received

Form 3160-3 (April 2004) OCD-HOBBS

PERMIT TO DRILL OR REENTER

UNITED STATES
THE INTERIOR DITE ESTATE AND MANAGEMENT

OMB No. 1004-0137 Expires March 31, 2007

5. Lease Serial No. LC-032096-B

if Indian. Allotee or Tribe Naz	

la. Type of work: XX DRILL REENTE	R	7 If Unit or CA A	greement, Name and No.
		8. Lease Name an	d Well No. 235023
1b. Type of Weil: X Oil Well Gas Well Other	X Single Zone Multip	ole Zone EBDU # 6.	5 /
2 Name of Ondersion	MS 918-491-4980) <8		5-38760
Ja. Address TWO WARREN PLACE SUITE 1500 6120 SOUTH YALE, TULSA, OKLAHOMA 7413	3h Phone No finclude area code)	10. Field and Pool, EUNICE-BLIND DRINKARD-NO	or Exploratory EBRY-TUBB RTH
4. Location of Well Report location clearly and in accordance with any		11. Sec., T. R. M. or	Blk. and Survey or Area
At surface 330' FNL & 2520' FWL SECTIO	SECTION 1	1 T21S-R37E	
At proposed prod. zone SAME	Unit C		
14. Distance in miles and direction from nearest town or pass office. Approximately 4 miles Northeast of Eu		12. County or Paris LEA CO.	h 13. State NEW MEXICO
15. Distance from proposed*	16. No. of acres in lease	17. Spacing Unit dedicated to th	is well
location to nearest groperty or lease line, ft. 330	1920	40	
(Also to nearest drig, unit line, if any)	19. Proposed Depth	120. BLM/BLA Bond No. on file	
13. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 844*	6950 '	BLM-CO-1463 NATI	ON WIDE
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3453' GL	22 Approximate date work will sta WHEN APPROVED	23. Estimated dura 20	tion
2422 GT	24. Attachments .		
The following, completed in accordance with the requirements of Onshor		stached to this form:	
 Weil plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	4. Bond to cover to them 20 above). Lands the 5. Operator certification of the cover to the cov	the operations unless covered by cation specific information and/or plant	
25. Signaxire	Name (Printed Types)		Date 01/09/08
Det. (source	Joe T. Janica		01/03/00
Title Agent			
Approved by (Signature) Isl James Stovall	Name (Printed Types) ISI J	lames Stovall	PFEB 1 2 2008
FIELD MANAGER	Office CAF	RLSBAD FIFLD O	FFICE
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.		AFFROVALTOR	111012110
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	rime for any person knowingly and to any matter within its jurisdiction.	willfully to make to any departmen	nt or agency of the United

*(Instructions on page 2)
SEE ATTACHED FOR CONDITIONS OF APPROVAL Capitan Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Apache Corporation has negotiated a surface damage agreement with McNeil Ranches for surface damages on the EBDU well # 65 330' FNL & 2520' FWL Section 11 T21S-R37E LEA CO. NM.

McNeil Ranches P. O. Box 1058 Hobbs, New Mexico 88241

Joet Janes

DISTRICT I _ 1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Revised October 12, 2005 Submit to Appropriate District Office

DISTRICT II OIL CONSERVATION DIVISION 1301 W. GRAND AVENUE, ARTESIA, NM 88210

1220 SOUTH ST. FRANCIS DR. DISTRICT III Santa Fe, New Mexico 87505 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

State Lease - 4 Copies

Fee Lease - 3 Copies

API Number		Pool Code	Pool Name	
30-025-	38760	22900	EUNICE-BLINEBRY-TUBB-DRINKARD,	NORTH
Property Code	T	Prop	erty Name	Well Number
35023		EAST BLINEBRY	Y DRINKARD UNIT	65
ogrid No. 873		-	ator Name CORPORATION	Elevation 3453'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	11	21-S	37-E		330	NORTH	2520	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
					-				
Dedicated Acres	Joint o	r Infili Co	nsolidation (Code Or	der No.				
40									

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

2520 03EE DETAIL NMM-032096-B DETAIL 3456.4*3461.8' 0 8	OPERATOR CERTIFICATION I hereby certify that the information herein is 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 land 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the drivision. Signature Date Joe T. Janica Printed Name SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. AGUST 15 0007 Date Surveyed AR Signature & Seat of Professional Surveyon AR Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

Dedicated Acres

Joint or Infill

Consolidation Code

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

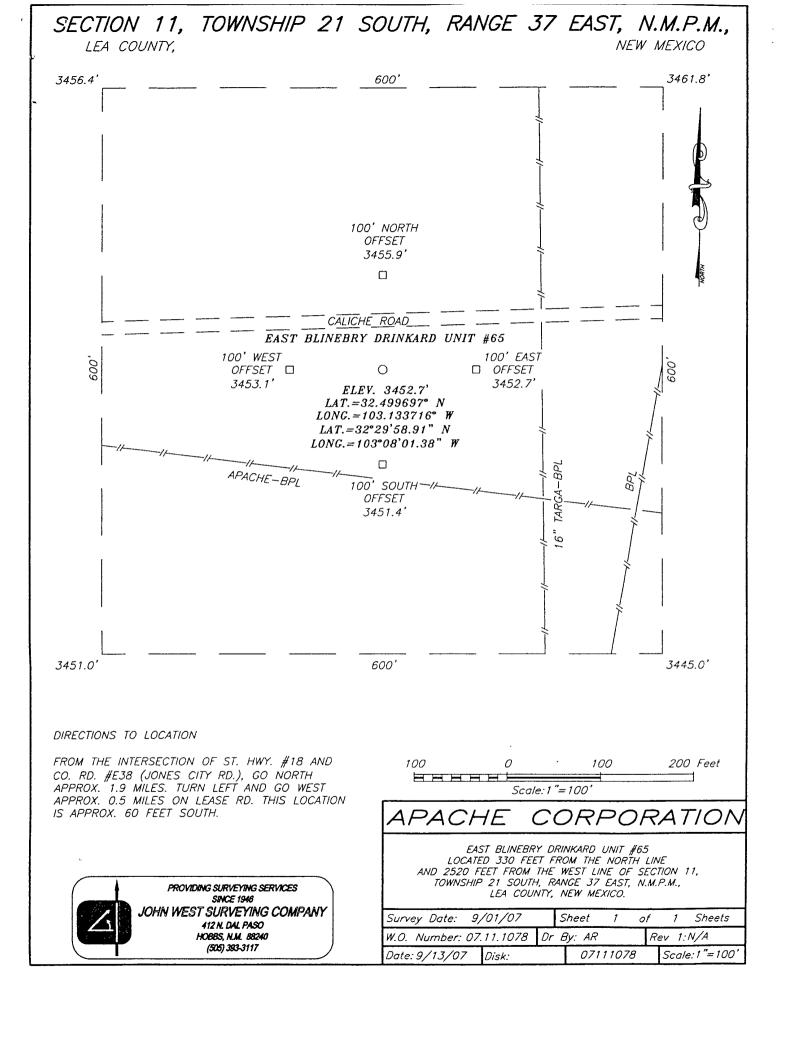
Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT IV 1220 S. ST. FRANCIS	DR., SANTA FE,	WELL LOCATION AND ACREAGE DEDICATION PLAT					☐ AMENDED REP			
API Number Pool Code				Pool Name						
Property	Code		E	AST BLI	-	perty Name Y DRINKARD UNIT			Well Number 65	
OGRID N	o.	Operator Name APACHE CORPORATIO					Elevation 3453'			
1					Surface	Loca	tion			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from the	East/West line	County
С	11	21-S	37-E		330)	NORTH	2520	WEST	LEA
Bottom Hole Location If Different From Surface										
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from the	East/West line	County

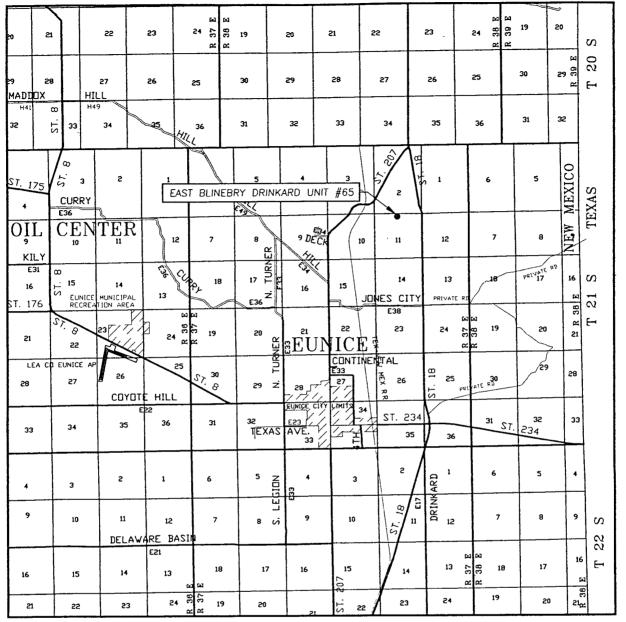
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

Order No.

EBDU #14 EBDU #13 WIW EBDU #21	OPERATOR CERTIFICATION I hereby certify that the information herein is 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 land 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
	Signature Date Printed Name
GEODETIC COORDINATES ————————————————————————————————————	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
LAT.=32.499697* N LONG.=103.133716* W LAT.=32*29'58.91" N LONG.=103'08'01.38" W	AUGUST 1, 2007 Date Surveyed AR Signature & Seal of Professional Surveyor
	07.11.1078 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239



VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 11 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

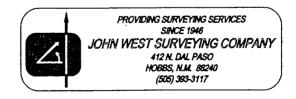
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 330' FNL & 2520' FWL

ELEVATION 3453'

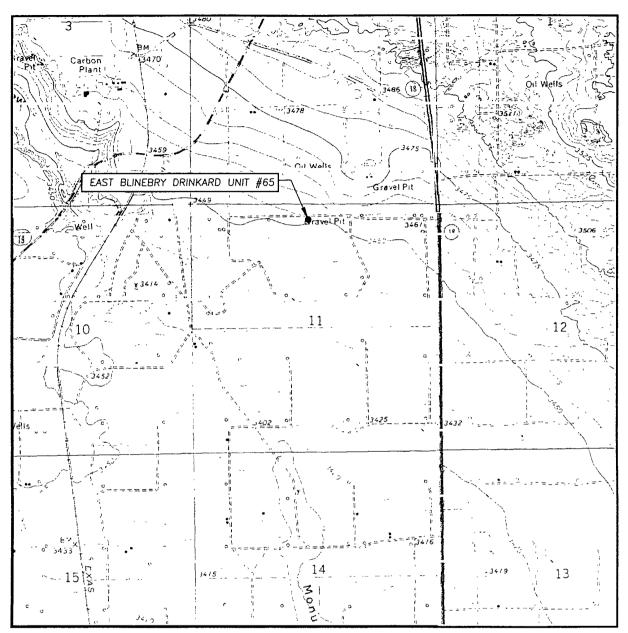
APACHE
CORPORATION

LEASE EAST BLINEBRY DRINKARD UNIT





LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 11 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 330' FNL & 2520' FWL

3453' ELEVATION _____

APACHE CORPORATION OPERATOR ___

LEASE EAST BLINEBRY DRINKARD UNIT

U.S.G.S. TOPOGRAPHIC MAP EUNICE, N.M.

CONTOUR INTERVAL:

EUNICE, N.M. - 10'

EUNICE NE, HOBBS SW, N.M. - 5'

N.M. -

HOBBS SE, N.M. -



PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117



In response to questions asked under Section II of Bulletin NTL-6, the following information on the above will is provided for your information.

- 1. LOCATION: 330' FNL & 2520' FWL SECTION 11 T21S-R37E LEA CO. NEW MEXICO
- 2. ELEVATION ABOVE SEA LEVEL: 3453' GL
- 3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. PROPOSED DRILLING DEPTH: 6950'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Rustler Anhydrite	1348'	Glorieta	5294
Yates	2658'	Blinebry	5714 '
Queen	2890 '	Tubb	6191'
Grayburg	3459 '	Drinkard	6530'
San Andres	4054'	Abo	6782 '
		TD	6950 '

7. POSSIBLE MINERAL BEARING FORMATION:

Blinebry	Oil	Drinkard	011
· Tubb	Oil		

8. CASING PROGRAM:

Hole S	ize	Interval	OD of Casing	Weight	Thread	Collar	Grade	
26"		0-40'	20"	NA	NA ·	NA	Conductor	New
121"	See 77	0-1300'	8 5/8"	24#	8-R	ST&C	J-55	New
7 7/8"	, m	0-6950'	5½"	17#	8-R	LT&C	J-55	New

Design factors: Collapse 1.125 Burst 1.0 Body Yield 1.5 Joint Strength:

8-R 1.8

Buttress 1.6.

EXHIBIT "A" EAST BLINEBRY DRINKARD UNIT # 65 DRILLING PROGRAM

- I. The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.
- II. Estimated Tops of Geological Markers:

<u>FORMATION</u>	<u>DEPTH</u>
Quaternary alluvials	Surface
∠ Rustler	1348'
Yates	2658'
∠ Queen	2890'
Grayburg	3459'
San Andres	4054'
Glorieta	5294'
∠Blinebry	5714'
Tubb	6191'
→ Drinkard	6530'
Abo	6782'
TD	6950'

III. Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

SUBSTANCE	<u>DEPTH</u>
Oil	Blinebry@5714'
	Tubb@6191'
	Drinkard@ 6530'
Gas	None anticipated
Fresh Water	None anticipated

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

IV. A. Proposed Casing Program:

	CASING		WEIGHT			ESTIMATED TOC -
HOLE	SIZE		<u>PER</u>		SACKS	REMARKS
SIZE	OD / ID	GRADE	<u>FOOT</u>	DEPTH	CEMENT	
12 1/4"	8 5/8"	J55 STC	24#	1300'	600	TOC - Surface
	8.097"			7		8.9 ppg Water-based
						Mud;
			SUC OA			89 ° F Est. Static
		-	اللح المحدد			Temp;
						83 ° F Est. Circ. Temp.
7 7/8"	5 ½"	J55 LTC	17#	6950'	1,400	TOC – Surface
	4.892"					Float Collar set @
						6905"/ 10.10 ppg
						Brine Mud;
						141 ° F Est. Static
						Temp;
						117 ° F Est. Circ.
						Temp.

B. Proposed Cement Program:

	LEA	D SLURRY		TAIL	SLURRY		DISPLACEMENT
CASING							
8 5/8"	400 sacks 35:	65 Poz:Class	C 20	0 sacks Clas	ss C Cemer	nt + 2%	79.8 bbls Fresh Water
	Cement + 2%	bwoc Calciur	n by	bwoc Calcium Chloride + 0.125			@ 8.33 ppg
	Chloride + 0.2	25 lbs/sack Ce	llo lb	lbs/sack Cello Flake + 56.3%			
	Flake + 0.003	gps FP-6L +	6% Fr	Fresh Water			
	bwoc Bentoni	ite gel		270 \	Vol. Cu Ft		
	752 Vol. Cu I	_		1.94 Vol. Factor			
	1.94 Vol. Factor			Slurry Weight (ppg) 14.8			
	Slurry Weight	(ppg) 12.7	SI	Slurry Yield (cf/sack) 1.35			
	Slurry Yield (cf/sack) 1.88			mount of Mi	x Water (g	ps)6.35	
		x Water (gps)	10.7: Es	stimated Pun	nping Time	-70	
		ted Pumping	T	C (HH:MM)	-3:00;		
		C (HH:MM)-4		 			
				g: Volume (s:	
126		0.4127 cf/		100% exc	ess =		1040.0 cf
40 f		0.8214 cf/		0% excess	s =		32.8 cf
40 f	ft x	0.3576 cf/s		0% exces	s =		14.3 cf (inside pipe)
		TOTAL S	LURRY V	OLUME	=		1087.1 cf
					=		193.6 bbls
Spacer	20.0 bbls W	/ater @ 8.33 pp	pg				
<u>CASING</u>	<u>LEAD</u>	SLURRY			LURRY		DISPLACEMENT
5 ½"	950 sacks (50:	50) Poz (Fly	450	sacks (50:50) Poz (Fly		171 bbls 2% Kcl Water
	Ash): Class C	Cement + 5%):Class C Ce			@ 8.43 ppg
	bwow Sodium	Chloride + 0.	125 bwo	w Sodium C	hloride +0	.003	
	lbs/sack Cello			FP-6L			
	FP-6L + 10%		è		l. Cu Ft		
		Vol. Cu Ft			l. Factor		
	2.66 V	ol. Factor		ry Weight (p			
	Slurry Weight		Slun	ry Yield (cf/	sack) 1.29		
	Slurry Yield (d	•		ount of Mix	Water (gps)	
	Amount of Mi	x Water (gps)		5.91;			
	14.07;			ount of Mix			
	Amount of Mi	x Fluid (gps)		mated Pump	_	- 70	
	14.07 Estimated Pun	i Time - 5		BC (HH:MM	1)-3:00;		
	BC (HH:M		<u>'0</u>				
	20 (1111.11		5 1/4" Casin	g: Volume C	alculations		
130	00 ft	_	926 cf/ft)% excess	=	250.4 cf
	00 ft		733 cf/ft		9% excess	=	1481.2 cf
	10 ft		733 cf/ft		% excess	=	740.6 cf
	40 ft		305 cf/ft		% excess	==	5.2 cf (inside pipe)
		TOTAL SI			=		2477.4 cf
					=		442 bbls

All slurries will be tested prior to loading to confirm thickening times and a lab report furnished to Apache. Fluid loss will be tested and reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.

A. Proposed Mud Program

DEPTH 0-1,300'

MUD PROPERTIES

Weight: 8.6 – 9.6 ppg Viscosity: 34 – 36 sec/qt

pH: NC Filtrate: NC REMARKS

Spud with a Conventional New Gel/Lime "Spud mud". Use NewGel and native solids to maintain a sufficient viscosity to keep the hole clean. Mix Paper one-two sacks every 100 feet drilled to minimize wall cake build up on water sands and to control seepage loss. At TD of interval, mix in pre-mix pit, 100 barrels of system fluid, NewGel viscosity of 60 sec/100cc, add 0.25 ppb of Super Sweep.

1300' - 5600'

Weight: 9.9 - 10.1 ppgViscosity: 28 – 29 sec/qt

pH: 9-10 Filtrate: NC

pH: 9-10

Drill out from under the surface casing with Brine Water. Paper should be added at 2 bags after every 100' drilled to control seepage losses. Use Lime to maintain pH at 9-10. Mix one gallon of New-55 at flowline every 250 feet drilled to promote solids settling. Sweep hole with 5-ppb of Super Sweep every 500 feet.

5600' - TD

Weight: 9.9 - 10.1 ppgViscosity: 30 – 40 sec/qt

Filtrate: 8-15 cm/30 min

From 5600' to Total Depth, it is

recommended the system be restricted to the working pits. Adjust and maintain pH with Caustic Soda. Treat system with Newcide to prevent dacterial degradation of organic materials. Mix Starch (vellow)

to control API filtrate at <15cc.

VI. Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP and will test before drilling out of surface casing. As expected pressures will not exceed 2000 psi, we request a waiver of the remote control requirement on the accumulator of the 3M BOP and a variance to run a 2M BOP, if available. See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

9" x 3000 psi double BOP/blind & pipe ram (2M BOP if available)

41/2" x 3000 psi Kelly valve

9" x 3000 psi mud cross – H₂S detector on production hole Gate-type safety valve 3" choke line from BOP to manifold

2" adjustable chokes - 3" blowdown line

A. Testing Program: None planned VIII

B. Logging Program: The following logs may be run:

CNL, LDT, GR, CAL, DLL, MSFL, NGT, Sonic from TD-1300'

CNL, GR from TD-Surface

C. Coring Program: None planned

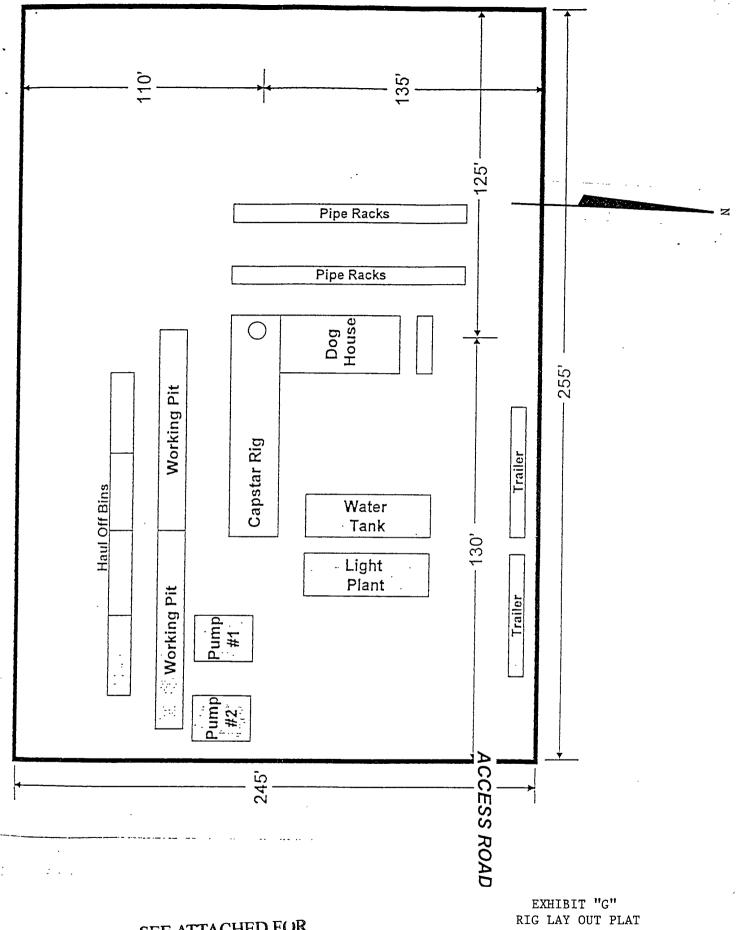
D. Mudlogging Program: Planned from 2500'- TD

IX. Abnormal Pressures

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. The estimated maximum bottom hole pressure is 2000 psi.

All stars

B.O.P. will be worked at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of hole on trips.



SEE ATTACHED FOR CONDITIONS OF APPROVAL

APACHE CORPORATION
EAST BLINEBRY DRINKARD UNIT #65
UNIT "C" SECTION 11
T21S-R37E LEA CO. NM

3000psi -BOPE

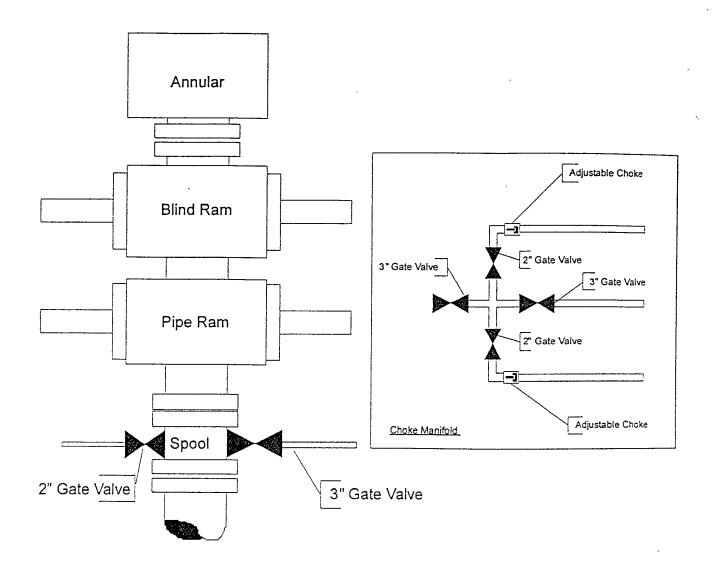


EXHIBIT "H"
SKETCH OF B.O.P. TO BE USED ON

APACHE CORPORATION
EAST BLINEBRY DRINKARD UNIT #65
UNIT "C" SECTION 11
T21S-R37E LEA CO. NM



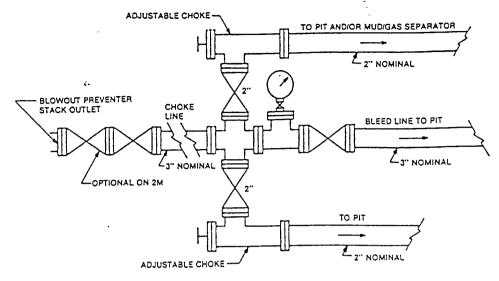


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

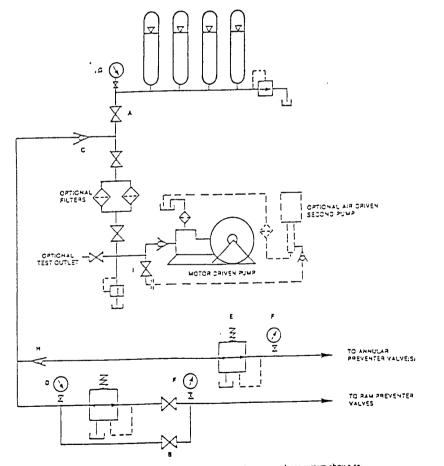


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E"
CHOKE MANIFOLD & CLOSING UNIT

APACHE CORPORATION
EAST BLINEBRY DRINKARD UNIT #65
UNIT "C" SECTION 11
T21S-R37E LEA CO. NM

EXHIBIT "B" EAST BLINEBRY DRINKARD UNIT # 65

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H₂S is anticipated.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified $\rm H_2S$ safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
 - A. See exhibit "E"
- 6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
- 9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:

LEASE NO.:

LC-032096B

WELL NAME & NO.:

SURFACE HOLE FOOTAGE:

BOTTOM HOLE FOOTAGE

LOCATION:

COUNTY:

Apache Corp

LC-032096B

65-East Blinebry Drinkard Unit

330' FNL & 2520' FWL

'F L & 'F L

Section 11, T. 21 S., R 37 E., NMPM

Lea County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
☐ Construction
Notification
Topsoil
Reserve Pit
Federal Mineral Material Pits
Well Pads
☐ Road Section Diagram
☑ Drilling
☐ Production (Post Drilling)
Pipelines
☐ Reserve Pit Closure/Interim Reclamation
Final Ahandonment/Reclamation

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (505) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

C. RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

\Boxed Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Blinebry formation. Hydrogen Sulfide has been reported measuring 200-800 ppm in gas streams and 400-130,000 ppm in STVs.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

B. CASING

- 1. The 8-5/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite at approximately 1325 feet and cemented to the surface. Fresh water mud to be used to this depth.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). Please provide WOC times to inspector for cement slurries.
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, a remedial cement job will be done prior to drilling out that string.

Possible lost circulation in the Glorietta.

- 2. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Please provide WOC times to inspector for cement slurries.
- 3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17. Operator has supplied information based on the BHP in offset wells that the BHP will not exceed 2000 psi. Therefore, a 2M system is approved.
- 2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779

WWI 020508

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- 4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

- 6. All construction and maintenance activity will be confined to the authorized right-of-way width of ________ feet.
 7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
 8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across
- 9. The pipeline shall be buried with a minimum of <u>24</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

these features.

- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. Any cultural and/or paleontological resource (historic or prehistoric site or object)

discovered by the holder, or any person working on his hehalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The see mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	l <u>b/acre</u>
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

^{*}Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.