District I

1625 N French Dr., Hobbs, NM 88240

District II

1301 W Grand Ave., Artesia, NM 88210

State of New Mexico **Energy Minerals and Natural Resources** 

> Department Oil Conservation Division

July 21, 2008 For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office.

Form C-144

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O '	'

1000 Rio Brazos Rd , Aztec, NM 87410	Santa Fe, NI		For permanent pits and exceptions submit to the Santa Fe
<u>District IV</u>	Sama I C, IVI	WI 67505	Environmental Bureau office and provide a copy to the
1220 S St. Francis Dr., Santa Fe, NM 87505	D' CI IV C	<b>D</b> 1 0	appropriate NMOCD District Office.
<b>1</b> D	Pit, Closed-Loop System		
7013 Prop	osed Alternative Method	Permit or Clos	sure Plan Application
Type of action:	Permit of a pit, closed-loop sy	ystem, below-grade t	ank, or proposed alternative method
	X Closure of a pit, closed-loop	system, below-grade	tank, or proposed alternative method
	Modification to an existing po	ermit	
	Closure plan only submitted to below-grade tank, or propose		itted or non-permitted pit, closed-loop system,
Instructions: Please submit one a	application (Form C-144) per indi	vidual pit, closed-loo	p system, below-grade tank or alternative request
		-	esult in pollution of surface water, ground water or the governmental authority's rules, regulations or ordinances.
Operator: Burlington Resources O	il & Gas Company, LP		OGRID#: 14538
Address: PO Box 4289, Farmingt	on, NM 87499		
Facility or well name: SAN JUAN	28-6 UNIT 125N		
API Number: 3	0-039-30813	OCD Permit Number	er:
U/L or Qtr/Qtr: A(NE/NE) Section	ion: 21 Township: 28N	Range:	6W County: Rio Arriba
Center of Proposed Design: Latitud Surface Owner: X Federal		Longitude: Tribal Trust or India	107.46793 °W NAD: ☐ 1927 <b>X</b> 1983 In Allotment
2  X Pit: Subsection F or G of 19.15.1	7.11 NMAC		
	rkover		
	Cavitation P&A (Pre-set)		
	Liner type: Thickness m	il LLDPE	HDPE PVC Other
String-Reinforced			
Liner Seams: Welded F	Factory Other	Volume <sup>-</sup>	bbl Dimensions Lx Wx D
Glossed Joan Systems Subsec	tion H of 19.15.17.11 NMAC		
Closed-loop System: Subsection P&A			o activities which require prior approval of a permit or
Drying Pad Above Gro	und Steel Tanks Haul-off Bins	Other	6189101773
Lined Unlined Lin	er type: Thicknessmil		HDPE PVD Others
Liner Seams: Welded F	Factory Other	_	HDPE PVD Others RECEIVED
4 Polony and to tout Subsection	Lof 10 15 17 11 NB44 C		8 ST 2018
Below-grade tank: Subsection Volume:			\\ \omega_{\text{op}} \cap (n \cdot \omega_{\text{op}} \text{DIV. DIST. 3}
Tank Construction material	bbl Type of fluid:		
Secondary containment with leak d	etection Visible sidewalls. li	iner, 6-inch lift and aut	omatic overflow shut-off
·		,	

**Alternative Method:** 

Liner Type:

Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

PVC

Other

Other

Visible sidewalls only

HDPE

mil

Visible sidewalls and liner

Thickness

6~			
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)			
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institu	ution or church	,	
Four foot height, four strands of barbed wire evenly spaced between one and four feet		ĺ	
Alternate Please specify			
7			
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	•		
Screen Netting Other			
Monthly inspections (If netting or screening is not physically feasible)			
8 '			
Signs: Subsection C of 19.15.17 11 NMAC			
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers			
X Signed in compliance with 19 15.3.103 NMAC			
Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15 17 NMAC for guidance.			
Please check a box if one or more of the following is requested, if not leave blank:			
X Administrative approval(s). Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration pit for Pre-set)	ieration of app	roval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.			
Siting Criteria (regarding permitting) 19.15.17.10 NMAC			
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable	,		
source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for			
consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.			
does not apply to di ying paus of above grade-tanks associated with a closed-loop system.		_	
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes	No	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake	Yes	□No	
<ul> <li>(measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	}		
	<sub> </sub>		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	∐No	
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	∐NA		
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	∐No	
(Applied to permanent pits)	∐NA		
- Visual inspection (certification) of the proposed site; Acrial photo; Satellite image			
Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.	Yes	No	
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site.			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes	□No	
adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality			
Within 500 feet of a wetland.	Yes	No	
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site			
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Within the area overlying a subsurface mine.  Written confirmation or verification or man from the NM EMNED. Mining and Mineral Durgeon.		
Within an unstable area.	Yes	□No	
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	""	Ш'''	
Society; Topographic map			
Within a 100-year floodplain - FEMA map	Yes	No	

Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment ChecklistSubsection B of 19.15.17.9 NMAC
Instructions Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API  or Permit
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17 9 NMAC Instructions Each of the following items must be attached to the application Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9  NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API
Previously Approved Operating and Maintenance Plan API
13
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
Dike Protection and Structural Integrity Design. based upon the appropriate requirements of 19.15.17.11 NMAC  Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14 Proceed Cleaning 10 IS 17 12 NIVAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency X Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System
Alternative   Proposed Closure Method:   Waste Excavation and Removal
Waste Removal (Closed-loop systems only)
On-site Closure Method (only for temporary pits and closed-loop systems)
In-place Burial On-site Trench
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
IS
Waste Excavation and Removal Closure Plan Checklist (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan.
Please indicate, by a check mark in the box, that the documents are attached.
Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17 13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Form C-144 Oil Conservation Division Page 3 of 5

16	walkers and make on the territory ballings.		
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground S Instructions Please identify the facility or facilities for the disposal of liquids, drilling the facilities for the disposal of liquids and the facilities for the facilities for the disposal of liquids and the facilities for the facil	t <del>teel Tanks or Haul-off Bins Unly:</del> (19.15.17 13.D NMAC) ng fluids and drill cuttings—Use attachment if more than two		
facilities are required	B' 15 W 5 1		
Disposal Facility Name: Envirotech / JFJ Landfarm % IEI	Disposal Facility Permit #: NM-01-0011 / NM-01-0	010B	
Disposal Facility Name: Basin Disposal Facility	Disposal Facility Permit #: NM-01-005		
Will any of the proposed closed-loop system operations and associated acti Yes (If yes, please provide the information No		service and	
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subs  Site Reclamation Plan - based upon the appropriate requirements of S	opriate requirements of Subsection H of 19.15.17.13 N section I of 19 15 17.13 NMAC.	MAC	
17			
Siting Criteria (Regarding on-site closure methods only: 19 15 17 10 NM. Instructions Each suing criteria requires a demonstration of compliance in the closure plan certain suing criteria may require administrative approval from the appropriate district office office for consideration of approval. Justifications and/or demonstrations of equivalency are r	Recommendations of acceptable source material are provided below or may be considered an exception which must be submitted to the Si		
Ground water is less than 50 feet below the bottom of the buried waste.	·	Yes No	
- NM Office of the State Engineer - IWATERS database search, USGS Data of	btained from nearby wells	□N/A	
Ground water is between 50 and 100 feet below the bottom of the buried w	aste	Yes No	
- NM Office of the State Engineer - iWATERS database search; USGS, Data of	btained from nearby wells	□N/A	
Ground water is more than 100 feet below the bottom of the buried waste.		Yes No	
- NM Office of the State Engineer - iWATERS database search, USGS, Data of	btained from nearby wells	N/A	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sign (measured from the ordinary high-water mark)	ufficant watercourse or lakebed, sinkhole, or playa lake	Yes No	
- Topographic map; Visual inspection (certification) of the proposed site			
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site, Aerial photo, satellite image	••	Yes No	
•	·	Yes No	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less t purposes, or within 1000 horizontal fee of any other fresh water well or spring, in ex - NM Office of the State Engineer - iWATERS database, Visual inspection (cert	sistence at the time of the initial application.		
Within incorporated municipal boundaries or within a defined municipal fresh water pursuant to NMSA 1978, Section 3-27-3, as amended	well field covered under a municipal ordinance adopted	Yes No	
Written confirmation or verification from the municipality, Written approval of Within 500 feet of a wetland	obtained from the municipality		
- US Fish and Wildlife Wetland Identification map, Topographic map, Visual in	nspection (certification) of the proposed site	YesNo	
Within the area overlying a subsurface mine		Yes No	
- Written confiramtion or verification or map from the NM EMNRD-Mining and	d Mineral Division		
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology &	Mineral Resources, USGS, NM Geological Society:	∐Yes ∐No	
Topographic map	, and the second		
Within a 100-year floodplain. - FEMA map		∐Yes ∐No	
18			
On-Site Closure Plan Checklist: (19 15 17.13 NMAC) Instructions: Eaby a check mark in the box, that the documents are attached.	ch of the following items must bee attached to the clo	sure plan. Please indicate,	
Siting Criteria Compliance Demonstrations - based upon the approp	•		
Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC			
Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC			
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC    X   Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC			
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC			
X   Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC			
X Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)			
Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC			
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC			

19 Oncombon Application Conditional
Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief
Name (Print).
Signature: Date:
e-mail address: Telephone:
e-man address:
OCD Approval: Permit Application (including closuse plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature: Approval Date: 9/12/2011  Title: OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19 15 17 13 NMAC Instructions. Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed  Closure Completion Date: 11/18/2009
22 .
Closure Method:  Waste Excavation and Removal On-site Closure Method X Alternative Closure Method Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.
23 Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
were utilized.
Disposal Facility Name Disposal Facility Permit Number:
Disposal Facility Name: Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  Yes (If yes, please demonstrate compliance to the items below)
Required for impacted areas which will not be used for future service and operations.  Site Reclamation (Photo Documentation)
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (if applicable) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude: Longitude: NAD 1927 1983
25
Operator Closure Certification:
I hereby certify that the information and attachments submitted with this closure report is ture, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Jamie Goodwin Tıtle: Regulatory Technician
Signature: Date. 9811
e-mail address:



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

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Preset Cuttings	Date Reported:	11-19-09
Laboratory Number:	52475	Date Sampled:	11-17-09
Chain of Custody No:	6744	Date Received:	11-17-09
Sample Matrix:	Soil	Date Extracted:	11-17-09
Preservative:	Cool	Date Analyzed:	11-18-09
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	0.2

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 28-6 Unit 125N

Analyst

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

### **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	11-18-09 QA/QC	Date Reported:	11-19-09
Laboratory Number:	52464	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-18-09
Condition:	N/A	Analysis Requested:	TPH

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Gasoline Range C5 - C10	05-07-07	1.0676E+003	1.0680E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0789E+003	1.0794E+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
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	u Sample ⊥	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ИD	ND	0.0%	0 - 30%
Diesel Range C10 - C28	6.3	6.3	0.0%	0 - 30%

Spike Conc. (mg/Kg) A. Ka	, Sample :	Spike Added	Spike Result	% Recovery	LAccept Range
Gasoline Range C5 - C10	ND	250	245	98.0%	75 - 125%
Diesel Range C10 - C28	6.3	250	254	99.2%	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 52464 - 52467 and 52475.



## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Preset Cuttings	Date Reported:	11-19-09
Laboratory Number:	52475	Date Sampled:	11-17-09
Chain of Custody:	6744	Date Received:	11-17-09
Sample Matrix:	Soil	Date Analyzed:	11-18-09
Preservative:	Cool	Date Extracted:	11-17-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Pennana	AUD:	0.0	
Benzene Toluene	ND ND	0.9 1.0	
Ethylbenzene	ND	1.0	
p,m-Xylene	ND	1.2	
o-Xylene	ND	0.9	
Total BTEX	ND		

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:

San Juan 28-6 Unit 125N

Analyst

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### **EPA METHOD 8021 AROMATIC VOLATILE ORGANICS**

Client:	N/A	Project #:	N/A
Sample ID:	11-18-BT QA/QC	Date Reported:	11-19-09
Laboratory Number:	52464	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-18-09
Condition:	N/A	Analysis:	BTEX

Calibration and, A percention Limits (unit.)	I-Cal RE 34	G GaliRi Accept Rand	. * ™Diff. je 0 - 45%	Blank 4 40 Gond 14 14	Detect - Limit
Benzene	3 4009E+005	3.4078E+005	0.2%	ND	0.1
Toluene	3.1552E+005	3 1616E+005	0.2%	ND	0.1
Ethylbenzene	2.9064E+005	2.9122E+005	0.2%	ND	0.1
p,m-Xylene	6.7225E+005	6.7360E+005	0.2%	ND	0.1
o-Xylene	2.7034E+005	2.7088E+005	0.2%	ND	0.1

Duplicate Conc. (Tellico) 15 17 # 15 W	ta Sample (74 Samble	plicate <b>: y-</b> t,	, %Ding;	(Acceptification)	<b>#J</b> erect 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

Spiker@onc#(uglKg) *-*::: **	LA Sample : ge-Amo	untiSpiked Spik	ed Sample 🕡	% Recovery.	Accept Range:
Benzene	ND	50.0	49.6	99.2%	39 - 150
Toluene	ND	50.0	48.6	97.2%	46 - 148
Ethylbenzene	ND	50.0	48.7	97.4%	32 - 160
p,m-Xylene	ND	100	96.9	96.9%	46 - 148
o-Xylene	ND	50.0	48.8	97.6%	46 - 148

ND - Parameter not detected at the stated detection limit.

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

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 52464 - 52467 and 52475.

Analyst



### EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Pre-Set Cuttings	Date Reported:	11-19-09
Laboratory Number:	52475	Date Sampled:	11-17-09
Chain of Custody No:	6744	Date Received:	11-17-09
Sample Matrix:	Soil	Date Extracted:	11-19-09
Preservative:	Cool	Date Analyzed:	11-19-09
Condition:	. Intact	Analysis Needed:	TPH-418.1

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

**Total Petroleum Hydrocarbons** 

27.9

11.2

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 28-6 Unit 125N.

Analyst

Review



# EPA METHOD 418.1 TOTAL PETROLEUM HYROCARBONS QUALITY ASSURANCE REPORT

Client: QA/QC Project #: N/A
Sample ID: QA/QC Date Reported: 11-19-09
Laboratory Number: 11-19-TPH.QA/QC 52475 Date Sampled: N/A

Laboratory Number:11-19-TPH.QA/QC 52475Date Sampled:N/ASample Matrix:Freon-113Date Analyzed:11-19-09Preservative:N/ADate Extracted:11-19-09

Condition: N/A Analysis Needed: TPH

 Calibration
 I-Cal Date
 C-Cal Date
 I-Cal RF:
 C-Cal RF:
 % Difference
 Accept. Range

 11-02-09
 11-19-09
 1,750
 1,770
 1.1%
 +/- 10%

Blank Conc. (mg/Kg)

Concentration

Detection Limit

ND

11,2

Duplicate Conc. (mg/Kg)SampleDuplicate% DifferenceAccept. RangeTPH27.929.35.0%+/- 30%

Spike Conc. (mg/Kg)
Sample Spike Added Spike Result % Recovery Accept Range
TPH 27.9 2,000 1,920 94.7% 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 Samples 52475 and 52496.

Assiste muchas



### Chloride

Client: Sample ID: ConocoPhillips **Pre-Set Cuttings**  Project #: Date Reported: 96052-0026

Lab ID#:

52475 Soil

Date Sampled:

11-19-09 11-17-09

Sample Matrix: Preservative:

Cool

Date Received:

11-17-09

Condition:

Intact

Date Analyzed: Chain of Custody:

11-18-09 6744

**Parameter** 

Concentration (mg/Kg)

**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 28-6 Unit 125N.

# Burlington Resources Oil & Gas Company, LP Cavitation Pit for Closed-Loop Locations

### Design:

Burlington Resources Oil & Gas Company, LP will use a cavitation pit plan when the surface casing will be pre-set on closed-loop locations. The drill cuttings will be stockpiled on the surface.

### **Operations and Maintenance:**

The cavitation pit will be operated and maintained as follows:

- 1. Only Fresh water and air will be used in the drilling of the surface casing.
- 2. The Cement used will be: Neat Cement with no additives.
- 3. All of the fluids will be removed within 48hrs after drilling.
- 4. A representative five point composite sample will be taken of the drill cuttings, after the setting of the surface casing is complete, using sampling tools and all samples will be tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the testing criteria is not met, all contents will be dug and hauled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i e.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0 2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418 1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500

The NMOCD will be notified via email of the test results of the cavitation surface as follows:

Components	Tests Method	Limit (mg/Kg)	Results
Benzene	EPA SW-846 8021B or 8260B	0.2	ND
BTEX	EPA SW-846 8021B or 8260B	50	ND
TPH	EPA SW-846 418.1	2500	27.9
GRO/DRO	EPA SW-846 8015M	500	ND
Chlorides	EPA 300.1	500	30

#### Closure Plan:

- 1. The NMOCD will be notified of the sample results and the intent to start the closure process 3-7 days prior to the drill cuttings being transported, moved, or distributed on location.
- 2. In the event the criteria are not met, all solids and liquids will be removed and disposed of at Envirotech (Permit #NM-01-0011) and/or Basin Disposal Facility (Permit #NM-01-005) and/or JFJ Landfarm % Industrial Ecosystem Inc. (Permit # NM-01-0010B).
- 3. Testing results will be submitted with the Closure Report of the well locations Closed-Loop Permit on Form C-144.

Burlington Resources is aware that approval of this plan does not relieve Burlington Resources of liability should operations result in pollution of surface water, ground water, or the environment. Nor does approval relieve ConocoPhillips of its responsibility to comply with any other applicable governmental authority's rules and regulations.