

District I  
1625 N French 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

30-039-07442

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company	Contact	Kelsi Harrington
Address	3401 E. 30 <sup>th</sup> St., Farmington, NM 87402	Telephone No.	505-599-3403
Facility Name	San Juan 28-5 Unit 27	Facility Type	Gas Well API# 3003907442
Surface Owner	Private	Mineral Owner	Federal
		Lease No	NMSF-079250

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	15	28N	05W	850'	North	1845'	East	Rio Arriba

Latitude 36.66597° N Longitude -107.34331° W

NATURE OF RELEASE

Type of Release - <b>Unknown</b>	Volume of Release - <b>Unknown</b>	Volume Recovered -
Source of Release. <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>10/11/10</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	<b>RCVD DEC 1 '10</b>
By Whom?	Date and Hour -	<b>OIL CONS. DIV.</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	<b>DIST. 3</b>
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.\* **Below grade tank closure activities.**

Describe Area Affected and Cleanup Action Taken \* **The below grade tank sample results were above the regulatory standard by USEPA method 418.1 for TPH, confirming a release. The sample was then transported to the lab and analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases; therefore no further action is required.**

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 Harrington</i>	
Printed Name:	<b>Kelsi Harrington</b>	
Title:	<b>Environmental Consultant</b>	
E-mail Address	<b>kelsi.g.harrington@conocophillips.com</b>	
Date:	<b>11/3/10</b>	
Phone:	<b>505-599-3403</b>	
OIL CONSERVATION DIVISION		
Approved by District Supervisor:		<i>Jonathan Kelly</i>
Approval Date:		<b>3/06/2012</b>
Expiration Date:		
Conditions of Approval:		Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

NJK 1206637142



November 22, 2010

Project Number 92115-1461

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

Phone: (505) 599-3403

**RE: BELOW GRADE TANK CLOSURE DOCUMENTATION FOR THE SAN JUAN 28-5 UNIT 27 (hBr) WELL SITE, RIO ARriba COUNTY, NEW MEXICO**

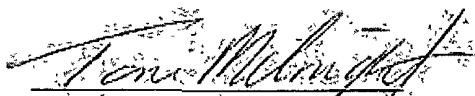
Dear Ms. Harrington,

Enclosed please find the field notes and analytical results for below grade tank (BGT) closure activities conducted at the San Juan 28-5 Unit 27 (hBr) well site located in Section 15, Township 28N, Range 5W, Rio Arriba County, New Mexico. On October 11, 2010, a five (5)-point composite sample was collected from directly beneath the BGT; see attached *Field Notes*. The sample was analyzed in the field for total petroleum hydrocarbons (TPH) using USEPA Method 418.1, and screened in the field for organic vapors using a photoionization detector (PID) and for chlorides. Additionally, the sample was placed into a four (4)-ounce glass jar, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015, benzene and BTEX using USEPA Method 8021 and total chlorides using USEPA Method 4500. The sample returned results below the regulatory standards for benzene, BTEX and chlorides but above the regulatory standard for TPH using USEPA Method 418.1, confirming a release had occurred.

A brief site assessment was conducted at the well site, and the regulatory standard was determined to be 100 parts per million (ppm) TPH and 100 ppm organic vapors due to surface water being within 200 feet from the well site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases. The sample returned results below the regulatory standards for organic vapors and for TPH using USEPA Method 8015; see enclosed *Analytical Results*. Envirotech, Inc. recommends no further action in regards to this incident.

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.**



Toni McKnight, EIT  
Staff Engineer/Geologist  
[tmcknight@envirotech-inc.com](mailto:tmcknight@envirotech-inc.com)

Enclosures: Field Notes  
Analytical Results

Cc: Client File No. 92115

PAGE NO: <u>1</u> OF <u>1</u> <u>92115 = 1461</u> DATE STARTED: <u>10/11/2010</u> DATE FINISHED: <u>10/11/2010</u>	<b>ENVIROTECH INC</b> ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 - 3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615	ENVIRONMENTAL SPECIALIST: <u>ELM</u> LAT: <u>36° 39.97</u> LONG: <u>-107° 20.64</u>
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### FIELD REPORT: BGT / PIT CLOSURE VERIFICATION

LOCATION: NAME: <u>SAN JUAN 28.5</u>	WELL #: <u>27</u>	TEMP PIT: <u>  </u>	PERMANENT PIT: <u>  </u>	BGT: <u>X</u>
LEGAL ADD: UNIT: <u>  </u>	SEC: <u>18</u>	TWP: <u>28N</u>	RNG: <u>560</u>	PM: <u>NSM</u>
QTR/FOOTAGE: <u>850/1845 FEL</u>	CNTY: <u>Rio Arriba</u>	ST: <u>NEW MEXICO</u>		

EXCAVATION APPROX: <u>NA</u> FT. X <u>NA</u> FT. X <u>NA</u> FT. DEEP	CUBIC YARDAGE: <u>NA</u>
DISPOSAL FACILITY: <u>NA</u>	REMEDIAL METHOD: <u>NA</u>
LAND OWNER: <u>  </u>	API: <u>  </u>
CONSTRUCTION MATERIAL: <u>Fiberglass</u>	DOUBLE-WALLED, WITH LEAK DETECTION: <u>NO</u>
BGT / PIT VOLUME: <u>  </u>	

LOCATION APPROXIMATELY: <u>75</u> FT. <u>338</u> FROM WELLHEAD
DEPTH TO GROUNDWATER: <u>~110</u>

#### TEMPORARY PIT - GROUNDWATER 50-100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 500 mg/kg

#### TEMPORARY PIT - GROUNDWATER ≥ 100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 1000 mg/kg

#### ☒ PERMANENT PIT OR BGT

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 mg/kg

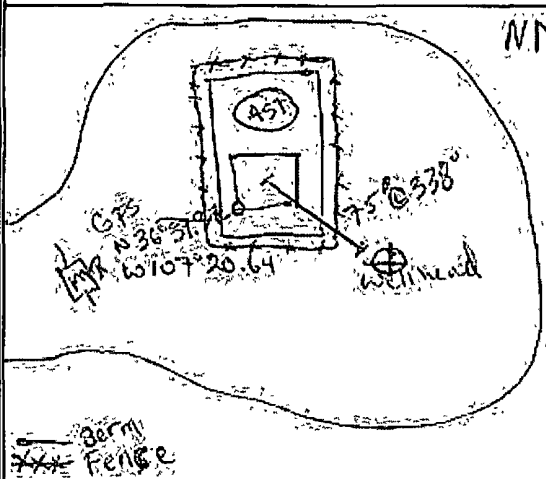
#### FIELD 418.1 ANALYSIS

TIME	SAMPLE ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (mg/kg)
14:54	200 STD					186	
15:10	Spt Comp	1	5	20	4	40	160
		2					
		3					
		4					
		5					
		6					

#### PERIMETER

#### FIELD CHLORIDES RESULTS

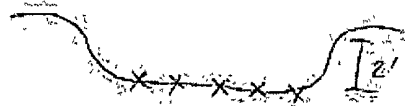
#### PROFILE



SAMPLE ID	READING	CALC. (mg/kg)
1	0.6	< 3.3

PID RESULTS	
SAMPLE ID	RESULTS (mg/kg)
Spt Comp	25.3



x = Sample

#### LAB SAMPLES

SAMPLE ID	ANALYSIS	RESULTS
	BENZENE	
	BTEX	
	GRO & DRO	
	CHLORIDES	

NOTES: Sample collect Beneath liner.  
 Sample to Lab for 8015, 8021, & chlorides

Done 11:45

WORKORDER #

WHO ORDERED Mike Smith

Client: ConocoPhillips**envirotech**  
(505) 632-0615 (800) 362-1879  
5796 U.S. Hwy 64, Farmington, NM 87401

Location No:

C.O.C. No:

**FIELD REPORT: SPILL CLOSURE VERIFICATION**PAGE NO: 1 OF 1LOCATION: NAME: SAN JUAN 28-S WELL #: 27  
QUAD/UNIT: \_\_\_\_\_ SEC: 15 TWP: 28N RNG: 30W PM: MM CNTY: RA ST: NM  
QTR/FOOTAGE: 850 FNC & 1845 FEL CONTRACTOR: N/ADATE STARTED: 10/11/10DATE FINISHED: 10/11/10

ENVIRONMENTAL

SPECIALIST: TCMEXCAVATION APPROX: N/A FT. X N/A FT. X N/A FT. DEEP CUBIC YARDAGE: N/ADISPOSAL FACILITY: N/A REMEDIATION METHOD: N/ALAND USE: GRAZING LEASE: 3F-079250 LAND OWNER: FederalCAUSE OF RELEASE: Seeping BGT MATERIAL RELEASED: Condensate / Produced H<sub>2</sub>OSPILL LOCATED APPROXIMATELY: 75 FT. 338 FROM (WELLHEAD)DEPTH TO GROUNDWATER: 110' NEAREST WATER SOURCE: 21000' NEAREST SURFACE WATER: 5180'NMOCD RANKING SCORE: 20 NMOCD TPH CLOSURE STD: 100 PPM**SOIL AND EXCAVATION DESCRIPTION:**SEE BGT/PT CLOSURE VERIFICATION FIELD SHEET

SAMPLE DESCRIPTION	TIME	SAMPLE ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
<u>Sp + Comp</u>	<u>15:10</u>	<u>1</u>	<u>1</u>	<u>5</u>	<u>20</u>	<u>4</u>	<u>40</u>	<u>160</u>

**SPILL PERIMETER****OV  
RESULTS****SPILL PROFILE**

<u>SEE BGT/PT CLOSURE VERIFICATION SHEET</u>	SAMPLE ID	FIELD HEADSPACE PID (ppm)
	<u>1</u>	<u>2513</u>
<b>LAB SAMPLES</b>		
SAMPLE ID	ANALYSIS	TIME
<u>1</u>	<u>20S/002/CL</u>	<u>15:10</u>

TRAVEL NOTES: \_\_\_\_\_ CALLED OUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	ConocoPhillips	Project #:	92115-1461
Sample No.:	1	Date Reported:	10/19/2010
Sample ID:	5 Pt. Composite	Date Sampled:	10/11/2010
Sample Matrix:	Soil	Date Analyzed:	10/11/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

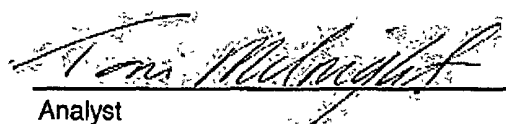
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	160	5.0

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: **San Juan 28-5 Unit 27 (hBr)**

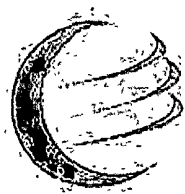
Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



# envirotech

CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 11-Oct-10

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	186
	200	
	500	
	1000	

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

  
Analyst

Toni McKnight, EIT

Print Name

  
Review

Sarah Rowland, EIT

Print Name

10/19/2010  
Date

10/19/2010  
Date



## Field Chloride

Client:	ConocoPhillips	Project #:	92115-1461
Sample No.:	1	Date Reported:	10/19/2010
Sample ID:	5 Pt. Composite	Date Sampled:	10/11/2010
Sample Matrix:	Soil	Date Analyzed:	10/11/2010
Preservative:	Cool	Analysis Needed:	Chloride
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Field Chloride	ND	33.0

ND = Parameter not detected at the stated detection limit.

References: "Standard Methods for the Examination of Water and Wastewater", 18th ed., 1992  
Hach Company Quantab Titrators for Chloride

Comments: **San Juan 28-5 Unit 27 (hBr)**

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



**envirotech**  
Analytical Laboratory

**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

Client:	ConocoPhillips	Project #:	92115-1461
Sample ID:	5 Pt Composite	Date Reported:	10-12-10
Laboratory Number:	56144	Date Sampled:	10-11-10
Chain of Custody No:	10507	Date Received:	10-11-10
Sample Matrix:	Soil	Date Extracted:	10-12-10
Preservative:	Cool	Date Analyzed:	10-12-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **San Juan 28-5 #27 (hBr)**

Analyst

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Analytical Laboratory

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-12-10 QA/QC	Date Reported:	10-12-10
Laboratory Number:	56123	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-12-10
Condition:	N/A	Analysis Requested:	TPH

	Cal Date	I-Cal REF	C-Cal REF	% Difference	Accept Range
Gasoline Range C5 - C10	10-12-10	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	10-12-10	9.9960E+002	1.0000E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	ND	250	256	102%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 56123-56127, 56140-56144

Analyst

Review



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Analytical Laboratory

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	92115-1461
Sample ID:	5 Pt Composite	Date Reported:	10-12-10
Laboratory Number:	56144	Date Sampled:	10-11-10
Chain of Custody:	10507	Date Received:	10-11-10
Sample Matrix:	Soil	Date Analyzed:	10-12-10
Preservative:	Cool	Date Extracted:	10-12-10
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	3.0	1.2
o-Xylene	1.6	0.9
Total BTEX	4.6	

ND - Parameter not detected at the stated detection limit

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.6 %
	1,4-difluorobenzene	102 %
	Bromochlorobenzene	97.1 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: San Juan 28-5 #27 (hBr)

Analyst

Review



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Analytical Laboratory

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	1012BBLK QA/QC	Date Reported:	10-12-10
Laboratory Number:	56123	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-12-10
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal/RF	C-Cal/RF	%Diff	Blank Conc.	Detect. Limit
		Accept Range (0 - 15%)			
Benzene	4.8102E+005	4.8199E+005	0.2%	ND	0.1
Toluene	5.8823E+005	5.8941E+005	0.2%	ND	0.1
Ethylbenzene	5.3207E+005	5.3314E+005	0.2%	ND	0.1
p,m-Xylene	1.2712E+006	1.2738E+006	0.2%	ND	0.1
o-Xylene	4.8126E+005	4.8222E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	ND	ND	0.0%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	ND	ND	0.0%	0 - 30%	1.2
o-Xylene	ND	ND	0.0%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	500	499	100%	39 - 150
Toluene	ND	500	502	100%	46 - 148
Ethylbenzene	ND	500	512	102%	32 - 160
p,m-Xylene	ND	1000	1,020	102%	46 - 148
o-Xylene	ND	500	520	104%	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for Samples 56123-56127, 56144

Analyst

Review



# envirotech

Analytical Laboratory

## Chloride

Client:	ConocoPhillips	Project #:	92115-1461
Sample ID:	5 Pt Composite	Date Reported:	10-12-10
Lab ID#:	56144	Date Sampled:	10-11-10
Sample Matrix:	Soil	Date Received:	10-11-10
Preservative:	Cool	Date Analyzed:	10-12-10
Condition:	Intact	Chain of Custody:	10507


Parameter	Concentration (mg/Kg)
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Total Chloride

30

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: San Juan 28-5 #27 (hBr)

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Review

# CHAIN OF CUSTODY RECORD

10507

Client: <b>ConocoPhillips</b>			Project Name / Location: <b>SAN JUAN 20-5 #27 (hBr)</b>			ANALYSIS / PARAMETERS																
Client Address:			Sampler Name: <b>Toni McKnight</b>																			
Client Phone No.:			Client No.: <b>92115-1461</b>																			
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
5 pt Composite	10/11/10	15:10	56144	Soil Solid	1/4oz				✓	✓	✓							✓			Y	Y
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
				Soil Solid	Sludge Aqueous																	
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Relinquished by: (Signature) <i>Toni McKnight</i>			Date	Time	Received by: (Signature) <i>Dene J. Brown</i>			Date	Time													
Relinquished by: (Signature)					Received by: (Signature)																	
Relinquished by: (Signature)					Received by: (Signature)																	



5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com