

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

Form C-144
June 1, 2004

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

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: <u>Burlington Resources</u> Telephone: <u>(505) 326-9841</u> e-mail address: <u>Lewis.E.Hasely@conacophillips.com</u>		
Address: <u>3401 East 30th Street, Farmington, New Mexico, 87402</u>		
Facility or well name: <u>Huerfano Com Unit 91</u>	API #: <u>3004521424</u>	U/L or Qtr/Qtr <u>E</u> Sec <u>30</u> T <u>227</u> R <u>10W</u>
County: <u>San Juan</u>	Latitude <u>36.549426</u>	Longitude <u>-107.94337</u> NAD: 1927 ☒ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐		
Pit Type: Drilling ☐ Production ☐ Disposal ☒ Workover ☐ Emergency ☐ Lined ☐ Unlined ☐ Liner type: Synthetic ☐ Thickness _____ mil Clay ☐ Pit Volume _____ bbl	Below-grade tank Volume: <u>60</u> bbl Type of fluid: <u>Produced Water and Incidental Oil</u> Construction material: <u>Fiberglass</u> Double-walled, with leak detection? Yes ☐ If not, explain why not. <u>No. Tank in place prior to Rule 50.</u>	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(0 points) 0
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points) 20
Ranking Score (Total Points)		20

RCVD DEC 28 2006
OIL CONS. DIV.
DIST. 3

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☒ If offsite, name of facility Envirotech. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:
Approximately 960 cubic yards of contaminated soil was excavated and transported to Envirotech's Landfarm #2. The soil was replaced with clean fill obtained from Envirotech's Landfarm #2
Maximum reasonable extent at 16' BGS sandstone encountered. Bottom Sample failed TPH/OVM screening in the field, Laboratory BTEX results attached

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 12/27/06

Printed Name/Title Mr. Ed Hasely, Environmental Advisor

Signature Ed Hasely

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: ENVIRONMENTAL & GAS INSPECTOR, DIST. 3

Printed Name/Title _____

Signature Bruno R. Pelt

Date: DEC 28 2006

BURLINGTON

HUERFANO
COM 91

FIELD REPORT CLOSURE VERIFICATION 1 1

LOCATION: NAME <u>HUERFANO COM</u> WELL # <u>91</u> PIT:	DATE STARTED <u>11-20-06</u>
QUAD/UNIT: <u>E</u> SEC: <u>30</u> TWP: <u>27</u> RNG: <u>10</u> PM: <u>NHPM</u> CNTY: <u>SS</u> ST: <u>NM</u>	DATE FINISHED: _____
QTR/FOOTAGE: _____ CONTRACTOR: <u>BAILEY'S</u>	ENVIRONMENTAL SPECIALIST: <u>NICOLE</u>

EXCAVATION APPROX 50 FT. x 48 FT. x 16 FT. DEEP CUBIC YARDAGE: _____
 DISPOSAL FACILITY: ENVIROTECH REMEDIATION METHOD: LANDFARM
 LAND USE: RANGELAND LEASE: API 30-045-21424 FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 31 FT. 20° FROM WELLHEAD.
 DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: NO NEAREST SURFACE WATER: <200
 NMOC RANKING SCORE: 20 NMOC TPH CLOSURE STD: 100 PPM

SOIL AND EXCAVATION DESCRIPTION:

AT 3' BELOW TANK SOIL WAS BLACK AND DEEPLY CONTAMINATED
 DUG TO LIMIT OF BACKHOE

AT 16' BGS HIT SANDSTONE, STILL HOT - ALL WALLS CLEAN.

FIELD 418.1 CALCULATIONS

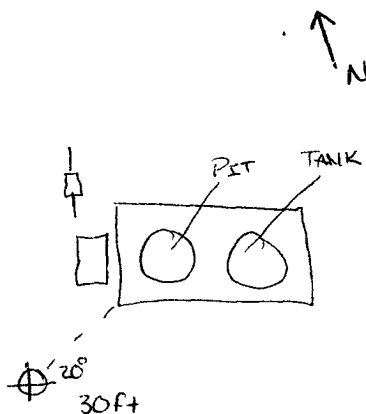
TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
SEE ATTACHED METHOD 418.1							

SCALE



0 FT

PIT PERIMETER

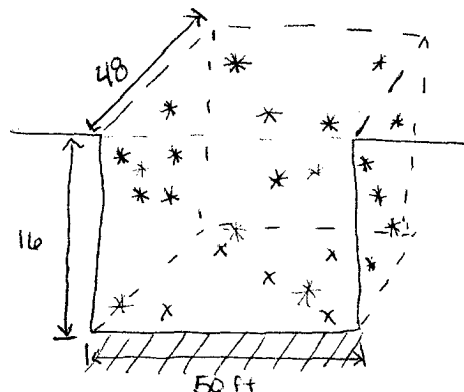
OVM
RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 10 ft	1335
2 16 ft	1059
3 N WALL	3
4 E WALL	1
5 S WALL	1
W WALL	3

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
Bot 16	BTEX	1:30

PIT PROFILE



* - WALL SAMPLES
 X - BOTTOM SAMPLES

TRAVEL NOTES.

CALLOUT: _____ ONSITE: _____

Method 418.1 Analysis Log Total Petroleum Hydrocarbons

Date 11-22-06

Analyst NICOLE

Location HUERFANO COM 91

Instrument FOX BOROUGH

Job No. 92115-046-048

Sample No.	Sample Description	Sample Wt. (g)	Volume Freon (mL)	Dilution Factor	Abs. Reading	TPH (mg/kg)	OVM (mg/kg)
1	BOTTOM 10ft	5	20	10	.30	20800	1335
2	BOTTOM 16ft	5	20	0	.5	3470	1059
3	N WALL	5	20	0	.13	90	3
4	E WALL	5	20	0	.14	97	1
5	S WALL	5	20	0	.13	90	1
6	W WALL	5	20	0	.14	97	3

Infrared Spectrophotometer Calibration

New Freon _____

Date Standards Prepared _____

Standard Concentration (mg/L)	Absorbance
100	_____
200	<u>.115</u>
500	_____
1000	_____

I-CAL RF: _____

C-CAL RF: _____

RSD: _____ %

% Difference: _____ %

QA/QC Acceptance Criteria: I-CAL RSD +/- 20%

C-Cal Difference +/- 10%

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

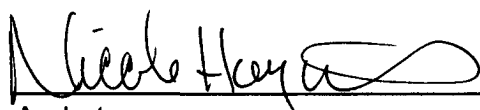
Client:	Burlington Resources	Project #:	92115-046-048
Sample No.:	1	Date Reported:	11/20/2006
Sample ID:	Discrete, 10' Below BGS	Date Sampled:	11/20/2006
Sample Matrix:	Soil	Date Analyzed:	11/20/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	20,800	50.0

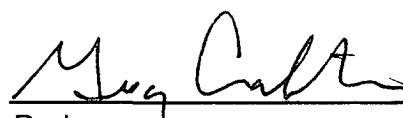
ND = Parameter not detected at the stated detection limit.

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

Comments: Huerfano Com Unit 91



Analyst



Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

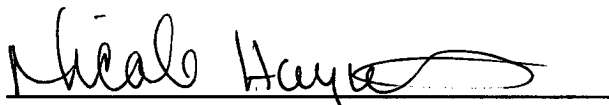
Client:	Burlington Resources	Project #:	92115-046-048
Sample No.:	2	Date Reported:	11/22/2006
Sample ID:	Discrete, 16' Below BGS	Date Sampled:	11/22/2006
Sample Matrix:	Soil	Date Analyzed:	11/22/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

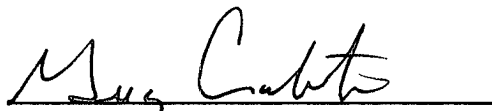
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	3,470	5.0

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: **Huerfano Com Unit 91**


Analyst


Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client: Burlington Resources
Sample No.: 3
Sample ID: North Wall Composite
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

Project #: 92115-046-048
Date Reported: 11/22/2006
Date Sampled: 11/22/2006
Date Analyzed: 11/22/2006
Analysis Needed: TPH-418.1

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

90.2

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: **Huerfano Com Unit 91**



Analyst



Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client: Burlington Resources
Sample No.: 4
Sample ID: East Wall Composite
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

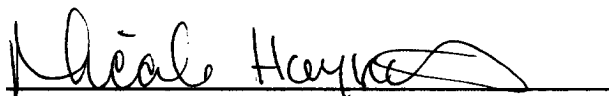
Project #: 92115-046-048
Date Reported: 11/22/2006
Date Sampled: 11/22/2006
Date Analyzed: 11/22/2006
Analysis Needed: TPH-418.1

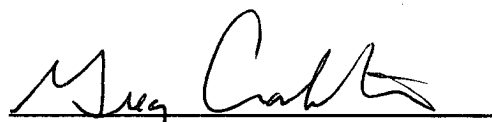
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	97.1	5.0

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: Huerfano Com Unit 91


Analyst


Review

**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

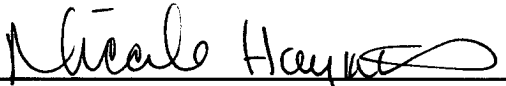
Client:	Burlington Resources	Project #:	92115-046-048
Sample No.:	5	Date Reported:	11/22/2006
Sample ID:	South Wall Composite	Date Sampled:	11/22/2006
Sample Matrix:	Soil	Date Analyzed:	11/22/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	90.2	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: **Huerfano Com Unit 91**



Analyst



Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Burlington Resources	Project #:	92115-046-048
Sample No.:	6	Date Reported:	11/22/2006
Sample ID:	Discrete, 3' Below BG Tank	Date Sampled:	11/22/2006
Sample Matrix:	Soil	Date Analyzed:	11/22/2006
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

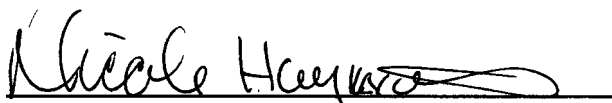
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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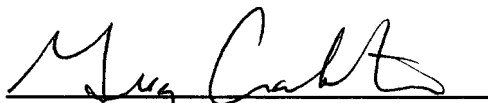
Total Petroleum Hydrocarbons	97.1	5.0
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ND = Parameter not detected at the stated detection limit.

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

Comments: Huerfano Com Unit 91


Analyst


Review

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS
QUALITY ASSURANCE REPORT

Client:	Burlington Resources	Project #:	92115-046-048
Sample ID:	QA/QC	Date Reported:	11/22/2006
Laboratory Number:	01-24-TPH.QA/QC	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	11/22/2006
Preservative:	N/A	Date Extracted:	11/22/2006
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	22-Nov-06	11/22/2006	1,735	1,739	0.3%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	5.0

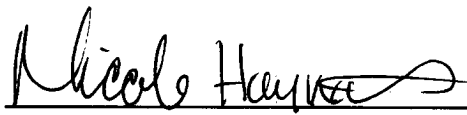
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	2,471	2,352	4.8%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	2,471	2,000	5,030	112.5%	80 - 120%

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: QA/QC for Huerfano Com Unit 91


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Burlington Res.	Project #:	92115-046-048
Sample ID:	Bottom 16 ft	Date Reported:	11-27-06
Laboratory Number:	39298	Date Sampled:	11-22-06
Chain of Custody:	1778	Date Received:	11-22-06
Sample Matrix:	Soil	Date Analyzed:	11-27-06
Preservative:	Cool	Date Extracted:	11-25-06
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	57.6	1.8
Toluene	202	1.7
Ethylbenzene	264	1.5
p,m-Xylene	1,600	2.2
o-Xylene	341	1.0
Total BTEX	2,460	

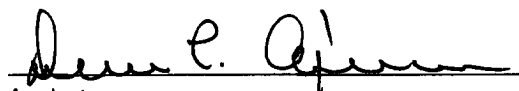
ND - Parameter not detected at the stated detection limit.

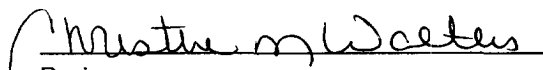
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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: Huerfano Com 91


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	11-27-BTEX QA/QC	Date Reported:	11-27-06
Laboratory Number:	39293	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-27-06
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	3.5544E+007	3.5616E+007	0.2%	ND	0.2
Toluene	4.6601E+007	4.6695E+007	0.2%	ND	0.2
Ethylbenzene	2.3276E+007	2.3323E+007	0.2%	ND	0.2
p,m-Xylene	8.8381E+007	8.8558E+007	0.2%	ND	0.2
o-Xylene	4.1496E+007	4.1579E+007	0.2%	ND	0.1

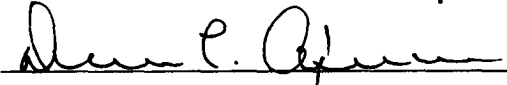
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	ND	ND	0.0%	0 - 30%	1.7
Ethylbenzene	13.5	13.5	0.0%	0 - 30%	1.5
p,m-Xylene	46.2	46.1	0.2%	0 - 30%	2.2
o-Xylene	13.9	13.8	0.7%	0 - 30%	1.0

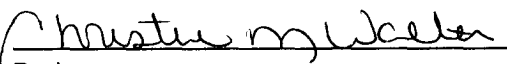
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	ND	50.0	50.0	100.0%	46 - 148
Ethylbenzene	13.5	50.0	63.4	99.8%	32 - 160
p,m-Xylene	46.2	100	146	99.9%	46 - 148
o-Xylene	13.9	50.0	63.9	100.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

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 Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 39293, 39296 - 39298


Analyst


Review

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