District ! 4.
1625 N French Dr , Hobbs, NM 88240

State of New Mexico Energy Minerals and Natural Resources Form C-144 July 21, 2008

<u>District II</u> 1301 W Grand Ave , Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd , Aztec, NM 87410

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

For temporary pits, closed-loop sytems, and below-grade 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

District IV 1220 S St Francis Dr , Santa Fe, NM 87505

3183	Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application		
Type of a			
Please be advised th	mit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request at approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances		
	ources Oil & Gas Company, LP OGRID#: 14538		
Address: PO Box 4298, Facility or well name: San	Juan 27-4 Unit 109A		
API Number: U/L or Qtr/Qtr: B(NW/NE Center of Proposed Design:	30-039- 30-039- OCD Permit Number: Section: 23 Township: 27N Range: 4W County: Rio Arriba		
Pit: Subsection F or G Temporary: Drilling Permanent Emerge Lined Unlined String-Reinforced Liner Seams. Welde	Workover ncy Cavitation P&A Liner type: Thickness mil LLDPE PVC Other		
Below-grade tank: S Volume: Tank Construction material: Secondary containment w Visible sidewalls and li Liner Type: Thickness	tubsection I of 19.15.17.11 NMAC bbl Type of fluid: with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls, liner, 6-inch lift Visible sidewalls, liner, 6-inch lift Visible sidewalls,		
Submittal of an exception re-			

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, insti	tution or chure	ch)
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)		
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		ļ
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:		
Administrative approval(s). Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consistencing/BGT Liner)	deration of ap	proval.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
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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 - 1WATERS database search; USGS; Data obtained from nearby wells		No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa	Yes	No
lake (measured from the ordinary high-water mark). - 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 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; 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.	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.		□No
- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division		□No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological 	Yes	LINO
Society; Topographic map		
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
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
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 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)
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 G of 19 15.17.13 NMAC

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<u>Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel</u> Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fare required.	l <u>Tanks or Haul-off Bins Only;</u> (19.15.17 13.D NMAC) fluids and drill cuttings. Use attachment if more than two fac	cilities		
Disposal Facility Name: Envirotech	Disposal Facility Permit #: NM-01-0011			
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 in areas that will not be used for future service and operations? Yes (If yes, please provide the information No				
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specification - based upon the appropriat Re-vegetation Plan - based upon the appropriate requirements of Subsect Site Reclamation Plan - based upon the appropriate requirements of Subsect	tion I of 19.15.17 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 Recertain siting criteria may require administrative approval from the appropriate district office of for consideration of approval. Justifications and/or demonstrations of equivalency are required.	ecommendations of acceptable source material are provided below r may 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 obtain	ined 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 obtain	ned 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 obtain	ned from nearby wells	□ res		
•	•			
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signification (measured from the ordinary high-water mark).	ant 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 e - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	existence at the time of initial application	YesNo		
visual inspection (certification) of the proposed site, rieran photo, sateline image		□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 we pursuant to NMSA 1978, Section 3-27-3, as amended.		Yes No		
 Written confirmation or verification from the municipality; Written approval obta Within 500 feet of a wetland 	aned from the municipality	∏Yes ∏No		
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspe	ection (certification) of the proposed site			
Within the area overlying a subsurface mine.		Yes No		
- Written confiramtion or verification or map from the NM EMNRD-Mining and M	lineral Division			
Within an unstable area.	Yes No			
 Engineering measures incorporated into the design; NM Bureau of Geology & Mil Topographic map 	neral 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.	of the following items must bee attached to the closure	e plan. Please indicate,		
Stting Criteria Compliance Demonstrations - based upon the appropriate	requirements 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			
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. (Subsection B)				
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				

Operator Application Certification: Thereby certify that the information submitted with this application.	olication is true, accurate and complete to	the best of my knowledge and belief.		
Name (Print): Tamra Session	Title:	Staff Regulatory Technician		
Signature: Tombessina	Date.	2 12-09		
e-mail address: sessitd@conocophill		505-326-9834		
C-man address.	reiepiione.	303 320 7034		
20 OCD Approval: Permit Application (including				
OCD Representative Signature:	1 6 ell	Approval Date: 3-9-09		
Title: Enviro /50	OCD Pe	ermit Number:		
	closure plan prior to implementing any ci days of the completion of the closure activ ctivities have been completed	NAC cosure activities and submitting the closure report. The closure sties. Please do not complete this section of the form until an ure Completion Date:		
22 Closure Method: Waste Excavation and Removal On-site	Closure Method Alternative Clos	ure Method Waste Removal (Closed-loop systems only)		
23 Closure Report Regarding Waste Removal Closure For Instructions: Please identify the facility or facilities for we were utilized. Disposal Facility Name: Disposal Facility Name:	here the liquids, drilling fluids and drill co	Ground Steel Tanks or Haul-off Bins Only: uttings were disposed. Use attachment if more than two facilities lity Permit Number. htty 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) No				
Required for impacted areas which will not be used for Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Tech	future service and operations.			
24				
	ision) ure) ts) pplicable) applicable)	nttached to the closure report. Please indicate, by a check mark in		
25	 			
Operator Closure Certification:		ate and complete to the best of my knowledge and belief. I also certify that d closure plan.		
Name (Print):	Title:	·		
Signature.	Date:			
e-mail address:	Telephone:			

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Burlington Resources Oil & Gas Company, LP

Closed Loop Design:

The closed loop design will not incorporate a temporary pit or below grade tank. The plan will utilize an above grade tank suitable for holding the cuttings and fluids generated during drilling operations. The volume of the tank shall be of a sufficient volume to maintain an adequate free board for periodic removal and disposal of cuttings and fluids.

Burlington Resources Oil & Gas Company, LP may incorporate the use of a 20 mil, string reinforced, LLDPE liner with factory welded seams to line the drying pad in order to minimize the volume of fluids to be disposed of. The drying pad will be designed to prevent contamination of fresh water, protect public health and the environment, and have sumps to facilitate the collection of liquids derived from drilling cuttings, as specified per subsection H of 19.15.17.11. The cuttings pad will be constructed above grade and containment will be through the use of earthen berms of sufficient height to contain the cuttings and prevent run-off of surface water or fluids. The drying pad area will replace the area of the drill site previously designated for the reserve pit. It will be signed in compliance with 19.15.3.103.NMAC. Frac tanks will be utilized on site for fresh water storage.

Closed Loop Operations and Maintenance:

The closed loop system will be operated and maintained for solids and liquid containment to prevent ground water contamination as follows:

- Any free liquids will be recovered and reused or disposed of at the Basin Disposal Facility (Permit # NM-01-005). Reuse may include the relocating of liquids to be used in other permitted drilling operations.
- 2. Drill solids will be recovered from location and hauled to a Envirotech (Permit #NM-01-0011) periodically as required to maintain a safe free board in the cuttings tank. No onsite trench burial of cuttings will occur.
- 3. In the event a drying pad is utilized, the cuttings will be picked up and transported to Basin Disposal Facility (Permit #NM-01-005). The liner will be disposed of at the San Juan County Landfill located on CR 3100. The drying pad will be closed within 6 months from the date that the drilling rig is released. Berms constructed from native materials will be bladed on site to the location's contour.
- 4. Any drilling materials or trash will be stored and disposed of appropriately.
- 5. The NMOCD will be notified within 48 hours of the discovery of compromised integrity of the closed loop containment. Any required repairs will commence immediately.

Closed Loop Closure Plan:

- Upon completion of the drilling operations, all solids and liquids will be removed and disposed of to Envirotech (Permit #NM-01-0011) and Basin Disposal Facility (Permit # NM-01-005). Equipment shall also be removed from location. In the event a drying pad is utilized, the solids contained on the pad shall remain on site to allow sufficient drying and will then be transported to Envirotech (Permit # NM-01-0011) within 6 months from the date that the drilling rig is released.
- 2. After the drying pad is removed the surface below will be visually inspected for any contamination. If contamination is discovered a five point composite sample will be taken of the drying pad area using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

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

- 3. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 4. Notification will be sent to OCD when the reclaimed area is seeded.
- 5. BR shall seed the disturbed areas the first growing season after the operator closes the drying pad. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Туре	Variety or Cultivator	PLS/A
Western wheatgrass	Arriba	3.0
Indian ricegrass	Paloma or Rimrock	3.0
Slender wheatgrass	San Luis	2.0
Crested wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2.0
Four-wing Saltbrush	Delar	.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100

Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

Purity

50 percent

Germination

40 percent

Percent PLS

20 percent

Source No. two (better quality)

Purity

80 percent

Germination

63 percent

Percent PLS

50 percent

5 lb. bulk seed required to make 2 lb. bulk seed required to make

1 lb. PLS 1 lb. PLS