District I

District III

 $1625\,\mathrm{N}\,$  French Dr , Hobbs, NM  $88240\,$ 

District II
1301 W Grand Ave , Artesia, NM 88210

1000 Rio Brazos Rd , Aztec, NM 87410

<u>District IV</u>

1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

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

July 21, 2008

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

Form C-144

tanks, submit to the appropriate NMOCD District Office

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

Pit, Closed-Loop System, Below-Grade Tank, or	-
Proposed Alternative Method Permit or Closure Plan Application	
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method	
Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method	
Modification to an existing permit	
Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,	
below-grade tank, or proposed alternative method	
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request	•
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances	
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Operator: Burlington Resources Oil & Gas Company, LP  OGRID#: 14538	-
Address: PO Box 4289, Farmington, NM 87499	-
Facility or well name: SAN JUAN 27-5 UNIT 1M  API Number: 30-039-30797 OCD Permit Number:	-
	-
U/L or Qtr/Qtr: A(NE/NE) Section: 4 Township: 27N Range: 5W County: Rio Arriba  Center of Proposed Design: Latitude: 36.608363 °N Longitude: 107.365531 °W NAD: 1927 x 1983	-
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment	` [
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X   Pit: Subsection F or G of 19 15 17.11 NMAC	
Temporary: Drilling Workover	1
Permanent Emergency X Cavitation P&A (Pre-set)	}
Lined Unlined Liner type. Thickness mil LLDPE HDPE PVC Other	- {
String-Reinforced	
Liner Seams. Welded Factory Other Volume bbl Dimensions L x W x D	
	긜
Closed-loop System: Subsection H of 19.15.17.11 NMAC	ļ
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or	
notice of intent)	
Drying Pad Above Ground Steel Tanks Haul-off Bins Other	70
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVD Other	
Liner Seams: Welded Factory Other	EP
1 8 PILOT 20	<b>(Q</b> Q
Below-grade tank: Subsection I of 19.15.17.11 NMAC	in dis
Volume: bbl Type of fluid: OIL CONIS.	"
Liner Seams: Welded Factory Other    Below-grade tank: Subsection I of 19.15.17.11 NMAC	
	67/80
Liner Type: Thickness mil HDPE PVC Other	
Emer type Thiotoso mit IIII IIII Tive	ᆜ
5 Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	

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 baibed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  [Four foot beight, four strands of barbed wire evenly speed between one and four feet				
Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify				
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)				
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 of approval (Cavitation pit for Pre-set)  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.				
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		_		
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		
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering</li> </ul>	Yes	□No		
purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.				
- 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	Yes	□No		
<ul> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	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 Society; Topographic map	Yes	No		
Within a 100-year floodplain - FEMA map	Yes	□No.		

Temporary Pits, Emergency Pits and Below-grade Tanks 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
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
Treviously Approved Design (attach copy of design)
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
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
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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:DrillingWorkoverEmergency X CavitationP&APermanent PitBelow-grade TankClosed-loop SystemAlternative
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)
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 cuttungs)
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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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel T Instructions Please identify the facility or facilities for the disposal of liquids, drilling flui are required.	anks or Haul-off Bins Only: (19.15 17.13 D NMAC) ds and drill cuttings. Use attachment if more than two fa	cilities		
Disposal Facility Name: Envirotech / JFJ Landfarm % IEI D	sposal Facility Permit #. NM-01-0011 / NM-01-00	10B		
Disposal Facility Name Basin Disposal Facility D	sposal Facility Permit # NM-01-005			
Will any of the proposed closed-loop system operations and associated activities of Yes (If yes, please provide the information No	ecur on or in areas that will not be used for future se	rvice and operations?		
Required for impacted areas which will not be used for future service and operations  Soil Backfill and Cover Design Specification - based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection  Site Reclamation Plan - based upon the appropriate requirements of Subsection	1 l of 19 15.17.13 NMAC	;		
12				
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 Reco certain siting criteria may require administrative approval from the appropriate district office or m for consideration of approval Justifications and/or demonstrations of equivalency are required.	ay be considered an exception which must be submitted to the S			
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 obtaine	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 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 - 1WATERS 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 (measured from the ordinary high-water mark).	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 in exist - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	tence at the time of initial application	Yes No		
		Yes No		
Within 500 horizontal 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 fee of any other fresh water well or spring, in existence at the time of the initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site				
Within incorporated municipal boundaries or within a defined municipal fresh water well pursuant to NMSA 1978, Section 3-27-3, as amended	ield covered under a municipal ordinance adopted	Yes No		
<ul> <li>Written confirmation or verification from the municipality, Written approval obtains</li> <li>Within 500 feet of a wetland</li> </ul>	d from the municipality	∏Yes ∏No		
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspects	on (certification) of the proposed site			
Within the area overlying a subsurface mine.		Yes No		
- Written confirantion or verification or map from the NM EMNRD-Mining and Mine	ral Division			
Within an unstable area.	in trace will be a least	YesNo		
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Miner Topographic map</li> </ul>	at Resources; USGS; NM Geological Society,			
Within a 100-year floodplain - FEMA map		Yes No		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of by a check mark in the box, that the documents are attached.	he following items must bee attached to the closure	plan. Please indicate,		
Siting Criteria Compliance Demonstrations - based upon the appropriate re	guirements of 19.15.17.10 NMAC	;		
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				
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 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				
1 1 3.0 Recommends I am 1 0.000 apon the appropriate requirements of Subset	5 51 17.15.17.15 11.11110			

19 <b>Operator Application</b>	<del></del>		,
•	formation submitted with this application is true, acc	•	•
Name (Print)	Tamra Sessions	Title.	Staff Regulatory Technician
Signature	1 amoussin	Date	505 336 0834
e-mail address	tamra.d.sessions@conocophillips.com	Telephone.	505-326-9834
20 OCD Approval: OCD Representative S	Permit Application (including closure plan)	Closure Plan (only)	OCD Conditions (see attachment)  Approval Date: 10-21-09
Title:	Enviro Sper	OCD Pern	nit Number:
Instructions: Operators ar report is required to be su		to unplementing any closi- tion of the closure activitie completed.	are activities and submitting the closure report. The closure s. Please do not complete this section of the form until an e Completion Date:
Closure Method: Waste Excavation If different from a	and Removal On-site Closure Method pproved plan, please explain.	Alternative Closure	Method Waste Removal (Closed-loop systems only)
	ng Waste Removal Closure For Closed-loop Syste tify the facility or facilities for where the liquids, dr		round Steel Tanks or Haul-off Bins Only: ngs were disposed. Use attachment if more than two facilities
Disposal Facility Name	e	Disposal Facility	Permit Number:
Disposal Facility Name		Disposal Facility	
l <del>_</del>	system operations and associated activities performed		or be used for future service and opeartions?
	e demonstrate compliane to the items below)	∐No	
r1	areas which will not be used for future service and ( (Photo Documentation)	operations	·
Soil Backfilling ar	nd Cover Installation		
Re-vegetation App	plication Rates and Seeding Technique		
the box, that the docur Proof of Closure Proof of Deed N Plot Plan (for on Confirmation Sa Waste Material S Disposal Facility Soil Backfilling Re-vegetation A	ments are attached.  Notice (surface owner and division) (otice (required for on-site closure)site closures and temporary pits)site closures and temporary pitssite closures and pitcable)site closures and temporary pitssite closuressite closures	llowing items must be atta	nched to the closure report. Please indicate, by a check mark in
25			
Operator Closure Cer I hereby certify that the in	<del></del>	•	and complete to the best of my knowledge and belief. I also certify that losure plan.
Name (Print)		Title:	
Signature:		Date:	
e-mail address		Telephone:	

## 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	N/D
BTEX	EPA SW-846 8021B or 8260B	50	10.7
TPH	EPA SW-846 418.1	2500	178
GRO/DRO	EPA SW-846 8015M	500	N/D
Chlorides	EPA 300.1	500	20

## 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.