### 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

District IV

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

Form C-144 July 21, 2008

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.

### 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-look 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.

Operator: Burlington Resources Oil & Gas Company, LP  OGRID#: 14538
Address: PO Box 4289, Farmington, NM 87499
Facility or well name: GRENIER 2B
API Number: 3004530007 OCD Permit Number:
U/L or Qtr/Qtr: M Section: 18 Township: 31N Range: 11W County: San Juan
Center of Proposed Design: Latitude: 36.89509°N Longitude: -108.03735°W NAD: X 1927 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
Note   Note
Alternative Method:  Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
Form C 144

6 c		
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	l, hospital, institution or c	hurch)
Four foot height, four strands of barbed wire evenly spaced between one and four feet		
X Alternate. Please specify 4' hog wire fencing topped with two strands barbed wire.		· · · · · · · · · · · · · · · · · · ·
7		
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)		
		<del></del>
8 Signs: Subsection C of 19.15.17.11 NMAC		
12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers		
X Signed in compliance with 19.15.3.103 NMAC		
9 Administrative Approvals and Exceptions:		
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.		
Please check a box if one or more of the following is requested, if not leave blank:		
X Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau (Fencing/BGT Liner)	office for consideration o	f approval.
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
10		
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acce	entable	
source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from t	· .	
appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office	- I	
consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting codoes not apply to drying pads or above grade-tanks associated with a closed-loop system.	riteria	
	_	_
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	X No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or p	iaya Yes	XNo
lake (measured from the ordinary high-water mark).	_	_
- Topographic map; Visual inspection (certification) of the proposed site	ł	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	l Tes	XNo
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	I □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)	XNA	
- 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 or purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.	watering 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 ordinan adopted pursuant to NMSA 1978, Section 3-27-3, as amended	nce Yes	XNo
- Written confirmation or verification from the municipality; Written approval obtained from the municipality		
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.	ПҮез	XNo
- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	_	_
Within an unstable area.	Yes	X No
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geolog	gical	
Society; Topographic map		(E)
Within a 100-year floodplain - FEMA map	∐ Yes	X 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.
X   Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
Hydrogeologic Neport (below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9
Tryunogeologic Data (Temporary and Emergency Fits) = Masculation are requirements of Faragraph (2) of Subsection D of Fits
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
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9  NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API
Previously Approved Operating and Maintenance Plan API
13
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
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 (Below-Grade Tank)
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   Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Instructions: Please identify the facility or facilities for the disposal of liquids, drilling f	Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) luids and drill cuttings. Use attachment if more than two f	<i>Gacilities</i>
are required.		
	Disposal Facility Permit #:	<del></del>
Disposal Facility Name:  Will any of the proposed closed-loop system operations and associated activities	Disposal Facility Permit #:	urvive and operations?
Yes (If yes, please provide the information No	teem on or in areas mar win nor the used for future s	ervice 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 appropriat	e requirements of Subsection H of 19.15.17.13 NMA	С
Re-vegetation Plan - based upon the appropriate requirements of Subsect	•	
Site Reclamation Plan - based upon the appropraite requirements of Subs	ection G 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 string criteria may require administrative approval from the appropriate district office or for consideration of approval. Justifications and/or demonstrations of equivalency are required.	may be considered an exception which must be submitted to the	• • • •
Ground water is less than 50 feet below the bottom of the buried waste.		Yes No
<ul> <li>NM Office of the State Engineer - iWATERS database search; USGS: Data obtain</li> </ul>	ned 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	ed from nearby wells	□N/A
Ground water is more than 100 feet below the bottom of the buried waste.		Yes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtain	ed from nearby wells	□N/A
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significa (measured from the ordinary high-water mark).	☐Yes ☐No	
- Topographic map; Visual inspection (certification) of the proposed site		
Within 300 feet from a permanent residence, school, hospital, institution, or church in ex - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	Yes No	
- visual hispection (certification) of the proposed site, Actar photo, satelific image		□Yes □No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than purposes, or within 1000 horizontal fee of any other fresh water well or spring, in exister - NM Office of the State Engineer - iWATERS database; Visual inspection (certifical	nce at the time of the initial application.	
Within incorporated municipal boundaries or within a defined municipal fresh water well pursuant to NMSA 1978, Section 3-27-3, as amended.		Yes No
<ul> <li>Written confirmation or verification from the municipality; Written approval obtain</li> <li>Within 500 feet of a wetland</li> </ul>	ied from the municipality	☐Yes ☐No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspec	tion (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 Min	neral Division	
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Minutesian Company (Company).	eral Revources: LISGS: NM Geological Society:	∐Yes ∐No
Topographic map	And Resources, OSOS, INVI Ocological Society,	
Within a 100-year floodplain FEMA map		Yes No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of	the following items must bee attached to the closur	e nlan. Please indicate
by a check mark in the box, that the documents are attached.		
Siting Criteria Compliance Demonstrations - based upon the appropriate r	•	
Proof of Surface Owner Notice - based upon the appropriate requirements		
Construction/Design Plan of Burial Trench (if applicable) based upon the	., .	
Construction/Design Plan of Temporary Pit (for in place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19	• • • •	7.15.17.11 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate re		
Waste Material Sampling Plan - based upon the appropriate requirements	•	
Disposal Facility Name and Permit Number (for liquids, drilling fluids and		not be achieved)
Soil Cover Design - based upon the appropriate requirements of Subsection		<b>-</b>
Re-vegetation Plan - based upon the appropriate requirements of Subsection		
Site Reclamation Plan - based upon the appropriate requirements of Subse	ction G of 19.15.17.13 NMAC	

Operator Application Certification:  Thereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Crystal Tafoya Title: Regulatory Technician
Signature: Date: 12/22/2008
e-mail address: crystal.tt.oya@conocopmilips.om Telephone: 505-326-9837
C main address.
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)  OCD Representative Signature: Pundolyphyliphys Approval Date: 25 Permit Number: OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:
22
Closure Method:  Waste Excavation and Removal On-site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.
Clause Banant Decarding Wests Bananal Clause For Claud law Sustant That Hilling About County Start Tasks on Haul off Bird Culture
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:  Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities
were utilized.
Disposal Facility Name: Disposal Facility Permit Number:
Disposal Facility Name: Disposal Facility Permit Number:  Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?
Yes (If yes, please demonstrate compliant to the items below)  No
Required for impacted areas which will not be used for future service and operations:
Site Reclamation (Photo Documentation)
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.  Proof of Closure Notice (surface owner and division)
Proof of Deed Notice (required for on-site closure)  Plot Plan (for on-site closures and temporary pits)
Confirmation Sampling Analytical Results (if applicable)
Waste Material Sampling Analytical Results (if applicable)
Disposal Facility Name and Permit Number
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude: Longitude: NAD 1927 1983
Operator Cleanus Contification
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure report is ture, accurate and complete to the best of my knowledge and belief. I also certify that
the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Title:
e-mail address:  Date:  Telephone:

### New Mexico Office of the State Engineer **POD Reports and Downloads**

Township: 31N Range: 11W Sections:

NAD27 X:

Y:

Zone:

Search Radius:

County:

Basin:

Number:

Suffix:

Owner Name: (First)

(Last)

O Non-Domestic O Domestic O All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

(quarters are 1=NW 2=NE 3=SW 4=SE)

**iWATERS Menu** 

Help

#### WATER COLUMN REPORT 08/20/2008

(q	uarter	s are	e biq	gge	st	to	smallest)			Depth	Depth	Water	(in	feet)
POD Number	Tws	Rng	Sec	q	a c	Œ	Zone	X	Y	Well	Water	Column		
SJ 02395	_ 31N	11W	13	1	1 3	3				95	35	60		
SJ 01640	_ 31N	11W		2	4					32	7	25		
SJ 01551	31N	11W	13	2	4					64	42	22		
SJ 00560	_ 31N	11W	13	2	4					39	25	14		
SJ 01729	31N	11W	13	2	4					48	28	20		
SJ 01541	31N	11W	13	3						52	30	22		
SJ 01539	_ 31N	11W	13	3						52	30	22		
SJ 00946	_ 31N	11W	13	3	3					135	100	35		-
SJ 01540	_ 31N	11W	13	4						52	30	22		
SJ 01879	_ 31N	11W	13	4						26	8	18		
SJ 01801	_ 31N	11W	13	4						22	15	7	•	
SJ 03413	31N	11W	13		2					60				
SJ 03412	_ 31N	11W	13	4						60				
SJ 03736 POD1	_ 31N	11W	13		2	1				19	6	13		
SJ 02495	31N	11W			2	1				28	12	16		
SJ 03623	_ 31N	11W			2 :	1				30	16	14		
SJ 03264	_ 31N	11W				2				20	11	9		
SJ 03124	_ 31N	11W		4		4				20	5	15		
SJ 03125	31N	11W		4		_				20	5	15		
SJ 03712 POD1	31N	11W		4		1				19	11	8		
SJ 03018	31N	11W		•	-	4				20	8	12		
SJ 03670	31N	11W		4	3 4	4				26	10	16		
SJ 01538	_ 31N	11W		4	4					52	30	22		
SJ 01683	31N	11W		4	4					45	25	20		
SJ 01731	31N	11W		4	4					43	25	. 18		
SJ 01644	31N	11W	13	4	4					23	6	17		
SJ 02149	_ 31N	11W	13	4	4					35				
SJ 01645	31N	11W	13	4	4					22	6	16		
SJ 01767	31N	11W	13	4	4					42	18	24		
SJ 01730	_ 31N	11W	13	4	4					40	24	16		
SJ 01699	31N	11W	13	4	4					42	12	30		
SJ 01609	31N	11W	13	4	4					40	18	22		

•									
SJ 01537	31N	11W 13	4 4				52	28	24
SJ 01542	31N	11W 13	4 4						
SJ 01663	31N	11W 13	4 4				45	25	20
SJ 02093	31N	11W 13	4 4	W	470700	2143800	40	20	20
SJ 03440	31N	11W 13	4 4 1				20	6	14
SJ 03084	31N	11W 13	4 4 2				19	11	8
SJ 03085	31N	11W 13	4 4 2				18	8	10
SJ 02801	31N	11W 13	4 4 3				36 45	5	31
SJ 03064	31N 31N	11W 13 11W 13	443			•	45	0	22
SJ 01142 SJ 02838	31N	11W 13	$\begin{array}{cccccccccccccccccccccccccccccccccccc$				30 38	8 10	22 28
SJ 02855	31N	11W 13	444				31	10	28
SJ 01173	31N	11W 13	4 4 4				46	28	18
SJ 02289	31N	11W 13	4 4 4				45	16	29
SJ 03458	31N	11W 19	3 3 4				140	10	2,5
SJ 02978	31N	11W 23	2 1 3				800		
SJ 01817	31N	11W 23	2 4				65	20	45
SJ 02129	31N	11W 23	2 4				72	35	37
SJ 02161	31N	11W 23	3 4			•	40	25	15
SJ 01600	31N	11W 24	1				30	6	24
SJ 02124	31N	11W 24	1 1				55	40	15
SJ 03755 POD1	31N	11W 24	1 4		269112	2142037	27	7	20
SJ 03695 POD1	31N	11W 24	1 4 2				25	13	12
SJ 03695 POD	31N	11W 24	1 4 2				25	13	12
SJ 03696	31N	11W 24	1 4 2				24	12	12
SJ 03695	31N	11W 24	1 4 2				25	13	12
SJ 03696 POD1	31N	11W 24	1 4 2				24	12	12
SJ 01559	31N	11W 24	2				50	27	23
SJ 01744	31N	11W 24	2 2				44	20	24
SJ 01375	31N	11W 24	2 2				30	11	19
SJ 01986 S	31N	11W 24	2 2 2		•		45	30	15
SJ 01986	31N	11W 24	2 2 2				38	21	17
SJ 00555	31N 31N	11W 24 11W 24	2 2 4 2 3 1				60	19	41
SJ 03408 SJ 02928	31N	11W 24 11W 24	2 3 1 2 3 2				26 70	11	15
SJ 02924	31N	11W 24	2 3 2				33	15	18
SJ 02846	31N	11W 24	2 3 3				45	18	27
SJ 02888	31N	11W 24	2 3 3				65	10	2 ,
SJ 03650	31N	11W 24	2 3 3				32	15	17
SJ 00555 X	31N	11W 24	2 4				58	39	19
SJ 02839	31N	11W 24	2 4 1				55	19	36
SJ 03707 POD1	31N	11W 24	2 4 1				60	40	20
SJ 02758	31N	11W 24	2 4 2				69	- 51	18
SJ 02791	31N	11W 24	2 4 2				74	54	20
SJ 00379	31N	11W 24	2 4 4				65	40	25
SJ 00365		11W 24	2 4 4				71	40	31
SJ 01670		11W 24	3				45	27	18
SJ 00287		11W 24	3 2 4				38	6	32
SJ 01553		11W 24	3 4				44	35	9
SJ 02171		11W 24	3 4 3				45	25	20
SJ 01366		11W 24	4 1				30	11	19
SJ 02644		11W 24	4 1 4				45 91	18	. 27
SJ 00913		11W 24	4 3				81	55	· 26
SJ 01405	31N 31N	11W 24 11W 24	4 3 4 3 4				30 101	9 66	21
SJ 01455		11W 24 11W 24	4 3 4				101	66 70	35 125
SJ 01047		11W 24 11W 24	4 3 4				205 69	70	135
SJ 00405		11W 24 11W 24	4 3 4 4 4				69 40	42	27
SJ 03438		11W 24 11W 25	144				200		
SJ 03045	~ TIN	TTAA 73	T 43 43				200		

1								
SJ 02499	31N	11W 25	2 1 1			66	45	21
SJ 03198	31N	11W 25	3 3 1			600	100	500
SJ 02834	31N	11W 25	3 3 3			200	160	40
SJ 03450	31N	11W 25	3 3 3			144	95	49
SJ 03126	31N	11W 26	1 1 1			41	21	20
SJ 01233	31N	11W 26	1 4			49	27	22
SJ 03158	31N	11W 26	1 4 2			280	25	255
SJ 00675	31N	11W 26	1 4 3			36	22	14
SJ 02887	31N	11W 26	1 4 4		•	51	28	23
SJ 02898	31N	11W 26	2 1 4	•		50		20
SJ 01789	31N	11W 26	3 1			29	12	17
SJ 00705	31N	11W 26	3 1 1			18	8	10
SJ 00371	31N	11W 26	3 1 2			29	9	20
SJ 03323	31N	11W 26	3 1 4			30	6	24
SJ 00363	31N	11W 26	3 1 4			25	5	20
SJ 01545 X	31N	11W 26	3 3			27	10	17
SJ 00926	31N	11W 26	4 1			62	32	30
SJ 01519	31N	11W 26	4 2			69	47	22
SJ 01620	31N	11W 26	4 2			67	26	41
SJ 00610	31N	11W 26	4 2			80	50	30
SJ 02011	31N	11W 26	4 2					
SJ 01628		11W 26				55	38	17
SJ 03697 POD1	31N	11W 26	4 2 4 2 3			66	25	41
SJ 03697 POD1	31N	11W 26	4 2 3			80	50 20	30
SJ 00561	31N	11W 26	4 3			40	20	20
SJ 01042	31N 31N	11W 26				38	20	18
SJ 01042	31N	11W 26	4 4 4 4			100	30	70
SJ 00494	31N	11W 20 11W 27				88 75	60 5.5	28
SJ 03600		11W 27	4 1 2 4 2 1			75 51	55 20	20
	31N	11W 27				51	39	12
SJ 03540	31N	11W 27		260220	2125717	40	21	19
SJ 03772 POD1 SJ 02914	31N	11W 27		268239	2135717	41	30	11
SJ 02468	31N	11W 27 11W 27	<del>-</del>			25	15	10
SJ 02466	31N	11W 27				49	30	. 19
SJ 02871	31N	11W 27				21	9	12
SJ 02215	31N 31N	11W 27	4 2 4 4 3			22	11	11
SJ 02215		11W 27	4 3			54	23 7	31
SJ 03247	31N 31N	11W 27	4 3 1			19 70	, .	12
SJ 03505	31N	11W 27	4 3 3			70 50	1.4	3.6
SJ 02549	31N	11W 27	4 3 3			50 40	14 30	36
SJ 02853	31N	11W 27	434			49 22	30 6	19
SJ 02984	31N	11W 27	4 4 1			20	0	16
SJ 03181		11W 27	4 4 1			19	.10	9
		11W 27	4 2 3			71	30	41
SJ 01884 SJ 01739		11W 30	4 2 4			98	30	68
SJ 01154	`	11W 30	4 2 4	•		190	150	40
SJ 01834		11W 30	424			103	30	7.3
SJ 01797		11W 30	4 4			100	40	60
SJ 01396	•	11W 30	4 4 1			80	57	23
SJ 00970		11W 30	4 4 4			110	80	30
		11W 30	2 2			89	50	39
		11W 31	4 3 2			300	200	
		11W 33	4 3 2			280		100
		11W 33					160	·120
	31N					37 1.6	19	18
SJ 02277		11W 34	1 2			16	7	9
SJ 02167		11W 34	1 4			83	69	14
SJ 01533		11W 34	1 4			58	40	18
SJ 01251	31N	11W 34	1 4			79	65	14
SJ 03211	31N	11W 34	1 4 1			24	14	10

•									
SJ 01125	31N	11W 34	1 4	2			59	42	17
SJ 01657	31N	11W 34	2				20	6	14
SJ 01675	31N	11W 34	2				33	7	26
SJ 00632	31N	11W 34	2				25	7	18
SJ 01656	31N	11W 34	2				20	6	14
SJ 00656	31N	11W 34	2				30	8	22
SJ 00631	31N	11W 34	2				30	11	19
SJ 03448	31N	11W 34	2 1				41	21	20
SJ 01267	31N	11W 34	2 1			•	65	45	20
SJ 01618	31N	11W 34	2 1				28	8	20
SJ 01840	31N	11W 34		1			65	25	40
SJ 03316	31N	11W 34	2 1				30	10	20
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SJ 01768	31N	11W 34	2 2	-			20	6	14
SJ 01721	31N	11W 34	2 2				22	10	12
SJ 03172	31N	11W 34	2 2	2			19	7	12
SJ 03047	31N	11W 34	2 2	4			19	6	13
SJ 02119	31N	11W 34	2 3	4			11	3	8
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SJ 00659	31N	11W 34	2 3				33	11	22
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SJ 02972	31N	11W 34		4			15	5	10
SJ 03107	31N	11W 34		1			18	8	10
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SJ 03183	31N	11W 34	2 4	4			19	6	13
	31N	11W 34 11W 34	3 1	2	267022	0120241		12	
SJ 03780 POD1 SJ 02859	31N	11W 34	3 1		267922	2130341	28 22		16
SJ 02859 SJ 02967	31N	11W 34 11W 34	3 2				20	6 5	16
SJ 02856	31N	11W 34 11W 34	3 2						15
	31N	11W 34 11W 34	3 2				24	6	18
SJ 02852	31N	11W 34 11W 34					23 22	7 7	16
SJ 03065	31N	11W 34	3 2 3 2				22		15
SJ 03025 SJ 03014	31N	11W 34 11W 34	3 2	3 4			30	5 5	17 . 25
SJ 03002	31N	11W 34	3 2	4			22	3	23
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SJ 03710 POD1	31N	11W 34	3 3				20	4	16
SJ 03048	31N	11W 34	3 3				21	4	17
SJ 02857	31N	11W 34	3 4				23	6	17
SJ 03492	31N	11W 34		2			30	v	Ι,
SJ 03631	31N	11W 34	3 4				27	6	21
SJ 03493	31N	11W 34		2			25	15	10
SJ 03357	31N	11W 34		2			22	6	16
SJ 03260	31N	11W 34		4			41	3	38
SJ 03609	31N	11W 34		4			27	6	21
SJ 01608	31N	11W 34	4				48	17	31
SJ 03720 POD1	31N	11W 34		3			21	6	15
SJ 03497	31N	11W 34		4			30	10	20
SJ 03402	31N	11W 34	4 1				25		
SJ 03377	31N	11W 34		4			20	2	18
SJ 03016	31N	11W 34	4 3				35	_	10
SJ 03739 POD1	31N	11W 34	4 3				25	3	. 22
SJ 02966	31N	11W 34	4 3				48	20	28
SJ 00985	31N	11W 34	4 4				40	16	24
	31N	11W 34	1 1				60	10	24
SJ 02827 SJ 03371	31N	11W 35	1 1				21	5	16
		11W 35	1 1				19	5 5	16 14
SJ 02902	31N	11W 35	1 3				19 17	6	11
SJ 02897	⊃ T1/I	TTM 23	τ 🥽	т			1 /	U	ΤŢ

•										
SJ 00333	31N	11W 35	1	3	4			30	6	24
SJ 03760 POD1	31N	11W 35	1	4	1	268465	2130772	43	12	31
SJ 03543	31N	11W 35	1	4	4			61	30	31
SJ 01144	31N	11W 35	1	4	4			55	30	25
SJ 01319	31N	11W 35	2	2	2				155	
SJ 00185	31N	11w 35	2	3				54		
SJ 03676	31N	11W 35	2	3	1			52	19	33
SJ 03560	31N	11W 35	2	3	2			62	32	30
SJ 03165	31N	11W 35	2	4	4			20		
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SJ 00939	31N	11W 35	3					60	30	30
SJ 00940	31N	11W 35	3	1				64	15	49
SJ_01580	31N	11W 35	3	1	1			65	30	35
SJ 02932	31N	11W 35	3	1	2			27	14	13
SJ_02933	31N	11W 35	3	1	2			37	24	13
SJ 03574	31N	11W 35	3	1	4			100		
SJ 00591	31N	11W 35	3	1	4			83	54	29
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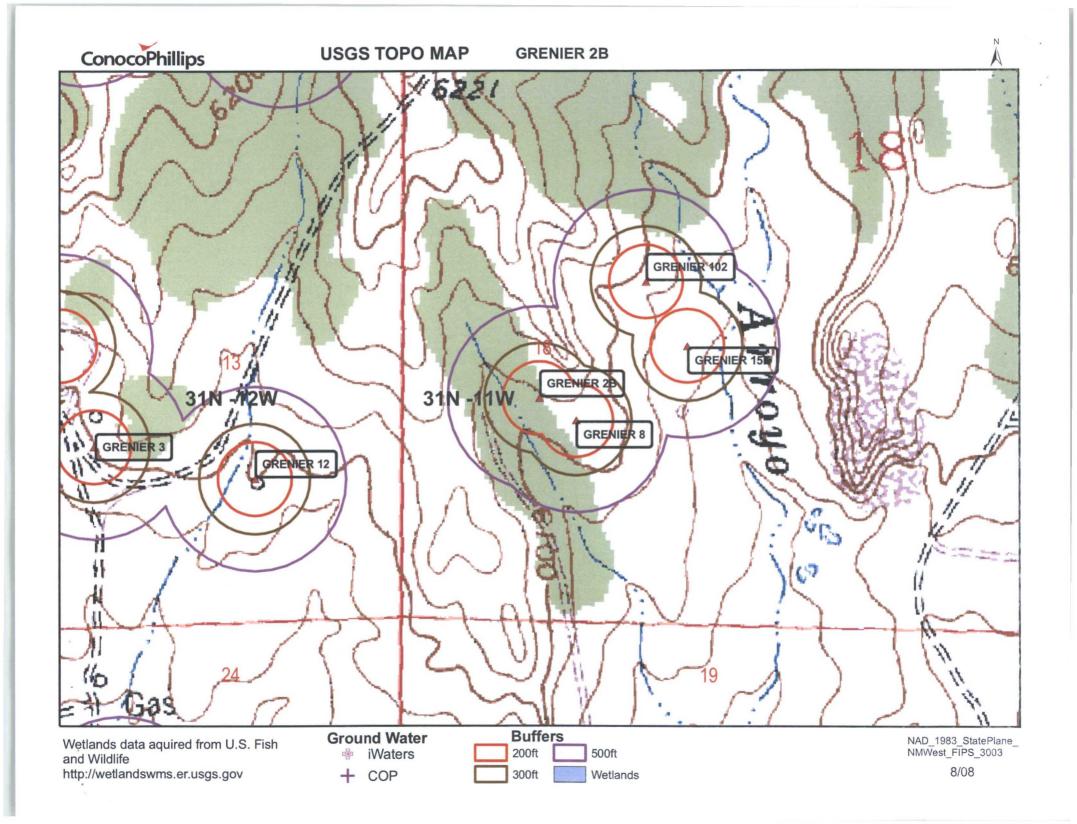
### New Mexico Office of the State Engineer POD Reports and Downloads

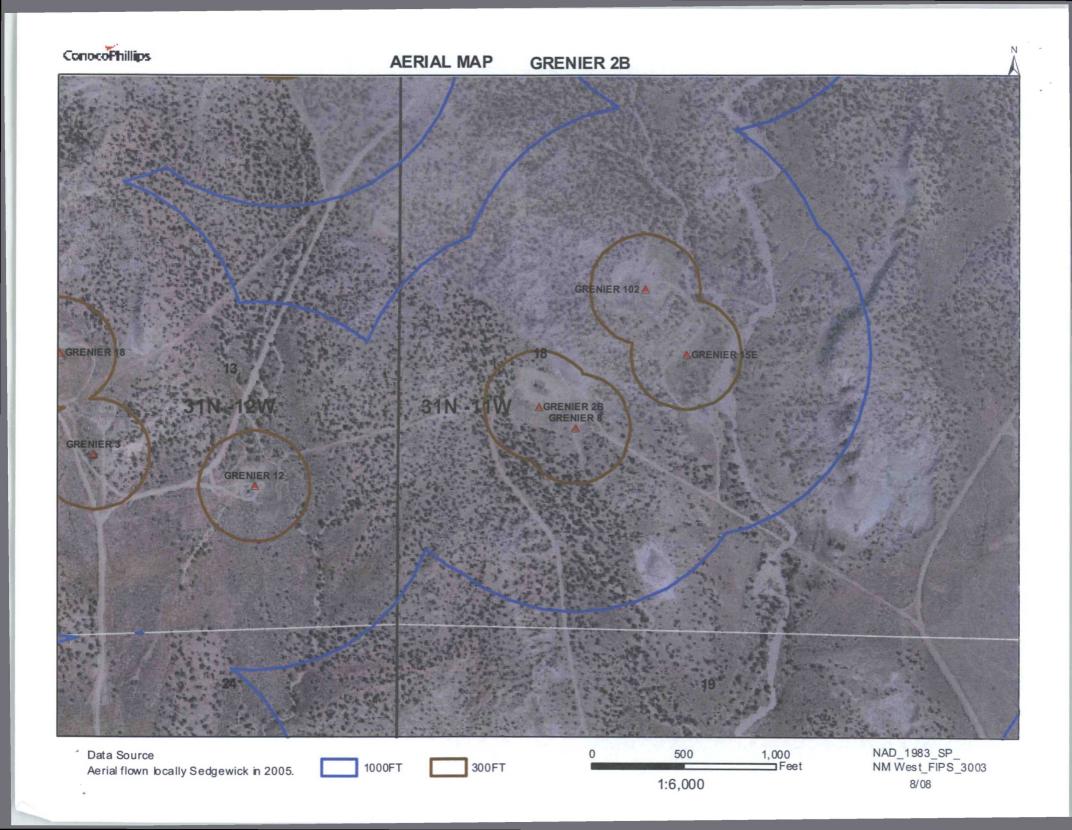
Township: 31N Range: 12W Sections: Search Radius: NAD27 X: Y: Zone: County: Basin: Number: Suffix: Owner Name: (First) (Last) O Non-Domestic O Domestic O All POD / Surface Data Report Avg Depth to Water Report Water Column Report Clear Form iWATERS Menu Help

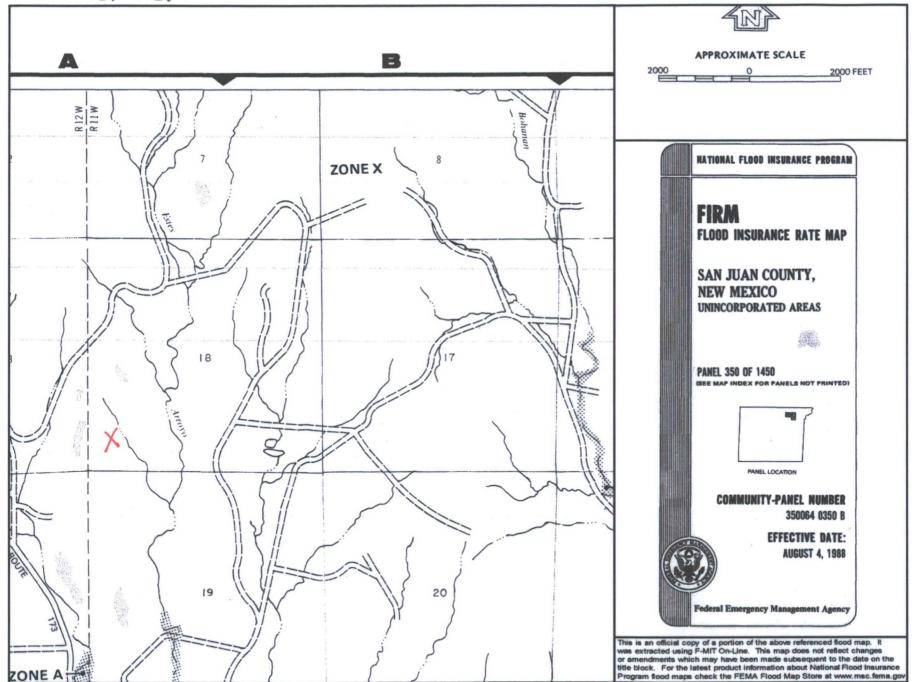
### WATER COLUMN REPORT 08/20/2008

(qu	larter	s are	1=1	NW	2=	NE	3=SW 4=SE)							
(qu	larter	s are	e big	gge	est	to	smallest)			Depth	Depth	Water	(in	feet)
POD Number	Tws	Rng	Sec	q	g	q	Zone	X	Y	Well	Water	Column		
SJ 03488	31N	12W	01	3	3	2				150				
SJ 03738 POD1	31N	12W	01	4	1	3				115	50	65		
SJ 02034	31N	12W	01	4	3					85	55	30		
SJ 03134	31N	12W	01	4	3	2				80	20	60		
SJ 03022	31N	12W	01	4	3	2				490	250	240		
SJ 01660	31N	12W	01	4	3	3				320	275	45		
SJ 01649	31N	12W	01	4	3	4				220	161	59		
SJ 03660	31N	12W	01	4	3	4				70	42	28		
SJ 02099	31N	12W	01	4	4					95				
SJ 02904	31N	12W	80	4	4	4				325	142	183		
SJ 03026	31N	12W	24	4	3	4				140	85	55		
SJ 01477	31N	12W	25	2						565	505	60		
SJ 01163	31N	12W	25	2	1	3				200	90	110		
SJ 01108	31N	12W	25	2	1	4				245	90	155		
SJ 01303	31N	12W	25	2	2	3				210				
SJ 01180	31N	12W	25	2	2	4				200	120	80		
SJ 00968	31N	12W	25	2	4					170	100	70		
SJ 03204	31N	12W	31	4	3	1				40	20	20		
SJ 02021 X	31N	12W	35	4	2					290	250	40		
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Record Count: 21



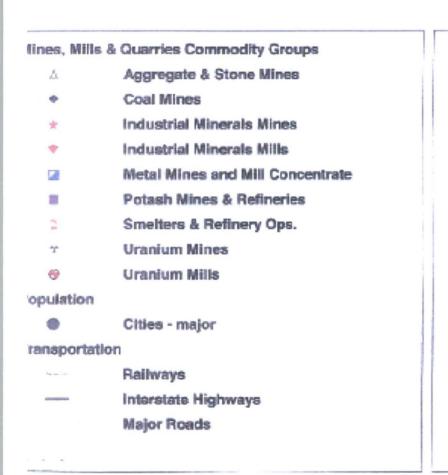


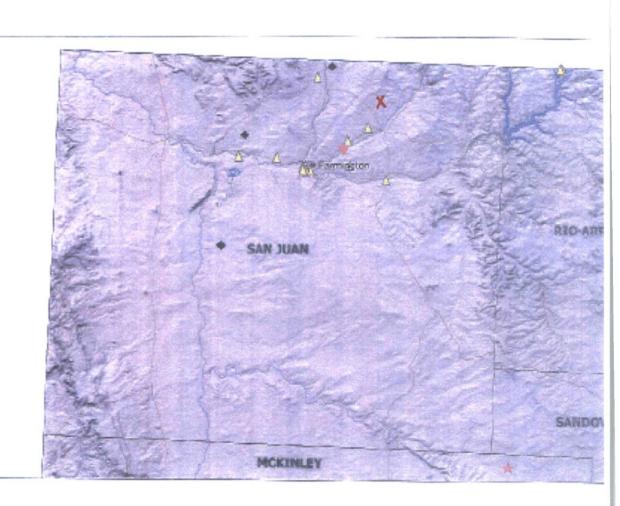


## Mines, Mills and Quarries Web Map

**GRENIER 2B** 

Unit Letter: M, Section: 18, Town: 031N, Range: 011W









### **GRENIER 2B**

Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'GRENIER 2B', which is located at 36.89509 degrees North latitude and 108.03735 degrees West longitude. This location is located on the Abode Downs Ranch 7.5' USGS topographic quadrangle. This location is in section 18 of Township 31 North Range 12 West of the Public Land Survey System (New Mexico Principal Meridian). This location is located in San Juan county, New Mexico. The nearest town is Aztec, located 5.6 miles to the southeast. The nearest large town (population greater than 10,000) is Farmington, located 14.5 miles to the southwest (National Atlas). The nearest highway is State Highway 574, located 0.7 miles to the southwest. The location is on BLM land and is 2,146 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Animas. Colorado, New Mexico, Sub-basin. This location is located 1867 meters or 6123 feet above sea level and receives 13 inches of rain each year. The vegetation at this location is classified as Colorado Plateau Mixed Bedrock Canyon and Tableland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 46 feet. This estimation is based on the data published on the New Mexico Engineer's iWaters Database website and water depth data from ConocoPhillips' cathodic wells. Groundwater data available from the NM State Engineer's iWaters Database for wells near the proposed site are attached. The nearest stream is 302 feet to the west and is classified by the USGS as an intermittent stream. The nearest perennial stream is 3,236 feet to the east. The nearest water body is 1,411 feet to the southeast. It is classified by the USGS as an intermittent lake and is 0.2 acres in size. The nearest spring is 20,183 feet to the northeast. All stream, river, water body and spring information was determined as per the USGS Hydrographic Dataset (High Resolution), downloaded 3/2008. The nearest water well is 477 feet to the north. There is no wetland data available for this area. The slope at this location is 9 degrees to the east as calculated from USGS 30M National Elevation Dataset. This information is also discerned from the aerial and topographic map included. The surface geology at this location is NACIMIENTO FORMATION-Shale and sandstone with a Shale dominated formations of all ages substrate. The soil at this location is 'Gypsiorthids-Badland-Stumble complex, moderately steep' and is somewhat excessively drained and not hydric with severe erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 5.8 miles to the northwest as indicated on the Mines, Mills and Quarries Map of New Mexico provided.

### 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 conformably 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.

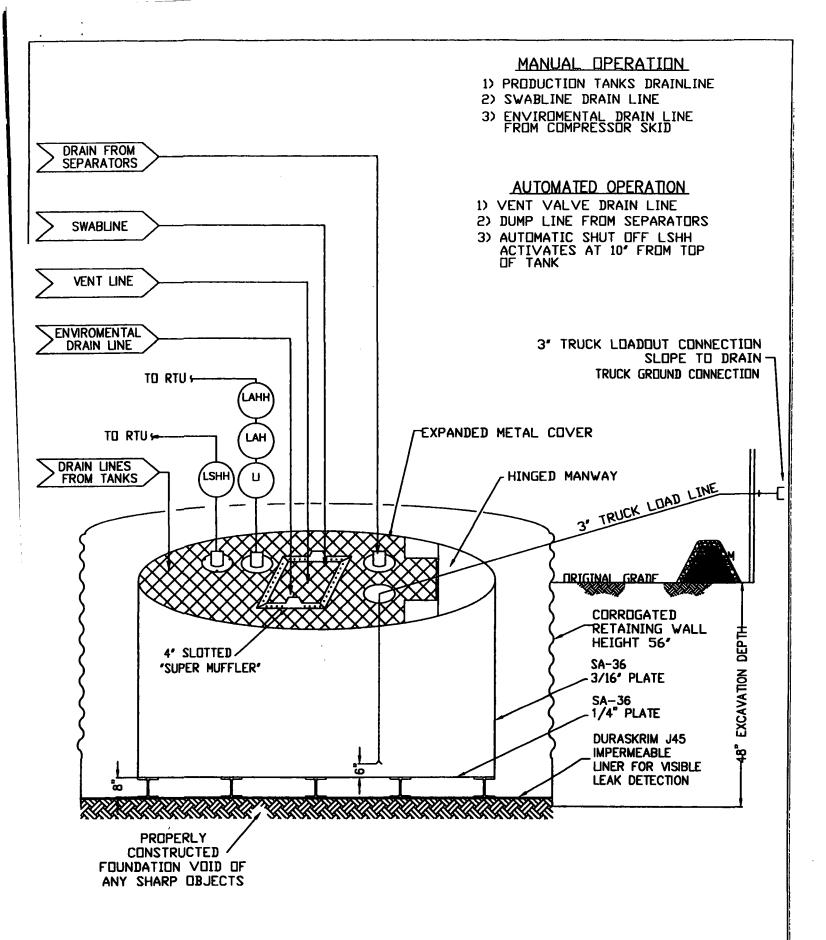
# Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Design and Construction

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 signage will comply with 19.15.3.103 NMAC when BR is the operator. If BR is not the operator it will comply with 19.15.17.11NMAC. BR includes Emergency Contact information on all signage.
- 3. BR has approval to use alternative fencing that provides better protection. BR constructs 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. BR ensures that all gates associated with the fence are closed and locked when responsible personnel are not onsite.
- 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 as shown on design drawing and specification sheet.
- 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 as shown on design drawing.
- 7. BR shall operate and install the below-grade tank to prevent the collection of surface water run-on. BR has built in shut off devices that do not allow a belowgrade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
- 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 J45BB. This product is a four layer reinforced laminated 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. The J45BB is reinforced with 1300 denier (minimum) tri-directional scrim reinforcement. It exceeds ASTMD3083 standard by 10%. J45BB has a warranty for 20 years from Raven Industries and is attached. It is typically used in Brine Pond, Oilfield Pit liner and other industrial applications. The manufacture specific sheet is attached and the design attached displays the proper installation of the liner.
- 11. The general specification for design and construction are attached in the BR document.



### ConocoPhillips

San Juan Business Unit

PRODUCED WATER PIT TANK
OPEN TOP GRAVITY FLOW TANK
INTERNALLY COATED WITH
12-14 MILS AMERON AMERCOAT 385

# DURA-SKRIM® J80, J86 & J45

PROPERTIES	TEST METHOD	گِل ا	OBB	J36	B <b>B</b>	J45	88
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages	Min. 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 encapsula	ted tri-direction	al scrim reinford	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
1" 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
Trapezold 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** 

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RAVEN Industries

08/06

### RAVEN INDUSTRIES INC. EXPOSED GEOMEMBRANE LIMITED WARRANTY

Raven Industries Inc. warrants Dura-Skrim J30BB, J36BB, and J45BB to be free from manufacturing defects and to be able to withstand normal exposure to sunlight for a period of 20 years from the date of sale for normal use in approved applications in the U.S and Canada, excluding Hawaii. This warranty is effective for products sold and shipped from January 1, 2008 to December 31, 2008. These dates will be updated prior to December 31, 2008.

This Limited Warranty does not include damages or defects in the Raven geomembrane resulting from acts of God, casualty or catastrophe including but not limited to: earthquakes, floods, piercing hail, or tornadoes. The term "normal use" as used herein does not include, among other things improper handling during transportation, unloading, storage or installation, the exposure of Raven geomembranes to harmful chemicals, atypical atmospheric conditions, abuse of Raven geomembranes by machinery, equipment or people; improper site preparation or covering materials, excessive pressures or stresses from any source or improper application or installation. Raven geomembrane material warranty is intended for commercial use only and is not in effect for the consumer as defined in the Magnuson Moss Warranty or any similar federal, state, or local statues. The parties expressly agree that the sale hereunder is for commercial or industrial use only.

Should defects or premature loss of use within the scope of the above Limited Warranty occur, Raven Industries Inc. will, at its option, repair or replace the Raven geomembrane on a pro-rata basis at the then current price in such manner as to charge the Purchaser/User only for that portion of the warranted life which has elapsed since purchase of the material. Raven Industries Inc. will have the right to inspect and determine the cause of any alleged defect in the Raven geomembrane and to take appropriate steps to repair or replace the Raven geomembrane if a defect exists which is covered under this warranty. This Limited Warranty extends only to Raven's geomembrane, and does not extend to the installation service of third parties nor does it extend to materials furnished or installed by others in connection with the intended use of the Raven geomembranes.

Any claim for any alleged breach of this warranty must be made in writing, by certified mail, to the General Manager of Engineered Films Division of Raven Industries Inc. within ten (10) days of becoming aware of the alleged defect. Should the required notice not be given, the defect and all warranties are waived by the Purchaser, and Purchaser shall not have any rights under this warranty. Raven Industries Inc. shall not be obligated to perform repairs or replacements under this warranty unless and until the area to be repaired or replaced is clean, dry, and unencumbered. This includes, but is not limited to, the area made available for repair and/or replacement of Raven geomembrane to be free from all water, dirt, sludge, residuals and liquids of any kind. If after inspection it is determined that there is no claim under this Limited Warranty, Purchaser shall reimburse Raven Industries Inc. for its costs associated with the site inspection.

In the event the exclusive remedy provided herein fails in its essential purpose, and in that event only, the Purchaser shall be entitled to a return of the purchase price for so much of the material as Raven Industries Inc. determines to have violated the warranty provided herein. Raven Industries Inc. shall not be liable for direct, indirect, special, consequential or incidental damages resulting from a breach of this warranty including, but not limited to, damages for loss of production, lost profits, personal injury or property damage. Raven Industries Inc. shall not be obligated to reimburse Purchaser for any repairs, replacement, modifications or alterations made by Purchaser unless Raven Industries Inc. specifically authorized, in writing, said repairs, replacements, modifications or alteration in advance of them having been made. Raven Industry's liability under this warranty shall in no event exceed the replacement cost of the material sold to the Purchaser for the particular installation in which it failed.

Raven Industries Inc. neither assumes nor authorizes any person other than the undersigned of Raven Industries Inc. to assume for it any other or additional liability in connection with the Raven geomembrane made on the basis of the Limited Warranty. The Limited Warranty on the Raven geomembrane herein is given in lieu of all other possible material warranties, either expressed or implied, and by accepting delivery of the material; Purchaser waives all other possible warranties, except those specifically given. This Limited Warranty may only be modified by written document mutually executed by Owner and Raven Industries Inc.

Limited Warranty is extended to the purchaser/owner and is non-transferable and non-assignable; i.e., there are no third-party beneficiaries to this warranty.

Purchaser acknowledges by acceptance that the Limited Warranty given herein is accepted in preference to any and other possible materials warranties.

THIS LIMITED WARRANTY SHALL BE GOVERNED BY SOUTH DAKOTA LAW AND VENUE FOR ALL LEGAL PROCEEDINGS IN CONNECTION WITH THIS LIMITED WARRANTY SHALL BE IN MINNEHAHA COUNTY, SOUTH DAKOTA. RAVEN INDUSTRIES INC. MAKES NO WARRANTY OF ANY KIND OTHER THAN THAT GIVEN ABOVE AND HEREBY DISCLAIMS ALL WARRANTIES, BOTH EXPRESSED OR IMPLIED, OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS IS THE ONLY WARRANTY THAT APPLIES TO THE MATERIALS REFERRED TO HEREIN AND RAVEN INDUSTRIES INC. DISCLAIMS ANY LIABILITY FOR ANY WARRANTIES GIVEN BY ANY OTHER PERSON OR ENTITY, EITHER WRITTEN OR ORAL.

RAVEN INDUSTRIES' WARRANTY BECOMES AN OBLIGATION OF RAVEN INDUSTRIES INC. TO PERFORM UNDER THE WARRANTY ONLY UPON RECEIPT OF FINAL PAYMENT AND EXECUTION BY A DULY AUTHORIZED OFFICER OF RAVEN INDUSTRIES INC.

# 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:

- 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.
  BR will accomplish this by performing an inspection on a monthly basis, installing
  cathodic protection, and automatic overflow shutoff devices as seen on the
  design plan.
- 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 has built in shut off devices that do not allow a belowgrade tank to overflow. BR constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the below grade tank as shown on the design plan.
- 4. As per 19.17.15.12 Subsection D, Paragraph 3, BR will inspect the below-grade tank at least monthly reviewing several items which include 1) containment berms adequate and no oil present, 2) tanks had no visible leaks or sign of corrosion, 3) tank valves, flanges, and hatches had no visible leaks and 4) no evidence of significant spillage of produced liquids. In addition, BR's multi-skilled operators (MSOs) are required to visit each well location once per week. If detected on either inspection, BR shall 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. The written record of the monthly inspections will include the items listed above and will be maintained for five years.
- 5. BR shall require and maintain a 10" adequate freeboard to prevent overtopping of the below-grade tank.
- 6. If the below grade tank develops a leak, or if any penetration of the pit liner or below grade tank, occurs below the liquid's surface, then BR shall remove all liquid above the damage or leak line within 48 hours. BR shall notify the appropriate district office. BR shall repair or replace the pit liner or below grade tank, within 48 hours of discovery. If the below grade tank or pit liner does not demonstrate integrity, BR shall promptly remove and install a below grade tank or pit liner that complies with Subsection I of 19.15.17.11 NMAC. BR shall notify the appropriate district office of a discovery of leaks less than 25 barrels 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 Subsection A of 19.15.17.13 NMAC. This will include a) below-grade tanks that do not meet the requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or is not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC within five years, if not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC; b) permitted below-grade tanks within 60 days of cessation of the below-grade tank's operation., or c) an earlier date that the division requires because of imminent danger to fresh water, public health or the environment. For any closure, BR will file the C144 Closure Report as required.
- 2. 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 after being cleaned well (Subsection D, Paragraph 1, Subparagraph (m) of 19.15.9.712 NMAC) will be disposed of at the San Juan County Regional Landfill located on CR 3100.
- 3. 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 below-grade tank was disposed of or recycled will be provided in the closure report.
- 4. 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.
- 5. 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.
- 6. 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.

- 7. 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.
- 8. 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.
- 9. 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.
- 10. 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.
- 11. 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 stipulated seed mixes will used on federally jurisdicted lands and division-approved seed mixtures (administratively approved if required) will be utilized on all State or private 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. If alternate seed mix is required by the state, private owner or tribe, it will be implemented with administrative approval if needed. BR will repeat seeding or planting will be continued until successful vegetative growth occurs.
- 12. 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.
- 13. 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 belowgrade 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

30,045-30007

# OCD Aztec District III Conoco Phillips/Burlington Checklist Below Grade Tank Registration

19.15.17.9 Permit application
Signed C-144 (Page 5 of C-144)
■ Site Specific Hydrogeology
10.15.17.10 Citing requirements
19.15.17.10 Siting requirements
New Mexico Office of State Engineer attachment
USGS TOPO map
Aerial Map
Mines, Mills and Quarries Web Map
FIRM map (flood insurance rate map from Federal Emergency Management Agency)
10 15 17 11 Decim Plan Contents
19.15.17.11 Design Plan Contents
Below Grade Tank Design and Construction Plan.
19.15.17.12 Operating and Maintenance Plan
Below Grade Tank Operating and Maintenance Plan
19.15.17.13 Closure Plan
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Requirements: None
22Fab17
Registration Date: 23Feb17