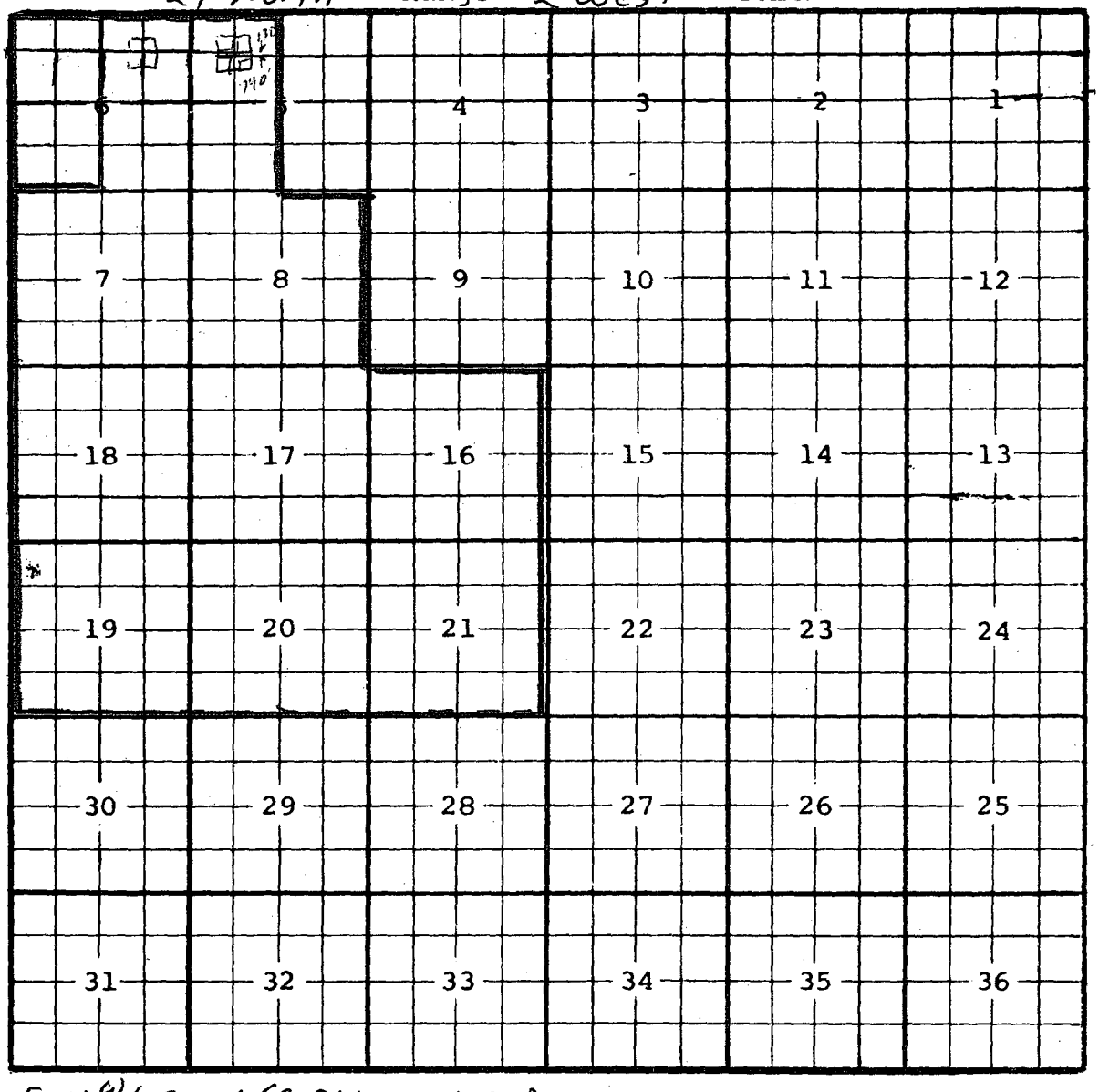
Rio Arriba and
County Sandoval Pool West Lindrith Gallup-Dakota Oil

TOWNSHIP 24 North Range 2 West NMPM



Exti: W/2 Sec. 6 (R-9667, 5-6-92)

Exti: W/2 Sec. 5, E/2 Sec. 6, All Secs. 7 and 8, All Secs. 16 through 21 (R-9801, 12-16-92)

```
CMD :                                ONGARD                          06/05/03 13:28:30
OG6IWCM                      INQUIRE WELL COMPLETIONS                      OGOMES -TPGN


API Well No : 30  39 27092   Eff Date : 05-19-2003   WC Status : A
Pool Idn    : 39189 LINDRITH GALLUP-DAKOTA,WEST
OGRID Idn   :  11859 JICARILLA ENERGY CO
Prop Idn    :  15646 JICARILLA APACHE JV 5

Well No     : 007
GL Elevation:  7369

               U/L Sec  Township Range North/South    East/West  Prop/Act(P/A)
               --- ---  -------- ----- ------------ ------------ -------------
B.H. Locn   : E    5   23N      03W   FTG 1981 F N FTG  588 F W       P
Lot Identifier:
Dedicated Acre: 160.00
Lease Type    : J
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :


        M0025: Enter PF keys to scroll
PF01 HELP    PF02          PF03 EXIT    PF04 GoTo    PF05          PF06
PF07         PF08          PF09         PF10 NEXT-WC PF11 HISTORY PF12 NXTREC
```

Well Master

API Well#	30 039 27092 00 00			Status	A	Status Dt	
Operator	JICARILLA ENERGY CO			Type	G	Prmt App	10/22/2002
Orig Op				Category		Prmt Exp	
Driller				Cmpl	S	Spudded	02/21/2003
Well Nm	JICARILLA APACHE JV 5	Well No	007	WI Permit		TD Rchd	12/31/9999
Field Nm	JICARILLA APACHE JV 5			Orig WI Type		Cmpltd	05/19/2003
Basin				Orig Cat		Auth Trs	12/31/9999
Deep Frm				Lease/Unit #		1st Prod	12/31/9999
				Cur'nt		1st Inj	
				Orig		PB Dt	
				Mod Dt:		Plug Pln	
				Multi- Lateral?	☐	P/A	12/31/9999
				Const			
				District	03		

	Measured	TVD
Kickoff		0
Plug Back	0	0
Hole	0	7735
Loggers	0	

Master Well File Comments

<Shift>+<F2> will expand the comment field for viewing/editing!

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other
2. Name of Operator: ***Jicarilla Apache Energy Corporation***
3. Address and Telephone No.: ***P.O. Box 710, Dulce New Mexico 87528 Mr. Jesse Evans (505)759-3224***
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 1981'FNL & 583'FWL, Sec 5, T23N, R3W NMPM

5. Lease Designation and Serial No.: Joint Venture Agreem 701 99 0014
6. If Indian, Allottee or Tribe Name: Jicarilla Apache Tril
7. If Unit or CA, Agreement Designation:
8. Well Name and No.: Jicarilla Apache JV5
9. API Well No.: Not yet assigned
10. Field and Pool, or Exploratory Area: W. Lindrith Gallup-Dak
11. County or Parish, State: Rio Arriba, NM

12. **CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION	
☑ Notice of Intent	☐ Abandonment	☑ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Due to wildlife habbitat, grade and road visibility concerns discussed during the onsite conducted on 7-9-02, JAECO proposes to change their APD - Surface use plan to include an access Road/PL ROW entering location from the southwest verses the original ROW entering location from the north east.

Attached is the updated Surface Use Plan including Vicinity Map, Area Map and Wellsite Layou with Cut & Fills. Archaeological & EA surveys were conducted on the proposed ROW by Velarde Energy Service on 7-25-02.

Your concurrence with this proposal is appreciated.

I hereby certify the foregoing is true and correct

Name _____ Title Agent Date _____

(This space for Federal or State office use)

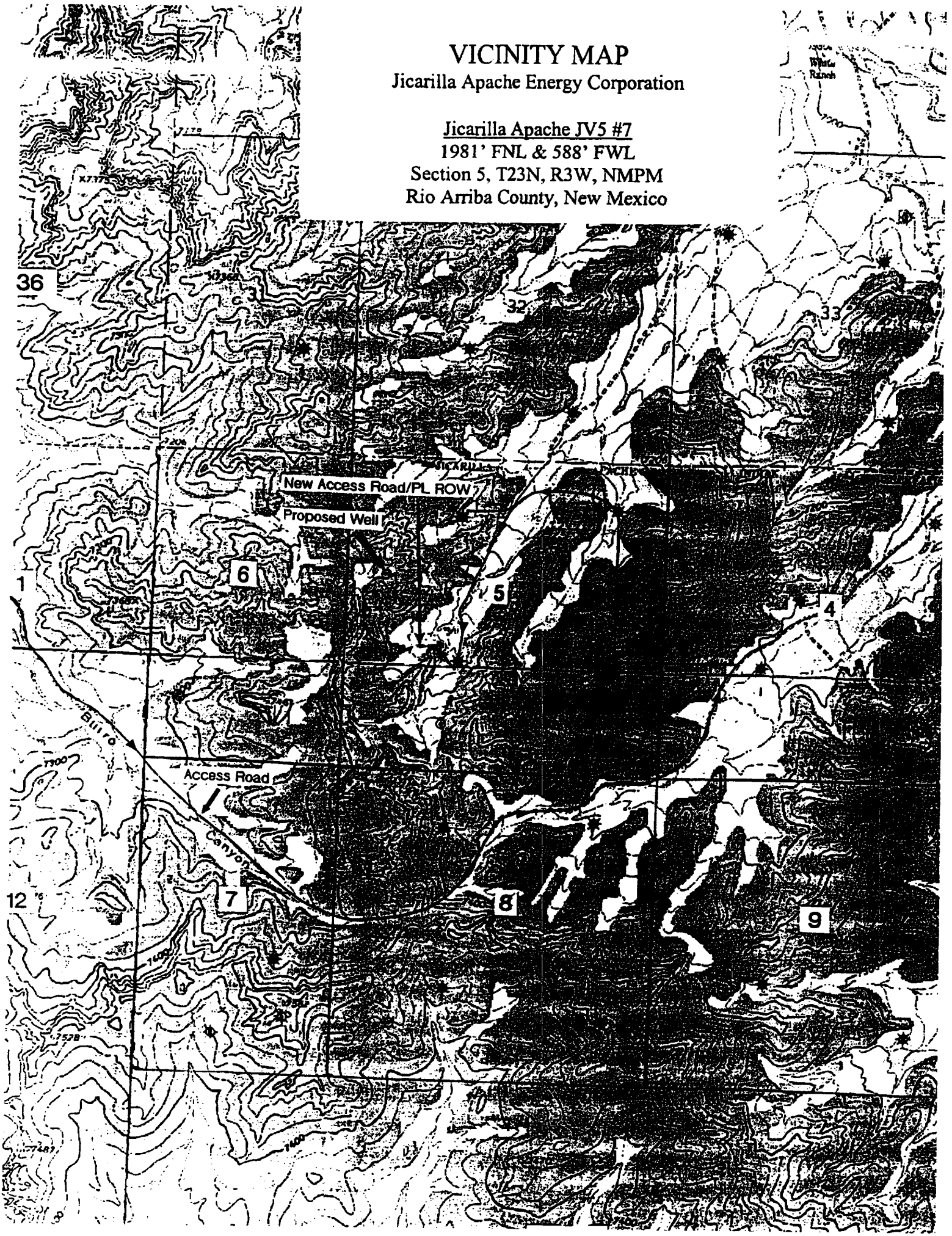
Approved by _____ Title Lands and Mineral Resources Date OCT 2 2002

Conditions of approval, if any:

VICINITY MAP

Jicarilla Apache Energy Corporation

Jicarilla Apache JV5 #7
1981' FNL & 588' FWL
Section 5, T23N, R3W, NMPM
Rio Arriba County, New Mexico



JICARILLA APACHE ENERGY CORPORATION
APACHE JV 5-7
1981' FNL & 588' FWL
Section 5, T23N, R3W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose

2. **Surface Elevation:** 7369' GL.

3. **Estimated Formation Tops:**

Formation	Top - feet	Expected Production
Nacimiento	1510'	
Ojo Alamo	2785'	
Fruitland	3120'	GAS
Pictured Cliffs	3225'	GAS
Lewis	3290'	
Huerfanito	3560'	
Chacra	4035'	GAS
Mesa Verde (OCD Top)	4310'	
Cliff House	4770'	GAS
Menefee	4850'	GAS
Pt. Lookout	5315'	GAS
Upper Mancos	5540'	
Gallup	6385'	GAS / OIL
Lower Mancos	7130'	
Greenhorn	7310'	
Graneros	7380'	
Dakota:	7390'	GAS / OIL
Burro Canyon	7670'	
Morrison	7760'	
TOTAL DEPTH	7760'	

4. **Casing and Cementing Program:**

- Drill a 12 1/4" Hole to 320'. A string of 8 5/8" 24# J-55 ST&C casing will be set and cemented to the surface in a single stage with 225 sacks (266 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 3% $CaCl_2$ and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 8 5/8" annulus. Minimum clearance between couplings and hole is 2.625". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

4. **Casing and Cementing Program:** - Continued

   - WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 30 minutes.
   - Drill an 7 7/8" hole through the Dakota formation.
   - Run Induction and Compensated density/neutron logs from TD to surface casing shoe.
   - Run 4 ½" 10.5/11.6# K-55 & 11.6# N - 80 production casing from surface to Total Depth and cement in 2 stages with DV tool installed at 4064'. **Stage 1** (TD - 4064') will be cemented with 650sacks (1255cf) 65/35 Class "B"/Poz containing 6% gel, 0.6% Halad 9 and ½ cf Perlite/sack - mixed at 12.7 PPG, 1.93 yield. Followed with 100 sks 50/50 Class "B"/Poz with 2% gel, 10 ¼ #/sk Gilsonite and 10% NaCl mixed at 13.4 PPG, 1.24 yield (Total: 1379 cf of slurry; 70% excess to 4064'). Circulate with mud for 4 hours. **Stage 2** (4064' - 0') will be cemented with 964 sacks (1861 cf) 65/35 Class "B"/Poz containing 6% gel, 2% CaCl, 1/2 cf Perlite/sack – mixed at 12.7 PPG, 1.93 yield (1861 cf of slurry, 100% excess to Surface).
   - Run temperature survey after 12 hours if cement does not circulate to surface.
   - WOC 18 hours.

Cement volume is subject to change after review of open hole caliper log to caliper volume + 30%. Minimum clearance between couplings and hole is 2.875". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

Bits: 12 1/4" surface hole - MT class 115 or 116 to ~ 320'.
7 7/8" production hole - PDC to ~ 7505' – top of DK "B" Sand.
7 7/8" production hole – TCI class 637 - 7505' to 7760' TD

Centralizers:
Surface string: 3 – 8 5/8" x 12 ¼": One centralizers run in middle of shoe joint with lock ring and two centralizers spaced evenly between shoe joint and 100'.

Production string: 25 - 4 ½" x 7 7/8" centralizers will be run across all prospective pays in the Dakota and Mesa Verde formations. 1 – 4 ½" x 7 7/8" centralizer will run below the DV tool and 5 – 4 ½" x 7 7/8" centralizers will be run every other joint above DV tool. In addition 5 – 4 1/2" x 7 7/8" turbolizers will be spaced such that one (1)is just below the Basal Fruitland Coal, three (3) across the Fruitland and one (1)into the Ojo Alamo

4. **Casing and Cementing Program:** - continued

Float Equipment:
Surface string: Saw tooth guide shoe w/insert float,1 jt above shoe.

Production string: Cement nose float shoe, 1 jt 4 ½"" csg, float collar, and DV tool set at 4064' with 2 cement baskets below DV.

5. **Pressure Control Equipment:**

A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 600 psig before drilling out from under surface casing. The mechanical operating condition of the BOP will be checked daily. 4 1/2" rams will be installed before running production casing. Full opening drill string safety valves to fit all pipe in the drill string will be maintained on the rig floor during drilling operations.

6. **Mud Program:**

The well will be spudded and drilled to surface casing depth with a high viscosity slurry of bentonite, lime and fresh water. A fresh water PHPA polymer, low solids, non-dispersed mud system will be utilized to drill the well from surface casing to total depth. Sufficient mud materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume will be visually monitored and recorded on a routine basis.

Mud Property Guidelines:

Interval (ft)	Weight (ppg)	Vis (sec/qt)	pH	Fluid Loss (cc/30 min)
0 – 320'	8.6 – 9.2	40 - 35	9 – 9.5	No Control
320' - 4720'	8.6 – 9.0	30 – 35	9 – 9.5	15 – 20
4720' – 7760'	8.8 – 9.0	40 – 45	9 – 9.5	8 – 10

Note: Raise mud viscosity to 45 – 60 for logging. Thin mud viscosity to 40 – 45 to run casing.

Mud pH: to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection and gel hydration.

Lost Circulation: can occur anywhere from the Pictured Cliffs formation to TD. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.