

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

SPILL/RELEASE REPORT

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and

Spill report taken by:

FACILITY ID:

OPERATOR INFORMATION

Name of Operator: <u>Kerr-McGee Oil & Gas Onshore LP</u>	OGCC Operator No: <u>47120</u>	Phone Numbers
Address: <u>1099 18th Street, Suite 1800</u>		No: <u>720-929-6000</u>
City: <u>Denver</u>	State: <u>CO</u> Zip: <u>80202</u>	Fax: <u>720-929-7726</u>
Contact Person: <u>Paul Schneider</u>		Email: <u>Paul.Schneider@anadarko.com</u>

DESCRIPTION OF SPILL OR RELEASE

Date of Incident: <u>7/8/2010</u>	Facility Name & No: <u>UPRR 42 Pan Am "AM" True #1</u>	County: <u>Weld</u>
Type of Facility (well, tank battery, flow line, pit): <u>Production Facility</u>		QtrQtr: <u>NWNW</u> Section: <u>27</u>
Well Name and Number: <u>UPRR 42 Pan Am "AM" True #1</u>		Township: <u>1N</u> Range: <u>67W</u>
API Number: <u>05-123-11051</u>		Meridian: <u>6th</u>

Specify volume spilled and recovered (in bbls) for the following materials:

Oil spilled: Unk Oil recov'd: 0 Water spilled: Unk Water recov'd: 0 Other spilled: 0 Other recov'd: 0

Ground Water impacted? ☒ Yes ☐ No ☐ Unknown Surface Water impacted? ☐ Yes ☒ No

Contained within berm? ☐ Yes ☒ No Area and vertical extent of spill: Unknown

Current land use: Agriculture Weather conditions: 80° F, clear

Soil/geology description: Silty-Clay

IF LESS THAN A MILE, report distance **IN FEET** to nearest ... Surface water: 100 N wetlands: 100 N buildings: 850 W

Livestock: Unknown Water wells: 850 W Depth to shallowest ground water: 14-18'

Cause of spill (e.g. equipment failure, human error, etc.): Historical Impacts Detailed description of the spill/release incident:

A limited subsurface site assessment was performed at the subject facility prior to upgrading the tank battery to accommodate additional wells. Five assessment boreholes (SB01 through SB05) were completed into the shallow groundwater table using a GeoProbe drilling rig. Historic petroleum hydrocarbon impacts to subsurface soil and groundwater were encountered during the assessment.

CORRECTIVE ACTION

Describe immediate response (how stopped, contained and recovered): Groundwater was encountered in the assessment boreholes at depths of 14-18' bgs. Groundwater samples (GW01 and GW02) were collected from boreholes SB02 and SB04, respectively, and submitted for BTEX analysis. Impact to groundwater was confirmed in SB02 by the laboratory report received on July 8, 2010, at which time the release became State reportable.

Describe any emergency pits constructed: NA

How was the extent of contamination determined? Soil borings SB01 through SB05 were continually sampled and screened in the field using a PID. The soil interval with the highest PID headspace reading was submitted for laboratory analysis of BTEX and TEPH. A soil sample was not submitted from SB05 due to the absence of soil staining or elevated PID readings in this borehole. Benzene concentrations in SB02 exceeded the COGCC allowable levels at approximately 17' bgs (see attached Figure 2 and Table 1). Subsurface soils with historic petroleum hydrocarbon impacts exceeding the COGCC allowable level will be excavated and confirmation soil and groundwater samples will be collected from the open excavation. Following excavation of the source area, groundwater monitoring wells will be installed to determine the extent and magnitude of the groundwater impacts. The excavation details, laboratory analytical results and groundwater monitoring program will be provided on a Form 27.

Further remediation activities proposed (attach separate sheet if needed): Any additional remedial activities will be summarized on a Form 27.

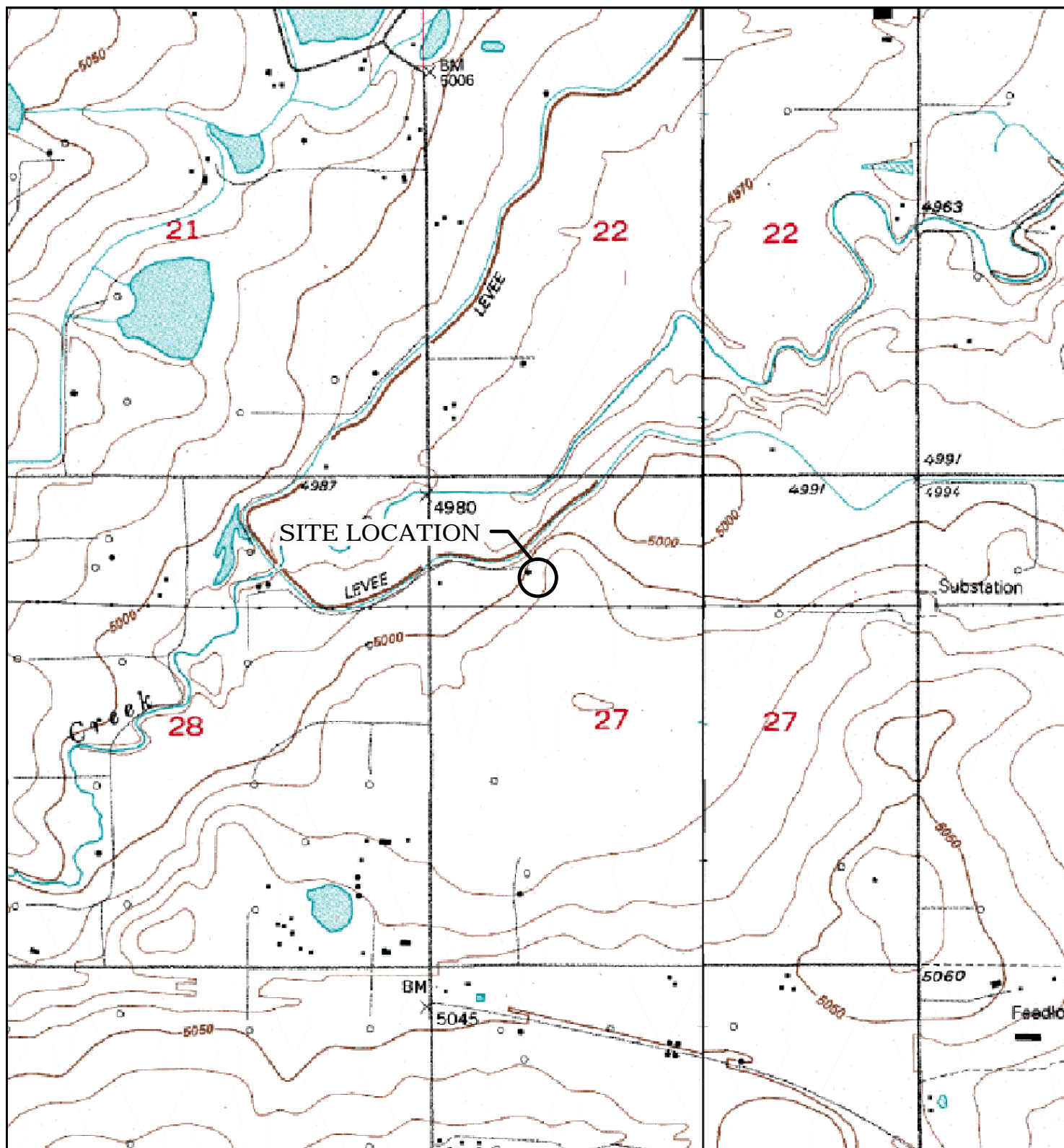
Describe measures taken to prevent problem from reoccurring: The battery will be rebuilt with a claymax liner and steel berms.

OTHER NOTIFICATIONS

List the parties and agencies notified (County, BLM, EPA, DOT, Local Emergency Planning Coordinator or other).

Date	Agency	Contact	Phone	Response

Spill/Release Tracking No: _____



LEGEND

○ SITE LOCATION



0 375 750 1500
FEET

SOURCE: TOPOZONE.COM
USGS 7.5' QUADRANGLE
(NAD27)

FIGURE 1
SITE LOCATION MAP
UPRR 42 PAN AM "AM" TRUE #1
NWNW 27-T1N-R67W
WELD COUNTY, CO
KERR-McGEE OIL & GAS ONSHORE LP



KMG1074801_sl 7/10

TABLE 1
SOIL SAMPLE ANALYTICAL DATA
UPRR 42 PAN AM "AM" TRUE #1

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	XYLENES (Total) (mg/kg)	TPH-GRO (mg/kg)	TEPH DRO+ORO (mg/kg)
SB01@15'	7/7/2010	15	0.016	<0.005	0.02	0.29	5.2	<50
SB02@13'	7/7/2010	13	<0.005	<0.005	<0.005	<0.005	<0.50	<50
SB02@17'	7/7/2010	17	0.2	<0.005	0.57	4.0	130	<50
SB03@13'	7/7/2010	13	<0.005	<0.005	<0.005	<0.005	<0.50	<50
SB04@13'	7/7/2010	13	<0.005	<0.005	<0.005	<0.005	<0.50	<50
COGCC Allowable Level			0.17	85	100	175	500	

< - less than reported laboratory reporting limit.

mg/kg - milligrams per kilogram

bgs - below ground surface

GRO - Gasoline Range Organics

Results noted in bold exceed COGCC allowable levels

COGCC - Colorado Oil and Gas Conservation Commission

DRO - Diesel Range Organics

ORO - Oil Range Organics

TPH - Total Petroleum Hydrocarbons

TEPH - Total Extractable Petroleum Hydrocarbons

TABLE 2
GROUNDWATER SAMPLE ANALYTICAL DATA
UPRR 42 PAN AM "AM" TRUE #1

SAMPLE ID	SAMPLE DATE	DEPTH (feet bgs)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (Total) (ug/L)
GW01	7/7/2010	18	2,900	<1.0	1,300	8,400
GW02	7/7/2010	14	<1.0	<1.0	<1.0	32
The Basic Standards for Groundwater			5	560	700	1,400

bgs - below ground surface

ug/L - micrograms per liter

< - Less than stated laboratory reporting limits.

Results noted in bold exceed Colorado Department of Public Health and Environment (CDPHE)-Water Quality Control Commission (WQCC) Regulation 41-The Basic Standards for Groundwater.



Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 09, 2010

John Cocroft

LT Environmental, Inc.

4600 West 60th Avenue

Arvada, CO 80003

RE: KMG - UPRR 42 PanAm AM True #1

Enclosed are the results of analyses for samples received by Summit Scientific on 07/07/10 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to be 'PS' followed by a long, sweeping horizontal line.

Paul Shrewsbury For Ben Shrewsbury
President / Laboratory Director



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB01@15'	R007034-01	Soil	07/07/10 09:10	07/07/10 17:00
SB02@13'	R007034-02	Soil	07/07/10 09:35	07/07/10 17:00
SB02@17'	R007034-03	Soil	07/07/10 09:40	07/07/10 17:00
SB03@13'	R007034-04	Soil	07/07/10 10:10	07/07/10 17:00
SB04@13'	R007034-05	Soil	07/07/10 10:40	07/07/10 17:00
GW01	R007034-07	Water	07/07/10 11:50	07/07/10 17:00
GW02	R007034-08	Water	07/07/10 11:55	07/07/10 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.

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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

Summit Scientific 2007034-

74 | Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-277-9531 Fax

Page (of (

Client: LT Environmental, Inc.

Address: 4600 West 60th Avenue

City/State/Zip: Arvada, CO 80003

Phone: (303) 433-9788

Sampler Name: M.V. 0

[illegible]

Project Manager:

E-Mail:

Project Name:

Project Number:

Project number,

[illegible]

www.e2scientific.com

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.





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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

SB01@15'
R007034-01 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: 07/07/10 09:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0070706	07/07/10	07/07/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: 07/07/10 09:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		100 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 07/07/10 09:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.016	0.0050	mg/kg	1	0070704	07/07/10	07/07/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.020	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.29	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	5.2	0.50	"	"	"	"	"	"	

Date Sampled: 07/07/10 09:10

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		93.3 %	84.3-112		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	79.6-120		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

SB02@13'
R007034-02 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/07/10 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0070706	07/07/10	07/07/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/07/10 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		103 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0070704	07/07/10	07/07/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/07/10 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		99.0 %	84.3-112		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	79.6-120		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

SB02@17'
R007034-03 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/07/10 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0070706	07/07/10	07/08/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/07/10 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		102 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.20	0.0050	mg/kg	1	0070704	07/07/10	07/07/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.57	0.050	"	10	"	"	07/07/10	"	
Xylenes (total)	4.0	0.050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	130	5.0	"	"	"	"	07/07/10	"	

Date Sampled: **07/07/10 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.9 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		106 %	84.3-112		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.7 %	79.6-120		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

SB03@13'
R007034-04 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/07/10 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0070706	07/07/10	07/08/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/07/10 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		104 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0070704	07/07/10	07/07/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/07/10 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.1 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	84.3-112		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	79.6-120		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

SB04@13'
R007034-05 (Soil)

Summit Scientific

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/07/10 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (TEPH-DRO)	ND	50	mg/kg	1	0070706	07/07/10	07/08/10	8015 Full Carbon Chain	
C28-C36 (TEPH-ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/07/10 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.8 %	88.8-124		"	"	"	"	

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0050	mg/kg	1	0070704	07/07/10	07/07/10	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/07/10 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		100 %	84.3-112		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	79.6-120		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

GW01
R007034-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	2900	20	ug/l	20	0070705	07/07/10	07/08/10	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	07/08/10	"	
Ethylbenzene	1300	20	"	20	"	"	07/08/10	"	
Xylenes (total)	8400	20	"	"	"	"	"	"	

Date Sampled: **07/07/10 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		77.9 %	70.4-127		"	"	07/08/10	"	
<i>Surrogate: Toluene-d8</i>		97.6 %	85.7-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.8 %	83.9-116		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

GW02
R007034-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/07/10 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	0070705	07/07/10	07/08/10	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	32	1.0	"	"	"	"	"	"	

Date Sampled: **07/07/10 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		94.4 %	70.4-127		"	"	"	"	
Surrogate: Toluene-d8		93.8 %	85.7-111		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	83.9-116		"	"	"	"	

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 0070706 - EPA 3550A

Blank (0070706-BLK1)

Prepared: 07/07/10 Analyzed: 07/08/10

C10-C28 (TEPH-DRO)	ND	50	mg/kg
C28-C36 (TEPH-ORO)	ND	50	"

Surrogate: o-Terphenyl	12.7	"	12.5	102	88.8-124
------------------------	------	---	------	-----	----------

LCS (0070706-BS1)

Prepared: 07/07/10 Analyzed: 07/08/10

C10-C28 (TEPH-DRO)	447	50	mg/kg	500	89.5	85-129	11.8
--------------------	-----	----	-------	-----	------	--------	------

LCS Dup (0070706-BSD1)

Prepared: 07/07/10 Analyzed: 07/08/10

C10-C28 (TEPH-DRO)	448	50	mg/kg	500	89.6	85-129	0.182	11.8
--------------------	-----	----	-------	-----	------	--------	-------	------

Matrix Spike (0070706-MS1)

Source: R007033-01

Prepared: 07/07/10 Analyzed: 07/08/10

C10-C28 (TEPH-DRO)	580	50	mg/kg	500	171	81.8	77.3-134	8.39
--------------------	-----	----	-------	-----	-----	------	----------	------

Matrix Spike Dup (0070706-MSD1)

Source: R007033-01

Prepared: 07/07/10 Analyzed: 07/08/10

C10-C28 (TEPH-DRO)	564	50	mg/kg	500	171	78.7	77.3-134	2.65	8.39
--------------------	-----	----	-------	-----	-----	------	----------	------	------

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.



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

Project: KMG - UPRR 42 PanAm AM True #1
Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

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 0070704 - EPA 5030 Soil MS

Blank (0070704-BLK1)

Prepared: 07/07/10 Analyzed: 07/08/10

Benzene	ND	0.0050	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0324		"	0.0400		81.0	74-135			
Surrogate: Toluene-d8	0.0384		"	0.0400		96.0	84.3-112			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	79.6-120			

LCS (0070704-BS1)

Prepared: 07/07/10 Analyzed: 07/08/10

Benzene	0.0940	0.0050	mg/kg	0.100		94.0	70.2-125		11.1	
Toluene	0.0905	0.0050	"	0.100		90.5	74-123		10.9	
Ethylbenzene	0.0965	0.0050	"	0.100		96.5	70-130		20	
m,p-Xylene	0.184	0.010	"	0.200		91.8	70-130		20	
o-Xylene	0.0844	0.0050	"	0.100		84.4	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	0.0366		"	0.0400		91.4	74-135			
Surrogate: Toluene-d8	0.0402		"	0.0400		101	84.3-112			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.5	79.6-120			

LCS Dup (0070704-BS1)

Prepared: 07/07/10 Analyzed: 07/08/10

Benzene	0.0973	0.0050	mg/kg	0.100		97.3	70.2-125	3.42	11.1	
Toluene	0.0915	0.0050	"	0.100		91.5	74-123	1.06	10.9	
Ethylbenzene	0.0974	0.0050	"	0.100		97.4	70-130	0.929	20	
m,p-Xylene	0.186	0.010	"	0.200		93.2	70-130	1.44	20	
o-Xylene	0.0866	0.0050	"	0.100		86.6	70-130	2.60	20	
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0400		88.6	74-135			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	84.3-112			
Surrogate: 4-Bromofluorobenzene	0.0383		"	0.0400		95.8	79.6-120			

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.



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

Project: KMG - UPRR 42 PanAm AM True #1
Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

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 0070704 - EPA 5030 Soil MS

Matrix Spike (0070704-MS1)		Source: R007033-06			Prepared: 07/07/10		Analyzed: 07/08/10			
Benzene	0.0382	0.0050	mg/kg	0.100	ND	38.2	67.1-125	17.9		QM-07
Toluene	0.0227	0.0050	"	0.100	ND	22.7	68.6-124	11.9		QM-07
Ethylbenzene	0.0174	0.0050	"	0.100	ND	17.4	70-130	20		QM-07
m,p-Xylene	0.424	0.010	"	0.200	ND	212	70-130	20		QM-07
o-Xylene	0.307	0.0050	"	0.100	ND	307	70-130	20		QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.6	74-135			
Surrogate: Toluene-d8	0.0373		"	0.0400		93.2	84.3-112			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.3	79.6-120			

Matrix Spike Dup (0070704-MSD1)		Source: R007033-06			Prepared: 07/07/10		Analyzed: 07/08/10			
Benzene	0.0236	0.0050	mg/kg	0.100	ND	23.6	67.1-125	47.4	17.9	QM-07
Toluene	0.0153	0.0050	"	0.100	ND	15.3	68.6-124	39.3	11.9	QM-07
Ethylbenzene	0.0166	0.0050	"	0.100	ND	16.6	70-130	4.94	20	QM-07
m,p-Xylene	0.413	0.010	"	0.200	ND	206	70-130	2.74	20	QM-07
o-Xylene	0.307	0.0050	"	0.100	ND	307	70-130	0.264	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.8	74-135			
Surrogate: Toluene-d8	0.0370		"	0.0400		92.6	84.3-112			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.4	79.6-120			

Batch 0070705 - EPA 5030 Water MS

Blank (0070705-BLK1)					Prepared: 07/07/10		Analyzed: 07/08/10			
Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.1		"	13.3		90.5	70.4-127			
Surrogate: Toluene-d8	13.0		"	13.3		97.4	85.7-111			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	83.9-116			

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.



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

Project: KMG - UPRR 42 PanAm AM True #1
Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

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 0070705 - EPA 5030 Water MS

LCS (0070705-BS1)

Prepared: 07/07/10 Analyzed: 07/08/10

Benzene	38.8	1.0	ug/l	33.3		116	64.2-127		10.9	
Toluene	35.8	1.0	"	33.3		107	66.4-125		11.3	
Ethylbenzene	36.4	1.0	"	33.3		109	70-130		20	
m,p-Xylene	68.9	2.0	"	66.7		103	70-130		20	
o-Xylene	32.8	1.0	"	33.3		98.3	70-130		20	
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	70.4-127			
Surrogate: Toluene-d8	13.8		"	13.3		103	85.7-111			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.6	83.9-116			

LCS Dup (0070705-BSD1)

Prepared: 07/07/10 Analyzed: 07/08/10

Benzene	40.5	1.0	ug/l	33.3		121	64.2-127	4.16	10.9	
Toluene	37.0	1.0	"	33.3		111	66.4-125	3.32	11.3	
Ethylbenzene	38.3	1.0	"	33.3		115	70-130	5.09	20	
m,p-Xylene	71.8	2.0	"	66.7		108	70-130	4.09	20	
o-Xylene	34.7	1.0	"	33.3		104	70-130	5.81	20	
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		102	70.4-127			
Surrogate: Toluene-d8	13.7		"	13.3		103	85.7-111			
Surrogate: 4-Bromofluorobenzene	12.5		"	13.3		93.9	83.9-116			

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.



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

Project: KMG - UPRR 42 PanAm AM True #1

Project Number: KMG 10660
Project Manager: John Cocroft

Reported:
07/09/10 11:17

Notes and Definitions

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.

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

A handwritten signature in black ink, appearing to be 'JM' followed by a long horizontal stroke.

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.