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 **Energy Minerals and Natural Resources** Department Oil Conservation Division

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

State of New Mexico

July 21, 2008 For temporary pits, closed-loop sytems, and below-grade

Form C-144

tanks, submit to the appropriate NMOCD District Office

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

Pit, Closed-Loop System, Below-Grade Tank, or									
Proposed Alternative Method Permit or Closure Plan Application									
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method									
Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method									
Modification to an existing permit									
X Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,									
below-grade tank, or proposed alternative method									
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request									
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the									
environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances									
Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538									
Address: PO Box 4289, Farmington, NM 87499									
Facility or well name: Huerfanito Unit 47S									
API Number: 30-045-34559 OCD Permit Number.									
U/L or Qtr/Qtr: I(NESE) Section: 27 Township: 27N Range: 9W County: San Juan									
Center of Proposed Design: Latitude: 36.546045' N Longitude: 107.769363' W NAD: 1927 X 1983									
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment									
2 X Pit: Subsection F or G of 19.15.17.11 NMAC Temporary X Drilling Workover Permanent Emergency Cavitation P&A X Lined Unlined Liner type Thickness 20 mil X LLDPE PVC Other X String-Reinforced Liner Seams. X Welded X Factory Other Volume: 4400 bbl Dimensions L 65' x W 45' x D 10'									
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)									

notice of money
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
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
Visible sidewalls and liner Visible sidewalls only Other
Liner Type: ThicknessmilHDPEPVCOther

**Alternative Method:** 

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19 15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  X Alternate. Please specify  4' hogwire fence with a single strand of barbed wire on top.						
Netting: Subsection E of 19 15.17 11 NMAC (Applies to permanent puts and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)						
Signs: Subsection C of 19 15.17 11 NMAC  12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  X Signed in compliance with 19.15.3.103 NMAC						
Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration of approval.	ideration of ap	proval.				
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.						
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 lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	Yes	X No				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	☐Yes ☐NA	XNo				
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image						
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent puts)	Yes XNA	No				
<ul> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> <li>Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.</li> </ul>	Yes	XNo				
<ul> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site.</li> <li>Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	Yes	XNo				
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	XNo				
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	X No				
Within an unstable area.  - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes	X No				
Within a 100-year floodplain - FEMA map	Yes	XNo				

Form C-144 Oil Conservation Division Page 2 of 5

Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9
Tryangeologic Data (Temporary and Emergency Fis) - based upon the requirements of 19.15.17.10 NMAC
X   Design Plan - based upon the appropriate requirements of 19.15 17.11 NMAC
X   Operating and Maintenance Plan - based upon the appropriate requirements of 19 15.17.12 NMAC
X Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of
19.15 17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API or Permit
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17 10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15.17 9  NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design)  API
Previously Approved Operating and Maintenance Plan API
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.    Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC   Situng 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 19.15.17.11 NMAC   Treeboard 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   Gil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Erosion Control Plan   Erosion Control Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14 <b>Proposed Closure:</b> 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: X Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System  Alternative
Proposed Closure Method: Waste Excavation and Removal
Waste Removal (Closed-loop systems only)
X In-place Burial On-site Trench
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
15
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan.
Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15 17.13 NMAC
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Form C-144 Oil Conservation Division Page 3 of 5

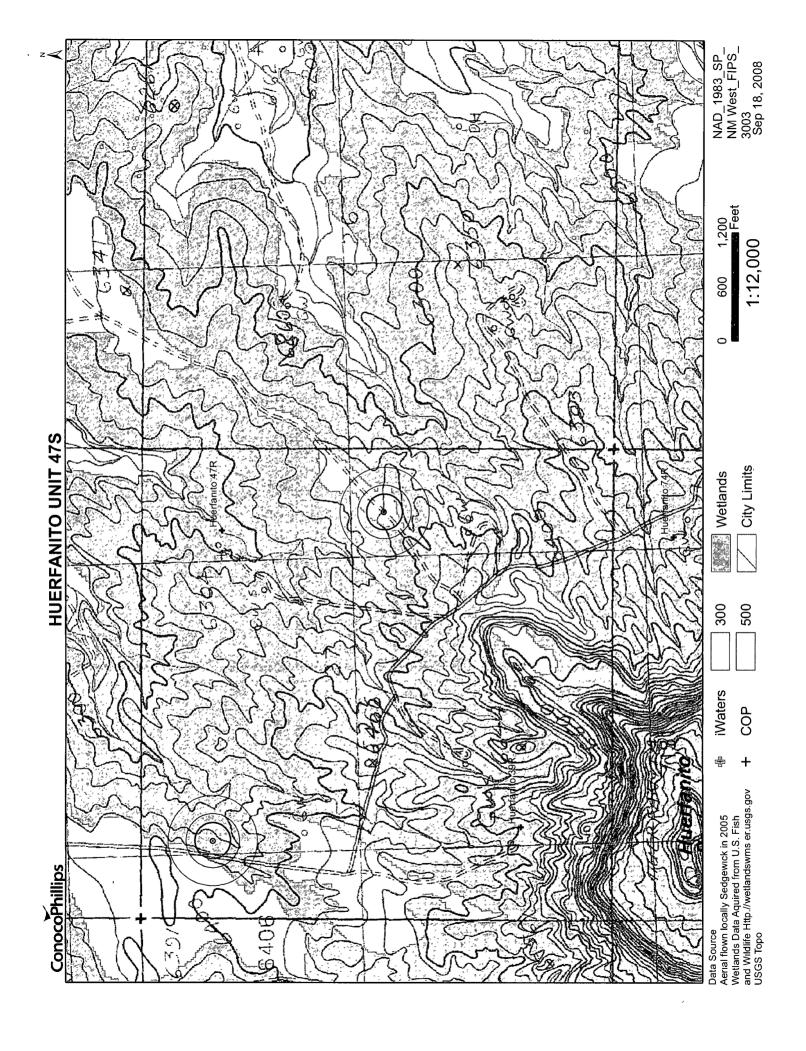
16 Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks	or Haul-off Rins Only: (19 15 17 13 D NMAC)						
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids an are required.	nd drill cuttings. Use attachment if more than two facilities						
Disposal Facility Name: Dispos	sal Facility Permit #:						
	sal Facility Permit #	-					
Will any of the proposed closed-loop system operations and associated activities occur  Yes (If yes, please provide the information No		nd operations?					
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specification - based upon the appropriate requi Re-vegetation Plan - based upon the appropriate requirements of Subsection I of Site Reclamation Plan - based upon the appropriate requirements of Subsection	f 19.15.17.13 NMAC						
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions Each string criteria requires a demonstration of compliance in the closure plan Recommer certain string criteria may require administrative approval from the appropriate district office or may be for consideration of approval Justifications and/or demonstrations of equivalency are required Please	e considered an exception which must be submitted to the Santa Fe						
Ground water is less than 50 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS. Data obtained from	m nearby wells	Yes X No					
Ground water is between 50 and 100 feet below the bottom of the buried waste		Yes X No					
- NM Office of the State Engineer - tWATERS database search; USGS; Data obtained from	n nearby wells	]N/A					
Ground water is more than 100 feet below the bottom of the buried waste.	<u> </u>   <u> </u>	Yes No					
- NM Office of the State Engineer - (WATERS database search; USGS; Data obtained from		N/A					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant water (measured from the ordinary high-water mark).	creourse or lakebed, sinkhole, or playa lake	Yes X No					
- Topographic map; Visual inspection (certification) of the proposed site		lvas VINA					
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence - Visual inspection (certification) of the proposed site; Aerial photo; satellite image		Yes X No					
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five he purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of Within incorporated municipal boundaries or within a defined municipal fresh water well field pursuant to NMSA 1978, Section 3-27-3, as amended.	ouseholds use for domestic or stock watering he time of the initial application.  If the proposed site covered under a municipal ordinance adopted	Yes X No					
Written confirmation or verification from the municipality; Written approval obtained fro     Within 500 feet of a wetland		Yes X No					
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (c Within the area overlying a subsurface mine		Yes X No					
<ul> <li>Written confirantion or verification or map from the NM EMNRD-Mining and Mineral D</li> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Re</li> </ul>		Yes X No					
Topographic map Within a 100-year floodplain.		Yes X No					
- FEMA map							
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the feby a check mark in the box, that the documents are attached.	ollowing items must bee attached to the closure plan.	Please indicate,					
X Siting Criteria Compliance Demonstrations - based upon the appropriate require	ements of 19.15.17.10 NMAC						
X Proof of Surface Owner Notice - based upon the appropriate requirements of Su	ubsection F of 19.15.17.13 NMAC						
Construction/Design Plan of Burial Trench (if applicable) based upon the appro	priate requirements of 19.15 17 11 NMAC						
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad)		.11 NMAC					
X Protocols and Procedures - based upon the appropriate requirements of 19.15.17							
Confirmation Sampling Plan (if applicable) - based upon the appropriate require		,					
<ul> <li>Waste Material Sampling Plan - based upon the appropriate requirements of Sul</li> <li>Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill</li> </ul>		achieved)					
X   Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill   X   Soil Cover Design - based upon the appropriate requirements of Subsection H o	_	achieveu)					
X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of							
X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC							

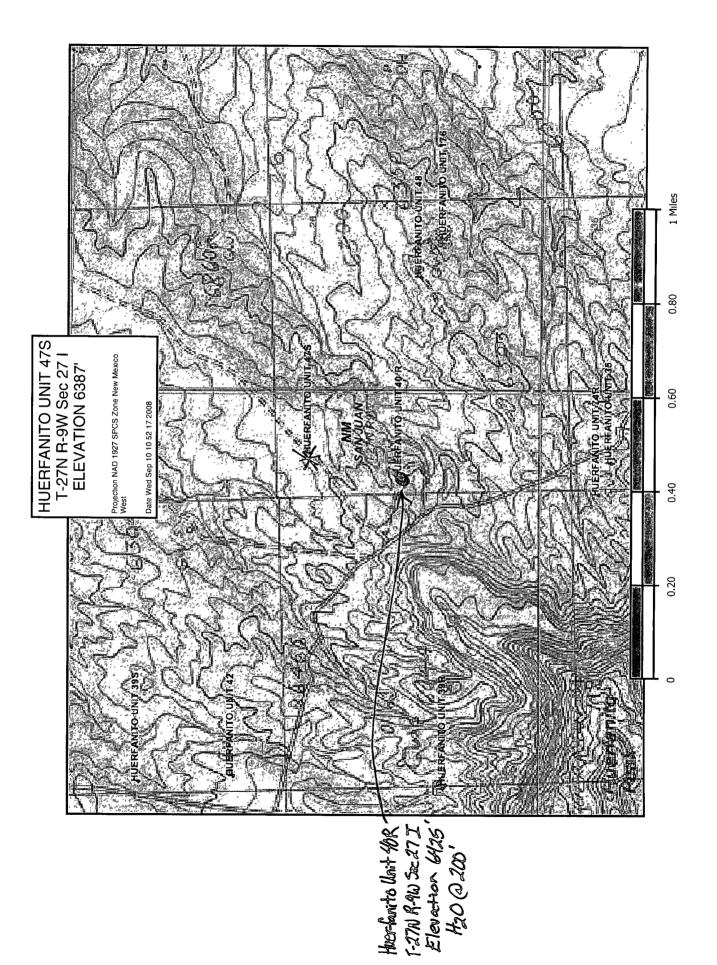
19		٠	
Operator Application Certification:  I hereby certify that the information submitted with this application.	tion is this accounts and complete to the	hast of my linearlades and halist	
Name (Print) Crystal Tafoya	Title:	Regulatory Technician	
Signature Signature	loua Date	9/2560	
e-mail address crystal tafoya@conocophilk	<del></del>	505-326-9837	<del></del>
C man address Style and addres	relephone.	303 320 7031	
20 OCD Approval: Permit Application (including clos OCD Representative Signature:	ure plan) Closure Plan (only)		
	L Dell	Approval Date:	10-14-08
Title: Enuirolspec	OCD Peri	nit Number:	
Closure Report (required within 60 days of closure co Instructions: Operators are required to obtain an approved clo report is required to be submitted to the division within 60 days approved closure plan has been obtained and the closure activi	sure plan prior to implementing any clos of the completion of the closure activition ties have been completed.	ure activities and submitting the clos	· ·
22			
Closure Method:		•	
Waste Excavation and Removal On-site Clo	osure Method Alternative Closure	Method Waste Removal (Cl	osed-loop systems only)
If different from approved plan, please explain.			
23			
Closure Report Regarding Waste Removal Closure For Clo			
Instructions: Please identify the facility or facilities for where were utilized.	the liquids, drilling fluids and drill cutt	ings were disposed. Use attachment	t if more than two facilities
Disposal Facility Name:	Disposal Facility	Permit Number:	
Disposal Facility Name:	Disposal Facility	Permit Number	
Were the closed-loop system operations and associated activ	· —	ot be used for future service and ope	eartions?
Yes (If yes, please demonstrate complilane to the items	below) No		
Required for impacted areas which will not be used for futu  Site Reclamation (Photo Documentation)	re service and operations		
Soil Backfilling and Cover Installation			
Re-vegetation Application Rates and Seeding Technique	e		
24			
Closure Report Attachment Checklist: Instructions: the box, that the documents are attached.	Each of the following items must be att	ached to the closure report. Please	indicate, by a check mark in
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)		4	
Confirmation Sampling Analytical Results (if appli	cable)		
Waste Material Sampling Analytical Results (if appli			
Disposal Facility Name and Permit Number	nicaoic)		
Soil Backfilling and Cover Installation			
Re-vegetation Application Rates and Seeding Tech	nique		
Site Reclamation (Photo Documentation)			
On-site Closure Location: Latitude:	Longitude:	NAD	1927 🔲 1983
L			
25			
Operator Closure Certification:	and the description	and another than the second	white a model of the transfer of the
I hereby certify that the information and attachments submitted the closure complies with all applicable closure requirements of			vicage and neitef. I also certify that
Name (Print):	Title:		
Signature:	Date:		<u>.</u>
e-mail address.	Telephone		

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

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Form 3160-4 (October 1990)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPL. ... ¿\*

(See other instructions on reverse side)

FOR APPROVED OMB NO. 1004-0137

Expires: December 31, 1991
5. LEASE DESIGNATION AND SERIAL NO.

											1	NMSF080117	•
WELL C	OMPLI	ETION	NOR R	ECOMPL	ET.	ION R	EPC	ORT AND	LOC	3*	6. IF IN	IDIAN, ALLOTTE	E OR TRIBE NAME
1a. TYPE OF	WELL:		OIL	GAS WELL X		DRY G	Other						
			WELL		,		- Name			F	7. UNI	T AGREEMENT N	IAME
b. TYPE OF	COMPLETI	-								L		Huerfanito Ur	
	WELL X	WORK OVER	DEEP-	PLUG BACK		DIFF. RESVR	Other			,	8. FAR	M OR LEASE NA	ME, WELL NO.
												Huerfanito Ui	nit #40R
2. NAME O												WELL NO.	
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15. DATE SPL 2/20/20			D. REACHED		0/20	L. (Ready to	proa.)			EVATIONS (DF, RK 6425' GL, 643		R, ETC.)*	19. ELEV. CASINGHEAD
20, TOTAL DE		2/27/2		ACK T.D., MD &TV		22. IF MULTI	PLE CO	MPL				TOOLS	CABLE TOOLS
,							HOW M			ILLED BY			
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24. PRODUCT	TION INTERVA	L (S) OF T	HIS COMPLE	TION-TOP, BOTTO	M, NA	ME (MD ANI	*(OVT C				l	25. WAS DIREC SURVEY M	
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28.								Report all string					
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31 PERFOR	ATION RECOR	D (Interval	, size and num	nber)		32.			D, SHC	T, FRACTURE,	CEME	NT SQUEEZE,	ETC.
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33. DATE FIRST PI	RODUCTION		PRODUC	CTION METHOD (F	lowing	, gas lift, pur		RODUICTION ize anid type of pun	ıp)			WELL STATUS	(Producing or shul-ire)
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35. LIST OF	ATTACHMENT	-										MUUEI	TED FOR RECORD
36. I hereby	certify that the	None oregoing a		formation is comple	ete and	correct as d	etermin	ed from all availabl	e records			<del></del>	
												1 N	IAR 1 8 2002
SIGNED	Don	111	(1)	// 111	ΓLE	Regulato	ry Sui	perviisor			DATE	3/13/2002	15.
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	,		7/C.		ann -	and Caa	aac f	or Midditions		T OR HOUSE	~ ***	A	1 #

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department of agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

### TIERRA CORROSION CONTROL, INC. DRILLING LOG

COMPANY: Burlington LOCATION: Huerfanito 40R

STATE: NM BIT SIZE: 7 7/8

LBS COKE BACKFILL: 1900# ANODE TYPE: 2" x 60" Durachlor CONTRACT #: LEGALS: 27-27-9 DRILLER: Mercer

CASING SIZE/TYPE: 8"x20' PVC

VENT PIPE: 300' ANODE AMOUNT: 10 DATE: 4/18/02 COUNTY: SJ DEPTH: 300

COKE TYPE: LORESCO SW

PERF PIPE: 140

**BOULDER DRILLING:** 

DEPTH	DRILLER'S LOG	AMPS	DEPTH	DRILLER'S LOG	AMP
20	20' 8" PVC		310		
25			315		
30			320		
35			325		
40			330	``	
45			335		
50			340		
55			345		
60	Y		350		
65			355		
70			360	1	
75			365		
80			370		
85			375		
90	<b>T</b>		380		
95			385		
100		1.0	390		
105	†	.7	395		
110	<b>+</b>	.9	400		
115	† <b>-</b>	1.9	405	1	
120	<del>                                     </del>	1.6	410	<u> </u>	
125		1.4	415		+-
130		.6	420		<del></del>
135		.6	425	<u> </u>	
140		.8	430		
145	1	.8	435		
150	<del>                                     </del>	.8	440	· · · · · · · · · · · · · · · · · · ·	<del>`</del>
155	<del> </del>	.7	445	·	
160	- Y	.8	450		_
165		.8	430		+-
170		.6	<del> </del>		<del></del>
175	<del> </del>	.6	-	<del> </del>	
180		.8	<del> </del>		<del></del>
185		.8	<del>                                     </del>		
190		1.6	+	· · · · · · · · · · · · · · · · · · ·	
195	<del></del>	1.6	<del>                                     </del>	<b>-</b>	<del></del>
200	Sand stone	1.3			
205	Sand Stolle	1.7	+		<del></del>
210	<del> </del>	1.7	<del> </del>		<del></del>
215	<del> </del>	2.1	+		<del></del>
220	<del> </del>	3.0	<del>-}</del>	<del> </del>	
225	<del> </del>	3.3	<del> </del>		-
230	+	3.0	<del> </del>	-	
235		3.0	<del> </del>	1	
240	<del> </del>	3.1	<del> </del>	<u> </u>	
245	<del> </del>	2.8	<del> </del>		
	<del> </del>		<b></b>		<del></del>
250	<del> </del>	2.8	<b>-</b>		
255	<del> </del>	2.9	<del> </del>	-	
260	<del> </del>	2.9			
265		2.7	<del> </del>		
270	<del> </del>	2.7			
275		3.1			
280	<u> </u>	3.1			
285	<u> </u>	3.3			
290		3.2 y			
295		3.1			
300	Shale	2.1			
305					

ANODE #	DEPTH	NO COKE	COKE
1	285	3.2	5.0
2	278	7.9	7.1
3	271	2.8	8.0
4	264	3.2	10.2
5	257	3.1	10.3
6	250	2.8	10.0
7	243	3.0	9.1
8	236	3.1	9.7
9	227	3.0	9.4
10	222	3.0	8.3
11			
12			
13			
14 .			
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19			
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21			
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23			
24			
25			
26			
27			
28			
29		1	
30			

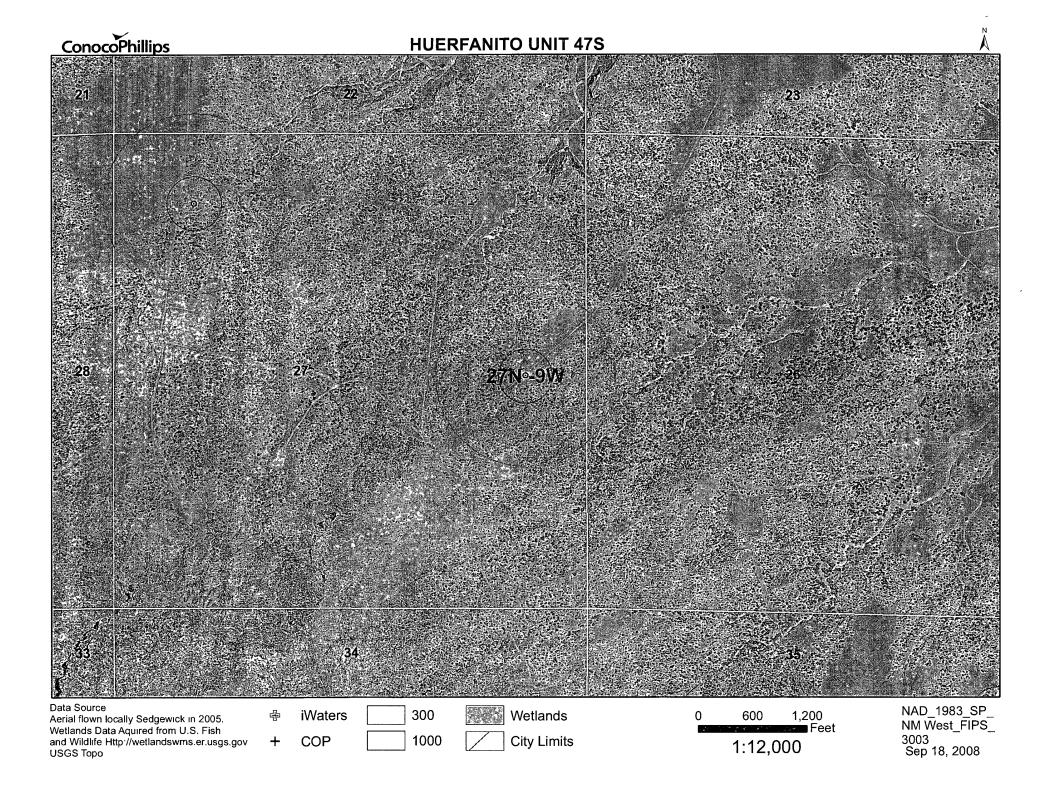
WATER DEPTH: 200' ISOLATION PLUGS: LOGING VOLTS: 13.7

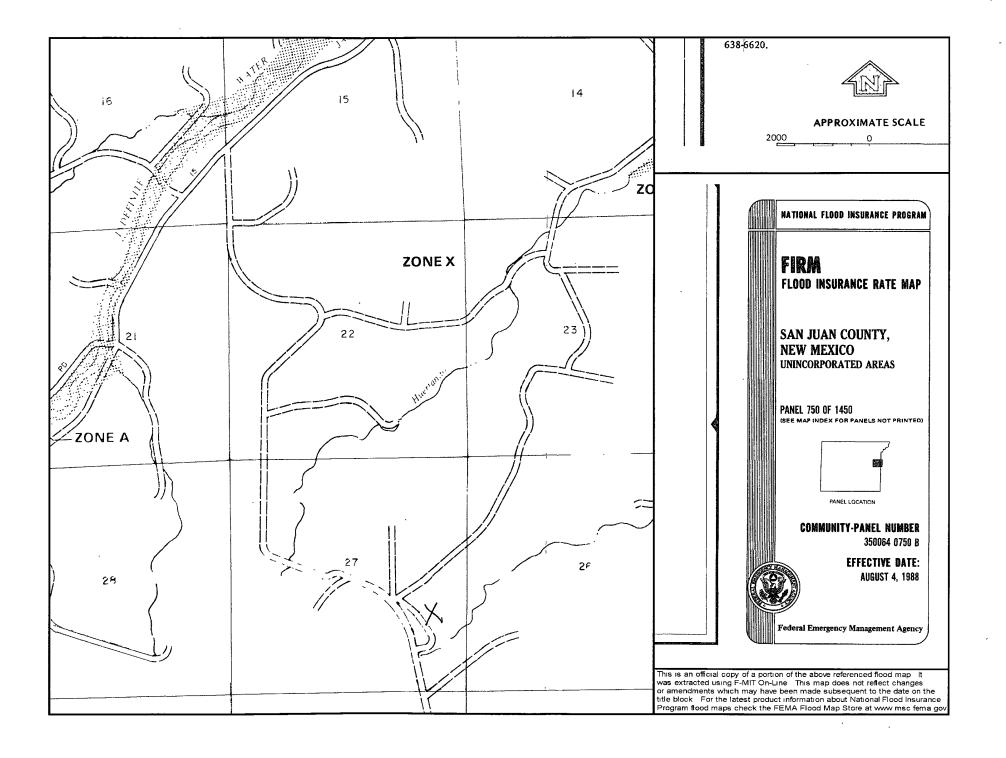
**VOLT SOURCE: AUTO BATTERY** 

TOTAL AMPS: 22.3

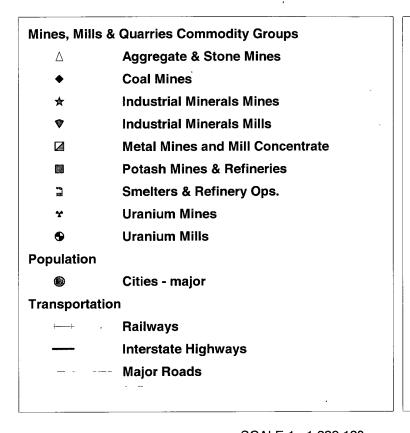
**TOTAL GB RESISTANCE: 0.614** 

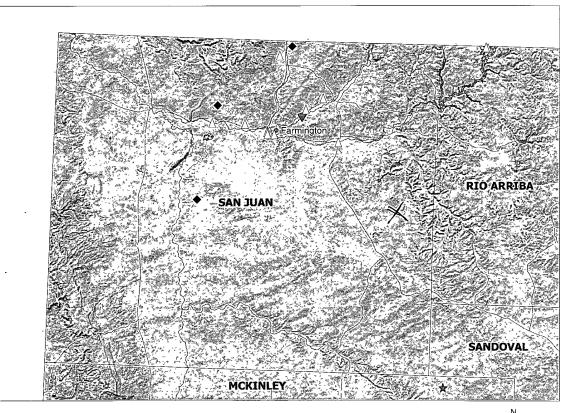
**REMARKS**:





# Huerfanito Unit 47S Mines, Mills and Quarries Web Map









#### Hydrogeological report for Huerfanito Unit 47S

#### **Regional Hydrogeological context:**

The San Jose Formation of Eocene age occurs in New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central basin. It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico State line and overlies the Animas Formation in the area generally north of the State line.

The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone, and variegated shale. Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin). Ground water is associated with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modifications, namely erosion and structural deformation. Transmissivity data for San Jose Formation are minimal. Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983, table 5). The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0.15 to 61 gallons per minute and the median is 5 gallons per minute. Most of the wells provide water for livestock and domestic use.

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily adsorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit.

Stone et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico: Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.

#### Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Huerfanito Unit 47S is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. The groundwater depth is considered to be greater than 100' as determined by the topographic map and the Cathodic well data from the Huerfanito Unit 40R with an elevation of 6425' and groundwater depth of 200'. The subject well has an elevation of 6387' which is greater than the Huerfanito Unit 40R, therefore the groundwater depth is greater than 100'. There are no iWATERS data points located in the area as indicated on the TOPO Map. The Cathodic data provided the indication of groundwater depth is greater than 100'. The hydro geologic analysis indicates the groundwater depth and the San Jose formation will create a stable area for this new location.

#### Tafoya, Crystal

From:

Tafoya, Crystal

Sent:

Thursday, July 10, 2008 8:16 AM

To: Subject: 'mark kelly@nm.blm.gov' OCD Pit Closure Notification

The following temporary pits will be closed on-site. The new OCD Pit Rule 17 requires the surface owner be notified. Please feel free to contact me at any time if you have any questions. Thank you!

Allison Unit 2B

Allison Unit 40N

Angel Peak B 27E

Ballard 11F

Cain 725S

Canyon Largo Unit 250N

Canyon Largo Unit 279E

Canyon Largo Unit 288E

Canyon largo Unit 297E

Canyon Largo Unit 465E

Carson SRC 4E

Day B 4P

Day B 5A

East 17S

**EPNG A 1B** 

EPNG B 1M

Federal A 1E

Filan 5M

Filan 5N

Fogelson 4 100

Fogelson 4 100S

Grambling C 202S

Hagood 19

Hamner 9S

Hardie 4P

Hare 295

Heaton Com 100

Helms Federal 1G

Howell 12

Huerfanito Unit 103F

Huerfanito Unit 29S

**Huerfanito Unit 39S** 

**Huerfanito Unit 47S** 

Huerfanito Unit 50E

Huerfanito Unit 75E

Huerfanito Unit 83E

Huerfanito Unit 87E

Huerfanito Unit 90E

**Huerfanito Unit 90M** 

**Huerfanito Unit 98S** 

Huerfano Unit 108F

Huerfano Unit 282E

Huerfano unit 305

Huerfano unit 307

Huerfano Unit 554

Johnston Federal 24S

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

<u>District IV</u>

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 7 Copies
Fee Lease - 3 Copies

☐ AMMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> A	API Number 2			Pool Code		<sup>3</sup> Pool Name BASIN FRUITLAND COAL					
<sup>4</sup> Property Cod	c			5 Property Name         6 Well Number           HUERFANITO UNIT         47S							
OGRID No			BURI	INGTON	8 Operator Name 9 Elevation N RESOURCES OIL AND GAS COMPANY LP 6387						
<del></del>	***************************************				10 SURFACE	LOCATION					
UL or lot no.	Section 27	Township 27-N	Range 9-W	Lot Idn	Feet from the 2570	North/South line SOUTH	East/West line EAST	County SAN JUAN			
			11 E	Bottom H	ole Location	If Different Fro	m Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Lot Idn   Feet from the   North/South line   Feet from the   East/West line   County						
Dedicated Acres 320.00	13 Joint	or Infill	Consolidation	Code 15	Order No.			-	, , , , , , , , , , , , , , , , , , , ,		

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

16	E/2 DEDICATED USA SF-08 SECTION T-27-N, R-0	30117 N 27		OPERATOR CERTIFICATION  I hereby certify that the information contained berein to true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the load including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a valuntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signoture
	WELLFLAG NAD 8: LAT: 36.546045° N LONG: 107.769363° W NAD 2: LAT: 36° 32.762187' N LONG: 107° 46.124957' W	3 V V 7 N		Printed Nome  Title and E-mail Address  Date  18 SURVEYOR CERTIFICATION
		2570'	2645.3' (R) 2643.0' (M)	I hereby certify that the well location shown on this plat was plotted from felld notes of actual surveys made by me or surface my supervision, and that the same is true and correct to the best of my belief.  Date of Survey: 9/20/07 Signoture and Seet of Frontistano Surveyor:
	N 89'53' W N 89'54'24" W		2636.7° (R) 2635.2° (M)	Certificate Number: NM 11393

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

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

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 pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

#### **General Plan:**

- 1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division—approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011).
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. 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
  - Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

Components	· Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	<del>-5</del> Q0
Chlorides	EPA 300.1	(1000)500

- 9. Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing, earthen material. 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. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.
- 10. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.
- 11. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011
- 12. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Reshaping 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.
- 13. Notification will be sent to OCD when the reclaimed area is seeded.
- 14. BR shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (unimpacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

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

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100 Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)
Purity 50 percent
Germination 40 percent
Percent PLS 20 percent
Source No. two (better quality)
Purity 80 percent
Germination 63 percent
Percent PLS 50 percent

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

1 lb. PLS 1 lb. PLS

15. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.