

REMEDICATION SUMMARY REPORT
PHILLIPS L30-6JI TANK BATTERY
WELD COUNTY, COLORADO

AUGUST 2009



REMEDIATION SUMMARY REPORT
PHILLIPS L30-6JI TANK BATTERY
WELD COUNTY, COLORADO

AUGUST 2009

Prepared for:

NOBLE ENERGY, INC.
804 Grand Avenue
Platteville, Colorado 80651

Prepared by:

LT ENVIRONMENTAL, INC.
4600 West 60th Avenue
Arvada, Colorado 80003
(303) 433-9788



TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
SECTION 1.0 INTRODUCTION	1-1
1.1 SITE DESCRIPTION	1-1
1.2 SCOPE OF WORK.....	1-1
SECTION 2.0 SUMMARY OF FIELD ACTIVITIES.....	2-1
2.1 EXCAVATION ACTIVITIES	2-1
2.1.1 Impacted Soil Removal.....	2-1
2.1.2 Impacted Groundwater Removal	2-2
2.2 GROUNDWATER AMENDMENT APPLICATION	2-2
SECTION 3.0 ANALYTICAL RESULTS.....	3-1
SECTION 4.0 SUMMARY AND CONCLUSIONS	4-1

TABLE

TABLE 1	SOIL ANALYTICAL RESULTS
---------	-------------------------

FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2	SOIL ANALYTICAL MAP

APPENDIX

APPENDIX	LABORATORY ANALYTICAL REPORTS
----------	-------------------------------

EXECUTIVE SUMMARY

This report was prepared by LT Environmental, Inc. (LTE), on behalf of Noble Energy, Inc. (Noble), to document remediation activities at the Phillips L30-6JI Tank Battery (Site). Site assessment activities have been described in the previous report, *Environmental Site Assessment Results Phillips L30-6JI Tank Battery*, dated June 2009.

The Site is located 0.6 miles south of the intersection of Main Street and State Highway 66 in Platteville, Colorado. The legal description of the Site is the southeast quarter of the northwest quarter of Section 30, Township 3 North, Range 66 West of the Sixth Principal Meridian, in Weld County, Colorado (Figure 1). The Site is bordered to the east by United States Highway 85, to the west by Main Street, to the north by a residence, and to the south by pasture land.

The scope of work for this project included mitigation of petroleum hydrocarbon impacts following the identification of a tank release. This work consisted of the excavation/removal of hydrocarbon-impacted soils and groundwater, confirmation sampling and analysis, application of a groundwater amendment, documentation, and health and safety monitoring.

Noble contractors excavated impacted soil at the site from June 25, 2009 through July 2, 2009. Impacted soils were hauled offsite to the Noble Land Treatment Facility in Weld County, Colorado. The excavation was backfilled with clean fill from Varra Companies, Inc. of Greeley, Colorado. A total volume of 1,368 cubic yards of impacted soil were excavated and removed during this project. A total volume of 5,023 barrels (210,966 gallons) of impacted groundwater were removed from the excavation and transported to the Conquest Disposal Facility located in Weld County, Colorado.

Following the completion of source removal activities, a groundwater remediation amendment was installed in the base of the excavation to mitigate any residual hydrocarbons remaining from source removal activities. The amendment was also used in the construction of permeable reactive barrier installed downgradient of the gas separation equipment.

Based on field indicators and the analytical results of the wall confirmation samples collected following excavation activities, the remaining soil has been remediated to below the Colorado Oil and Gas Conservation Commission (COGCC) standards.

LTE is in the process of scheduling the sampling of performance groundwater monitoring wells, installed during the previously conducted site assessment, to determine if residual groundwater impacts exist at the Site. It is anticipated that the first quarterly monitoring event will be conducted in August 2009.

LTE, on behalf of Noble, will conduct quarterly monitoring with the goal of observing four consecutive quarters of analytical data in compliance with regulatory standards. When this goal is achieved, a No Further Action (NFA) request will be submitted to the COGCC.

SECTION 1.0

INTRODUCTION

This report was prepared by LT Environmental, Inc. (LTE) for Noble Energy, Inc. (Noble) to document excavation activities at the Phillips L30-6JI Tank Battery (Site). The purpose of this project was to remove hydrocarbon-impacted soils and groundwater from the Site.

1.1 SITE DESCRIPTION

The Site is located 0.6 miles south of the intersection of Main Street and State Highway 66 in Platteville, Colorado. The legal description of the Site is the southeast quarter of the northwest quarter of Section 30, Township 3 North, Range 66 West of the Sixth Principal Meridian, in Weld County, Colorado (Figure 1). The Site is bordered to the east by United States Highway 85, to the west by Main Street, to the north by a residence, and to the south by pasture land.

The Site geology was predominantly observed as clayey sand road-base that extended from the ground surface to approximately 1 - 2 feet below ground surface (bgs). Beneath the road-base is a well sorted, fine to coarse-grained, unconsolidated sand with trace gravel. Shallow groundwater at the Site is approximately 2 - 3 feet bgs.

The Site is located at an elevation of approximately 4,800 feet above mean sea level in an area with localized flat topography. Surface topography in the area is modified for agricultural and transportation corridor purposes.

1.2 SCOPE OF WORK

The scope of work for this remediation project included the removal of impacted soils and groundwater. Impacted soils were hauled offsite to the Noble Land Treatment Facility and replaced with clean fill from Varra Companies, Inc. (Varra) of Greeley, Colorado. Impacted groundwater was transported to Conquest Disposal (Conquest) located in Weld County, Colorado. A groundwater amendment (activated carbon remediation mixture) was installed in the base of the excavation to reduce the potential for groundwater impact resulting from residual hydrocarbons.

During onsite activities, Noble and LTE personnel conducted field screening of soils, soil sampling, oversight of the excavation, health and safety monitoring, installation of the groundwater amendment, and documentation activities.

A summary of field activities, analytical results from soil sampling, and conclusions is presented in the subsequent sections.

SECTION 2.0

SUMMARY OF FIELD ACTIVITIES

2.1 EXCAVATION ACTIVITIES

2.1.1 Impacted Soil Removal

Excavation activities were initiated on June 25, 2009. During the period from June 25, 2009 to July 2, 2009, Noble contractors removed impacted soils and groundwater. During remediation activities, evidence of impact to the subsurface was observed ranging in depth from 1 foot to 6 feet bgs. LTE personnel conducted field screening of organic vapor concentrations using a photoionization detector (PID) and collected confirmation soil samples to document excavation activities.

The final dimensions of the excavation were approximately 80 feet long by 60 feet wide, and the total depth of the excavation was approximately 6 feet. A total volume of 1,368 cubic yards of impacted soil were excavated and transported offsite to the Noble Land Treatment Facility located in Weld County, Colorado.

At the direction of Noble, exploratory potholes were excavated across the site to determine the extent of soil impacts emanating from the leaking aboveground storage tank. Soil samples were collected from all seven exploratory potholes (S01-S07).

Upon receipt of the analytical results from the exploratory potholes, Noble contractors initiated excavation within the confines of the exploratory potholes. Soil samples were also collected from the smear zone along the walls of the excavation. Each sample was field-screened for organic vapor concentrations with a PID to determine if additional excavation was required. Once PID measurements indicated that impacted soil had been removed, a confirmation sample was collected for submittal to an analytical laboratory (S11 – S16). Soil samples S08 and S09 were not submitted to an analytical laboratory after PID screening indicated the samples were impacted. The area was excavated further and subsequent soil samples were collected and submitted to the analytical laboratory for analysis.

Floor samples were not collected from the excavation because the final excavation depth extended below the static water level. The potential for residual hydrocarbon impact below the water table in the excavation will be characterized through collection and analysis of groundwater samples to be presented in future monitoring reports.

Figure 2 presents the excavation extent, the location and analytical results from the soil samples collected in the excavation and exploratory potholes.

A total of 16 samples were collected from the exploratory potholes and excavation sidewalls. Of the 16 soil samples collected, 14 were submitted to Origins Laboratory, Inc. (Origins) of Denver, Colorado. Soil samples were submitted for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency

(EPA) Method 8260B, as well as total volatile hydrocarbons - gasoline range organics (TVH-GRO) and total extractable hydrocarbons – diesel range organics (TEH-DRO) by EPA Modified Method 8015. The remaining two sample locations exhibited impacts during field screening and were over-excavated. Subsequent samples were collected and submitted to Origins.

After field screening indicated the impacted soils had been removed, the excavation was backfilled with clean fill provided by Varra.

2.1.2 Impacted Groundwater Removal

During excavation activities, 5,023 barrels (210,966 gallons) of groundwater were removed from the excavation. Groundwater was removed by a Northern Plains Transport truck, with final disposal at Conquest.

2.2 GROUNDWATER AMENDMENT APPLICATION

Groundwater was observed at the Site at approximately 2 feet bgs. To reduce the potential for any further groundwater impact resulting from residual hydrocarbons, a groundwater amendment was applied to the entire base of the excavation after field indicators and confirmation sample analytical results demonstrated the impacted soils were removed.

The groundwater remediation amendment used in the excavation was comprised of activated carbon inoculated with electron acceptors (nitrate and sulfate) and nutrients (phosphorus and nitrogen) designed to biodegrade petroleum hydrocarbons. Approximately 700 pounds of the groundwater amendment were applied to the base of the excavation.

To further aid the natural attenuation process and prevent migration of impacted groundwater outside the boundary of the excavation, LTE installed a permeable reactive barrier (PRB) downgradient of the excavation. A trench was excavated north of the oil and gas separation equipment, which is downgradient of the excavation and dumpline corridor. Dimensions of the PRB are approximately 4 feet wide by 20 feet long by 6 feet deep. The trench was backfilled with a mixture of native soil and groundwater amendment. The PRB will intercept impacted groundwater and remediate the hydrocarbon compounds as the groundwater continues to flow downgradient. A total of 100 pounds of the groundwater amendment was mixed into the PRB from the smear zone to the total depth of the PRB.

SECTION 3.0

ANALYTICAL RESULTS

Soil samples were collected to define the extent of the excavation and confirm that impact above regulatory standards was removed. Confirmation soil samples were collected from exploratory potholes and the smear zone along the walls of the excavation. Soil sample locations and analytical results are illustrated on Figure 2. Soil samples were sent to Origins for analysis of BTEX using EPA Method 8260B, as well as TVH-GRO and TEH-DRO using EPA Modified Method 8015.

Analytical results indicate BTEX, TVH-GRO, and TEH-DRO were not detected above COGCC standards in all samples collected from the exploratory potholes or the excavation sidewalls except sample location S10. Soil sample S10 exhibited a benzene concentration of 0.178 milligrams per kilogram (mg/kg), which exceeds the COGCC standard of 0.17 mg/kg. The excavation was extended beyond soil sample S10 to remove the documented impacted soils. A subsequent soil sample (S16) indicated that all impacted soil had been removed.

Soil sample analytical results are summarized in Table 1. Copies of the laboratory analytical reports are included in the Appendix.

SECTION 4.0

SUMMARY AND CONCLUSIONS

From June 25, 2009 to July 2, 2009, Noble excavated and removed 1,368 cubic yards of impacted soil and 5,023 barrels (210,966 gallons) of impacted groundwater from the excavation at the Site.

During remediation activities, evidence of impact to the subsurface, in the form of staining and odor, was observed ranging in depth from 1 foot to 6 feet bgs. LTE conducted field-screening of organic vapor concentrations and collection of soil confirmation samples for laboratory analysis from the excavated area.

Impacted soils were excavated and transported to the Noble Land Treatment Facility. Clean fill material was brought from Varra for use as backfill in the excavation. Impacted groundwater removed from the excavation was transported by Northern Plains Transport for final disposal at Conquest.

LTE collected confirmation soil samples during soil excavation activities. Analytical results from soil samples collected from exploratory potholes and the smear zone along the walls of the excavation indicated that the petroleum impacted soils had been removed to below the COGCC Standards.

To prevent any future impact from residual hydrocarbons in the northern excavation, 700 pounds of a hydrocarbon degrading amendment were applied to the base of the excavation. LTE also installed a PRB downgradient of the excavation to intercept and remediate impacted groundwater outside the excavation boundary. A total of 100 pounds of a groundwater amendment was mixed with native soil and used to construct the PRB.

LTE is in the process of conducting post-excavation groundwater monitoring activities at the Site. LTE will use monitoring wells installed during site assessment activities (May 2009) to conduct post-remediation sampling. A summary of the monitoring well sampling activities and groundwater analytical results will be included with the first quarterly groundwater monitoring report to be submitted under separate cover.

TABLE

TABLE 1

SOIL ANALYTICAL RESULTS
 PHILLIPS L 30-6JI TANK BATTERY
 WELD COUNTY, COLORADO
 NOBLE ENERGY, INC.

Sample ID (Depth in feet)	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TVH-GRO (mg/kg)	TVH-DRO (mg/kg)
S01 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S02 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S03 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S04 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S05 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S06 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S07 (2')	6/24/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S10 (2')	7/1/2009	0.178	0.0420	<0.00400	0.2353	<50	<50
S11 (2')	7/1/2009	0.109	0.0689	<0.00400	0.2824	<50	<50
S12 (2')	7/1/2009	0.122	0.0283	<0.00400	0.4137	<50	<50
S13 (2')	7/2/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S14 (2')	7/2/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S15 (2')	7/2/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
S16 (2.5')	7/2/2009	<0.00400	<0.00400	<0.00400	<0.01200	<50	<50
COGCC Standard		0.17	85	100	175	Combined to 500	

Notes:

mg/kg - milligrams per kilogram

< indicates result is less than the stated laboratory method detection limit

TVH-GRO - Total Volatile Hydrocarbons - Gasoline Range Organics

TEH-DRO - Total Extractable Hydrocarbons - Diesel Range Organics

COGCC - Colorado Oil & Gas Conservation Commission

TVH-GRO and TEH-DRO analyzed by EPA Modified Method 8015

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B.

Bold - indicates result exceeds COGCC standard.



FIGURES

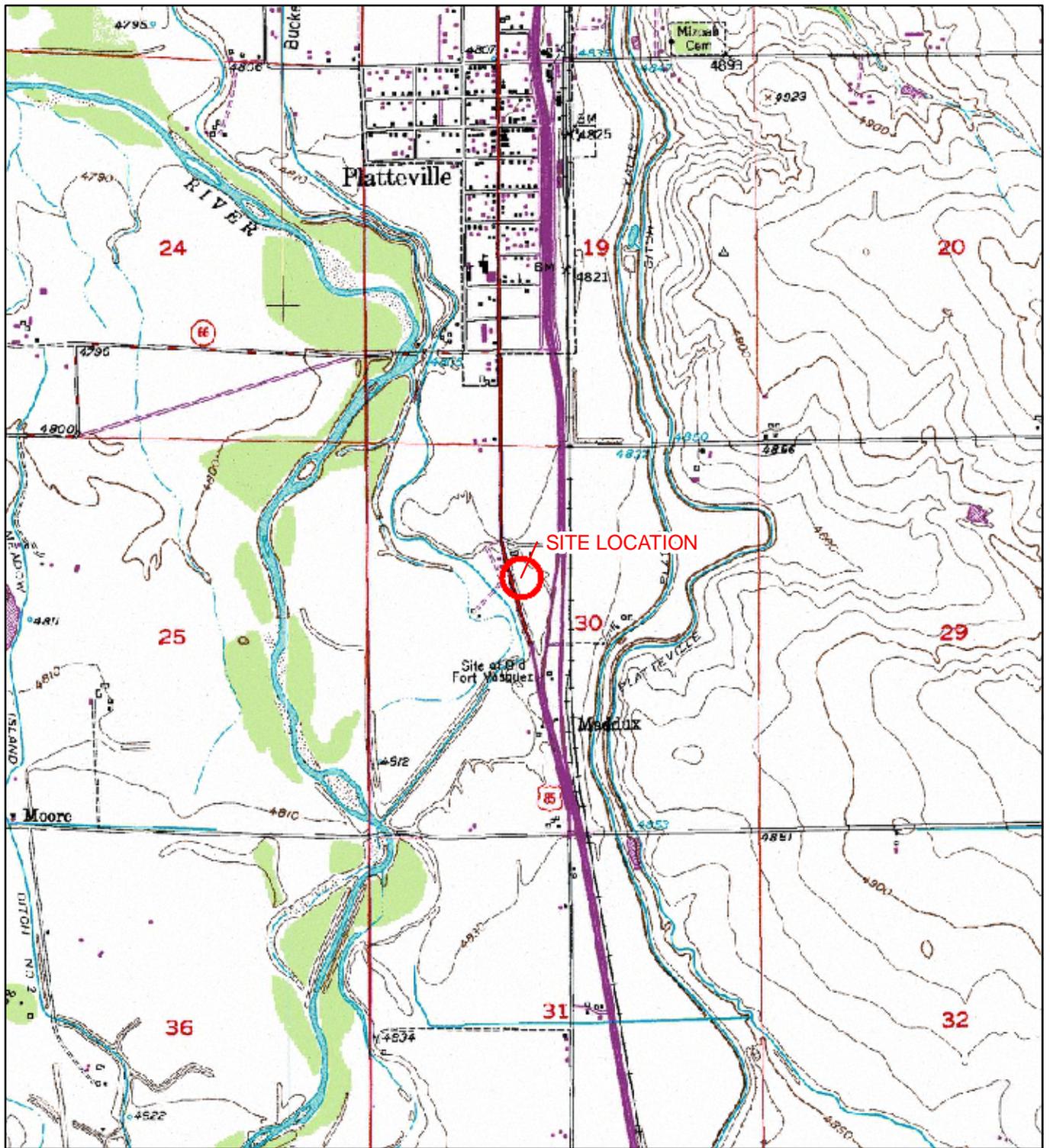


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

LEGEND

 SITE LOCATION

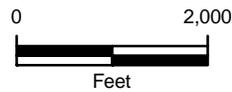
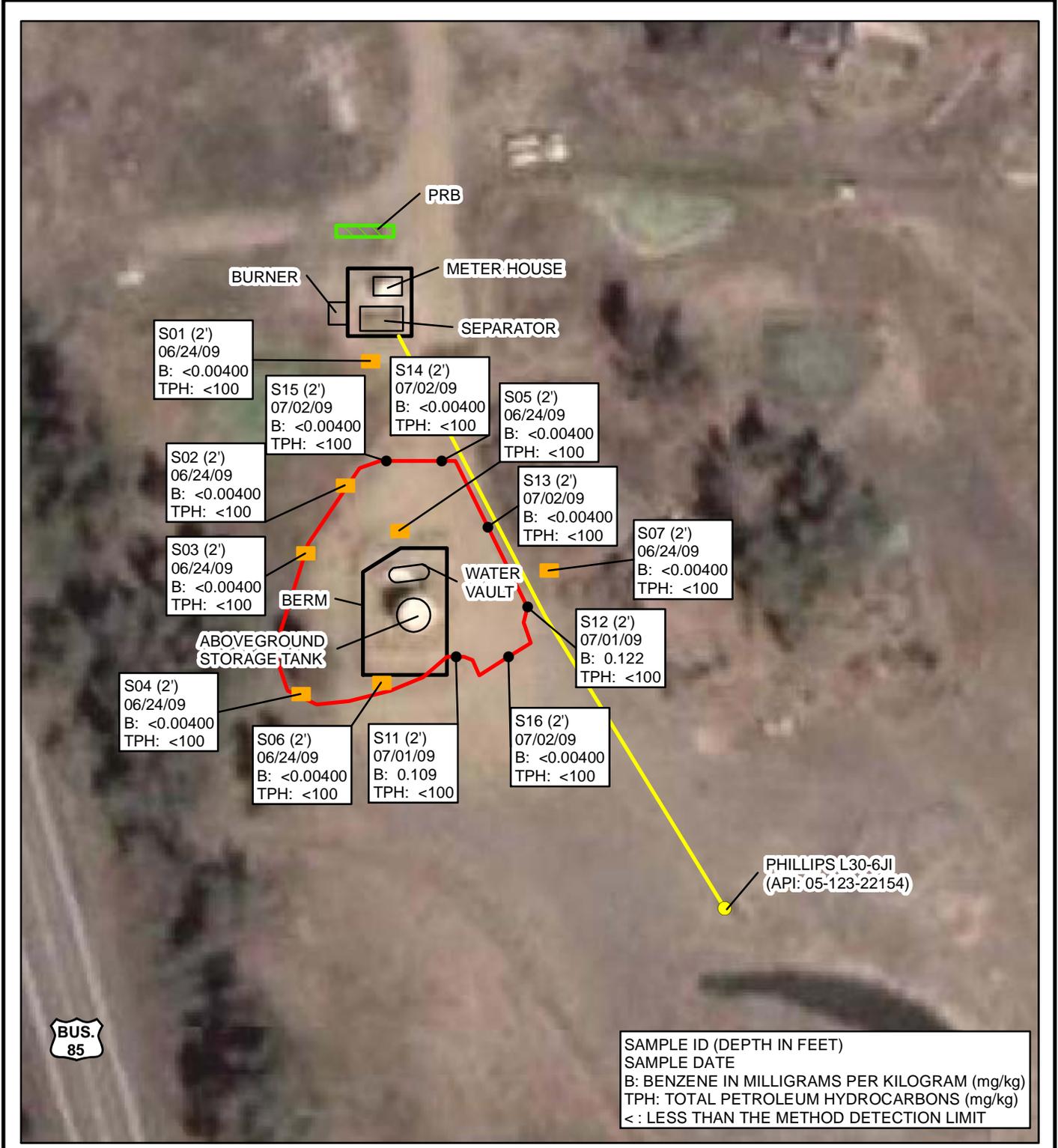


FIGURE 1
SITE LOCATION MAP
PHILLIPS L30-6JI TANK BATTERY
SEC30 - 3N - 66W
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.





LEGEND

- EXPLORATORY POTHOLE SAMPLE LOCATION
- EXPLORATORY SOIL SAMPLE LOCATION
- PRODUCTION WELLHEAD
- GAS FLOWLINE
- BERM
- PERMEABLE REACTIVE BARRIER (PRB)
- EXCAVATION EXTENT

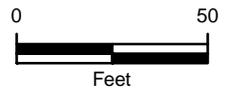


FIGURE 2
SOIL ANALYTICAL MAP
PHILLIPS L30-6JI TANK BATTERY
SEC30 - 3N - 66W
WELD COUNTY, COLORADO
NOBLE ENERGY, INC.



APPENDIX
LABORATORY ANALYTICAL REPORTS



4640 Pecos Street | Unit C | Denver, Colorado 80211
303.433.1322 Phone 303.265.9645 Fax

August 05, 2009

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

Brian Dodek
Project Number: NEP0909
Project: Noble - Phillips L30-6JI

Attached are the analytical results for Noble - Phillips L30-6JI received by Origins Laboratory, Inc. 6/25/2009 11:58:00AM. Please let us know if you have any questions, or if we can help with anything at all.

A handwritten signature in black ink, appearing to read "Noelle E Doyle".

Noelle E Doyle
Laboratory Manager

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. This laboratory report is intended solely for the above addressee and it is only to be used and or reproduced in its entirety.

4640 Pecos Street | Unit C
Denver, Colorado 80211
303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0909
Project: Noble - Phillips L30-6JI

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
S01 (2')	X906094-01	Soil	6/24/2009 11:10:00AM	06/25/2009 11:58
S02 (2')	X906094-02	Soil	6/24/2009 11:15:00AM	06/25/2009 11:58
S03 (2')	X906094-03	Soil	6/24/2009 11:20:00AM	06/25/2009 11:58
S04 (2')	X906094-04	Soil	6/24/2009 11:25:00AM	06/25/2009 11:58
S05 (2')	X906094-05	Soil	6/24/2009 11:30:00AM	06/25/2009 11:58
S06 (2')	X906094-06	Soil	6/24/2009 11:35:00AM	06/25/2009 11:58
S07 (2')	X906094-07	Soil	6/24/2009 11:40:00AM	06/25/2009 11:58

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble - Phillips L30-6J1

X91000994
 page ____ of ____



originslaboratory.com

Client- LTE
 Address- _____
 Telephone Number- ONE/LE
 E-Mail Address- _____

Project Manager- BDD
 Project Name- Phillips L30-6J1
 Project Number- NEP0909
 Samples Collected by- TEJ

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analysis			Sample Instructions
				Unpreserved	HCl	HNO ₃	Other - ITC	Groundwater	Soil	Air - Summa Canister #	Other	DLO/GR0 8015	BTEX 8260	
S01 (2')	6/24/09	1110	1	X			X							1
S02 (2')		1115												2
S03 (2')		1120												3
S04 (2')		1125												4
S05 (2')		1130												5
S06 (2')		1135												6
S07 (2')		1140												7
S08 (2')		1145												8
														9
Relinquished by: <u>[Signature]</u>	Date: <u>6/24/09</u>	Time: <u>1158</u>		Received by: <u>[Signature]</u>	Date: <u>6/24/09</u>	Time: <u>1158</u>		Turn Around Time: <input checked="" type="checkbox"/> 24-hr <input type="checkbox"/> 48-hr <input type="checkbox"/> 72-hr						
Relinquished by:	Date:	Time:		Received by:	Date: <u>6/24/09</u>	Time: <u>1158</u>		Temperature Upon Receipt: <u>(720) 880-8107</u>						

4640 North Pecos Street | Unit C | Denver, Colorado 80211 | Laboratory - 303.433.1322 | Fax - 303.265.9645

Origins Laboratory, Inc.

[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.

4640 Pecos Street | Unit C
 Denver, Colorado 80211
 303.433.1322 | Laboratory
 303.265.9645 | Fax



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S01 (2')
X906094-01 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009
Toluene	ND	0.00400	"	"	"	"	"
Ethylbenzene	ND	0.00400	"	"	"	"	"
o-Xylene	ND	0.00400	"	"	"	"	"
m,p-Xylene	ND	0.00800	"	"	"	"	"

<i>Surrogate: 1,2-Dichloroethane-d4</i>	86.2 %	77.6-134			"	"	"
<i>Surrogate: Toluene-d8</i>	110 %	81.4-121			"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	104 %	74.7-123			"	"	"

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009
Diesel (C10-C28)	ND	50.0	"	"	"	"	"

<i>Surrogate: o-Terphenyl</i>	89.6 %	65-140			"	"	"
-------------------------------	--------	--------	--	--	---	---	---

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C
 Denver, Colorado 80211
 303.433.1322 | Laboratory
 303.265.9645 | Fax



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S02 (2')
X906094-02 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>85.4 %</i>	<i>77.6-134</i>			"	"	"	
<i>Surrogate: Toluene-d8</i>	<i>111 %</i>	<i>81.4-121</i>			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>	<i>74.7-123</i>			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	<i>89.1 %</i>	<i>65-140</i>			"	"	"	
-------------------------------	---------------	---------------	--	--	---	---	---	--

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S03 (2')

X906094-03 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	85.1 %	77.6-134			"	"	"	
<i>Surrogate: Toluene-d8</i>	111 %	81.4-121			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	105 %	74.7-123			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	90.1 %	65-140			"	"	"	
-------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S04 (2')

X906094-04 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009
Toluene	ND	0.00400	"	"	"	"	"
Ethylbenzene	ND	0.00400	"	"	"	"	"
o-Xylene	ND	0.00400	"	"	"	"	"
m,p-Xylene	ND	0.00800	"	"	"	"	"

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>84.8 %</i>	<i>77.6-134</i>			"	"	"
<i>Surrogate: Toluene-d8</i>	<i>110 %</i>	<i>81.4-121</i>			"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>103 %</i>	<i>74.7-123</i>			"	"	"

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009
Diesel (C10-C28)	ND	50.0	"	"	"	"	"

<i>Surrogate: o-Terphenyl</i>	<i>94.5 %</i>	<i>65-140</i>			"	"	"
-------------------------------	---------------	---------------	--	--	---	---	---

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S05 (2')
X906094-05 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>87.0 %</i>	<i>77.6-134</i>			"	"	"	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>	<i>81.4-121</i>			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>99.6 %</i>	<i>74.7-123</i>			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	<i>94.4 %</i>	<i>65-140</i>			"	"	"	
-------------------------------	---------------	---------------	--	--	---	---	---	--

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S06 (2')
X906094-06 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>91.6 %</i>	<i>77.6-134</i>			"	"	"	
<i>Surrogate: Toluene-d8</i>	<i>106 %</i>	<i>81.4-121</i>			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>95.5 %</i>	<i>74.7-123</i>			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	<i>96.9 %</i>	<i>65-140</i>			"	"	"	
-------------------------------	---------------	---------------	--	--	---	---	---	--

Origins Laboratory, Inc.

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.

4640 Pecos Street | Unit C
 Denver, Colorado 80211
 303.433.1322 | Laboratory
 303.265.9645 | Fax



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S07 (2')
X906094-07 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9F25001	06/25/2009	06/25/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>90.5 %</i>	<i>77.6-134</i>			"	"	"	
<i>Surrogate: Toluene-d8</i>	<i>105 %</i>	<i>81.4-121</i>			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.0 %</i>	<i>74.7-123</i>			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9F25002	06/25/2009	06/25/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	<i>92.1 %</i>	<i>65-140</i>			"	"	"	
-------------------------------	---------------	---------------	--	--	---	---	---	--

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

Extractable Petroleum Hydrocarbons by 8015M – Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9F25002 – Default Prep GC-Semi										
Blank (9F25002-BLK1)					Prepared: 06/25/2009 Analyzed: 06/25/2009					
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	46.9		<i>g</i>	50.0		93.8	65-140			
LCS (9F25002-BS1)					Prepared: 06/25/2009 Analyzed: 06/25/2009					
Gasoline (C6-C10)	685	50.0	mg/kg	500		137	65-140			
Diesel (C10-C28)	66.7	50.0	"				60-140			
<i>Surrogate: o-Terphenyl</i>	46.4		<i>g</i>	50.0		92.9	65-140			
LCS Dup (9F25002-BSD1)					Prepared: 06/25/2009 Analyzed: 06/25/2009					
Gasoline (C6-C10)	677	50.0	mg/kg	500		135	65-140	1.15	25	
Diesel (C10-C28)	67.2	50.0	"				60-140	0.741	25	
<i>Surrogate: o-Terphenyl</i>	44.6		<i>g</i>	50.0		89.2	65-140			

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6Jl

Volatile Organic Compounds by EPA Method 8260B – Quality Control
Origins Laboratory, Inc.

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

Batch 9F25001 – EPA 5030B

Blank (9F25001–BLK1)

Prepared: 06/25/2009 Analyzed: 06/25/2009

Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>58.7</i>		<i>ug/L</i>	<i>62.5</i>		<i>94.0</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>65.6</i>		<i>"</i>	<i>62.5</i>		<i>105</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>61.4</i>		<i>"</i>	<i>62.5</i>		<i>98.3</i>	<i>74.7-123</i>			

LCS (9F25001–BS1)

Prepared: 06/25/2009 Analyzed: 06/25/2009

Benzene	0.17	0.004	mg/kg	0.200		84.0	81.7-142			
Toluene	0.16	0.004	"	0.200		78.2	72.2-134			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>57.6</i>		<i>ug/L</i>	<i>62.5</i>		<i>92.2</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>65.0</i>		<i>"</i>	<i>62.5</i>		<i>104</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>58.2</i>		<i>"</i>	<i>62.5</i>		<i>93.1</i>	<i>74.7-123</i>			

LCS Dup (9F25001–BSD1)

Prepared: 06/25/2009 Analyzed: 06/25/2009

Benzene	0.16	0.004	mg/kg	0.200		79.7	81.7-142	5.33	200	S-GC
Toluene	0.14	0.004	"	0.200		68.0	72.2-134	14.0	200	S-GC
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>59.2</i>		<i>ug/L</i>	<i>62.5</i>		<i>94.7</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>64.7</i>		<i>"</i>	<i>62.5</i>		<i>104</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>60.3</i>		<i>"</i>	<i>62.5</i>		<i>96.4</i>	<i>74.7-123</i>			

Origins Laboratory, Inc.

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.

4640 Pecos Street | Unit C
Denver, Colorado 80211
303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0909
Project: Noble – Phillips L30-6JI

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.

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.

Noelle E Doyle, Laboratory Manager



4640 Pecos Street | Unit C | Denver, Colorado 80211
303.433.1322 Phone 303.265.9645 Fax

July 03, 2009

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

Brian Dodek
Project Number: NEP0909
Project: Noble – Phillips L30-6JI

Attached are the analytical results for Noble – Phillips L30-6JI received by Origins Laboratory, Inc. 7/1/2009 3:41:00PM. Please let us know if you have any questions, or if we can help with anything at all.

Noelle E Doyle
Laboratory Manager

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. This laboratory report is intended solely for the above addressee and it is only to be used and or reproduced in its entirety.

4640 Pecos Street | Unit C
Denver, Colorado 80211
303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0909
Project: Noble - Phillips L30-6JI

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
S10	X907008-01	Soil	7/1/2009 11:20:00AM	07/01/2009 15:41
S11	X907008-02	Soil	7/1/2009 12:15:00PM	07/01/2009 15:41
S12	X907008-03	Soil	7/1/2009 12:40:00PM	07/01/2009 15:41

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble - Phillips L30-6JI

8007016X
 page 1 of 1



originslaboratory.com

Client: LT
 Address: 4600 W 60th Ave
 Telephone Number: 314339788
 E-Mail Address: bdodek@henvi.com

Project Manager: Brian Dodek
 Project Name: Phillips L30-6JI
 Project Number: NEP0909
 Samples Collected by: MJH

Sample ID - Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other - ICE	Groundwater	Soil	Air - Summa Canister #	Other -			
S10	7-1-09	1200	1	X			X			X				1
S11	↓	1205	1	X			X			X				2
S12		1240	1	X			X			X				3
														4
														5
														6
														7
														8
														9
														10

Relinquished by: [Signature] Date: 7/1/09 Time: 1541
 Received by: [Signature] Date: 7/1/09 Time: 1541
 Turn Around Time: 24-hr 48-hr 72-hr

4640 North Pecos Street | Unit C | Denver, Colorado 80211 | Laboratory - 303.433.1322 | Fax - 303.265.9645

Origins Laboratory, Inc.

Noelle E Doyle

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S10
X907008-01 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	0.178	0.00400	mg/kg	1	9G01004	07/01/2009	07/02/2009
Toluene	0.0420	0.00400	"	"	"	"	"
Ethylbenzene	ND	0.00400	"	"	"	"	"
o-Xylene	0.0443	0.00400	"	"	"	"	"
m,p-Xylene	0.191	0.00800	"	"	"	"	"

Surrogate: 1,2-Dichloroethane-d4	120 %	77.6-134			"	"	"
Surrogate: Toluene-d8	90.8 %	81.4-121			"	"	"
Surrogate: 4-Bromofluorobenzene	87.0 %	74.7-123			"	"	"

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.00	mg/kg	1	9G01005	07/01/2009	07/01/2009
Diesel (C10-C28)	ND	50.00	"	"	"	"	"

Surrogate: o-Terphenyl	88.0 %	65-140			"	"	"
------------------------	--------	--------	--	--	---	---	---

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S11
X907008-02 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	0.109	0.00400	mg/kg	1	9G01004	07/01/2009	07/02/2009
Toluene	0.0689	0.00400	"	"	"	"	"
Ethylbenzene	ND	0.00400	"	"	"	"	"
o-Xylene	0.0564	0.00400	"	"	"	"	"
m,p-Xylene	0.226	0.00800	"	"	"	"	"

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>119 %</i>	<i>77.6-134</i>			"	"	"
<i>Surrogate: Toluene-d8</i>	<i>88.1 %</i>	<i>81.4-121</i>			"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>83.9 %</i>	<i>74.7-123</i>			"	"	"

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.00	mg/kg	1	9G01005	07/01/2009	07/01/2009
Diesel (C10-C28)	ND	50.00	"	"	"	"	"

<i>Surrogate: o-Terphenyl</i>	<i>85.2 %</i>	<i>65-140</i>			"	"	"
-------------------------------	---------------	---------------	--	--	---	---	---

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S12
X907008-03 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	0.122	0.00400	mg/kg	1	9G01004	07/01/2009	07/02/2009
Toluene	0.0283	0.00400	"	"	"	"	"
Ethylbenzene	ND	0.00400	"	"	"	"	"
o-Xylene	0.0787	0.00400	"	"	"	"	"
m,p-Xylene	0.335	0.00800	"	"	"	"	"

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>119 %</i>	<i>77.6-134</i>			"	"	"
<i>Surrogate: Toluene-d8</i>	<i>88.2 %</i>	<i>81.4-121</i>			"	"	"
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>82.7 %</i>	<i>74.7-123</i>			"	"	"

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.00	mg/kg	1	9G01005	07/01/2009	07/01/2009
Diesel (C10-C28)	ND	50.00	"	"	"	"	"

<i>Surrogate: o-Terphenyl</i>	<i>86.3 %</i>	<i>65-140</i>			"	"	"
-------------------------------	---------------	---------------	--	--	---	---	---

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

Extractable Petroleum Hydrocarbons by 8015M – Quality Control
Origins Laboratory, Inc.

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

Batch 9G01005 – Default Prep GC-Semi

Blank (9G01005-BLK1)

Prepared: 07/01/2009 Analyzed: 07/01/2009

Gasoline (C6-C10)	ND	50.00	mg/kg							
Diesel (C10-C28)	ND	50.00	"							
<i>Surrogate: o-Terphenyl</i>	<i>41.0</i>		<i>g</i>	<i>50.0</i>		<i>82.1</i>	<i>65-140</i>			

LCS (9G01005-BS1)

Prepared: 07/01/2009 Analyzed: 07/01/2009

Gasoline (C6-C10)	617.67	50.00	mg/kg	500		124	65-140			
Diesel (C10-C28)	63.58	50.00	"				60-140			
<i>Surrogate: o-Terphenyl</i>	<i>44.7</i>		<i>g</i>	<i>50.0</i>		<i>89.4</i>	<i>65-140</i>			

Matrix Spike (9G01005-MS1)

Source: X907003-02

Prepared: 07/01/2009 Analyzed: 07/01/2009

Gasoline (C6-C10)	674.70	50.00	mg/kg	500	ND	135	65-130			
Diesel (C10-C28)	53.06	50.00	"		ND		60-140			
<i>Surrogate: o-Terphenyl</i>	<i>44.3</i>		<i>g</i>	<i>50.0</i>		<i>88.6</i>	<i>65-140</i>			

Matrix Spike Dup (9G01005-MSD1)

Source: X907003-02

Prepared: 07/01/2009 Analyzed: 07/01/2009

Gasoline (C6-C10)	650.54	50.00	mg/kg	500	ND	130	65-130	3.65	20	
Diesel (C10-C28)	51.18	50.00	"		ND		60-140	3.62	25	
<i>Surrogate: o-Terphenyl</i>	<i>43.3</i>		<i>g</i>	<i>50.0</i>		<i>86.6</i>	<i>65-140</i>			

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6J1

Volatile Organic Compounds by EPA Method 8260B – Quality Control
Origins Laboratory, Inc.

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

Batch 9G01004 – EPA 5030B

Blank (9G01004-BLK1)

Prepared: 07/01/2009 Analyzed: 07/02/2009

Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	74.9		ug/L	62.5		120	77.6-134			
<i>Surrogate: Toluene-d8</i>	57.2		"	62.5		91.4	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	56.0		"	62.5		89.6	74.7-123			

LCS (9G01004-BS1)

Prepared: 07/01/2009 Analyzed: 07/02/2009

Benzene	0.20	0.004	mg/kg	0.200		100	81.7-142			
Toluene	0.16	0.004	"	0.200		81.7	72.2-134			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	70.1		ug/L	62.5		112	77.6-134			
<i>Surrogate: Toluene-d8</i>	55.4		"	62.5		88.6	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.2		"	62.5		85.1	74.7-123			

Matrix Spike (9G01004-MS1)

Source: X907003-02

Prepared: 07/01/2009 Analyzed: 07/02/2009

Benzene	0.18	0.004	mg/kg	0.200	ND	89.7	89.6-143			
Toluene	0.13	0.004	"	0.200	0.0006	64.3	73-141			QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	72.3		ug/L	62.5		116	77.6-134			
<i>Surrogate: Toluene-d8</i>	56.6		"	62.5		90.5	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		"	62.5		85.8	74.7-123			

Matrix Spike Dup (9G01004-MSD1)

Source: X907003-02

Prepared: 07/01/2009 Analyzed: 07/02/2009

Benzene	0.19	0.004	mg/kg	0.200	ND	95.7	89.6-143	6.45	13.1	
Toluene	0.16	0.004	"	0.200	0.0006	81.8	73-141	23.9	20.9	QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	70.4		ug/L	62.5		113	77.6-134			
<i>Surrogate: Toluene-d8</i>	57.2		"	62.5		91.5	81.4-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	51.7		"	62.5		82.7	74.7-123			

Origins Laboratory, Inc.

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.

4640 Pecos Street | Unit C
Denver, Colorado 80211
303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0909
Project: Noble – Phillips L30-6JI

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 recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

Origins Laboratory, Inc.

A handwritten signature in black ink, appearing to read "Noelle E Doyle".

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.

Noelle E Doyle, Laboratory Manager



4640 Pecos Street | Unit C | Denver, Colorado 80211
303.433.1322 Phone 303.265.9645 Fax

July 07, 2009

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

Brian Dodek
Project Number: NEP0909
Project: Noble – Phillips L30-6JI

Attached are the analytical results for Noble – Phillips L30-6JI received by Origins Laboratory, Inc. 7/2/2009 2:40:00PM. Please let us know if you have any questions, or if we can help with anything at all.

Noelle E Doyle
Laboratory Manager

The analytical results in the following report were analyzed under the guidelines of EPA Methods specified in SW-846. The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. This laboratory report is intended solely for the above addressee and it is only to be used and or reproduced in its entirety.

4640 Pecos Street | Unit C
Denver, Colorado 80211
303.433.1322 | Laboratory
303.265.9645 | Fax



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

Brian Dodek
Project Number: NEP0909
Project: Noble - Phillips L30-6JI

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Sampled	Date Received
S13	X907011-01	Soil	7/2/2009 9:40:00AM	07/02/2009 14:40
S14	X907011-02	Soil	7/2/2009 10:40:00AM	07/02/2009 14:40
S15	X907011-03	Soil	7/2/2009 11:50:00AM	07/02/2009 14:40
S16	X907011-04	Soil	7/2/2009 1:10:00PM	07/02/2009 14:40

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager

4640 Pecos Street | Unit C
 Denver, Colorado 80211
 303.433.1322 | Laboratory
 303.265.9645 | Fax



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S13
X907011-01 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9G02003	07/02/2009	07/03/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	182 %	77.6-134			"	"	"	S-GC
<i>Surrogate: Toluene-d8</i>	83.1 %	81.4-121			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	113 %	74.7-123			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9G02004	07/02/2009	07/02/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	93.1 %	65-140			"	"	"	
-------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.

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.

Noelle E Doyle, Laboratory Manager



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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S14
X907011-02 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9G02003	07/02/2009	07/03/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	107 %	77.6-134			"	"	"	
<i>Surrogate: Toluene-d8</i>	102 %	81.4-121			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	94.1 %	74.7-123			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9G02004	07/02/2009	07/02/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	95.3 %	65-140			"	"	"	
-------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S15
X907011-03 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9G02003	07/02/2009	07/03/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	77.6-134			"	"	"	
<i>Surrogate: Toluene-d8</i>	101 %	81.4-121			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.6 %	74.7-123			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9G02004	07/02/2009	07/02/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	96.3 %	65-140			"	"	"	
-------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

S16
X907011-04 (Soil)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit							

Origins Laboratory, Inc.

BTEX by EPA 8260B

Benzene	ND	0.00400	mg/kg	1	9G02003	07/02/2009	07/03/2009	
Toluene	ND	0.00400	"	"	"	"	"	
Ethylbenzene	ND	0.00400	"	"	"	"	"	
o-Xylene	ND	0.00400	"	"	"	"	"	
m,p-Xylene	ND	0.00800	"	"	"	"	"	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	104 %	77.6-134			"	"	"	
<i>Surrogate: Toluene-d8</i>	95.2 %	81.4-121			"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	89.5 %	74.7-123			"	"	"	

GRO/DRO by EPA 8015M

Gasoline (C6-C10)	ND	50.0	mg/kg	1	9G02004	07/02/2009	07/06/2009	
Diesel (C10-C28)	ND	50.0	"	"	"	"	"	

<i>Surrogate: o-Terphenyl</i>	95.6 %	65-140			"	"	"	
-------------------------------	--------	--------	--	--	---	---	---	--

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

Extractable Petroleum Hydrocarbons by 8015M – Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9G02004 – Default Prep GC-Semi										
Blank (9G02004-BLK1)					Prepared: 07/02/2009 Analyzed: 07/02/2009					
Gasoline (C6-C10)	ND	50.0	mg/kg							
Diesel (C10-C28)	ND	50.0	"							
<i>Surrogate: o-Terphenyl</i>	<i>62.1</i>		<i>g</i>	<i>50.0</i>		<i>124</i>	<i>65-140</i>			
LCS (9G02004-BS1)					Prepared: 07/02/2009 Analyzed: 07/02/2009					
Gasoline (C6-C10)	629	50.0	mg/kg	500		126	65-140			
Diesel (C10-C28)	69.6	50.0	"				60-140			
<i>Surrogate: o-Terphenyl</i>	<i>47.5</i>		<i>g</i>	<i>50.0</i>		<i>95.0</i>	<i>65-140</i>			
LCS Dup (9G02004-BSD1)					Prepared: 07/02/2009 Analyzed: 07/02/2009					
Gasoline (C6-C10)	627	50.0	mg/kg	500		125	65-140	0.383	25	
Diesel (C10-C28)	68.9	50.0	"				60-140	1.04	25	
<i>Surrogate: o-Terphenyl</i>	<i>47.5</i>		<i>g</i>	<i>50.0</i>		<i>94.9</i>	<i>65-140</i>			

Origins Laboratory, Inc.

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

Brian Dodek
 Project Number: NEP0909
 Project: Noble – Phillips L30-6JI

Volatile Organic Compounds by EPA Method 8260B – Quality Control
Origins Laboratory, Inc.

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

Batch 9G02003 – EPA 5030B

Blank (9G02003-BLK1)

Prepared: 07/02/2009 Analyzed: 07/03/2009

Benzene	ND	0.004	mg/kg							
Toluene	ND	0.004	"							
Ethylbenzene	ND	0.004	"							
o-Xylene	ND	0.004	"							
m,p-Xylene	ND	0.008	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>66.8</i>		<i>ug/L</i>	<i>62.5</i>		<i>107</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.1</i>		<i>"</i>	<i>62.5</i>		<i>93.0</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>53.7</i>		<i>"</i>	<i>62.5</i>		<i>85.9</i>	<i>74.7-123</i>			

LCS (9G02003-BS1)

Prepared: 07/02/2009 Analyzed: 07/03/2009

Benzene	0.23	0.004	mg/kg	0.200		116	81.7-142			
Toluene	0.17	0.004	"	0.200		86.4	72.2-134			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>70.3</i>		<i>ug/L</i>	<i>62.5</i>		<i>113</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>57.4</i>		<i>"</i>	<i>62.5</i>		<i>91.9</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>53.4</i>		<i>"</i>	<i>62.5</i>		<i>85.5</i>	<i>74.7-123</i>			

Matrix Spike (9G02003-MS1)

Source: X906117-02

Prepared: 07/02/2009 Analyzed: 07/03/2009

Benzene	0.26	0.004	mg/kg	0.200	ND	129	89.6-143			
Toluene	0.19	0.004	"	0.200	0.0008	95.0	73-141			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>70.0</i>		<i>ug/L</i>	<i>62.5</i>		<i>112</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>57.9</i>		<i>"</i>	<i>62.5</i>		<i>92.7</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>52.0</i>		<i>"</i>	<i>62.5</i>		<i>83.2</i>	<i>74.7-123</i>			

Matrix Spike Dup (9G02003-MSD1)

Source: X906117-02

Prepared: 07/02/2009 Analyzed: 07/03/2009

Benzene	0.26	0.004	mg/kg	0.200	ND	130	89.6-143	1.07	13.1	
Toluene	0.19	0.004	"	0.200	0.0008	93.3	73-141	1.80	20.9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>68.9</i>		<i>ug/L</i>	<i>62.5</i>		<i>110</i>	<i>77.6-134</i>			
<i>Surrogate: Toluene-d8</i>	<i>56.6</i>		<i>"</i>	<i>62.5</i>		<i>90.5</i>	<i>81.4-121</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>52.6</i>		<i>"</i>	<i>62.5</i>		<i>84.2</i>	<i>74.7-123</i>			

Origins Laboratory, Inc.

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

Brian Dodek
Project Number: NEP0909
Project: Noble – Phillips L30-6JI

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.

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.