District II 1301 W. Grand Ave., Artesia, NM 88210

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division

Form C-144 July 21, 2008

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

District III	1220 South St. Franc		
1000 Rio Brazos Rd., Aztec, NM 87410  District IV	Santa Fe, NM 87	E	or permanent pits and exceptions submit to the Santa Fe nvironmental Bureau office and provide a copy to the ppropriate NMOCD District Office.
1220 S. St. Francis Dr., Santa Fe, NM 87505	it Clased Lean System D	<u></u>	
<del></del>	it, Closed-Loop System, Board Alternative Method Perr		
Type of action:	Permit of a pit, closed-loop system, Closure of a pit, closed-loop system Modification to an existing permit Closure plan only submitted for an element below-grade tank, or proposed alter	existing permitted	
	· •	• •	ystem, below-grade tank or alternative request
	s request does not relieve the operator of liability sl the operator of its responsibility to comply with an	-	in pollution of surface water, ground water or the rumental authority's rules, regulations or ordinances.
Operator: Burlington Resources Oil &	Gas Company, LP	0	GRID#: <u>14538</u>
Address: PO Box 4289, Farmington,	NM 87499		
Facility or well name: NYE FEDERA	L 2N		
API Number: 30-0	<b>45-35256</b> OCI	D Permit Number:	·
U/L or Qtr/Qtr: A(NE/NE) Section: Center of Proposed Design: Latitude: Surface Owner: X Federal	36.74599 °N Lo	Range: 10V ongitude: 1 Trust or Indian A	<b>07.90176 °W</b> NAD: 1927 <b>X</b> 1983
X   Pit: Subsection F or G of 19.15.17.1     Temporary: Drilling Workov   Permanent Emergency X Cavi   Lined Unlined Liner     String-Reinforced     Liner Seams: Welded Factor	rer itation P&A (Pre-set) type: Thickness mil		### RCVD FEB 4'13    OIL CONS. DIV.     DIST. 3
	notice of intent)  Steel Tanks Haul-off Bins C  pe: Thickness mil	Iling (Applies to act OtherHDF	PE PVD Other
Below-grade tank: Subsection I of Volume:	T19.15.17.11 NMAC  Type of fluid:  tion	inch lift and automa	tic overflow shut-off
5 Alternative Method: Submittal of an exception request is require	ed. Exceptions must be submitted to the §	Santa Fe Environme	ntal Bureau office for consideration of approval.

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Oil Conservation Division

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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, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  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 Since Subsection Coeffo 15 17 11 NMAC				
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				
9 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:	·4: · C -	1		
[X] Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consic (Cavitation pit for Pre-set)	eration of app	roval.		
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.				
10				
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.				
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 (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	Yes	No		
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		гт.,.		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent pits)	Yes NA	∐No		
- Visual inspection (certification) of the proposed site; Aerial 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 adopted pursuant to NMSA 1978, Section 3-27-3, as amended  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes	No		
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	No		
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	No		
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	Yes	No		
Society; Topographic map Within a 100-year floodplain - FEMA map	Yes	No		

Form C-144

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  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
Closure Fian - based upon the appropriate requirements of Subsection C of 19.13.17.9 NMAC and 19.13.17.13 NMAC
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)
15 New English and Demonstrate Observations (Charles and Charles a
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

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16					
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul- Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cut					
facilities are required.					
Disposal Facility Name: Envirotech / JFJ Landfarm % IEI Disposal Facility	Permit #: NM-01-0011 / NM-01-0010B				
Disposal Facility Name: Basin Disposal Facility Disposal Facility	Permit #: NM-01-005	·			
Will any of the proposed closed-loop system operations and associated activities occur on or i  Yes (If yes, please provide the information No	n areas that will nbe used for future service and				
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specification - based upon the appropriate requirement Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.13					
Site Reclamation Plan - based upon the appropraite requirements of Subsection G of 19.1	5.17.13 NMAC				
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of accertain siting criteria may require administrative approval from the appropriate district office or may be considered a office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to	n exception which must be submitted to the Santa Fe Environm	· ·			
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 obtained from nearby	wells \\_N/A				
Ground water is between 50 and 100 feet below the bottom of the buried waste	Yes	No			
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby to	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 obtained from nearby	wells N/A				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse of (measured from the ordinary high-water mark).	r lakebed, sinkhole, or playa lake	□No			
- Topographic map; Visual inspection (certification) of the proposed site	_	_			
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the tin - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	ne of initial application.	No			
	Yes	No			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households a purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the time of - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the prop	the initial application.				
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered und pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality.	der a municipal ordinance adopted Yes	□No			
Within 500 feet of a wetland  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification)	Yes	□No			
Within the area overlying a subsurface mine.	Yes	$\square_{N_0}$			
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division		البارس			
Within an unstable area.	Yes	□No			
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; Topographic map	JSGS; NM Geological Society;				
Within a 100-year floodplain. - FEMA map	Yes	No			
18 On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following	g items must bee attached to the closure plan. Pl	ease indicate,			
by a check mark in the box, that the documents are attached.					
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements					
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   Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC					
<ul> <li>X Waste Material Sampling Plan - based upon the appropriate requirements of Subsection</li> <li>X Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cutting)</li> </ul>		chieved)			
Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.13		onicveu)			
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15		ļ			
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC					

Form C-144

19 O and the Analysis of Confederation.
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): Title:
Signature: Date:
e-mail address: Telephone:
C-mail additions.
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature: Approval Date: 4/7/2013  Title: 6M (ance Office Office Office) 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: 3/19/2012
22
Closure Method:  Waste Excavation and Removal On-site Closure Method 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 compliane 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
The Argentian Application Rates and occuring reclinique
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
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 Title: Regulatory Technician
Signature: (2000(WW) Date: 1/31/13
e-mail address: / jamie.l.goodwin@conocophillips.com Telephone: 505-326-9784

# 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

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

Components	nents Tests Method Limit (mg/		Results
Benzene	EPA SW-846 8021B or 8260B	0.2	ND
BTEX	EPA SW-846 8021B or 8260B	50	30.7
TPH	EPA SW-846 418.1	2500	36.1
GRO/DRO	EPA SW-846 8015M	500	1.2
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.



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

Client:	ConocoPhillips	Project #:	96052-1706
Sample ID:	Air Preset Cuttings	Date Reported:	03-20-12
Laboratory Number:	61450	Date Sampled:	03-19-12
Chain of Custody No:	09548	Date Received:	03-19-12
Sample Matrix:	Soil	Date Extracted:	03-20-12
Preservative:	Cool	Date Analyzed:	03-20-12
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)	1.2	0.1
Total Petroleum Hydrocarbons	1.2	

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:

NYE Federal #2N

Analyst Analyst

Review



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

### **Quality Assurance Report**

Client:

**QA/QC** 0320TCAL QA/QC Project #:

N/A

Sample ID:

Date Reported:

03-20-12

Laboratory Number:

61450 Methylene Chloride Date Sampled: Date Received: N/A N/A

Sample Matrix: Preservative:

N/A

Date Analyzed:

C-Cal RE

03-20-12

Condition:

N/A

Analysis Requested:

**TPH** 

Gasoline Range C5 - C10

l-Cal Date 03-20-12

9.9960E+02 1.0000E+03

0.04%

Accept. Range 0 - 15%

Diesel Range C10 - C28

03-20-12

9.9960E+02 1.0000E+03 0.04%

% Difference

0 - 15%

Blank Conc. (mg/L - mg/Kg) Gasoline Range C5 - C10

Concentration ND

Detection Limit 0.2

Diesel Range C10 - C28

ND

0.1

**Total Petroleum Hydrocarbons** 

ND

Duplicate Conc. (mg/Kg)	∘ Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
			0.00/	0 000/

Gasoline Range C5 - C10	ND	· ND	0.0%	0 - 30%
Diesel Range C10 - C28	1.2	1.1	8.3%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	√ % Recovery	Accept: Range
Gasoline Range C5 - C10	ND	250	285	114%	75 - 125%
Diesel Range C10 - C28	1.2	250	262	104%	75 <b>- 12</b> 5%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 61435 and 61450

Review

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

enviroisch-incom laboratory@envirotech-incom



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Det.

Client:	ConocoPhillips	Project #:	96052-1706
Sample ID:	Air Preset Cuttings	Date Reported:	03-20-12
Laboratory Number:	61450	Date Sampled:	03-19-12
Chain of Custody:	09548	Date Received:	03-19-12
Sample Matrix:	Soil	Date Analyzed:	03-20-12
Preservative:	Cool	Date Extracted:	03-20-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Limit (ug/Kg)	
Benzene	ND	10.0	
Toluene	ND	10.0	
Ethylbenzene	, ND	10.0	
p,m-Xylene	20.5	10.0	
o-Xylene	10.2	10.0	
Total BTEX	30.7		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Surrogate Recoveries: Parameter		Percent Recovery		
	Fluorobenzene		88.9 %		
	1,4-difluorobenzene		95.9 %		
	Bromochlorobenzene	•	98.9 %		

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:

NYE Federal #2N

Analyst

Review

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Ph (970) 259-0615 Fr (800) 362-1879

envirotedi-incom laboratory@anvirotedi-incom



## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A		Project #:		N/A	
Sample ID:	0320BCAL QA/QC		Date Reported:		03-20-12	
Laboratory Number:			Date Sampled:		N/A	
Sample Matrix:			Date Received:		N/A	
Preservative:	N/A	[	Date Analyzed:	!	03-20-12	
Condition:	Ñ/A	A STATE OF THE STA			BTEX	
		. г	Dilution:		50	
Calibration and	I-Call RF			Blank	Detect.	
Detection Limits (ug/L		C-Cal RE: Accept Range 0-15%	%Diff	Blank:	- Limit	
Detection Limits (ug/L Benzene	) 4.4975E-06	C:Call RE: Accept: Range 0:15% 4.4975E-06	%Diff	Blank Gonc ND		
Detection Limits (ug/L		C-Cal RE: Accept Range 0-15%	%Diff	Blank:	- Limit	
Detection Limits: (ug/L Benzene Toluene	4,4975E-06 4,4309E-06	C:Cal RE Accept: Range 0:15% 4.4975E-06 4.4309E-06	%Diff 0.000 0.000	Blank S Conc ND ND	0.2 0.2	

Duplicate Conc. (ug/Kg)	Sample 💝 🖟 Di	iplicate 🦂	%Diff:	Accept Range:	Detect. Limit.
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	14.3	13.4	0.06	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	ount Spiked Spik	.ea.Sample 2.76, I	Recovery	Accept Range
Benzene	ND.	2500	2530	101	39 - 150
Toluene	ND .	2500	2540	102	46 - 148
Ethylbenzene	ND	<b>2500</b>	2540	102	32 - 160
p,m-Xylene	14.3	5000	5110	102	46 - 148
o-Xylene	ND	2500	2570	103	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 Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 61428-61433, 61435 and 61448-61450

Analyst.

Review

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envioled threcom



# EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	96052-1706
Sample ID:	Air Preset Cuttings	Date Reported:	03-20-12
Laboratory Number:	61450	Date Sampled:	03-19-12
Chain of Custody No:	09548	Date Received:	03-19-12
Sample Matrix:	Soil	Date Extracted:	03-20-12
Preservative:	Cool	Date Analyzed:	03-20-12
Condition:	Intact	Analysis Needed:	TPH-418.1

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

**Total Petroleum Hydrocarbons** 

36.1

8.3

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:

NYE Federal #2N

Review

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### **EPA METHOD 418.1** Analytical Laboratory TOTAL PETROLEUM HYDROCARBONS **QUALITY ASSURANCE REPORT**

Client:

QA/QC

Project #:

N/A

Sample ID:

QA/QC

Date Reported:

03-20-12

Laboratory Number:

03-20-TPH.QA/QC 61435

Date Sampled:

N/A

Sample Matrix:

Freon-113

Date Analyzed:

03-20-12

Preservative:

N/A

Date Extracted: -

03-20-12

Condition:

N/A

I-Cal Date

01-17-12

Analysis Needed:

TPH

Calibration:

1,740

03-20-12

1,720

1.2%

+/- 10%

Blank Conc. (mg/Kg)

Concentration

Detection Limit

**TPH** 

TPH .

TPH

ND

8.3

Duplicate Conc. (mg/Kg)

Sample: Duplicate % Difference Accept Range 27.8

27.8

0.0%

+/- 30%

Spike Conc. (mg/Kg)

27.8

Spike Added Spike Result % Recovery Accept Range 2,000

1,870

92.2%

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 61435, 61448-450.

Review

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Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301



#### Chloride

Client:

ConocoPhillips

Project #:

96052-1706

Sample ID:

Air Preset Cuttings

Date Reported:

03-20-12

Lab ID#:

61450

Date Sampled:

03-19-12

Sample Matrix:

Soil

Date Received:

03-19-12

Preservative:

Cool

Date Analyzed:

03-20-12

Condition:

Intact

Chain of Custody:

09548

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:

NYE Federal #2N

Analyst`

Review

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endicted-inscom laboratory@enviroted-inscom The NYE FEDERAL 2N was approved for a Closed Loop permit # 7815 on 3/1/11. Due to COPC change in plans to Air Pre Set. Pre Set application permit # 9453 was submitted and approved on 1/23/2012. According to Cavitation Pit for a Closed Loop Locations 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 cutting being transported, moved or distributed on location). COPC is notifying the NMOCD after the fact. Pre Set was conducted on 3/19/2012 and Environmental Samples are attached to this closure report. In the future COPC will comply with closure procedure #1 via: e-mail of move on date, environmental test samples and will be followed by the Pre Set closure report.

T∖hank you,

Jamie Goodwin

-ConocoPhillips