-Xylene	71.3	2.0	"	66.7	107	57-144	1.03	16	
o-Xylene	34.3	1.0	"	33.3	103	53-146	1.47	15	
Surrogate: 1,2-Dichloroethane-d4	13.0		"	13.2	97.9	37-154			
Surrogate: Toluene-d8	13.4		"	13.3	101	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3	102	45-146			

LCS Dup (3091809-BSD2)

Prepared & Analyzed: 09/19/13

Benzene	38.2	1.0	ug/l	33.3	115	51-132	0.604	17	
Toluene	36.7	1.0	"	33.3	110	51-138	1.73	17	
Ethylbenzene	34.6	1.0	"	33.3	104	58-146	0.986	16	
m,p-Xylene	72.1	2.0	"	66.7	108	57-144	0.990	16	
o-Xylene	34.7	1.0	"	33.3	104	53-146	1.45	15	
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.2	96.1	37-154			
Surrogate: Toluene-d8	13.5		"	13.3	101	45-149			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	102	45-146			

Matrix Spike (3091809-MS1)

Source: R309103-04

Prepared & Analyzed: 09/19/13

Benzene	38.2	1.0	ug/l	33.3	ND	115	34-141		
Toluene	36.2	1.0	"	33.3	ND	109	27-151		
Ethylbenzene	34.7	1.0	"	33.3	ND	104	29-160		
m,p-Xylene	72.2	2.0	"	66.7	ND	108	20-166		
o-Xylene	34.4	1.0	"	33.3	ND	103	33-159		
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.2	94.8	37-154			
Surrogate: Toluene-d8	13.3		"	13.3	99.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3	101	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 3091809 - EPA 5030 Water MS

Matrix Spike (3091809-MS2)			Source: R309103-05		Prepared & Analyzed: 09/19/13					
Benzene	38.3	1.0	ug/l	33.3	ND	115	34-141			
Toluene	36.6	1.0	"	33.3	ND	110	27-151			
Ethylbenzene	35.1	1.0	"	33.3	ND	105	29-160			
m,p-Xylene	73.4	2.0	"	66.7	ND	110	20-166			
o-Xylene	35.3	1.0	"	33.3	ND	106	33-159			
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.2		94.5	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		100	45-149			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	45-146			

Matrix Spike Dup (3091809-MSD1)			Source: R309103-04		Prepared & Analyzed: 09/19/13					
Benzene	37.8	1.0	ug/l	33.3	ND	113	34-141	1.00	32	
Toluene	35.9	1.0	"	33.3	ND	108	27-151	0.943	25	
Ethylbenzene	34.0	1.0	"	33.3	ND	102	29-160	1.92	50	
m,p-Xylene	70.7	2.0	"	66.7	ND	106	20-166	2.10	36	
o-Xylene	33.9	1.0	"	33.3	ND	102	33-159	1.61	26	
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.2		96.6	37-154			
Surrogate: Toluene-d8	13.3		"	13.3		99.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	45-146			

Matrix Spike Dup (3091809-MSD2)			Source: R309103-05		Prepared & Analyzed: 09/19/13					
Benzene	37.8	1.0	ug/l	33.3	ND	113	34-141	1.16	32	
Toluene	36.2	1.0	"	33.3	ND	109	27-151	0.879	25	
Ethylbenzene	34.2	1.0	"	33.3	ND	103	29-160	2.40	50	
m,p-Xylene	71.5	2.0	"	66.7	ND	107	20-166	2.68	36	
o-Xylene	34.1	1.0	"	33.3	ND	102	33-159	3.69	26	
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.2		95.8	37-154			
Surrogate: Toluene-d8	13.5		"	13.3		101	45-149			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO, 80003

Project: KMG - HSR-Hunt 1-18

Project Number: KMG 08449
Project Manager: John Cocroft

Reported:
09/20/13 15:47

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





December 23, 2013

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - HSR Hunt 1-18, HSR Malina 8-18, Noel Jack C **Project Number - KMG08449**

Attached are your analytical results for KMG - HSR Hunt 1-18, HSR Malina 8-18, Noel Jack C received by Origins Laboratory, Inc. December 16, 2013. This project is associated with Origins project number X312167-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

John Cocroft

Project Number: KMG08449

Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	X312167-01	Water	December 16, 2013 14:25	12/16/2013 17:00
MW02	X312167-02	Water	December 16, 2013 14:20	12/16/2013 17:00
MW03	X312167-03	Water	December 16, 2013 14:40	12/16/2013 17:00
MW04	X312167-04	Water	December 16, 2013 14:30	12/16/2013 17:00

Origins Laboratory, Inc.



Noelle E Doyle, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

ORIGINS
LABORATORY, INC

X312167

1725 Elk Place, Denver, CO 80211
Laboratory # - 303.433.1322

Client: LT Environmental, Inc.		Project Manager: John Cocroft						
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18, NK		Project Number: KMG08449						
Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	12/16/13	1425	CW/SV	01 40ml Amber VOA Vial - HCL	3	BTEX by EPA 8260C
02-001	MW02	Water		1420		01 40ml Amber VOA Vial - HCL	3	BTEX by EPA 8260C
03-001	MW03	Water		1440		01 40ml Amber VOA Vial - HCL	3	BTEX by EPA 8260C
04-001	MW04	Water		1438		01 40ml Amber VOA Vial - HCL	3	BTEX by EPA 8260C

Temperature on Receipt:
Turn Around Time:
Same Day ☐ 72-hr ☒
24-hr ☐ Standard ☐
48-hr ☐

Requisitioned By _____ Date / Time _____
Received By _____ Date / Time _____

Cheryl Miller 12/16/13 1700
Received By _____ Date / Time _____
Received By _____ Date / Time _____

Origins Laboratory, Inc.

Noelle E Doyle, President

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

Origins Laboratory

F 012207-01-R1
Effective Date 01/09/12

Sample Receipt Checklist

Origins Work Order X312167

Client LTE

Client Project ID HSR Hunt 1-18

Checklist Completed by Joe Smith

Shipped Via P.K. Lip

Date/time completed 12/17/13 13:12

Airbill # N/A

Matrix(s) Received (check all that apply)

Soil/Solid

☒ Water

Other

Cooler Number/Temperature

1/23 °C

°C

°C

°C

Thermometer ID TOR

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 5°C?	X			
Is there ice present? (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact?	X			
Was adequate sample volume provided?	X			
Are short holding time analytes or samples with HTs due within 48 hours present?		X		
Is a chain-of-custody (COC) present and filled out completely?	X			
Does the COC agree with the number and type of sample bottles received?	X			
Do the sample IDs on the bottle labels match the COC?	X			
Is the COC properly relinquished by the client with date and time recorded?	X			
For volatiles in water – is there headspace (> 1/4 inch bubble) present? If yes, contact client and note in narrative.		X		
Are samples preserved that require preservation and vials checked? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ HCL, H ₂ SO ₄ ; pH = 10 for samples preserved with NaAsO ₂ •NaOH, ZnAc•NaOH)	X			
Additional Comments (if any)				NCC

If NO then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to be taken in the additional comments (above) and the case narrative.

Reviewed by (Project Manager)

Date/Time Reviewed

12-21-13
1050

Origins Laboratory, Inc.

Noelle E Doyle

Noelle E Doyle, President

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John Cocroft
Project Number: KMG08449
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Noel Jack C

MW01

12/16/2013 2:25:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X312167-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	3L18010	12/18/2013	12/20/2013
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121	"	"	"
Surrogate: Toluene-d8	99.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	99.8 %	84-114	"	"	"

Origins Laboratory, Inc.



Noelle E Doyle, President

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

MW02

12/16/2013 2:20:00PM

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X312167-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	3L18010	12/18/2013	12/20/2013
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121	"	"	"
Surrogate: Toluene-d8	100 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	84-114	"	"	"

Origins Laboratory, Inc.



Noelle E Doyle, President

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

MW03

12/16/2013 2:40:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X312167-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	3L18010	12/18/2013	12/20/2013
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121	"	"	"
Surrogate: Toluene-d8	97.4 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	84-114	"	"	"

Origins Laboratory, Inc.



Noelle E Doyle, President

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

John Cocroft
Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

MW04

12/16/2013 2:30:00PM

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.
X312167-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	3L18010	12/18/2013	12/20/2013
Toluene	ND	1.0	"	"	"	"	"
Ethylbenzene	ND	1.0	"	"	"	"	"
Xylenes, total	ND	1.0	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	105 %	84-121	"	"	"
Surrogate: Toluene-d8	98.1 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	84-114	"	"	"

Origins Laboratory, Inc.



Noelle E Doyle, President

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Project Number: KMG08449
Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3L18010 - EPA 5030B (Water)

Blank (3L18010-BLK1)

Prepared: 12/18/2013 Analyzed: 12/20/2013

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.2		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	99.9		84-114			

Origins Laboratory, Inc.



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4600 West 60th Avenue

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John Cocroft

Project Number: KMG08449

Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3L18010 - EPA 5030B (Water)

LCS (3L18010-BS1)

Prepared: 12/18/2013 Analyzed: 12/20/2013

Benzene	52.0	1.0	ug/L	50.0		104	74-130			
Toluene	51.2	1.0	"	50.0		102	76-128			
Ethylbenzene	55.2	1.0	"	50.0		110	78-130			
m,p-Xylene	108	2.0	"	100		108	75-134			
o-Xylene	53.9	1.0	"	50.0		108	76-129			
Surrogate: 1,2-Dichloroethane-d4	47		"	62.5		75.7	84-121			S-GC
Surrogate: Toluene-d8	62		"	62.5		99.6	85-115			
Surrogate: 4-Bromofluorobenzene	58		"	62.5		93.3	84-114			

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4600 West 60th Avenue

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Noel Jack C

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3L18010 - EPA 5030B (Water)

Matrix Spike (3L18010-MS1)		Source: X312146-01			Prepared: 12/18/2013 Analyzed: 12/20/2013					
Benzene	55.0	1.0	ug/L	50.0	ND	110	74-130			
Toluene	54.8	1.0	"	50.0	ND	110	73-131			
Ethylbenzene	57.0	1.0	"	50.0	ND	114	76-132			
m,p-Xylene	113	2.0	"	100	ND	113	69-139			
o-Xylene	56.6	1.0	"	50.0	ND	113	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.6	84-121			
Surrogate: Toluene-d8	63		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.4	84-114			

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Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3L18010 - EPA 5030B (Water)

Matrix Spike Dup (3L18010-MSD1)		Source: X312146-01			Prepared: 12/18/2013 Analyzed: 12/20/2013					
Benzene	55.6	1.0	ug/L	50.0	ND	111	74-130	1.19	20	
Toluene	55.0	1.0	"	50.0	ND	110	73-131	0.419	20	
Ethylbenzene	57.5	1.0	"	50.0	ND	115	76-132	0.874	20	
m,p-Xylene	115	2.0	"	100	ND	115	69-139	1.22	20	
o-Xylene	57.0	1.0	"	50.0	ND	114	74-131	0.792	20	
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.0	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.4	84-114			

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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

John Cocroft

Project Number: KMG08449

Project: KMG - HSR Hunt 1-18, HSR Malina 8-18,
Noel Jack C

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

Origins Laboratory, Inc.



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