

District I  
1625 N. Francis Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report

☒ Final Report

Name of Company	<b>ConocoPhillips Company</b>	Contact	<b>Shelly Cook-Cowden</b>
Address	<b>3401 E. 30<sup>th</sup> St., Farmington, NM 87402</b>	Telephone No.	<b>505-324-5140</b>
Facility Name	<b>Turner Hughes #13</b>	Facility Type	<b>Gas Well</b>
			<b>API # 300-45-06683</b>
Surface Owner	<b>Navajo</b>	Mineral Owner	<b>Navajo</b>
		Lease No.	<b>SF 079937</b>

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<b>G</b>	<b>11</b>	<b>T27N</b>	<b>R09W</b>	<b>1640'</b>	<b>North</b>	<b>1450'</b>	<b>East</b>	<b>Rio Arriba</b>

Latitude **36 35.54166° N** Longitude **107 45.19044° W**

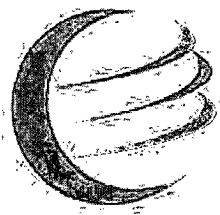
**NATURE OF RELEASE**

Type of Release – <b>Condensate</b>	Volume of Release – <b>51.75 BBL</b>	Volume Recovered – <b>0 BBL</b>
Source of Release: <b>Frozen Valve</b>	Date and Hour of Occurrence <b>12/21/09 - unknown</b>	Date and Hour of Discovery <b>12/21/09 – 1:30 p.m.</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Steve Austin – verbal &amp; follow-up email</b>	
By Whom? <b>Shelly Cook-Cowden</b>	Date and Hour – <b>12/22/09 9:50 a.m.</b>	<b>RCUD APR 26 '10</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>OIL CONS. DIV.</b>	
If a Watercourse was Impacted, Describe Fully.* <b>DIST. 3</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>On December 21, 2009, a COPC employee arrived on location and found the valve on the production tank had frozen and the tank volume was released into the berm. No fluids were recovered.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>The frozen valves were immediately replaced with non-freeze valves. The impacted area was excavated, confirmation sampling occurred, and the site was cleared for backfill.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: <i>Kelsi Gurvitz</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Kelsi Gurvitz</b>	Approved by District Supervisor: <i>Brandon Bell</i> For: CP	
Title: <b>Environmental Consultant</b>	Approval Date: <b>9/22/10</b>	Expiration Date:
E-mail Address: <b>kelsi.m.gurvitz@conocophillips.com</b>	Conditions of Approval:	
Date: <b>4/23/10</b> Phone: <b>505-599-3403</b>	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

*18BP1026549570*

*39*



**envirotech**

**SPILL ASSESSMENT AND  
CONFIRMATION SAMPLING REPORT**

**LOCATED AT:**

**BURLINGTON RESOURCES  
TURNER HUGHES #13 WELL SITE  
SECTION 11, TOWNSHIP 27N, RANGE 9W  
SAN JUAN COUNTY, NEW MEXICO**

**CONTRACTED BY:**

**CONOCOPHILLIPS  
MS. KELSI GURVITZ  
3401 EAST 30<sup>TH</sup> STREET  
FARMINGTON, NEW MEXICO 87401**

**PROJECT NO. 92115-1163  
JANUARY 2010**



March 12, 2010

Project No. 92115-1163

Ms. Kelsi Gurvitz  
ConocoPhillips  
3401 East 30<sup>th</sup> Street  
Farmington, New Mexico 87401

Phone (505) 599-3403

**RE: SPILL ASSESSMENT AND CONFIRMATION SAMPLING REPORT FOR THE TURNER  
HUGHES #13 WELL SITE, SAN JUAN COUNTY, NEW MEXICO**

Dear Ms. Gurvitz,

Enclosed please find the report entitled *Spill Assessment and Confirmation Sampling Report* detailing spill closure activities at the Burlington Resources Turner Hughes #13 well site located in Section 11, Township 27N, Range 9W, San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,  
**ENVIROTECH, INC.**

  
\_\_\_\_\_  
Rene Garcia  
Field Technician  
[rgarcia@envirotech-inc.com](mailto:rgarcia@envirotech-inc.com)

Enclosures: Spill Assessment and Confirmation Sampling Report

Cc: Client File No. 92115

**SPILL ASSESSMENT AND  
CONFIRMATION SAMPLING REPORT**

**LOCATED AT:  
BURLINGTON RESOURCES  
TURNER HUGHES #13 WELL SITE  
SECTION 11, TOWNSHIP 27N, RANGE 9W  
SAN JUAN COUNTY, NEW MEXICO**

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## **INTRODUCTION**

Envirotech, Inc. of Farmington, New Mexico was contracted by ConocoPhillips to perform spill assessment and confirmation sampling activities at the Burlington Resources Turner Hughes #13 well site located in Section 11, Township 27N, Range 9W, San Juan County, New Mexico; see enclosed **Figure 1, Vicinity Map**. Spill assessment and confirmation sampling activities included sample collection, analysis, documentation, and reporting.

## **ACTIVITIES PERFORMED**

On December 29, Envirotech, Inc. arrived on site to perform spill assessment activities for a release of condensate due to a broken valve on the above ground storage tank (AST). Upon arrival, a brief site assessment was conducted. Because depth to ground water was estimated to be between 50 and 100 feet, and because distance to surface water was between 200 and 1000 feet, the closure standard was determined to be 100 ppm total petroleum hydrocarbons (TPH) and 100 ppm organic vapors, in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases. Using a hand-auger, samples were collected from the surface and at depths ranging from 14 inches to five (5) feet below ground surface (BGS) within the berm. Samples were collected from the north, south, east and west corners of the area of release, directly surrounding the AST, from the north and east sides of the pit tank and outside of berm to the northeast and the southeast; see enclosed **Figure 2, Site Map - Assessment**. The sample collected at five (5) feet BGS was analyzed in the field for organic vapors using a photo-ionization detector (PID). The sample returned results of 140 ppm organic vapors. All of the other samples were analyzed in the field for TPH using USEPA Method 418.1 and organic vapors using a PID. All of the samples returned results below the regulatory limits of 100 ppm TPH and 100 ppm organic vapors, with the exception of the sample collected from the north of the pit tank; see enclosed **Table 1, Summary of Analytical Results** and **Appendix A, Analytical Results**. Envirotech, Inc. recommended removing the AST and the pit tank, excavating to approximate extents of 27' x 42' x >5' deep, and performing confirmation sampling activities.

On January 7, 2010 Envirotech, Inc. returned to the site to perform confirmation sampling activities. Prior to Envirotech's arrival, the area of release had been excavated to approximately 36' x 27' x 18' deep by CF&M Oilfield Services, Inc. Five (5) composite samples were collected from the excavation. One (1) sample was collected from the bottom and one (1) sample was collected from each of the four (4) walls. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a PID. The samples collected from the north wall, the east wall, and the south wall were below the regulatory limits of 100 ppm TPH and 100 ppm organic vapors. The samples from the bottom and from the west wall were below the regulatory limit of 100 ppm organic vapors; however both samples were above the regulatory limit of 100 ppm TPH. Therefore, excavation continued on the bottom and on the west wall to final extents of 36' x 28' x 19' deep; see enclosed **Figure 3, Site Map - Confirmation**. Composite samples were collected from the west wall, and from the bottom at nineteen (19) feet BGS. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a PID. Both samples were below the regulatory limits of 100

ppm TPH and 100 ppm organic vapors; therefore, no further excavation was required; see enclosed *Table 1, Summary of Analytical Results* and *Appendix A, Analytical Results*.

Approximately 1,172 yards of contaminated soil was transported to Envirotech's NMOCDC permitted soil remediation facility, Landfarm #2, located near Hilltop, New Mexico for remediation; see enclosed *Appendix B, Bills of Lading*.

### **SUMMARY AND CONCLUSIONS**

Spill assessment and confirmation sampling activities were performed at the Turner Hughes #13 well site located in Section 11, Township 27N, Range 9W, San Juan County, New Mexico. Approximately 1,172 yards of contaminated soil was transported to Envirotech's NMOCDC permitted landfarm located near Hilltop, New Mexico for remediation; see enclosed *Appendix B, Bills of Lading*.

### **STATEMENT OF LIMITATIONS**

Envirotech, Inc. has completed the spill assessment and confirmation sampling activities for a release of condensate at the at the Turner Hughes #13 well site located in Section 11, Township 27N, Range 9W, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with the New Mexico Oil Conservation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site of the incident.


The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

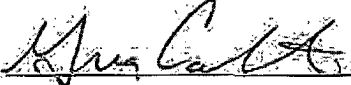
We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

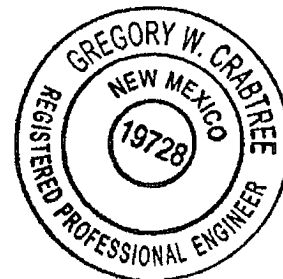
Respectfully Submitted,

**ENVIROTECH, INC.**

Reviewed by:

  
\_\_\_\_\_  
Rene Garcia  
Field Technician  
[rgarcia@envirotech-inc.com](mailto:rgarcia@envirotech-inc.com)

  
\_\_\_\_\_  
Greg Crabtree, PE  
Project Engineer/Manager  
[gcrabtree@envirotech-inc.com](mailto:gcrabtree@envirotech-inc.com)

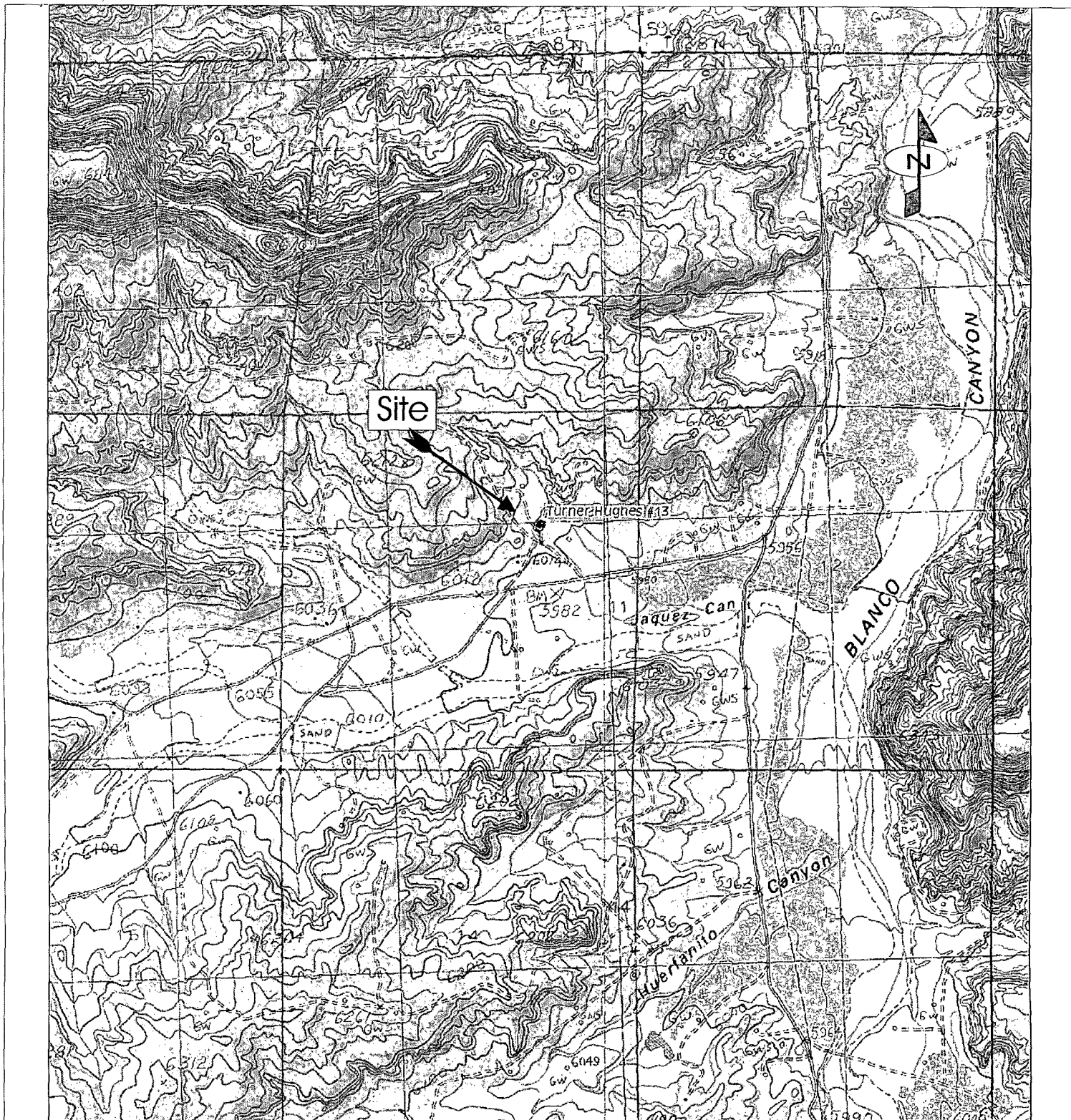


## **FIGURES**

Figure 1, Vicinity Map

Figure 2, Site Map – Assessment

Figure 3, Site Map - Confirmation



Source: Aztec, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map  
 Scale: 1:24,000 1" = 2000'

Burlington Resources  
 Turner Hughes #13 Well Site  
 Section 11, Township 27N, Range 9W  
 San Juan County, NM

### ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS  
 5796 U.S. HIGHWAY 64  
 FARMINGTON, NEW MEXICO 87401

PHONE (505) 632-0615

Vicinity Map

Figure 1

PROJECT No 92115-1163

Date Drawn: 1/11/10

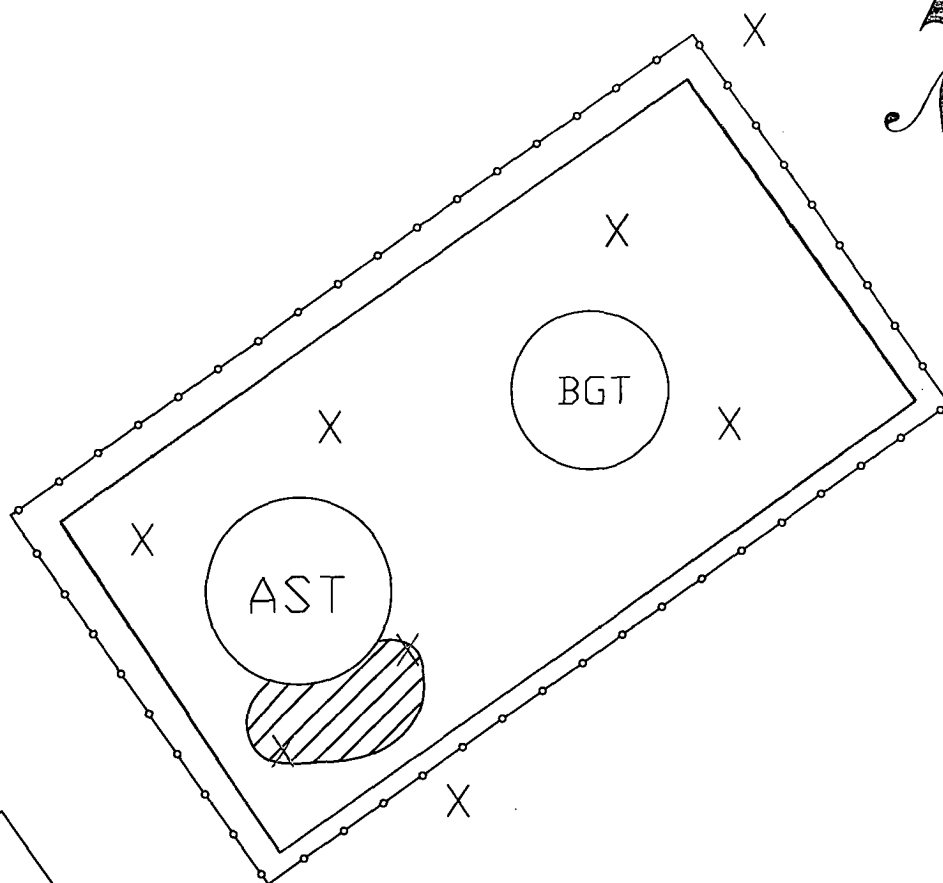
DRAWN BY:  
 Rene Garcia

PROJECT MANAGER:  
 Greg Crabtree



MH

SEP



⊕ WH

# LEGEND

——— BERM

—•—•—•—•—•— FENCE LINE

X SPILL ASSESSMENT  
SAMPLE POINTS



AREA OF RELEASE

## SITE MAP – ASSESSMENT BURLINGTON RESOURCES TURNER HUGHES #13 WELL SITE SEC 11, TWP 27N, RNG 9W SAN JUAN COUNTY, NEW MEXICO

SCALE: NOT TO SCALE

FIGURE NO. 2

REV

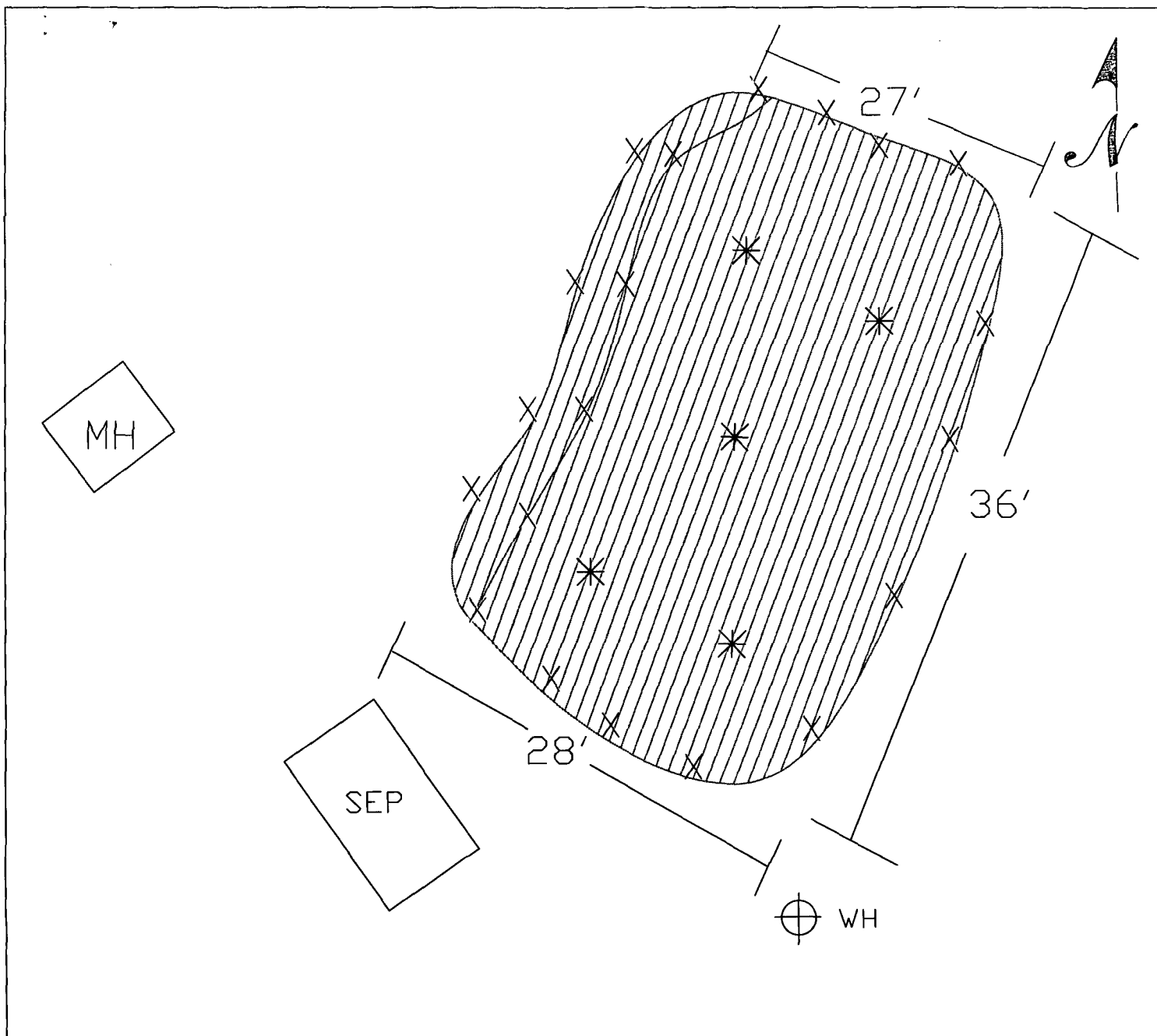
PROJECT NO. 92115-1163

### REVISIONS

NO.	DATE	BY	DESCRIPTION
MAP DRWN	BWW	1-11-10	BASE DRWN

 **envirotech**

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615



#### LEGEND



CONFIRMATION  
SAMPLE POINTS  
(WALLS)



CONFIRMATION  
SAMPLE POINTS  
(BOTTOM)



EXCAVATED AREA

#### SITE MAP – CONFIRMATION BURLINGTON RESOURCES TURNER HUGHES #13 WELL SITE SEC 11, TWP 27N, RNG 9W SAN JUAN COUNTY, NEW MEXICO

SCALE: NOT TO SCALE  
PROJECT NO. 92115-1163

FIGURE NO. 3

REV

#### REVISIONS

NO.	DATE	BY	DESCRIPTION
MAP DRWN	BWW	1-11-10	BASE DRWN



5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

## **TABLES**

Table 1, Summary of Analytical Results

**Table 1, Summary of Analytical Results**  
 Spill Assessment and Confirmation Sampling Report  
 Contracted By ConocoPhillips  
 Burlington Resources  
 Turner Hughes #13 Well Site  
 Project No. 92115-1163

Sample Description	Sample Number	Date	TPH (ppm) EPA Method 418.1	OVM (ppm)
Navajo EPA Standards	NA	NA	100	100
Spill Assessment Samples				
North Corner at 14" BGS	1	12/29/2009	48	10.9
South Corner at 14" BGS	2	12/29/2009	44	4.9
South Corner - Surface	3	12/29/2009	44	3.0
Center of Spill Area at 5' BGS	4	12/29/2009	ND	<b>140.0</b>
North of Pit Tank at 14" BGS	5	12/29/2009	<b>128</b>	<b>133.0</b>
East of Pit Tank at 14" BGS	6	12/29/2009	48	25.0
Southeast of Berm at 14" BGS	7	12/29/2009	80	9.7
Northeast of Berm at 14" BGS	8	12/29/2009	48	5.0
Confirmation Sampling Samples				
North Wall	1	2/7/2010	68	ND
South Wall	2	2/7/2010	72	ND
East Wall	3	2/7/2010	72	ND
West Wall	4	2/7/2010	<b>144</b>	ND
Bottom at 18' BGS	5	2/7/2010	<b>128</b>	ND
West Wall 2	6	2/7/2010	88	ND
Bottom at 19' BGS	7	2/7/2010	92	ND

ND = Non-Detect

\* Values in **BOLD** above regulatory standards

## **APPENDIX A**

### *Analytical Results*



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	1	Date Reported:	2/10/2010
Sample ID:	North Corner at 14" BGS	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		


Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	48	5.0

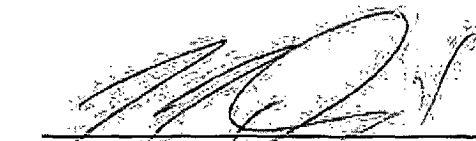
ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
  
Robyn Jones  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
  
James McDaniel  
\_\_\_\_\_  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	2	Date Reported:	2/10/2010
Sample ID:	South Corner at 14" BGS	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	44	5.0

ND = Parameter not detected at the stated detection limit.

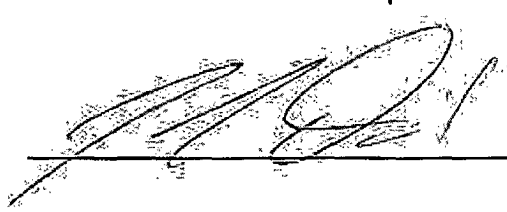
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

**Comments:**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Robyn Jones  
Printed

  
James McDaniel  
Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	3	Date Reported:	2/10/2010
Sample ID:	South Corner - Surface	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

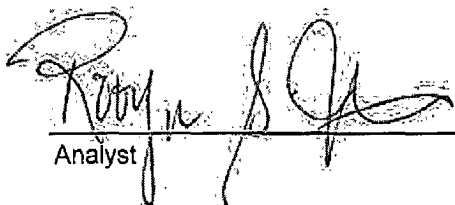
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	44	5.0


ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
**Robyn Jones**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
**James McDaniel**  
\_\_\_\_\_  
Printed





**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	4	Date Reported:	2/10/2010
Sample ID:	Center at 5' BGS	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

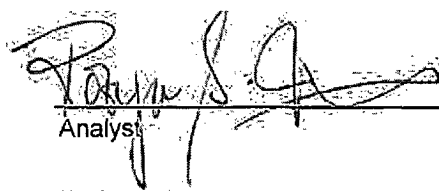
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	ND	5.0


ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
  
Robyn Jones  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
James McDaniel  
\_\_\_\_\_  
Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	5	Date Reported:	2/10/2010
Sample ID:	North of Pit Tank	Date Sampled:	2/10/2010
Sample Matrix:	Soil	Date Analyzed:	2/10/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

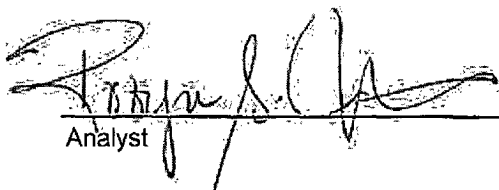
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	128	5.0

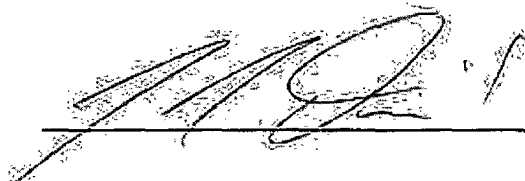
ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
  
Robyn Jones  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
  
James McDaniel  
\_\_\_\_\_  
Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	6	Date Reported:	2/10/2010
Sample ID:	East of Pit Tank	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

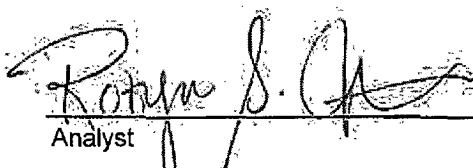
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	48	5.0

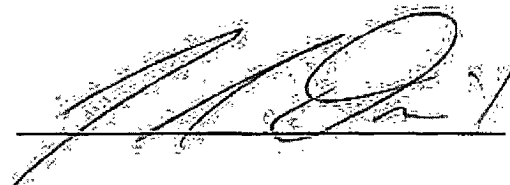
ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
  
Robyn Jones  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
James McDaniel  
\_\_\_\_\_  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	7	Date Reported:	2/10/2010
Sample ID:	Southeast of Berm	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

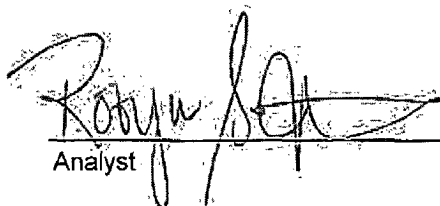
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	80	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst

**Robyn Jones**

Printed



**James McDaniel**

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	8	Date Reported:	2/10/2010
Sample ID:	Northeast of Berm	Date Sampled:	12/29/2009
Sample Matrix:	Soil	Date Analyzed:	12/29/2009
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

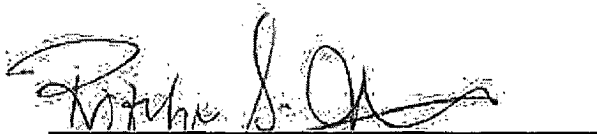
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	48	5.0


ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst  
  
Robyn Jones  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
  
James McDaniel  
\_\_\_\_\_  
Printed



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 29-Dec-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	188
	200	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

  
Analyst

Robyn Jones

Print Name

  
Review

James McDaniel

Print Name

2/10/10  
Date

2/15/10  
Date



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	1	Date Reported:	2/10/2010
Sample ID:	North Wall	Date Sampled:	1/7/2010
Sample Matrix:	Soil	Date Analyzed:	1/7/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	68	5.0

ND = Parameter not detected at the stated detection limit.

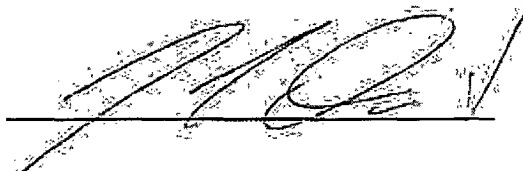
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Rene Garcia  
Printed

  
\_\_\_\_\_  
James McDaniel  
Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	2	Date Reported:	2/10/2010
Sample ID:	South Wall	Date Sampled:	1/7/2010
Sample Matrix:	Soil	Date Analyzed:	1/7/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

Total Petroleum Hydrocarbons	72	5.0
------------------------------	----	-----

ND = Parameter not detected at the stated detection limit.


References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Rene Garcia  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
James McDaniel  
\_\_\_\_\_  
Printed





EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	3	Date Reported:	2/10/2010
Sample ID:	East Wall	Date Sampled:	1/7/2010
Sample Matrix:	Soil	Date Analyzed:	1/7/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

Total Petroleum Hydrocarbons	72	5.0
------------------------------	----	-----

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

Analyst

Rene Garcia

Printed

James McDaniel

Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	4	Date Reported:	2/10/2010
Sample ID:	West Wall	Date Sampled:	1/7/2010
Sample Matrix:	Soil	Date Analyzed:	1/7/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	144	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

Analyst

Rene Garcia

Printed

James McDaniel

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	5	Date Reported:	2/10/2010
Sample ID:	Bottom at 18' BGS	Date Sampled:	2/10/2010
Sample Matrix:	Soil	Date Analyzed:	2/10/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	128	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

Analyst

Rene Garcia

Printed

James McDaniel

Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client: Burlington Resources  
Sample No.: 6  
Sample ID: West Wall 2  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1163  
Date Reported: 2/10/2010  
Date Sampled: 1/7/2010  
Date Analyzed: 1/7/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	88	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Turner Hughes #13

Instrument calibrated to 186 ppm standard. Zeroed before each sample

Analyst

Rene Garcia

Printed

James McDaniel

Printed



EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-1163
Sample No.:	7	Date Reported:	2/10/2010
Sample ID:	Bottom at 19' BGS	Date Sampled:	1/7/2010
Sample Matrix:	Soil	Date Analyzed:	1/7/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	92	5.0

ND = Parameter not detected at the stated detection limit.

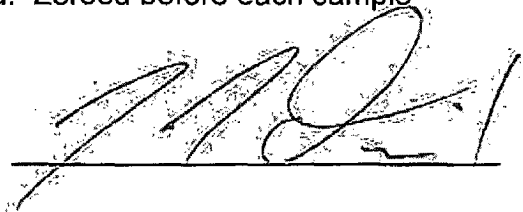
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Turner Hughes #13**

Instrument calibrated to 186 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Rene Garcia**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
**James McDaniel**  
\_\_\_\_\_  
Printed



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 7-Jan-10

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	186	200
	200	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

Rene Garcia

Print Name

Review

James McDaniel

Print Name

Date

Date

## **APPENDIX B**

### **Bills of Lading**



MANIFEST # 35011

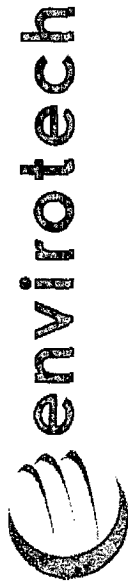
DATE 1-8-10 JOB# 92115-1201

RESULTS:		LANDFARM EMPLOYEE:	NOTES:
CHLORIDE TEST	PAINT FILTER TEST		
✓ 298	6	Gary Robinson	
✓ 298	10		(red)

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME William Duncanson COMPANY WM #111 SIGNATURE [Signature]  
 COMPANY CONTACT Dale McIntyre PHONE 330-1525 DATE 1-8-10





# Bill of Lading

MANIFEST # 35006

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 1-8-10 JOB# 92115-1201

COMPLETE DESCRIPTION OF SHIPMENT										TRANSPORTING COMPANY			
LOAD NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE			
1	Burlington Turner Hughes #13	LF II	Cont Soil	P 12	20	-	Crazy SS	08	9:43	<i>[Signature]</i>			
2	"	"	"	P 12	20	-	M+M	99	9:44	<i>[Signature]</i>			
3	"	"	"	P 12	20	-	M+M		9:46	<i>[Signature]</i>			
4	"	"	"	P 12	12	-	Killian Bar	69	9:47	<i>[Signature]</i>			
5	"	"	"	P 12	20	-	Pro Jo Farms	P3	9:48	<i>[Signature]</i>			
6	"	"	"	P 13	12	-	Triple F	32	9:57	<i>[Signature]</i>			
7	"	"	"	P 13	20	-	Triple F	31	9:56	<i>[Signature]</i>			
8	"	"	"	P 13	20	-	Pro Jo Farms	P3	12:20	<i>[Signature]</i>			
9	"	"	"	P 13	20	-	Crazy SS	08	12:20	<i>[Signature]</i>			
10	"	"	"	P 13	20	-	M+M	99	12:20	<i>[Signature]</i>			
11	"	"	"	P 11	20	-	M+M	06	12:29	<i>[Signature]</i>			
12	"	"	"	P 11	20	-	Triple F	31	12:34	<i>[Signature]</i>			
RESULTS:							NOTES:						
298							Gary Robinson 224						
CHLORIDE TEST							12						
PAINT FILTER TEST							12						

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Sandy Giles COMPANY M+M SIGNATURE Sandy Giles  
COMPANY CONTACT Sandy Giles PHONE 330-1535 DATE 1-8-10



34997

**PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401**

DATE 1-7-10 JOB# 9215-120

[illegible]

## RESULTS:

**NOTES:**

### CHI SQUARE TEST

### HI OBIQ TEST

LANDFARM  
EMPLOYEE:

## WT FILTER

ENTERED JAN 08 2010

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Sandy Biles

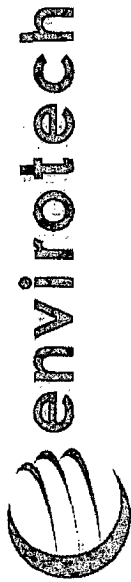
COMPANY M & M

**SIGNATURE:**

5

COMPANY CONTACT Jerry Montoya PHONE 330-0837

DATE 1-7-10 DA



# Bill of Lading

MANIFEST # 34996

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

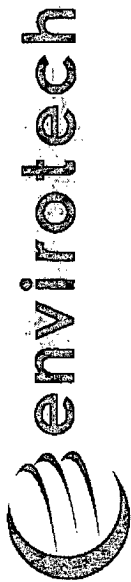
DATE 1-7-10 JOB# 92115-1201

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BLS	COMPANY	TRK#	TIME
1	Burlington Hwy #3	LF II	Cont Soil	P11	12	-	Triple F	32	1306
2	"	"	"	P12	20	-	Crazy 555	08	1306
3	"	"	"	P11	20	-	Prodo Farms	P3	1532
4	"	"	"	P12	20	-	M+M	6	1534
5	"	"	"	P-12	20	-	M+M	94	1538
6	"	"	"	P12	20	-	Triple F	31	1549
7	"	"	"	P12	20	-	Inland	33	1550
8	"	"	"	P11	12	-	Triple F	32	1551
9	"	"	"	P13	20	-	Crazy 555	08	1551
10	"	"	"	P11	12	-	Killerbee	69	1551
					176				

RESULTS:	LANDFARM EMPLOYEE:	NOTES:
298	Gary Robinson	ENTERED JAN 08 2010
CHLORIDE TEST 10		
PAINT FILTER TEST 10		

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Sandy Giles COMPANY M & M SIGNATURE Sandy Giles  
COMPANY CONTACT Jerry Montoya PHONE 330-0837 DATE 1-7-10



# Bill of Lading

MANIFEST # 34993

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 1-7-10 JOB# 92115-1201

COMPLETE DESCRIPTION OF SHIPMENT							TRANSPORTING COMPANY			
LOAD NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBS	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Burlington Turner Hayes #13	LFII	cont soil	P15	20	1	W&M	06	939	Spd Lila
2	"	"	"	P15	20	1	M & M	99	9:41	Gary Mat
3	"	"	"	P15	20	1	Triple F	31	943	Spd Lila
4	"	"	"	N15	14	1	Killam Bros	69	9:43	Spd Lila
5	"	"	"	P14	20	1	Inland Co	33	945	Bong W
6	"	"	"	N15	12	1	San Triple F	32	946	Ellen
7	"	"	"	P14	20	1	Crazy DD	08	12:36	Spd Lila
8	"	"	"	P13	20	1	M & M	06	1224	Spd Lila
9	"	"	"	P13	20	1	M & M	99	1224	Bong W
10	"	"	"	P11	20	1	Inland Co	33	1306	Bong W
11	"	"	"	P11	10	1	Killam Bros	69	1306	Spd Lila
12	"	"	"	P12	20	1	Triple F	31	1306	Spd Lila
RESULTS:							NOTES:			
298 CHLORIDE TEST 17							GARY ROBINSON 216			
LANDFARM										

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Sandy Giles COMPANY mtm SIGNATURE Sandy Giles  
COMPANY CONTACT Jerrey Montoya PHONE 330-6837 DATE 1-7-10



PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 1-6-10 JOB# 92115-120A

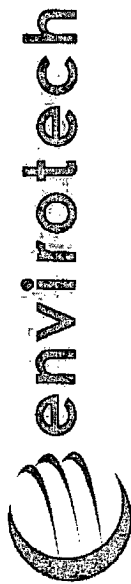
RESULTS:		LANDFARM EMPLOYEE:	GARY ROBINSON	NOTES:	ENTERED JAN 08 2010	
298	CHLORIDE TEST					3
	PAINT FILTER TEST					3

I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added.

NAME GARY ROBINSON COMPANY MAN SIGNATURE \_\_\_\_\_  
COMPANY CONTACT JERRY MONTANO PHONE 947-7531 DATE 1-6-10

"certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Jerry Mark COMPANY MGM SIGNATURE \_\_\_\_\_  
COMPANY CONTACT Jerry Markova PHONE 947-7531 DATE 1-6-10



# Bill of Lading

34980

MANIFEST #

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 1-6-10 JOB# 92115-1201

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT					TRANSPORTING COMPANY				
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLs	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Burlington Turner Hayes #13	LEF	Con + Soil	N13	20	-	M+M	06	1004	Sally H. Lee
2	"	"	"	N13	20	-	M+M	99	1004	Garrett M. Lee
3	"	"	"	N14	20	-	Prodo Farms	P3	1004	R. Lee
4	"	"	"	N14	20	-	Crazy 3335	08	1025	Garrett M. Lee
5	"	"	"	N14	20	-	Triple F	31	1025	Garrett M. Lee
6	"	"	"	N14	20	-	M+M	06	1237	Sally H. Lee
7	"	"	"	N14	20	-	M+M	99	1237	Garrett M. Lee
8	"	"	"	N14	20	-	Prodo Farms	P3	1238	R. Lee
9	"	"	"	N14	20	-	Crazy 3335	08	1244	Garrett M. Lee
10	"	"	"	N14	20	-	Triple F	31	1245	Garrett M. Lee
11	"	"	"	N15	20	-	M+M	06	2:57	Sally H. Lee
12	"	"	"	N15	20	-	Prodo Farms	P3	3:57	R. Lee

NOTES:

Gary Robinson 240

LANDFARM  
EMPLOYEE:

RESULTS:  
CHLORIDE TEST 12  
PAINT FILTER TEST 12

ENTERED JAN 08 2010

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME Roger Prodo COMPANY Prodo Farms SIGNATURE R. Lee

COMPANY CONTACT Terry Mastays PHONE 977 7531 DATE 1-6-10



34973

# MANIFEST #

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 1-5-10 JOB# 92115-1201

LOAD NO.	COMPLETE DESCRIPTION OF SHIPMENT						TRANSPORTING COMPANY			
	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBL'S	COMPANY	TRK#	TIME	DRIVER SIGNATURE
1	Burlington Tanner Higes #13	L.F. II	Cont	N 11	20	-	T-J	8	1057	Jerry Mary
2	"	"	"	N 11 <sup>x</sup>	20	-	m m	06	1057	Sally Niles
3	"	"	"	N 12	20	-	m & M	11	1227	Jerry Mary
4	"	"	"	N 12 <sup>*</sup>	20	-	m & M	99	1227	Jerry Mary
5	"	"	"	N 12	20	-	T J.	8	1346	Jerry Mary
6	"	"	"	N 12 <sup>x</sup>	20	-	m m	06	1346	Sally Niles
7	"	"	"	N 13	20	-	m & M	11	1515	Jerry Mary
8	"	"	"	N 13	20	-	m & M	99	1515	Jerry Mary
					160					
RESULTS:	LANDFARM						NOTES: ENTERED JAN 8 8 2010			
200	CHLORIDE TEST	✓								

**RESULTS:**

### CHLORIDE TEST

0	
---	--

LANDFARM  
EMPLOYEE:

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

NAME

Apply Load

**COMPANY**

211 142

**SIGNATURE:**

COMPANY CONTACT TERRY ADWIZAA

PHONE 330-0837

DATE 1-5-10