Form 3160-3 (August 1999) MR 28 2007 **OCD-ARTESIA**

R-111-POTASH

RESUBMITTAL OMB No. 1004-0136 Expires November 30, 2000

UNITED STATES DEPARTM BUREAU OF LAND MANAGEMENT

IENT OF THE INTERIOR	5. Lease Serial No
OF LAND MANAGEMENT	NM-82904

APPLICATION FOR PERMIT TO D	6. If Indian, Allottee or Tril	be Name			
1a. Type of Work: X DRILL RE	7. If Unit or CA Agreemen	t, Name and No.			
b. Type of Well: Oil Well Gas Well Other	8. Lease Name and Well No. Adeline ALN Federal #4				
2. Name of Operator Yates Petroleum Corporation 25575			9. API Well No. 3c - 015 - 3	35523	
3A. Address 105 South Fourth Street	3b. Phone No. (include area cod	le)	10. Field and Pool, or Explo		
Artesia, New Mexico 88210	(505) 748-147	71	Sand Dunes; Delawa	re, South 5387	
	980' FWL, Unit C		Section 6, T2	4S-R31E	
	ame		10.6	T 12 Ct-1-	
14. Distance in miles and direction from nearest town or post office*			12. County or Parish	13. State	
Approximately 24 miles northeast of Loving, New 15. Distance from proposed*		117 0	Eddy County	NM	
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease 640	17. Spacing Oi	Unit dedicated to this well 40 NE/NW		
 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth 8200'	20. BLM/BIA	IA Bond No. on file イ3년 585997		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will	1	23. Estimated duration		
3401' GR	ASAP		35 days		
	24. Attachments				
The following, completed in accordance with the requirements of Onsho	re Oil and Gas Order No. 1, shall t	e attached to this	form:		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System Land SUPO shall be filed with the appropriate Forest Service Office. 	Item 20 abords, the 5. Operator cert	ve). tification. ite specific inform	s unless covered by an existing nation and/or plans as may be r		
25. Signature Supplies Signature	Name (Printed/Typed)	cy@ypcnm.c	Date D	ec. 28, 2006	
Title: Regulatory Agent/Land Department					
Approved by (Signature) /s/ Linda S.C. Rundell	Name (Printed/Typed)	a S.C. Ru	ndell	IAR 2 6 2007	
STATE DIRECTOR	Office N	M STATE	OFFICE		

Application approval does not w operations thereon.

Conditions of approval, if any, at

Title 18 U.S.C. Section 1001and States any false, fictitious or frau If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

o those rights in the subject lease which would entitle the applicant to conduct

nowingly and willfully to make to any department or agency of the United APPROVAL FOR 1 YEAR jurisdiction.

*(Instructions on reverse)

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED**

1625 N. French Dr., Hobbs, NM 88240

1000 Rio Brazos Rd., Axtec, NM 87410

State of New Mexico

En J, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

District II *811 South First, Artesia, NM 88210

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit to Appropriate District Office

REFER TO ORIGINAL PLAT

Signature and Seal of Professional Surveyor.

Date of Survey

Certificate Number

District III

State Lease - 4 Copies Fee Lease - 3 Copies

District IV 1220 S. St. Francis	Dr., Santa F	e. NM 87505						Г	7 ΔΜ	ENDED REPORT
		•	ELL LO	OCATIO	N AND ACE	EAGE DEDIC	ATION PLA	T	, ·····	2140 21 21 2 140 22 121 2
	API Number	7		² Pool Cod	le .		³ Pool Na	me)
30-015-32192 S3818 Sand Dunes Delaware Sent							7 <u>~</u>			
Property Code Property Name Well Number										
7 OCRID !	ADELINE ALN FEDERAL OGRID No. Operator Name Operator Name Operator Name									
02557	1								3401'	
						Location			l	<u> </u>
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	est line	County
C	6	245	31E		660	North	1980	W.	est	Eddy
			11 B	ottom H	ole Location	If Different From	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	est line	County
<u> </u>	13 Joint o	7 511 145	<u></u>	1 186	<u> </u>	<u> </u>	L	<u> </u>		1
¹² Dedicated Acres 40	Joint	rinna ··· C	Consolidation	Code C	order No.					į
1980)'		C- 2904				I hereby true and belief. Signature Cy C Printed N Regu Title 12/2: Date	certify that d complete to cowgin lane Ulatory A 4/2003	Agent R CERT the well loca	TIFICATION ion contained herein is my knowledge and TIFICATION ation shown on this plat
				1			4 -	• •	-	ctual surveys made by I that the same is true
							Į.	rect to the b		

Submit to Appropriate District Office Statis Ledge - 4'copies Fee Lease - 3 copies

State of New Mexico Energy, Minerals and Natural Resources De

t

Form C-102 Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. DIEWER DD, Artosia, NM 88210
DISTRICT III
1000 Rio Brezos Rd., Aziac, NM 87410

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

WELL LOCATION AND ACREAGE DEDICATION PLAT

		Va nadau	ceé luner de :	from the outer	DOCUMENTAL C	I BIN BACKOLI		
erator				Louis	· · · · · · · · · · · · · · · · · · ·		 	Wall No.
	ETROLEUM CO				ie "aln"	FEDERAL		4
Lotter	Section	Township		Range			County	-
C	6	24 SOUTH		31 H	EAST	NMPM	E	DDY
al Pootage Loc	ation of Well:) TOD MY		1000			tarca	
660 ad level Elev.	feet from the	NORTH cing Formation	line and	1980		feet from	the WEST	line Dedicated Acreage:
3401	1	*			at Delav	are		40
		aware ated to the subject well b		<u> </u>				Acres
2. If more uniting the control of th	re than one lease is re than one lease of ation, fosce-pooling Yes or is "no" list the ow n if necessary. wable will be assign	dedicated to the well, ou different ownership is d , etc.?	stline each and edicated to the ver is "yes" ty as which have sterests have b	l identify the owner well, have the pe of consolidate actually been consolidate consolidate	interest of all consolidated. (d)	((both as to work owners been const	olidated by control on, forced-pool OPERA I hereb contained her	emunitization,
	Le	- 52904					Company Yates Date	Cy Cowan Permit Agent Petroleum Corpor October 31, 2001
			· · ·				I hereby cei on this plat actual survi supervison, correct to belief. Date Survey 7/ Signature &	23/92 Sect NEW
							Professiona Certificate	HERSCHEL L JOHES

YATES PETROLEUM CORPORATION Adeline "ALN" Federal #4

660' FNL & 1980' FWL Sec. 6-T24S-R31-E Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	477'
Top of Salt	863'
Base of Salt	3932'
Bell Canyon	4150'
Cherry Canyon	5129'
Brushy Canyon	6810'
Bone Spring Lime	8010'
TD	8200'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water:

Approx 150'

Oil or Gas:

Brushy Canyon 5129' and Bone Spring 8010'

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" casing and rated for 3000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

Auxiliary Equipment:

A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

1

- 4. THE PROPOSED CASING AND CEMENTING PROGRAM:
 - A. Casing Program: (All New)

COA	•	Hole Size 17 1/2"	Casing Size 13 3/8"	<u>Wt./Ft</u> 48# H	<u>Grade</u> I-40	Coupling ST&C	<u>Interval</u>	Length 750'	825 T
		11"	8 5/8"	32#	J-55	ST&C	0-4100'	4100'	13
		7 7/8"	5 1/2"	17#	J-55	LT&C	0-100'	100'	
		7 7/8"	5 1/2"	15.5#	J-55	LT&C	100'-6800'	6700'	
		7 7/8"	5 1/2"	17#	J-55	LT&C	6800'-8200'	1400'	

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

Adeline "ALN" Federal #4 Page 2

B. CEMENTING PROGRAM:

Surface casing: 450 sx Lite (YLD 1.96 WT.12.6) Tail in w/ 200 sx Class "C" + 2% CaCl2 (YLD 1.34 WT 14.8).

Intermediate Casing: 1000 sx Lite (YLD 2.5 WT 11.9); Tail in w/ 250 sx "C" w/ 2% CaCl2 (YLD 1.34 WT. 14.8)

Production Casing: (TOC=3700') Stage I; 450 sx Super "H" (YLD 1.67 WT. 13.0). Tail in with 50 sx Thixotropic (Yld. 1.4 Wt 14.4) Stage II: Lead w/350 sx Lite (YLD 2.0 WT 12.0) Tail in w/ 50 sx Super "H" (Yld 1.67 Wt 13.0). DV tool at 6500'.

5. Mud Program and Auxiliary Equipment:

Interval 825	_Type	Weight	<u>Viscosity</u>	Fluid Loss
(1) O-750°	FW/Native Mud	8.6-9.2	28-36	N/C
425 750 '-4100'	Brine	10.0-10.2	28	N/C
4100'-6800'	Cut Brine	8.6-9.1	28	N/C
6800'-8200 '	Cut Brine/Starch	8.6-9.1	28-32	<15cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 10 samples out from under surface casing.

Logging: CNL/LDT TD to casing; GR w/CNL to Surface; DLL x/RXO TD to casing.

Coring: None Anticipated. DST's: As warranted.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

500 **PSI** TO: Anticipated Max. BHP: From: 750' 0 750' BHP: 1790 PSI 4100' Anticipated Max. From: TO: Anticipated Max. BHP: 4100 **PSI** 4100' TO: 8200' From:

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 198 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 15 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN Yates Petroleum Corporation

Adeline "ALN" Federal #4

660' FNL & 1980' FWL Sec. 6-T24S-R31-E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 24 miles northwest of Loving, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Carlsbad on Highway 285 to Highway 31. Go east on Highway 31 to Highway 128 (Jal Highway). Go approximately 12 miles to County Road 787 (Twin Wells Road). Turn South and go approximately 4 miles. The new road will start here going west to the well location.

2. PLANNED ACCESS ROAD.

- A. The proposed new access will be approximately 0.2 of a mile in length from the point of origin to the northeast corner of the drilling pad. The road will lie in an east to west direction.
 - B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
 - C. The new road will be bladed with drainage on one side. Traffic turnouts may be built.
 - D. The route of the road is visible.
 - E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL

- A. There is drilling activity within a one-mile radius of the wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a fresh water system. The fresh water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate closest pit and obtain any permits and materials needed for construction.

METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the reserve pits.

B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.

D. Oil produced during operations will be stored in tanks until sold.

E. Current laws and regulations pertaining to the disposal of human waste will be complied with.

F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

8. ANCILLARY FACILITIES: Amend the surface use plan to include the following, one 3" SDR Poly surface flow line from this well. Flow line will follow access road to pipeline ROW. NM-94388 then north. One (1) three phase 640 volt raptor proof power line from this well to the Adeline ALN Federal Com. #15 to follow access road due east.

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined and will face to the south.
- C. A 400' x 400' area has been staked and flagged.

10. PLANS FOR RESTORATION

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.
- 11. SURFACE OWNERSHIP: Federal surface, Administered by the Bureau of Land Management, Carlsbad, New Mexico.

Adeline "ALN" Federal #4 Page 3

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE

A. Through A.P.D. Approval:

 B. Through Drilling Operations, Completions and Production:
 Pinson McWhorter, Operation

Cy Cowan, Regulatory Agent Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210 Phone (505) 748-1471 Pinson McWhorter, Operations Manager Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210 Phone (505) 748-1471

14. CERTIFICATION:

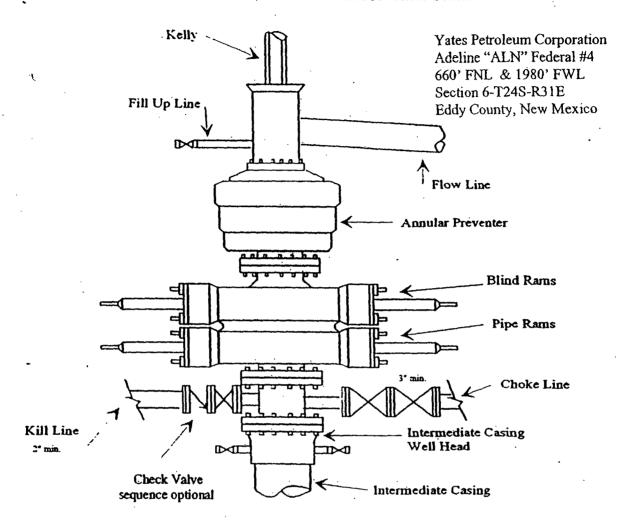
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and , that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

12/28/06

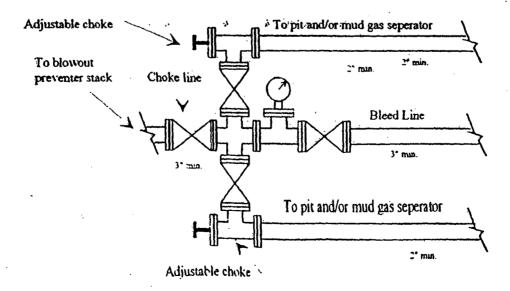
Regulatory Agent

lates Petroleum Corporation

Typical 3.000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack



Typical 3,000 psi choke manifold assembly with at least these minimum features



District I
1625 N. French Dr., Hobbs, NM 88240

District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-144 March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.

For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure
Is pit or below-grade tank covered by a "general plan"? Yes x No

Type of action: Registration of a pit	or below-grade tank x Closure of a pit or below-	grade tank
Operator: Yates Petroleum Corporation Telepho	ne: <u>(505) 748-1471</u> e-mail address: <u>cy@y</u>	pcnm.com
Address: 105 Courts Fourth Street Arteria NIM 89210		
Facility or well name: Adeline ALN Federal #4	API#: 30-0(5-3394Qu/L or Qtr/Qtr_	C Sec 6 T 24S R 31E
County: Eddy Latitude Longitude		
Pit	Below-grade tank	
Type: Drilling x Production Disposal	Volume:bbl Type of fluid:	
Workover Emergency	Construction material:	
Lined Unlined U	Double-walled, with leak detection? Yes 🔲 I	f not, explain why not.
Liner type: Synthetic Thickness 12 mil Clay Volume		
bbl		
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet	(20 points)
water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(O points)
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)		(O points)
	No.	(o points)
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	0 points
	Ranking Score (Total Points)	0 POINTS
If this is a pit closure: (1) attach a diagram of the facility showing the pit's	relationship to other equipment and tanks. (2) In	dicate disposal location:
onsite offsite If offsite, name of facility	(3) Attach a general description of remedial	action taken including remediation start date and end
date. (4) Groundwater encountered: No 🗌 Yes 🔲 If yes, show depth belo	w ground surface ft. and attach sa	ample results. (5) Attach soil sample results and a
diagram of sample locations and excavations.		
I hereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines	my knowledge and belief. I further certify the general permit 1, or an (attached) alternative Signature	the above described pit or below-grade tank has to OCD approved plan.
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve the regulations.	relieve the operator of liability should the content operator of its responsibility for compliance with	s of the pit or tank contaminate ground water or any other federal, state, or local laws and/or
Appropriate 1 6 2006		
Printed Name/Title	Signature	
	icol	

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. Operator's Name:

4-Adeline ALN Federal Yates Petroleum Corp.

Location:

0660FNL, 1980FWL, Section 6, T-24-S, R-31-E

Lease:

NM82904

I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County, in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: <u>13-3/8</u> inch <u>8-5/8</u> inch <u>5-1/2</u> inch
- C. BOP tests
- 2. Hydrogen Sulfide (H2S) is always possible, but not reported in this area.
- 3 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.
- 4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
- 7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 825 feet to cover deep water zone, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

Fresh water mud to be used to setting depth of surface casing.

- 2. The minimum required fill of cement behind the <u>8-5/8</u> inch salt protection casing is <u>cement shall</u> <u>circulate to surface</u>.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall circulate to surface. Both stages to circulate.
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be <u>2M</u> psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the <u>8-5/8</u> inch casing shall be <u>3M</u> psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

Engineer on call phone: 505-706-2779

WWI 011907