District I	State of New Mexico	Form C-14
625 N. French Dr., Hobbs, NM 88240	Energy Minerals and Natural Resources	July 21, 20
is <u>trict II</u> 01 W. Grand Ave., Artesia, NM 88210	bit NM 98200       Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505       For temporary pils, dosed-loop ytem, and task, submit to the spropriam NMCDD Daries Proposed Alternative Method Permit or Closure Plan Application         Type of action:	for temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office.
istrict III 00 Rio Brazos Rd., Aztec, NM 87410 istrict IV		For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the
220 S. St. Francis Dr., Santa Fe, NM 87505		appropriate NMOCD District Office.
	Pit, Closed-Loop System, Below-Grad	le Tank, or
Propo	sed Alternative Method Permit or Closur	re Plan Application
Type of action:	X Permit of a pit, closed-loop system, below-grade t	tank, or proposed alternative method
	Closure of a pit, closed-loop system, below-grade	tank, or proposed alternative method
	Modification to an existing permit	
Instructions: Please submit one	application (Form C-144) per individual pit, closed-lo	op system, below-grade tank or alternative reques
		OGRID#: 14538
and an		and the second
		37:
enter of Proposed Design: Latitu	posed Design:       Latitude:       36.76455°N       Longitude:       -107.87619°W       NAD:       X         er:       X       Federal       State       Private       Tribal Trust or Indian Allotment         bsection F or G of 19.15.17.11 NMAC       Drilling       Workover       Dimensions       Description         at       Emergency       Cavitation       P&A       Drilling       Unlined       Liner type:       Thickness       mil       LLDPE       HDPE       PVC       Other         einforced        Welded       Factory       Other       Volume:       bbl       Dimensions L       x W         choop System:       Subsection H of 19.15.17.11 NMAC        ration:       P&A       Drilling a new well       Workover or Drilling (Applies to activities which require prior approval notice of intent)         a Pad       Above Ground Steel Tanks       Haul-off Bins       Other	-107.87619°W NAD: X 1927 1983
urface Owner: X Federal	Qtr:       M       Section:       34       Township:       30N       Range:       10W       County:       San Juan         oposed Design:       Latitude:       36.76455°N       Longitude:       -107.87619°W       NAI         ner:       X       Federal       State       Private       Tribal Trust or Indian Allotment         ubsection F or G of 19.15.17.11 NMAC       .       .       .	n Allotment
L or Qtr/Qtr: M Section: 34 Township: 30N Range: 10W nter of Proposed Design: Latitude: 36.76455°N Longitude: -107.8 rface Owner: X Federal State Private Tribal Trust or Indian Allotme Pit: Subsection F or G of 19.15.17.11 NMAC remporary: Drilling Workover Permanent Emergency Cavitation P&A Lined Unlined Liner type: Thickness mil LLDPE HDPE String-Reinforced Liner Seams: Welded Factory Other Volume: bbl D Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: P&A Drying Pad Above Ground Steel Tanks Haul-off Bins Other Lined Unlined Liner type: Thickness mil LLDPE HDPE	bbl Dimensions Lx Wx D	
Drying Pad Above Gro	ound Steel Tanks Haul-off Bins Other	
		HDPE PVD Other
	bbl Type of fluid: Produced Water  Metal  detection X Visible sidewalls, liner, 6-inch lift and auto Visible sidewalls only Other	
Alternative Method:	required. Exceptions must be submitted to the Santa Fe Enviro	nmental Bureau office for consideration of communi-
Suchintar of an exception request is r	equites. Exceptions must be submitted to the Santa re Enviro	ninomai bureau ornee tor consideration of approvat.
Form C-144	Oil Conservation Division	Page 1 of 5

لحوا		
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)		
Chan link a is fast in baidst two strands of barbad wire at top (Permined if low ted within 1000 fast of a non-mount within an end of barbad wire at top (Permined if low ted within 1000 fast of a non-mount within a strange of barbad wire at top (Permined if low ted within 1000 fast of a non-mount within a strange of barbad wire at top (Permined if low ted within 1000 fast of a non-mount within a strange of barbad wire at top (Permined if low ted within 1000 fast of a non-mount within 1000 fast		
Chain link, six feet in height, two strands of barbed wire at top ( <i>Required if located within 1000 feet of a permanent residence, school, hospital, in</i> Four foot height, four strands of barbed wire evenly spaced between one and four feet	istitution of en	urch)
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)		
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 office for con	nsideration of a	approval.
(Fencing/BGT Liner)		
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	1. 1. 1. 1. 1. 1.	
10	T	2 10
Siting Criteria (regarding permitting): 19.15.17.10 NMAC	Part's	
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	15- 10m	
appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for	6.80	
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.	198-20	
Cround water is less than 50 fast below the better of the temperature sit nervous static or below and tools		[V]N
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	XNo
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa	TYes	X No
lake (measured from the ordinary high-water mark).		
- Topographic map; Visual inspection (certification) of the proposed site	100 20	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial	Yes	XNo
application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks)		1.1
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<b>NA</b>	and the
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	TYes	No
(Applied to permanent pits)	XNA	
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Ana	
Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering	Yes	XNo
purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.		
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site.	1	1941
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	Yes	XNo
adopted pursuant to NMSA 1978, Section 3-27-3, as amended		
<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>	TYes	X No
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		ANO
Within the area overlying a subsurface mine.	Yes	XNo
- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division		
Within an unstable area.	Yes	XNo
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map.</li> </ul>	19140	12-3
Within a 100-year floodplain	Yes	XNo
- FEMA map		

.

٩

mstruch	ry Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC is: 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	drogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
H	drogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9
H	ing Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
H	sign Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
	erating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
	osure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 15.17.9 NMAC and 19.15.17.13 NMAC
Pre	usly Approved Design (attach copy of design) API or Permit
Instruct	op Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC s: 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. ologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
	ing Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
П	sign Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
H	erating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
H	
	osure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 MAC and 19.15.17.13 NMAC
Prev	usly Approved Design (attach copy of design) API
Prev	usly Approved Operating and Maintenance Plan API
	matological Factors Assessment rtified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC ke Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC ak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC ter Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC ality Control/Quality Assurance Construction and Installation Plan erating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC eboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC isiance or Hazardous Odors, including H2S, Prevention Plan ergency Response Plan Field Waste Stream Characterization nitoring and Inspection Plan sion Control Plan sure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC
-	
	Closure: 19.15.17.13 NMAC
nstruct	s: 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
	Closure Method: X Waste Excavation and Removal (Below-Grade Tank)
ropose	Waste Removal (Closed-loop systems only)
ropose	On-site Closure Method (only for temporary pits and closed-loop systems)
ropose	OF-site Closure Method (only for temporary pits and closed-loop systems)
ropose	In-place Burial On-site Trench
Propose	In-place Burial On-site Trench
ropose	
15 Vaste 1	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15 Naste 1 Please in	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15 Waste Please in X F	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration) cavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. cate, by a check mark in the box, that the documents are attached. tocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC)
Naste Naste Nease in X F X C	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15 Waste Nease in X F X C X I	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration) cavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. cate, by a check mark in the box, that the documents are attached. tocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC affirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC posal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
Naste Waste Nease in X F X C X C X S	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Naste Nease in X F X C X I X S	In-place Burial On-site Trench Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

2

Oil Conservation Division

14 N N N N N N N N N N N N N N N N N N N		
	ve Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC) liquids, drilling fluids and drill cuttings. Use attachment if more than two	facilities
Disposal Facility Name:	Disposal Facility Permit #:	
Disposal Facility Name:	Disposal Facility Permit #:	
Will any of the proposed closed-loop system operations and asso Yes (If yes, please provide the information	ciated activities occur on or in areas that will not be used for future to	service and operations?
Required for impacted areas which will not be used for future service of	and operations:	
	n the appropriate requirements of Subsection H of 19.15.17.13 NM/	AC
Re-vegetation Plan - based upon the appropriate requiren     Site Reclamation Plan - based upon the appropriate require		
	he closure plan. Recommendations of acceptable source material are provided be ate district office or may be considered an exception which must be submitted to th	
Ground water is less than 50 feet below the bottom of the buried	waste.	Yes No
- NM Office of the State Engineer - iWATERS database search; U	JSGS: Data obtained from nearby wells	N/A
Ground water is between 50 and 100 feet below the bottom of th	a buried wasta	Yes No
<ul> <li>NM Office of the State Engineer - iWATERS database search; U</li> </ul>		
Ground water is more than 100 feet below the bottom of the buri		Yes No
<ul> <li>NM Office of the State Engineer - iWATERS database search; U</li> </ul>	SGS: Data obtained from nearby wells	∐N/A
Within 300 feet of a continuously flowing watercourse, or 200 feet of a (measured from the ordinary high-water mark).	ny other significant watercourse or lakebed, sinkhole, or playa lake	Yes No
- Topographic map; Visual inspection (certification) of the propose	ed site	
Within 300 feet from a permanent residence, school, hospital, institutio - Visual inspection (certification) of the proposed site; Aerial photo		Yes No
a source of the second continent of the proposed site, return proto	. autenne innage	
Within 500 horizontal feet of a private, domestic fresh water well or spi purposes, or within 1000 horizontal fee of any other fresh water well or - NM Office of the State Engineer - iWATERS database; Visual ins	spring, in existence at the time of the initial application.	
Within incorporated municipal boundaries or within a defined municipal pursuant to NMSA 1978, Section 3-27-3, as amended.	al fresh water well field covered under a municipal ordinance adopted	Yes No
<ul> <li>Written confirmation or verification from the municipality; Written With in 500 for the formula laboration l</li></ul>	en approval obtained from the municipality	
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map: Topographic m	an. Visual inspection (certification) of the proposed site	Yes No
Within the area overlying a subsurface mine.	mp, rout mapeered (certification) of the proposed site	TYes No
- Written confirantion or verification or map from the NM EMNRE	D-Mining and Mineral Division	
Within an unstable area.		Yes No
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Topographic map</li> </ul>	f Geology & Mineral Resources; USGS; NM Geological Society;	
Within a 100-year floodplain.		Yes No
- FEMA map		
18 On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instruction by a check mark in the box, that the documents are attached.	ctions: Each of the following items must bee attached to the closur	re plan. Please indicate,
Siting Criteria Compliance Demonstrations - based upon the	he appropriate requirements of 19.15.17.10 NMAC	
Proof of Surface Owner Notice - based upon the appropria		
	based upon the appropriate requirements of 19.15.17.11 NMAC	
	urial of a drying pad) - based upon the appropriate requirements of 1	0.15.17.11.NMAC
Protocols and Procedures - based upon the appropriate req		2.13.1(.11 NMAC
	the appropriate requirements of Subsection F of 19.15.17.13 NMAC	STOLEN AND STOLEN
Waste Material Sampling Plan - based upon the appropriat		1.7.30 Barries
	illing fluids and drill cuttings or in case on-site closure standards car	mot be achieved)
Soil Cover Design - based upon the appropriate requirement		uior de acilieveu)
Re-vegetation Plan - based upon the appropriate requirement		
Site Reclamation Plan - based upon the appropriate require		

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

٦

19 Operator Applic	ation Certification:		
		mano submitted with this application is true, accurate and complete to the best of my knowledge and belief.          Crystal Tafoya       Title:       Regulatory Technician         density       Date:       12/22/2008         main Application (including closure plan)       Closure Plan (only)       OCD Conditions (see attachment)         nature:       Approval Date:	best of my knowledge and belief.
Name (Print):	Crystal Tafoya	an adamined with this application is true, accurate and complete to the best of my knowledge and belief.          Crystal Tafoya       Tite:       Regulatory Technician         Crystal Tafoya       Tite:       Regulatory Technician         Crystal Tafoya       Tite:       Regulatory Technician         Crystal Tafoya       Telephone:       505-326-9837         Application (including closure plan)       Closure Plan (only)       OCD Conditions (see attachment)         tree:	Regulatory Technician
Signature:	Catel Tahna	Table:       1222/2008         aphilicacion       Telephone:       505-326-9837         g closure plan)       Closure Plan (only)       OCD Conditions (see attachment)	
e-mail address:	Date:       12/22/2008         covatil Move & conceptition (including closure plan)       Closure Plan (only)       OCD Conditions (see attachment)         alive Signature:	505-326-9837	
- min address.			
20			
OCD Approval:	Permit Application (including closure plan)	Closure Plan (only)	OCD Conditions (see attachment)
OCD Representa	stive Signature:		
OCD Representa			Approval Date:
Title:	and the second se	OCD Pern	nit Number:
21			
and a state of the			n e l'angeletation en l'ant l'andrée 🖌 année d'an année de la distriction année d'année de la contraction d'ant
		Closure	Completion Date:
		man and a state	
22 Closure Method:			
		Alternative Closure	Method Waste Removal (Closed-loop systems only)
			wase removal (closed-loop systems only)
I h université i	nom approved plan, please explain.		
23			
were utilized.	e menuty me facility of facilities for where the aquitas, article	formation submitted with this application is true, accurate and complete to the best of my knowledge and belief.       Crystal Tafoya       Title:       Regulatory Technician	ngs were uisposen. Ose undernment if more mun two factuties
Disposal Facility	Name:	paired to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. Ited to the division within 60 days of the completion of the closure activities. Please do not complete this section of the for en obtained and the closure activities have been completed. Closure Completion Date: Closure Completion Date: Closure Completion Date: Closure Completion Date: Closure Plan, please explain. Closure Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more the Disposal Facility Permit Number: Completion or in areas that will not be used for future service and operations: to Documentation) To Rates and Seeding Technique Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a tis are attached. Closure Completion Closure report. Please indicate, by a tis are attached. Closure Ratellitical Results (if applicable) pling Analytical Results (if applicable)	Permit Number:
Disposal Facility	Name:	Disposal Facility	Permit Number:
Were the closed-	loop system operations and associated activities performed or	n or in areas that will no	t be used for future service and opeartions?
Yes (If yes,	please demonstrate complilane to the items below)	]No	
Required for imp	pacted areas which will not be used for future service and ope	erations:	the second and a
Site Reclam	ation (Photo Documentation)		
Ξ			the second s
Re-vegetatio	on Application Rates and Seeding Technique	Sala Tal	
24	And the second	12 12 1	
		wing items must be atta	ched to the closure report. Please indicate, by a check mark in
_			
E			
2			Galage -
-			
		1	
On-site Clo	sure Location: Latitude:	Longitude:	NAD [ 1927 [ 1983
	the second second		
25			
Operator Closure			
the crosure compiles	and an apprease crossive requirements and conditions spec	gieu in the approved ch	inne pun
Name (Print):		Title:	
Signature		Data	
Signature:		Date:	
e-mail address:		Telephone:	
-			

Form C-144

Oil Conservation Division

# New Mexico Office of the State Engineer

Township: 30N Rang	ge: 10W Sections:
NAD27 X: Y:	Zone: Search Radius:
County: Basin:	Number: Suffix:
Owner Name: (First)	(Last) CNon-Domestic CDomestic @ A
POD / Surface Data Report	Avg Depth to Water Report Water Column Report

WATER COLUMN REPORT 08/21/2008

	(quarter (quarter										Donth	Donth	Maham	11-	6
POD Number	Tws	Rng					Zone	est)	x	Y	Depth Well	Depth Water	Water Column	(11	reet)
SJ 00050	30N	10W		1	3	_			-		520	306	214		
SJ 03460	30N	100	02	1	3	2					520	500	20		
SJ 03230	301	10W	03	1	2	1					120	70	50		
SJ 03113	30N	10W	05	4	1	4					42	30	12		
SJ 00589	30N	10W	80	1	1	1					175	150	25		
SJ 00774	30N	10W	08	1	2	1					195	160	35		
SJ 02316	30N	10W	08	1	3						210	98	112		
SJ 02102	30N	10W	08	1	3	4					· 190	90	100		
SJ 01527	30N	10W	08	2	2						120	60	60		-
SJ 01193	30N	10W	08	2	2						100	70	30		
SJ 02808	30N	10W	08	2	3	4				.*	165	105	60		
SJ 01102	30N	100	08	2	4						200	159	41		
SJ 02998	30N	100	08	3	3	1	11				260	117	143		
SJ 02772	30N	10W	08	4	2	2					200	160	40		
SJ 00523	30N	10W	08	4	4						160	120	40		
SJ 01362	30N	100	20	1	3	3					238	190	48		
SJ 03442	30N	10W	20	1	4	1					200				
SJ 02782	30N	100	20	1	4	4					250				
SJ 02797	30N	10W	20	2	4	1					70				
SJ 00024	30N	10W	23	2	4	2					305				
SJ 00051	30N	10W	23	2	4	2					305				
SJ 00197	30N	10W	23	4	2						975	500	475		
SJ 00010	30N	100	24	2							292				
SJ 01116	30N	10W	33	2	1						105	45	60		
SJ 01059	30N	10W	34	1	2	4					115	75	40		
SJ 01182	30N	10W		1	3	3					235	125	110		

Record Count: 26

# New Mexico Office of the State Engineer

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

NAD27 X:	Y: Zone: Search Radius:
County: Basin:	Number: Suffix:
Owner Name: (First)	(Last) C Non-Domestic C Domestic @ All
POD / Surface Data Report	Avg Depth to Water Report Water Column Report

### WATER COLUMN REPORT 08/20/2008

DOD Humber							smallest	the second se	v	Depth	Depth	Water	(in	feet)
POD Number	Tws 29N	Rng 10W		2	đ	đ	Zone	x	X	Well 500	Water 450	Column		
RG 36732 DCL	and the second se				л	2					450	50		
SJ 00785 S	29N	10W		22	4	2				20	10	20		
SJ 00680	29N 29N	10W		4	4					40	10	30		
SJ 00785 NEW	29N			4						60	20	40		
SJ 00785 S-2	29N	10W		4	3	1				60 90	20	40		
SJ 03023				-	3						65	25		
SJ 03502	29N	10W								• 150				
SJ 03081	29N	100			1					20	0	21		
SJ 02078	29N	10W	Constant of		1	T				40	9	31		
SJ 00303	29N	100		3						20	5	15		
SJ 02860	29N	100		4	4					21	2	19		
SJ 02900	29N	10W				2 .				70				
SJ 01140	29N	100		3	2	2				25	6	19		
SJ 01990	29N	100			_					40	12	28		
SJ 02548	29N	100			4					12	2	10		
SJ 02547	29N	10W		4	200	2				12	2	10		
SJ 03535	29N	10W		3	2					15	10	2		
SJ 03455	29N	100		3	3					20	17	3		
SJ 03456	29N	10W		3	3					20	17	3		
SJ 03441	29N	10W		4		3				40	30	10		
SJ 03470	29N	10W		4		4				20	7	13		
SJ 01474	29N	10W		4	-					25	15		1.00	
SJ 03180	29N	10W			4	4				50	15	35		
SJ 03713 POD1	29N	10W	1000 Carl	2						265	20	245		
SJ 02820	29N	10W		4	-					82	16	:66		
SJ 02896	29N	10W	1.26 1.425	1	-					110	34	76		
SJ 02275	29N	10W		1		2				40	20	20		
SJ 00092	29N	10W		2		2				33				
SJ 02802	29N	10W	24	3	_	2				132	30	102		
SJ 02907	29N	10W	24	3	2	3				60				
SJ 02122	29N	100	25	4	1					60	12	48		
SJ 01019	29N	10W	26	4	3	3				50	4	46		

New Mexico Office of the State Engineer

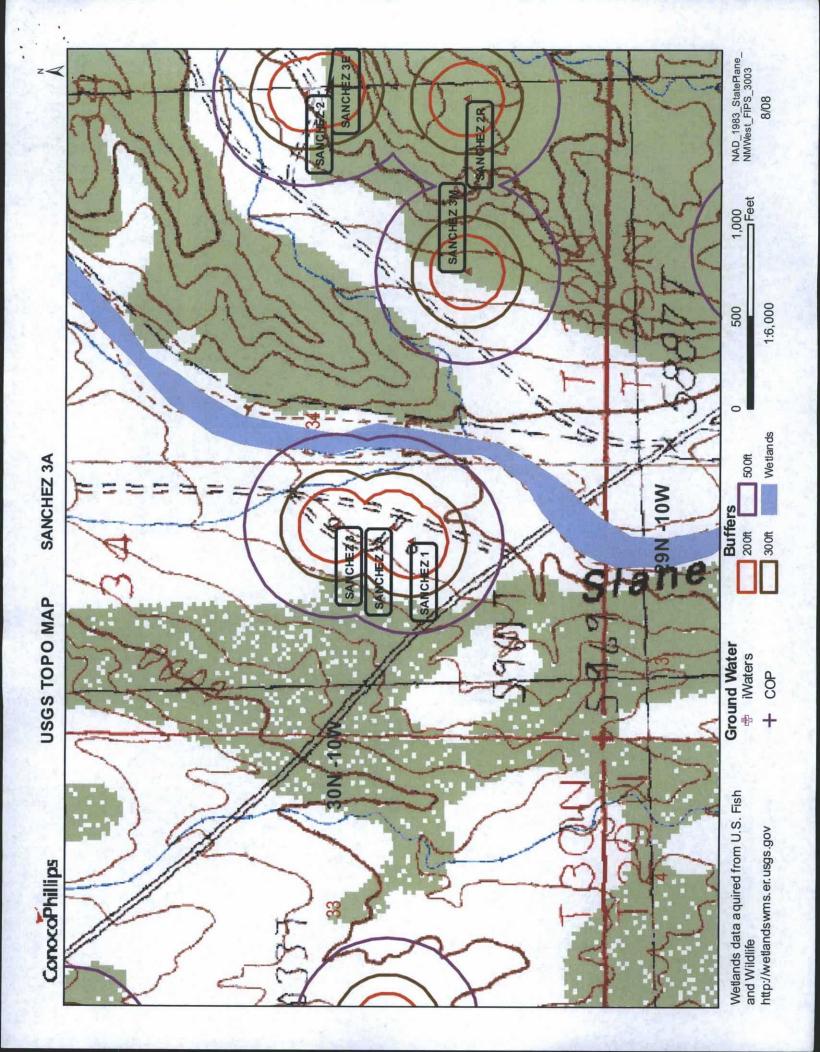
SJ	01056		29N	1010	27	3	2	
SJ	02216		29M	1.000	28	1	2	
SJ	03582		29N	1000	28	1	3	3
SJ	02151	2.	29M	100	28	2	1	2
SJ	03652		29N	1000	28	2	2	1
SJ	03142	Section 1	291	1000	28	2	2	2
SJ	03637	State of the second	29N	1070	28	2	3	1
SJ	03582	POD2	29N	1010	28	2	3	3
SJ	02840	6	29N	1050	28	3	4	1
SJ	00506		29N	100	28	4	3	
SJ	00662		29N	100	28	4	4	3
SJ	00497		29N	100	29	3	2	3
SJ	03777	POD1	29N	1010	29	4	4	2
SJ	00473		29N	1050	30	2	4	
SJ	03743	POD1	29N	100	33	4	4	3
SJ	01051		29N	100	35	2	2	2
SJ	01050		29N	1050	36	1	4	

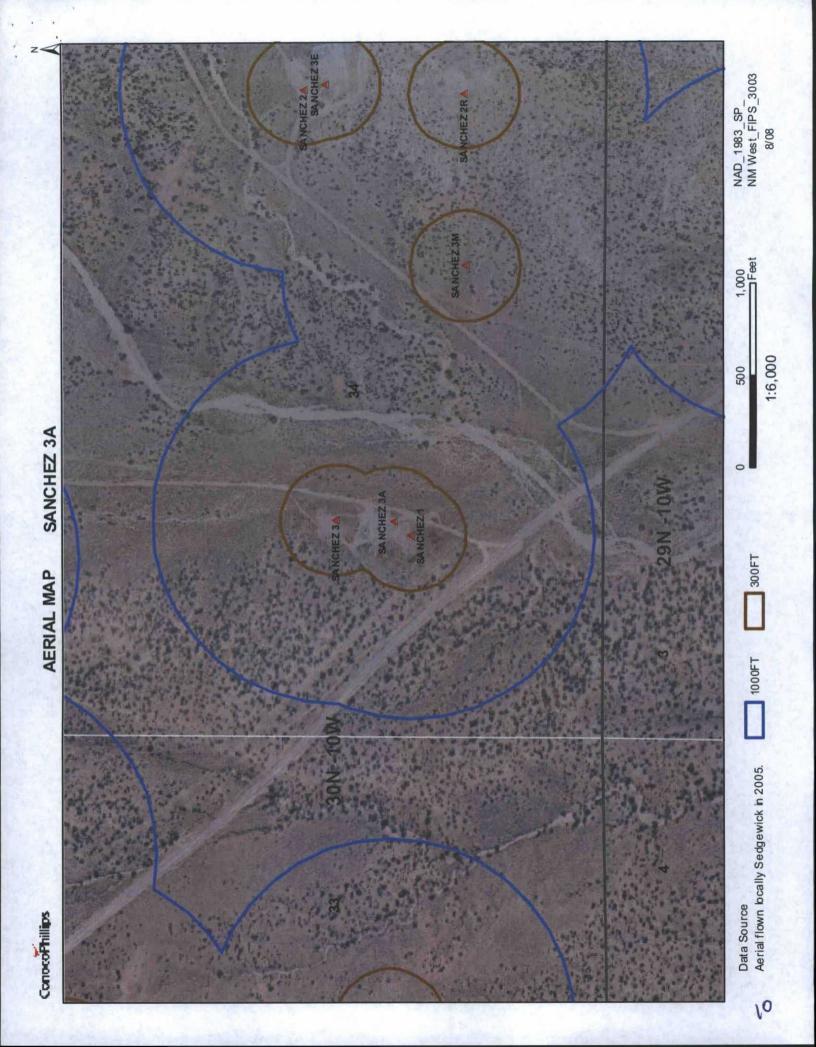
W

		50	31	19	
		30	77	23	
		10	4	6	
484600	2075600	37	20	17	
		34	6	28	
		38	22	16	
		21	10	11	
		28	5	23	
		55	32	23	
		78	55	23	
		93	70	23	
		85	35	50	
270344	2071311	100	50	50	
		58	10	48	
		490	140	350	
		90	30	60	
		85	38	47	

Record Count: 49

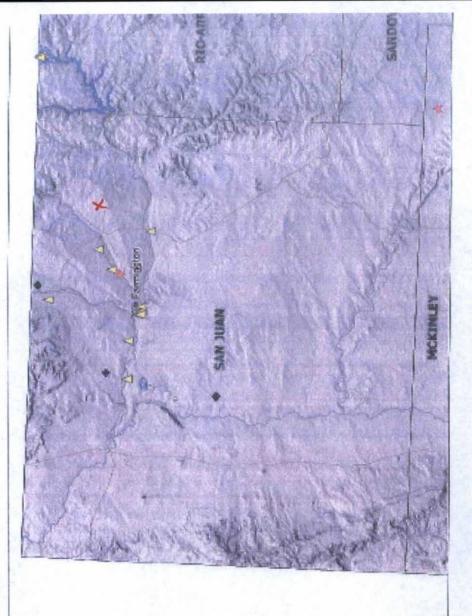
Page 2 of 2



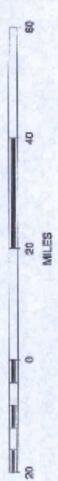


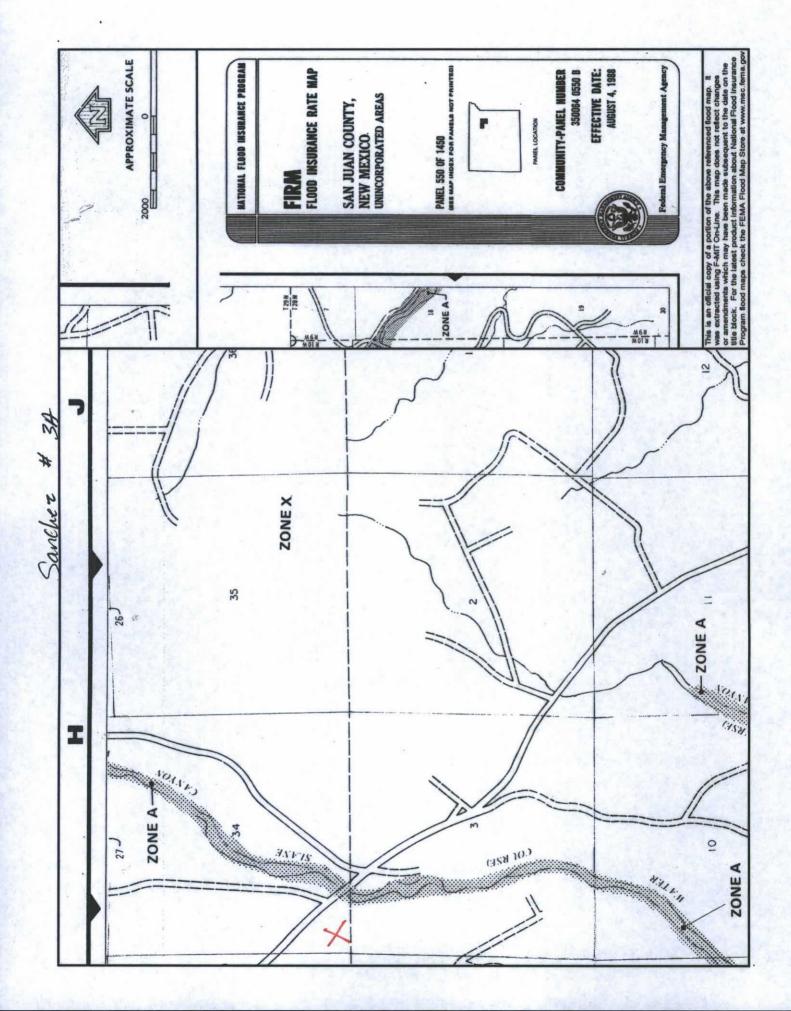
# Mines, Mills and Quarries Web Map SANCHEZ 3A Unit Letter: M, Section: 34, Town: 030N, Range: 010W

<ul> <li>Mills &amp; Quarries Commodity Groups</li> <li>Aggregate &amp; Stone Mines</li> <li>Aggregate &amp; Stone Mines</li> <li>Coal Mines</li> <li>Industrial Minerals Mines</li> <li>Industrial Minerals Mines</li> <li>Industrial Minerals Mines</li> <li>Metal Mines and Mill Concerting</li> <li>Retain Mines &amp; Refinery Ops.</li> <li>Potash Mines &amp; Refinery Ops.</li> <li>Vranium Mines</li> <li>Uranium Miles</li> <li>Opulation</li> <li>Citles - major</li> <li>Interstate Highways</li> </ul>
---









### **SANCHEZ 3A**

### Site Specific Hydrogeology

A visual site inspection confirming the information contained herein was performed on the well 'SANCHEZ 3A', which is located at 36.76455 degree, North latitude and 107.87619 degree, West longitude. This location is located on the Aztec 7.5' USGS topographic quadrangle. This location is in section 34 of Township 30 North Range 10 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 Blanco, located 3.9 miles to the southeast. The nearest large town (population greater than 10,000) is Farmington, located 18.4 miles to the west (National Atlas). The nearest highway is State Highway 575, located 0.1 miles to the southwest. The location is on BLM land and is 1,500 feet from the edge of the parcel as notated in the BLM land status layer updated January 2008. This location is in the Upper San Juan. Colorado. New Mexico, Sub-basin. This location is located 1806 meters or 5923 feet above sea level and receives 12 inches of rain each year. The vegetation at this location is classified as Colorado Plateau Pinon-Juniper Woodland as per the Southwest Regional Gap Analysis Program.

The estimated depth to ground water at this point is 39 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 131 feet to the east and is classified by the USGS as an intermittent stream. The nearest perennial stream is 262 feet to the east. The nearest water body is 3,859 feet to the north. It is classified by the USGS as an intermittent lake and is 0.3 acres in size. The nearest spring is 8,141 feet to the southwest. 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 2,109 feet to the northwest. The nearest wetland is a 17.1 acre Ravine located 251 feet to the east. The slope at this location is 2 degree, to the southeast 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 'Stumble-Fruitland association, gently sloping' and is somewhat excessively drained and not hydric with slight erosion potential as taken from the NRCS SSURGO map unit, downloaded January 2008. The nearest underground mine is 13.7 miles to the north as indicated on the Mines, Mills and Quarries Map of New Mexico provided. posted 18 4 miles to

**Regional Geological context:** 

parcs as notated in the BLM land status.

iles to the southwest.

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.

Software in the state of the

### 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, eastcentral 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.

more Creteceous rocks, adat

et se el duan Easin, New México, in Primer y a Platsour Pour Corners

 a restrict do wrwaterventical second ontail fina material is highly arodible, contained on a a more conductive to

n in Basil, New Mexico and In rollinew Mexico Geological Society,

no Fostand Formation and Kirdeno Fiscan & Paper 976, 76 p Fiscan Myorogeology of the Sen Fiscan Mexico, Colorado, Adzona,

> Hypropeology and water functional Nineral Resources.

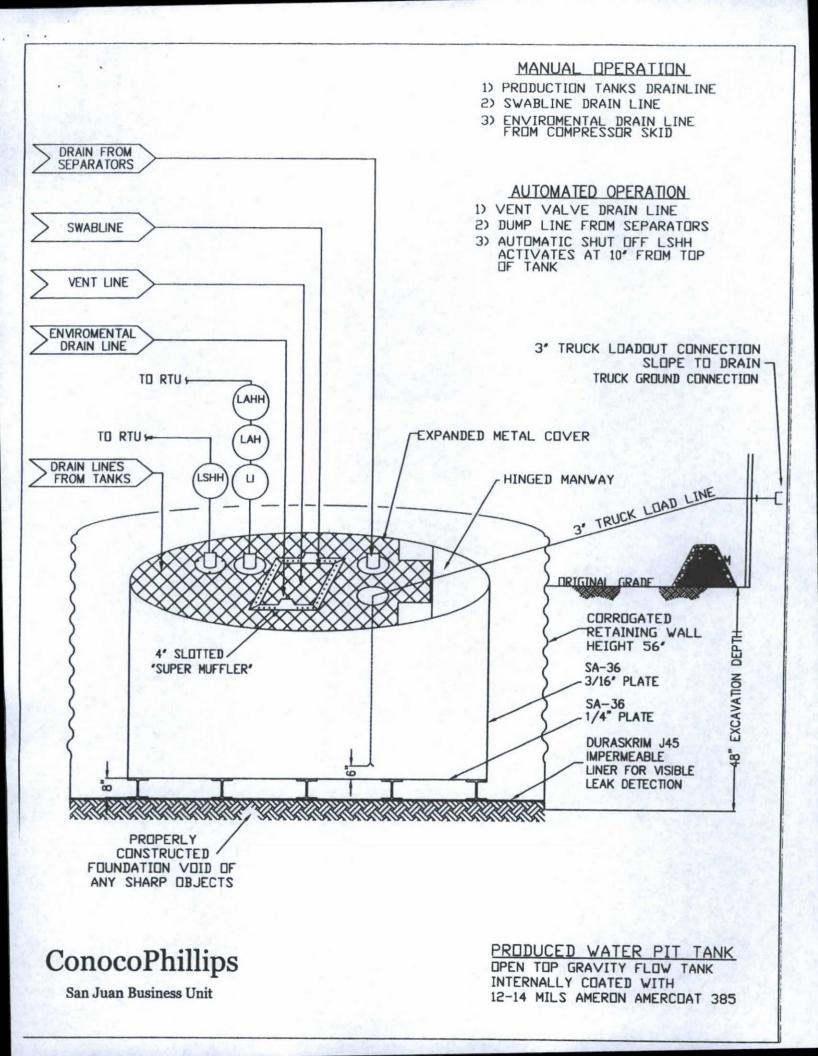
### Burlington Resources Oil & Gas Company, LP San Juan Basin Below Grade Tank Design and Construction

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:

- 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.
- 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.
- 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.
- The general specification for design and construction are attached in the BR document.



# DURA-SKRIM®

PROPERTIES	TEST METHOD	J30BB		J368 <b>8</b>		J4588	
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages
Appearance		Black/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		**Extrusion laminated with encapsulated tri-directional scrim reinforcement					
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
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	180° F	180° F	180° F	180° F	180° F
Minimum Use Temperature		-70° F	-70° F	-70° F	-70° F	-70° F	-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

130, 136 a 145

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

### 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 REFERED 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:

- 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.
- 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 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 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.
- 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.
- 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.
- 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 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

# 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

### 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)

### 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

Below Grade Tank Closure Plan

**Requirements:** 

Registration Date: 2/15/2016