District I

1625 N French Dr , Hobbs, NM 88240

District II

1301 W Grand Ave , Artesia, NM 88210

District III

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 sytems, and below-grade tanks, submit to the appropriate NMOCD District Office.

Form C-144

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

2043

## Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:	X 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.

1
Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538
Address: PO Box 4289, Farmington, NM 87499
Facility or well name: Nye Federal 100
API Number: OCD Permit Number:
U/L or Qtr/Qtr: M(SWSW) Section: 20 Township: 31N Range: 12W County: San Juan
Center of Proposed Design: Latitude: 36.88069' N Longitude: 108.12703' W NAD: 1927 X 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
Pit: Subsection F or G of 19 15.17.11 NMAC  Temporary Drilling Workover Permanent Emergency Cavitation P&A 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
Closed-loop System: Subsection H of 19.15.17.11 NMAC   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 Lined Unlined Liner type Thickness mil LLDPE HDPE PVD Other Liner Seams: Welded Factory Other
A
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 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  X Alternate. Please specify 4' hogwire fence with a single strand of barbed wire on top.						
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  X 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:  Administrative approval(s) Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consultation of approval.	ideration of ap	proval				
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.	Ç					
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	Yes	XNo				
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	XNo				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	XNo				
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo, Satellite image	□NA					
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes X NA	No				
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	XNo				
- 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	X No				
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	XNo				
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	X No				
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	Yes	XNo				
Society; Topographic map  Within a 100-year floodplain  - FEMA map	Yes	XNo				

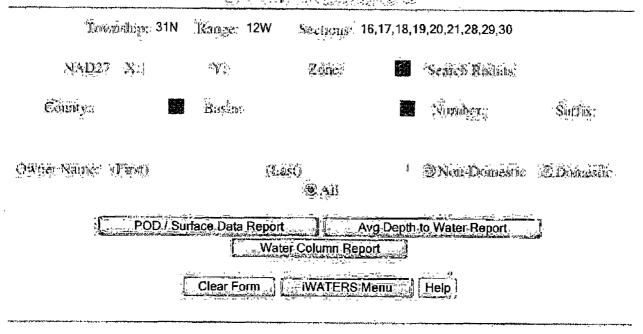
Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
X   Hydrogeologic 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
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15 17 10 NMAC
X   Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
X   Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17.12 NMAC
X   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
12
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  Coologie and Mydrogologic Data (only for on site glovers), beard upon the requirements of Program (2) of Subsection P. of 10.15.17.0
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
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 X Below-grade Tank Closed-loop System
Alternative
Proposed Closure Method: X 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.
X Protocols and Procedures - based upon the appropriate requirements of 19 15.17 13 NMAC
X Confirmation Sampling Plan (if applicable) - 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)
Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
X 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

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (Instructions Please identify the faculty or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attac	19 15.17.13.D NMAC) hment if more than two facilities						
are required.							
Disposal Facility Name: Disposal Facility Permit #.							
Disposal Facility Name Disposal Facility Permit # Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will n							
Yes (If yes, please provide the information No	ot be used for future service and opera	itions?					
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection F	Lof 19 15 17 13 NMAC						
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17 13 NMAC	10.15.16.17.16						
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAG	2						
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 acceptable source certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception whi for consideration of approval Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for any discovering least the consideration of approval.	ch must be submitted to the Santa Fe Environn or guidance	nental Bureau office					
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS. Data obtained from nearby wells	Yes N/A	∐No					
,		<u> </u>					
Ground water is between 50 and 100 feet below the bottom of the buried waste  - NM Office of the State Engineer - iWATERS database search, USGS; Data obtained from nearby wells	Yes	∐No					
•	∐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 or lakebed, sinkho (measured from the ordinary high-water mark).	le, 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 existence at the time of initial application (certification) of the proposed site; Aerial photo; satellite image	cation 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 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 field covered under a municipal pursuant to NMSA 1978, Section 3-27-3, as amended.	ordinance adopted 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> </ul>	Yes	□No					
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the propose	, <u> </u>						
Within the area overlying a subsurface mine.	Yes	□No					
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division							
Within an unstable area - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources; USGS; NM Geology	YesYes	∐No					
Topographic map	gical Society,						
Within a 100-year floodplam FEMA map	Yes	□No					
18							
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must bee by a check mark in the box, that the documents are attached.	attached to the closure plan. Please	indicate,					
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 N		-					
Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.1							
Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19							
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate of the standard page of Posterior of the standard page of the standa	riate requirements of 19.15.17.11 NMA	AC					
Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC	610 15 17 12 NMAG						
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 10.15.17.13							
Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13		<u> </u>					
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							

19 Operator Application	Certification:			
	nformation submitted with this application is true, acc	curate and complete to the	best of my knowledge and belief	
Name (Print):	Crystal Tafoya	Title:	Regulatory Technician	
Signature:	Constal Taloyo	Date:	10/20/08	
e-mail address:	crystal/afoya@conocophillips/com	Telephone.	/505-326-9837	
OCD Approval:	Permit Application (including closure plan)	Closure Plan (only)	OCD Conditions (see attachm	ant\
		Closure Flam (omy)		•
OCD Representative	Signature: 1300 O'll		Approval Date:	10/19/09
Title:	Enviro/spec	OCD Pern	nit Number:	
Instructions Operators report is required to be:	nired within 60 days of closure completion): Su are required to obtain an approved closure plan prior submitted to the division within 60 days of the complet as been obtained and the closure activities have been	to implementing any closi tion of the closure activitie completed.	ire activities and submitting the closure	•
<u> </u>			-	
22 Closure Method:				
Waste Excavation	n and Removal On-site Closure Method	Alternative Closure	Method Waste Removal (Close	d-loop systems only)
If different from	approved plan, please explain		_	
23				
	ling Waste Removal Closure For Closed-loop Syste			
Instructions: Please ide were utilized.	ntify the facility or facilities for where the liquids, dr	illing fluids and drill cutti	ngs were disposed. Use attachment if	more than two facilities
Disposal Facility Nar	ne:	Disposal Facility	Permit Number.	
Disposal Facility Nar	ne:	-	Permit Number:	
Were the closed-loop	system operations and associated activities performe	d on or in areas that will no	of be used for future service and opearti	ons?
Yes (If yes, plea	se demonstrate complilane to the items below)	No		
	d areas which will not be used for future service and	operations:	•	
=	n (Photo Documentation) and Cover Installation			
= -	pplication Rates and Seeding Technique			
24				
	ttachment Checklist: Instructions: Each of the fo	llowing items must be atto	ched to the closure report. Please indi	icate, by a check mark in
the box, that the doc				
	e Notice (surface owner and division)  Notice (required for on-site closure)			
<b>–</b>	n-site closures and temporary pits)			
	sampling Analytical Results (if applicable)			
	Sampling Analytical Results (if applicable)			
=	ty Name and Permit Number			,
	and Cover Installation		•	
· = `	Application Rates and Seeding Technique			
	on (Photo Documentation)			
On-site Closure	Location: Latitude:	Longitude:	NAD [] 192	7 1983
				····
25				
Operator Closure Ce				
	information and attachments submitted with this clost h all applicable closure requirements and conditions		-	tge and belief. I also certify that
•	- 2 approante otomic requirements una continuent		round pun	
Name (Print):		Title.		
Signature:		Date.		
e-mail address		Telephone:		

## New Mexico Office of the State Lugiuser. POD Reports and Downlands



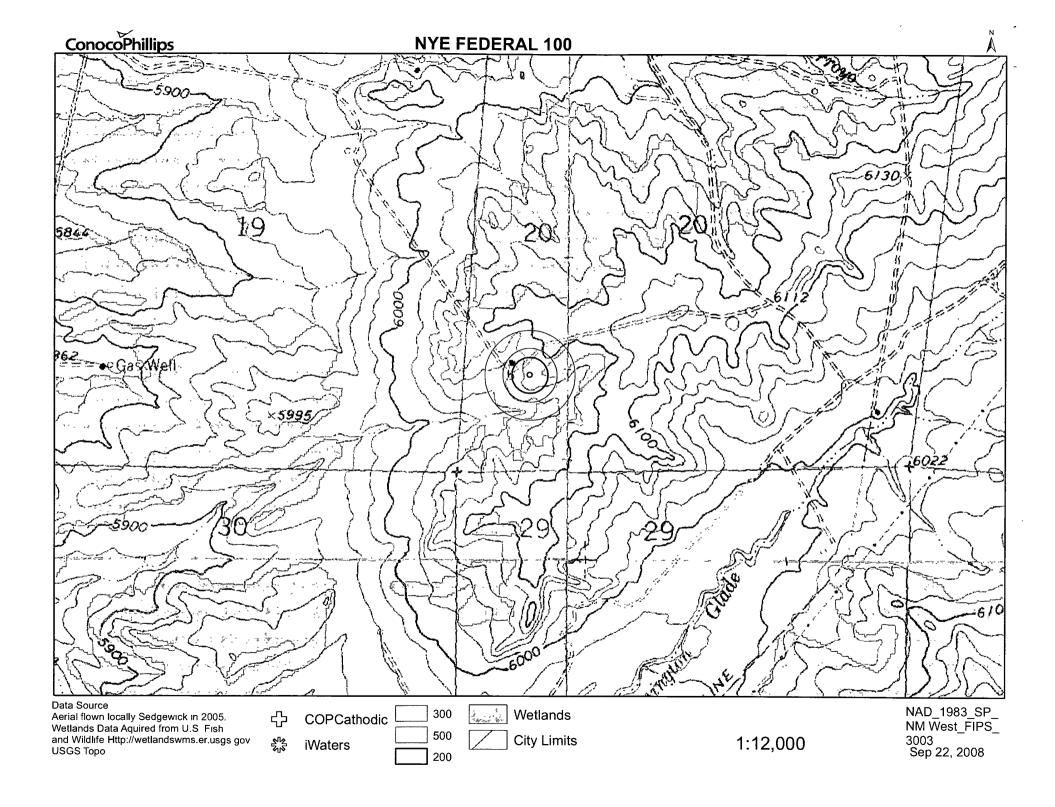
### WATER COLUMN REPORT ADOMS / 2002

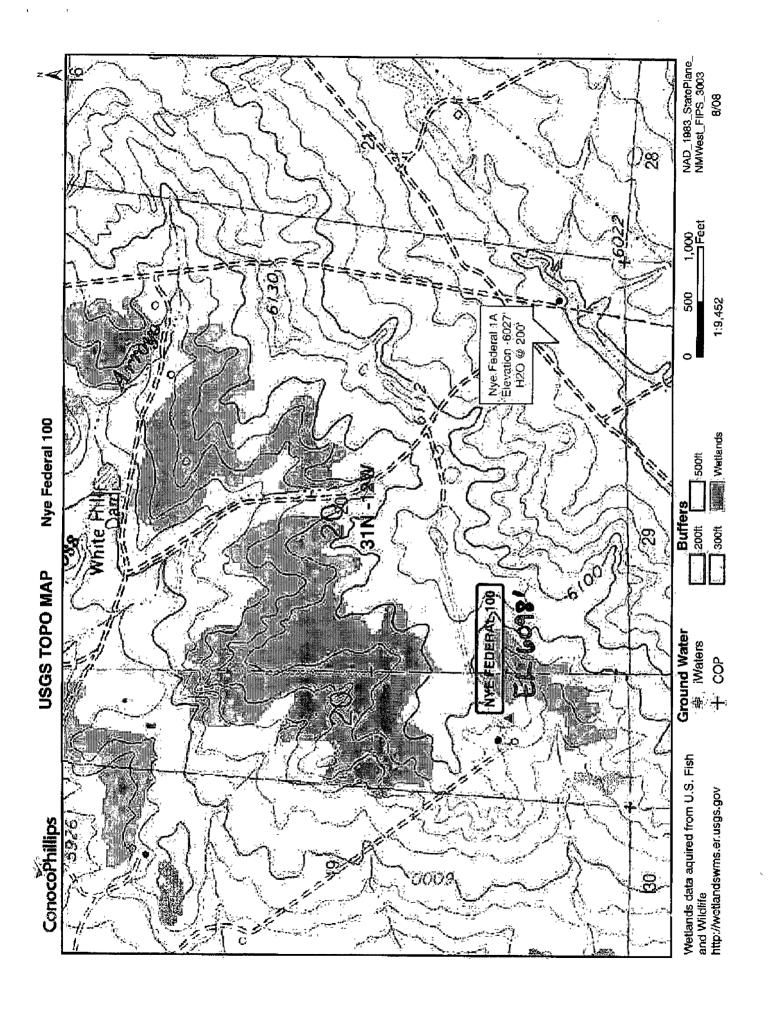
(quarters are 1=NM 2=NE 3=SV 4=SE)
(quarters are biggest to smallest)

POD Number Two Rug Sec. q q g Zone X Well

Well Water Colu

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## 30-045-23536

## DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

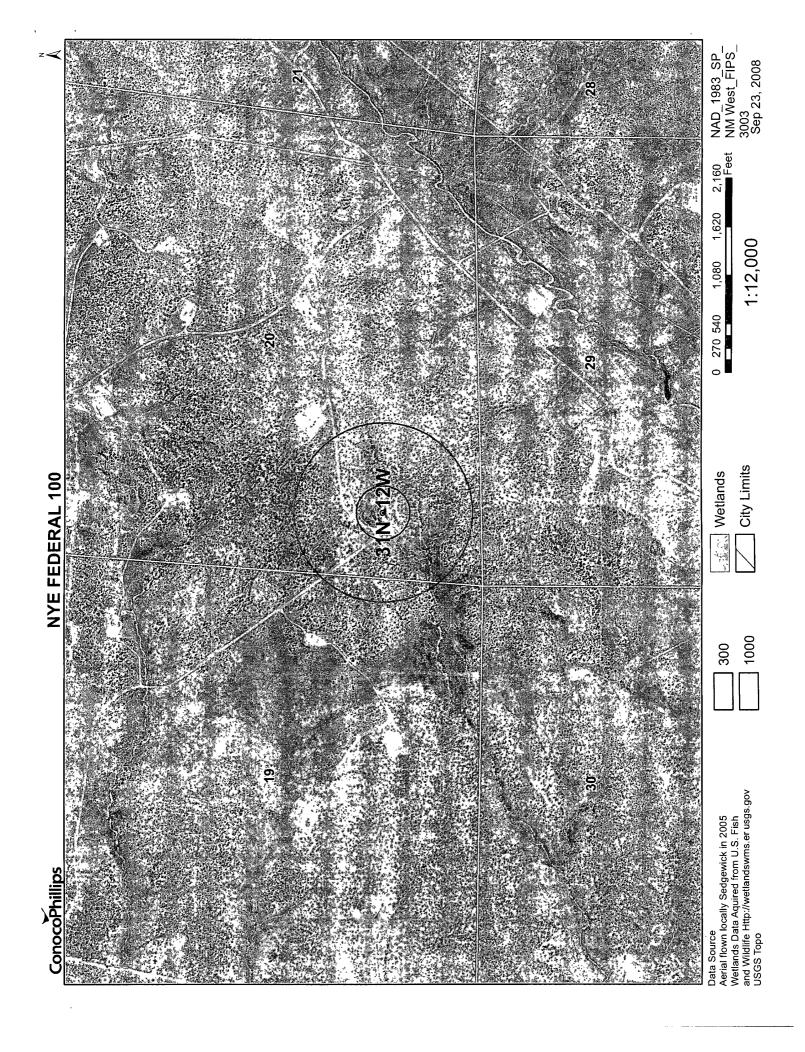
Operator MERIDIAN OIL INC. Location: Unit P Sec. 20 Twp31 Rng 12
Name of Well/Wells or Pipeline Serviced Nye Federal 1-M
сря 6216w
Elevation N/A Completion Date 12/23/86 Total Depth 360' Land Type* N/A
Casing, Sizes, Types & Depths N/A
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A
Depths & thickness of water zones with description of water when possible: Fresh, Clear, Salty, Sulphur, Etc. 220' 15 gallons per minute
Depths gas encountered: N/A
Type & amount of coke breeze used: 1600#
Depths anodes placed: 340, 330, 320, 310, 300, 290, 280, 270, 260, 250
Depths vent pipes placed: 360' of 1" vent pipe
Vent pipe perforations: 160'
Remarks: gb #1 MAY31 1991.
OIL CON. DIV
If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should

be submitted when available. Unplugged abandoned wells are to be included.

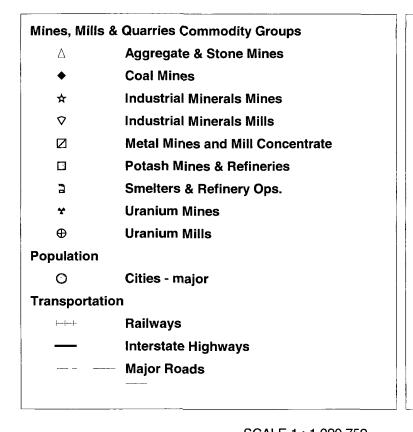
<sup>\*</sup>Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

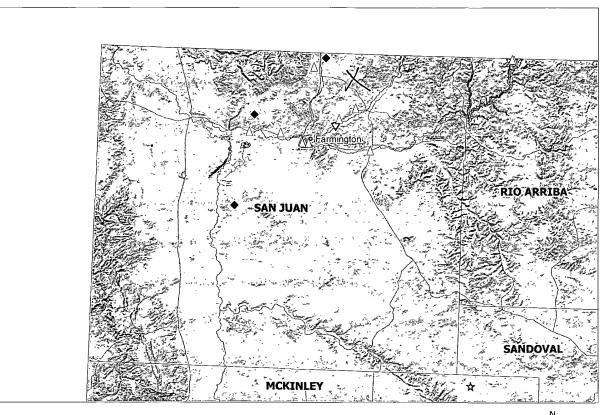
## WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. Operator 1.eau Well No. SUPRON ENERGY CORPORATION NYE FEDERAL 1-A Section Township Unit Letter 20 31 NORTH 12 WEST SAN JUAN Actual Fastage Location of Wells 870 SOUTH 1015 EAST test from the feet from the Ground Level Elev. Producing Formation 100 6027 Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc? If answer is "yes;" type of consolidation , FF Yes ☐ No If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)\_ No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commis-529°25 W 5276.7 CERTIFICATION I hereby certify that the information contoined herein is true and complete to the 20 OIL CON. COM. Dīst. 3 11 April 1979 Pegistered Professional Engineer d/er Land Surveyor James P. Cettificane No. 1463



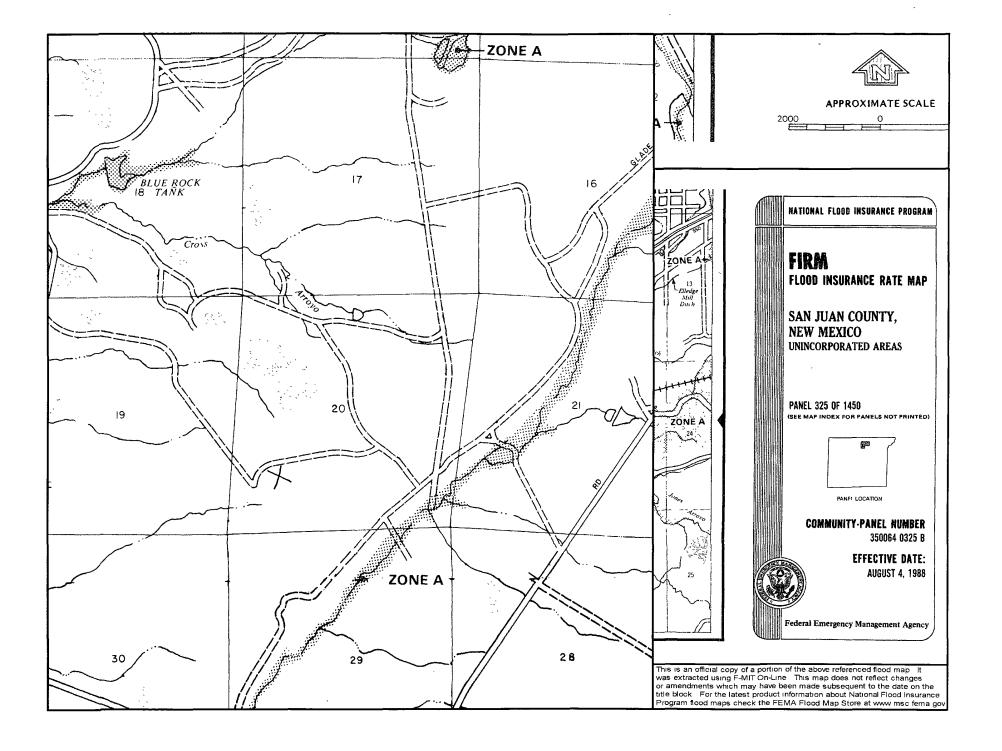
## Nye Federal 100 Mines, Mills and Quarries Web Map











## Hydrogeological Report for Nye Federal 100

### Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

### **Hydraulic Properties:**

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

## References:

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.

Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

### Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Nye Federal 100 is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. The Cathodic well data from the Nye Federal 1A has an elevation of 6027' and groundwater depth of 220'. The subject well has an elevation of 6098' which is greater than the Nye Federal 1A, therefore the groundwater depth is greater than 100'. There are no iWATERS data points located in the area as indicated on the TOPO Map. The Cathodic data provides the indication that groundwater depth and the Nacimiento formation will create a stable area for this new location.

DISTRICT 1 1625 N. French Dr., Hobbs, N.M. 88240

## State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

DISTRICT II 811 South First, Artesia, N.M. 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410 OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

## WELL LOCATION AND ACREAGE DEDICATION PLAT

	BASIN (FRUITLAND	COAL)/FLORA VISTA	FRUITLAND (GAS)		
Property Code     Property Name					
NYE FEDERAL					
Operator Name					
BURLINGTON RESOURCES O&G CO LP					
	NYE *Ope	<sup>5</sup> Property Name NYE FEDERAL <sup>6</sup> Operator Name	<sup>5</sup> Property Name  NYE FEDERAL <sup>6</sup> Operator Name		

<sup>10</sup> Surface Location

					Surface	Location			
UL or lot no. M	Section 20	Township 31N	Range 12W	Lot idn 4	Feet from the 1110'	North/South line SOUTH	Feet from the 715'	East/West line WEST	County SAN JUAN
11 Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acre	<u> </u>	<u> </u>	13 Joint or	lofil)	16 Consolidation (	Code	<sup>18</sup> Order No.	1	1

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

			17 OP	ERATOR CERTIFICATION
FND 3 1/4" BC BLM 1952			I hereby certific to true and c	fy that the information contained herein complete to the best of my knowledge and
	1	1	belief	
	i		Signature	
	1	1		
			Printed Na	me
(W)	1		Title	
5300.46′ (	1	,	Date	
5300.46			18 SUR	VEYOR CERTIFICATION
5 46 '	,	1		that the well location shown on this plat in field notes of actual surveys made by
	20:		me or under m	y supervision, and that the same is true the best of my belief.
				BRUARY 1, 2007
7 3			Date of Surv	
3	<b>Z</b> ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (		Signature an	d Seal of Professional Surveyor:
	TEASE # 119	LEASE # USA		e R Russell
LEASE # USA SF-0	78244 LEASE # US/ SF-021126	NM-03118	,	
NYE FEDERAL #1 LAT. 36.88				
-715 g - 6 LONG. 108	.12703 W (NAD 83)			
LAT. 36'52 LONG. 108	.84128' N (NAD 27): 6 77.58409' W (NAD 27)			
4 = 5			· ·	
S 88°26'	45" W 11 4997.34' (M)	FND 3 1/4" BC		
3 1/4" 8C S 88'26'		BLM 1972	DA\	
			Certificate Nu	mber 10201

## Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Design and Construction

In accordance with NMAC 19.15.17 the following information describes the design and construction of below grade tanks on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

### General Plan:

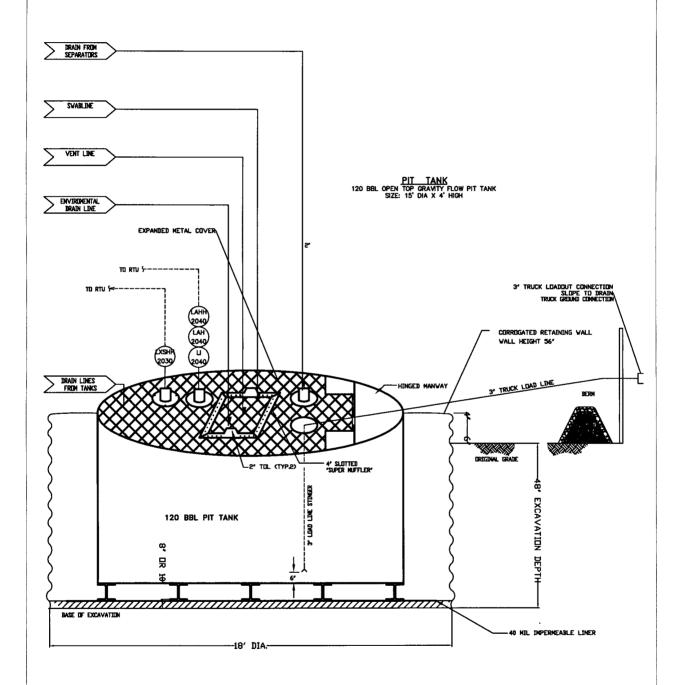
- 1. BR will design and construct a properly sized and approved BGT which will contain liquids and should prevent contamination of fresh water to protect the public health and environment.
- 2. BR will sign the well location in compliance with 19.15.3.103 NMAC.
- 3. BR shall construct fencing around the BGT using 4 foot hog wire fencing topped with two strands of barbed wire, or with a pipe top rail. A six foot chain link fence topped with three strands of barbed wire will be use if the well location is within 1000 feet of permanent residence, school, hospital, institution or church.
- 4. BR will construct a screened, expanded metal covering, on the top of the BGT.
- 5. BR shall ensure that a below-grade tank is constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.
- 6. The BR below-grade tank system shall have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.
- 7. BR shall construct a below-grade tank to prevent overflow and the collection of surface water run-on.
- 8. BR will construct and use a below-grade tank that does not have double walls. The below-grade tank's side walls will be open for visual inspection for leaks, the below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface and the below-grade tank is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.
- 9. BR has equipped the below-grade tanks with the ability to detect high level in the tank and provide alarm notification and shutdown process streams into the tank. Once high level is detected RTU logic closes the inlet separator sales valve and does not permit vent valve to open. This shutdown of the sales valve and gagging of the vent valves prevents any hydrocarbon process streams from entering the pit tank once a high level is detected. Furthermore, an electronic page is sent to the BR MSO for that well site and to the designated contract "Water-Hauling" Company indicating a high level and that action must be taken to address this alarm. The environmental drain line from BR's compressor skid under normal operating conditions is in the open position. The environmental

drain line is in place to capture any collected rain water or spilled lubricants from our compressor skids. The swab drain line is a manually operated drain and by normal operating procedures is in the closed position. The tank drain line is also a manually operated drain and during normal operations it is in the closed position.

- 10. The geomembrane liner consists of a 45-mil flexible LLDPE material manufactured by Raven Industries as DURA-SKRIM J-45 which includes a 20 year warranty provided by said manufacturer. This product provides a level of UV and harsh weather conditions protection. It is rated to a Low temperature impact failure of -94°F. It exceeds ASTMD3083 standard by 10%. It is typically used in Brine Pond, Oilfield Pit liner and other industrial applications. The manufacture specific sheet is attached.
- 11. The general specification for design and construction are attached in the BR document.

MANUAL OPERATIONS PRODUCTION TANKS DRAINLINE SWABLINE DRAIN LINE ENVIROMENTAL DRAIN LINE FROM COMPRESSOR SKID

AUTOMATED OPERATION VENT VALVE DRAIN LINE DUMP LINE FROM SEPARATORS



## ConocoPhillips San Juan Business Unit

## DURA-SKRIM®

# BOJB60JA

PROPERTIES	TEST METHOD	3ل: ۱۰۰۰	0BB	J36	33	J45	3B: 34 (*)
		Min. Roll Averages	Typical Roll Averages	Mın. Roll Averages	Typical Roll Averages	Mın. Roll Averages	Typical Roll Averages
Appearance		Black	k/Black	Black/	Black	Black/	Black
Thickness	ASTM D 5199	27 mil	30 mil	32 mil	36 mil	40 mil	45 mil
Weight Lbs Per MSF (oz/yd²)	ASTM D 5261	126 lbs (18.14)	140 lbs (20.16)	151 lbs (21.74)	168 lbs (24.19)	189 lbs (27.21)	210 lbs (30.24)
Construction		**Extr	usion laminated	with encapsulat	ed tri-direction	al scrim reinforc	ement
Ply Adhesion	ASTM D 413	16 lbs	20 lbs	19 lbs	24 lbs	25 lbs	31 lbs
1" Tensile Strength	ASTM D 7003	88 lbf MD 63 lbf DD	110 lbf MD 79 lbf DD	90 lbf MD 70 lbf DD	113 lbf MD 87 lbf DD	110 lbf MD 84 lbf DD	138 lbf MD 105 lbf DD
11, Tensile Elongation @ Break % (Film Break)	ASTM D 7003	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD
1" Tensile Elongation @ Peak % (Scrim Break)	ASTM D 7003	20 MD 20 DD	33 MD 33 DD	20 MD 20 DD	30 MD 31DD	20 MD 20 DD	36 MD 36 DD
Tongue Tear Strength	ASTM D 5884	75 lbf MD 75 lbf DD	97 lbf MD 90 lbf DD	75 lbf MD 75 lbf DD	104 lbf MD 92 lbf DD	100 lbf MD 100 lbf DD	117 lbf MD 118 lbf DD
Grab Tensile	ASTM D 7004	180 lbf MD 180 lbf DD	218 lbf MD 210 lbf DD	180 lbf MD 180 lbf DD	222 lbf MD 223 lbf DD	220 lbf MD 220 lbf DD	257 lbf MD 258 lbf DD
Trapezoid Tear	ASTM D 4533	120 lbf MD 120 lbf DD	146 lbf MD 141 lbf DD	130 lbf MD 130 lbf DD	189 lbf MD 172 lbf DD	160 lbf MD 160 lbf DD	193 lbf MD 191 lbf DD
* Dimensional Stability	ASTM D 1204	<1	<0.5	<1	<0.5	<1	<0.5
Puncture Resistance	ASTM D 4833	50 lbf	64 lbf	65 lbf	83 lbf	80 lbf	99 lbf
Maximum Use Temperature		180° F					
Minimum Use Temperature		-70° F					

MD = Machine Direction
DD = Diagonal Directions



Note: Minimum Roll Averages are set to take into account product variability in addition to testing variability between laboratories.

\*Dimensional Stability Maximum Value

\*\*DURA-SKRIM J30BB, J36BB & J45BB are a four layer reinforced laminate containing no adhesives. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications. DURA-SKRIM J30BB, J36BB & J45BB are reinforced with a 1300 denier (minimum) tri-directional scrim reinforcement.

Note: RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.

PLANT LOCATION

Sioux Falls, South Dakota

SALES OFFICE

RAVEN INDUSTRIES P.O. Box 5107 Sioux Falls, SD 57117-5107 (605) 335-0174 (605) 331-0333 FAX **800-635-3456** 

08/06

# Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Maintenance and Operating Plan

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of Below Grade Tank (BGT) on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all BGT. A separate plan will be submitted for any BGT which does not conform to this plan.

#### General Plan:

- 1. BR will operate and maintain a BGT to contain liquids and solids and maintain the integrity of the liner, liner system and secondary containment system to prevent contamination of fresh water and protect public health and environment.
- 2. BR will not discharge into or store any hazardous waste in the BGT.
- 3. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.
- 4. BR shall continuously remove any visible or measurable layer of oil from the fluid surface of a below-grade tank in an effort to prevent significant accumulation of oil overtime.
- 5. BR shall inspect the below-grade tank at least monthly and maintain a written record of each inspection for five years.
- 6. BR shall maintain adequate freeboard to prevent overtopping of the below-grade tank.
- 7. If a leak develops below the liquid's level, BR shall remove all liquids within 48 hours and repair the damage or replace the below-grade tank. BR shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels. BR shall notify the Aztec Division office as required pursuant to Subsection B of 19.15.3.116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC shall be reported to the division's Environmental Bureau Chief.

## Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Closure Plan

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of Below Grade Tanks (BGTs) on Burlington Resources Oil & Gas Company, LP locations hereinafter known as BR locations. This is BR's standard procedure for all BGTs. A separate plan will be submitted for any BGT which does not conform to this plan.

#### General Requirements:

- 1. BR shall close a below-grade tank within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.
- 2. BR shall close a permitted below-grade tank within 60 days of cessation of the below-grade tank's operation. The closure report will be filed on C-144
- 3. BR shall remove liquids and sludge from a below-grade tank prior to implementing a closure method and shall dispose of the liquids and sludge in a division-approved facility. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011). The liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 4. BR will receive prior approval to remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that the appropriate division district office approves. Documentation of how the belowgrade tank was disposed of or recycled will be provided in the closure report.
- 5. If there is any on-site equipment associated with a below-grade tank, then BR shall remove the equipment, unless the equipment is required for some other purpose.
- 6. BR shall test the soils beneath the below-grade tank to determine whether a release has occurred. BR shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 0.2 mg/kg; total BTEX concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA method that the division approves, does not exceed 50 mg/kg; the TPH concentration, as determined by EPA method 418.1 or other EPA method that the division approves, does not exceed 100 mg/kg; and the chloride concentration, as determined by EPA method 300.1 or other EPA method that the division approves, does not exceed 250 mg/kg, or the background concentration, whichever is greater. BR shall notify the division of its results on form C-141.
- 7. If BR or the division determines that a release has occurred, then BR shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC, as appropriate.

- 8. If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then BR shall backfill the excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site.
- 9. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week via email or verbally. The notification of closure will include the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 10. The surface owner shall be notified of BR's closing of the below-grade tank prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 11. 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.
- 12. BR shall seed the disturbed areas the first growing season after the operator closes the pit. 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.
- 13. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 14. All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of the below-grade tank. Closure report will be filed on C-144 and incorporate the following:
  - Soil Backfilling and Cover Installation
  - Re-vegetation application rates and seeding techniques
  - Photo documentation of the site reclamation
  - Confirmation Sampling Results
  - Proof of closure notice