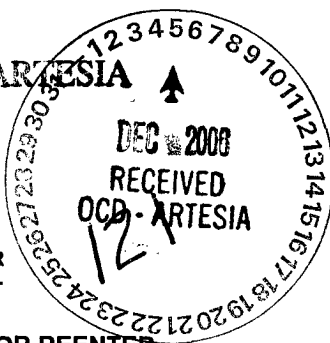


OCD-ARTESIA

ATS-07-75

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 98169	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator EOG Resources, Inc. 7377		7. If Unit or CA Agreement, Name and No.	
3a. Address P.O. Box 2267, Midland, TX 79702		8. Lease Name and Well No. Avalanche 4 Fed No. 1 36180	
3b. Phone No. (include area code) (432) 686-3642		9. API Well No. 30-015-35265	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FSL & 2105' FEL (U/L O) At proposed prod. Zone		10. Field and Pool, or Exploratory Wildcat; Upper Pennsylvanian Oil 96072	
14. Distance in miles and direction from nearest town or post office* 10 miles NW from Loco Hills, NM		11. Sec., T., R., M., or Blk. And Survey or Area Section 4, T16S-R29E, N.M.P.M.	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. Unit line, if any) 660'	16. No. of Acres in lease 280	12. County or Parish Eddy	
17. Spacing Unit dedicated to this well SW/4 SE/4 (40 acres)	18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft. none	13. State New Mexico	
19. Proposed Depth 9,050' TVD	20. BLM/BIA Bond No. on file NM2308	21. Elevations (Show whether DF, KDB, RT, GL, etc) Gr 3698'	
22. Approximate date work will start* 1/2/2007	23. Estimated duration 30 days	24. Attachments	

The following completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|--|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Donny G. Glanton</i>	Name (Printed/Typed) Donny G. Glanton	Date 10/31/2006
---------------------------------------	--	--------------------

Title SR LEASE OPERATIONS ROW REPRESENTATIVE		
Approved by (Signature) <i>/s/ James Stovall</i>	Name (Printed/Typed) /s/ James Stovall	Date DEC 01 2008
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1717
States any false, fictitious or fraudulent statements.

*(Instructions on reverse)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

ROSWELL CONTROLLED WATER BASIN

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL FOR 1 YEAR

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
District IV
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- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96072	Pool Name WILDCAT; Upper Pennsylvanian Oil
Property Code	Property Name AVALANCHE 4 FED.	Well Number 1
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Elevation 3698'

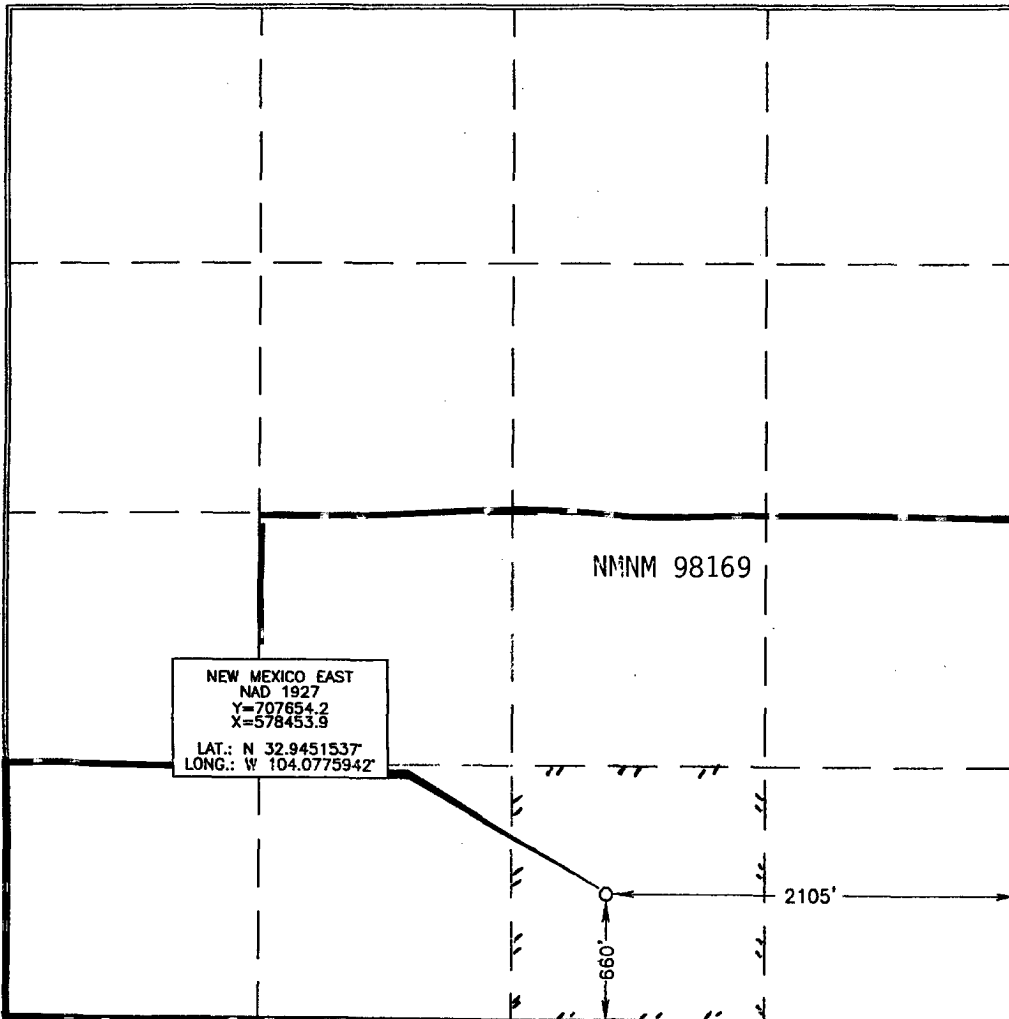
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	4	16 SOUTH	29 EAST, N.M.P.M.		660'	SOUTH	2105'	EAST	EDDY

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 40		Joint or Infill	Consolidation Code	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.



OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Don G. Glanton 10/27/06
Signature Date

Donny G. Glanton
Printed Name

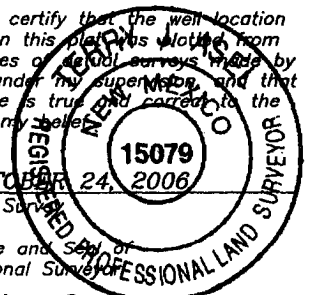
SURVEYOR CERTIFICATION

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.

OCTOBER 24, 2006
Date of Survey

Signature and Seal of Professional Surveyor

Tommy J. Asel 10/26/06
Certificate Number 15079



WO# 061024WL (JL)

Statement Accepting Responsibility For Operations

Operator Name: EOG Resources, Inc.
Street or Box: P.O. Box 2267
City, State: Midland, TX
Zip Code: 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NMNM 98169


Legal Description of Land: SW/4 SE/4 of Section 4, T-16-S; R-29-E, N.M.P.M., Eddy Co. NM

Formation: Upper Pennsylvanian Oil (Cisco/Canyon)

Bond Coverage: Nationwide

BLM Bond File No.: NM2308 with endorsement to State of NM

Authorized Signature:


Donny G. Glanton

Title: Agent

Date: 10/31/2006

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

Quaternary Alluvium 0-300

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Yates	875'
7R	1,090'
Queen	1,616'
San Andres	2,285'
Glorieta	3,856'
Tubb	5,076'
Abo Shale	5,856'
WFMP	7,066'
Cisco	8,016'
Canyon	9,016'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Quaternary Alluvium	0- 300'	Fresh Water
Queen	1,600'	Oil/Gas
San Andres	2,300'	Oil/Gas
Abo/Wolfcamp Pay	7,060'	Oil/Gas

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 14.750" casing at 400' and circulating cement back to surface.

4. CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</u>	<u>Weight</u>	<u>Grade</u>	<u>Jt. Conn. Type</u>
14.750"	0-400'	11.750"	42#	H-40	LT&C
11"	0-2,600'	8.625"	32#	J-55	LT&C
7.875"	0-9,050'	5.5"	17#	P-110	LT&C

Cementing Program:

11.750" Surface Casing: Cement to surface with 250 sx Class C +2% S1 +0.25 pps D29.

8.625" Intermediate Cement to surface:
Lead: 600 sx 50:50 Poz C + 5% D44 +10% D20 + 0.25 pps D29 + 3 pps D24
Tail: 200 sx Class C + 1% S1 + 0.25 pps D29

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

5.50" Production: Cement to 500' above shallowest hydrocarbon bearing zone:
Lead: 400 sx CemCrete 39/61 (D961/D124) + 1% D153 + 0.05 gps D604AM + 0.1 gps D801 + 0.03 gps M45.
Tail: 250 sx TXI Lightweight + 6% D44 + 0.4% D167 + 0.2% D65 + 0.2% D46

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. for a 3M system.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	Wt	ViscositWaterloss	
		<u>(PPG)</u>	<u>(sec)</u>	<u>(cc)</u>
0-400'	Fresh - Gel	8.6-8.8	28-34	N/c
400'-2,600'	Brine	10.0-10.2	28.34	N/c
2,600'-7,000'	Fresh Water	8.4-8.6	28-34	N/c
7,000'-8,500'	Cut Brine	8.8-9.2	28-34	N/c
8,500'-9,050'	Cut Brine	9.0-9.4	40-45	10-15

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Laterlog and GR-Compensated Density-Neutron from +/-400' to TVD.

Possible sidewall cores based on shows.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 135 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2500 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

DRILLING PROGRAM

EOG RESOURCES, INC.
Avalanche 4 Fed No. 1
Eddy Co. NM

SURFACE USE AND OPERATIONS PLAN **Surface is owned by BLM**

Directions to Well Site: From Loco Hills go west on U.S. Hwy 82 for 4 miles; thence north on C.R. 214 (Barnaval Draw Road) for 7.1 miles; thence turn left in northwest direction for 0.2 miles; thence in a northeast direction for 1.1 miles; thence in a northwest direction (along Duke pipeline) for 0.4 miles; thence in a northeast direction for 0.1 miles to location.

1. EXISTING ROADS:

Access to location will be made as shown on Exhibit #2

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. PROPOSED ACCESS ROAD:

2,600' of new road is required. New lease road will be constructed on existing two track road adjacent to existing pipeline rights of ways. See Exhibit 2a.

No turnouts necessary.

No culverts are necessary. No low-water crossings are necessary.

Surfacing material consists of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

3. LOCATION OF EXISTING WELLS:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

There are no existing production facilities. If production is encountered, a temporary facility will be established on the drill pad, and if warranted, a production facility would be built at a later date in the immediate area of the drill pad location. If the well is productive, a flowline will be built to the nearest pipeline.

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine water for drilling will come from commercial sources and transported to the well site over the roads as shown on Exhibit 2 & 2a and by temporary water supply lines.

6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current federal laws and regulations. Location will be cleaned, and the well pad removed to promote vegetation and disposal of human waste will be complied with. Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

ANCILLARY FACILITIES:

No airstrip, campsite, or other facilities will be built.

WELL SITE LAYOUT:

Exhibit #4 shows the relative location and dimensions of the well pad.

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

OTHER INFORMATION:

The area around the well site is grassland and the topsoil is sandy with rock. The vegetation is native scrub grass.

COMPANY REPRESENTATIVES:

Permitting & Land

Mr. Donny G. Glanton
Senior Lease Operations ROW Representative
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3642 Office

Drilling

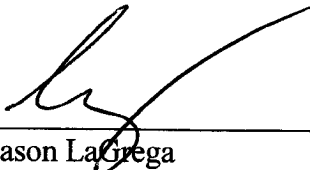
Mr. Jason LaGrega
Division Drilling Engineer
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3633 Office

Operations

Mr. Howard Kemp
Production Manager
EOG Resources, Inc.
P.O. Box 2267
Midland, TX 79702
(432) 686-3704 Office

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 EOG Resources, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.



Jason LaGrega
Division Drilling Engineer
DATE: 10/31/2006

DRILLING PROGRAM

EOG RESOURCES, INC.

Avalanche 4 Fed No. 1

Eddy Co. NM

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.
2. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum. Exhibit #1.
3. All fittings to be flanged
4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
5. All choke and fill lines to be securely anchored especially ends of choke lines.
6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
7. Kelly cock on kelly.
8. Extension wrenches and hand wheels to be properly installed.
9. Blow out preventer control to be located as close to driller's position as feasible.
10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EOG Resources, Inc.

AVALANCHE 4 FED No. 1

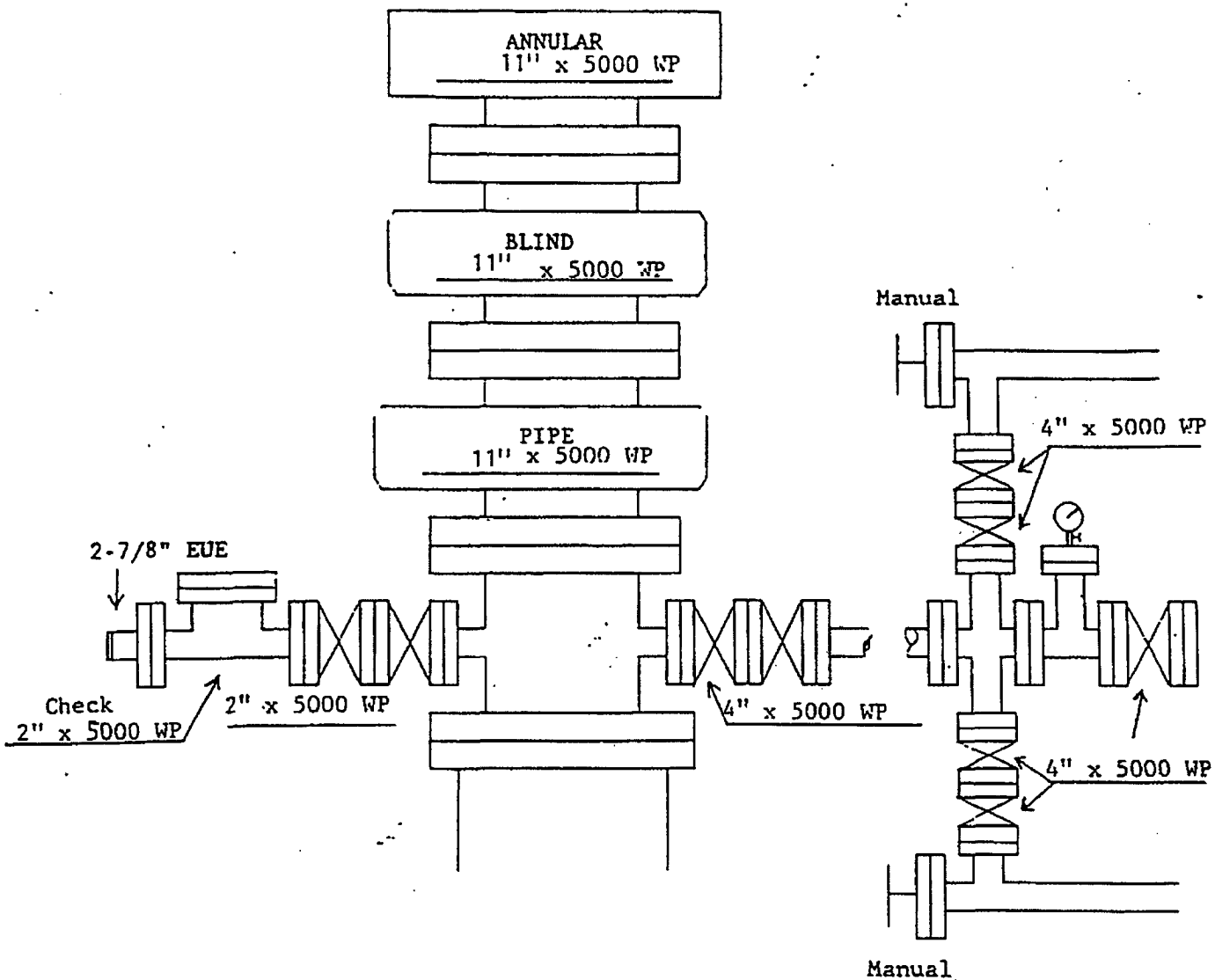


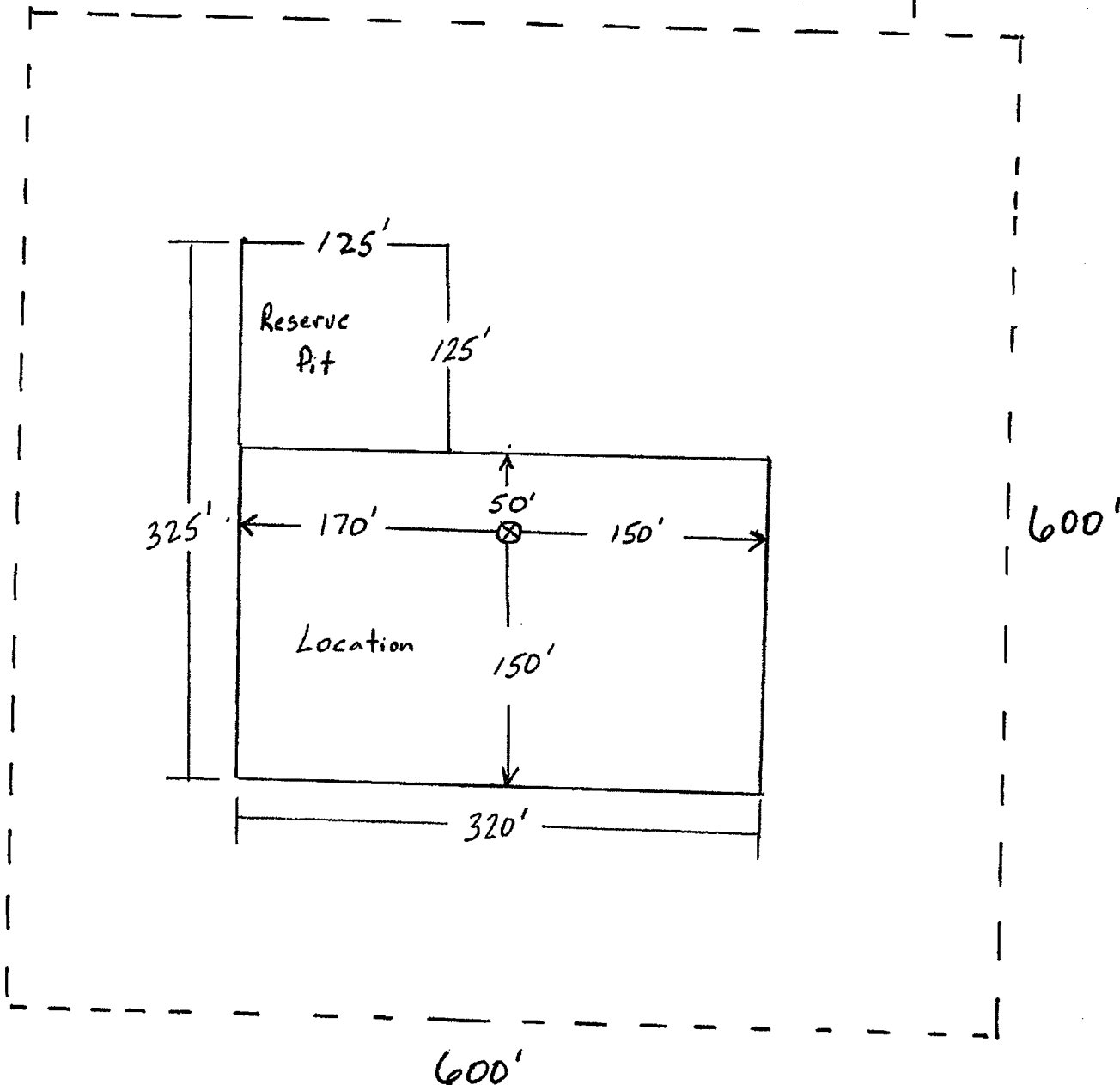
Exhibit 1

EXHIBIT "4"

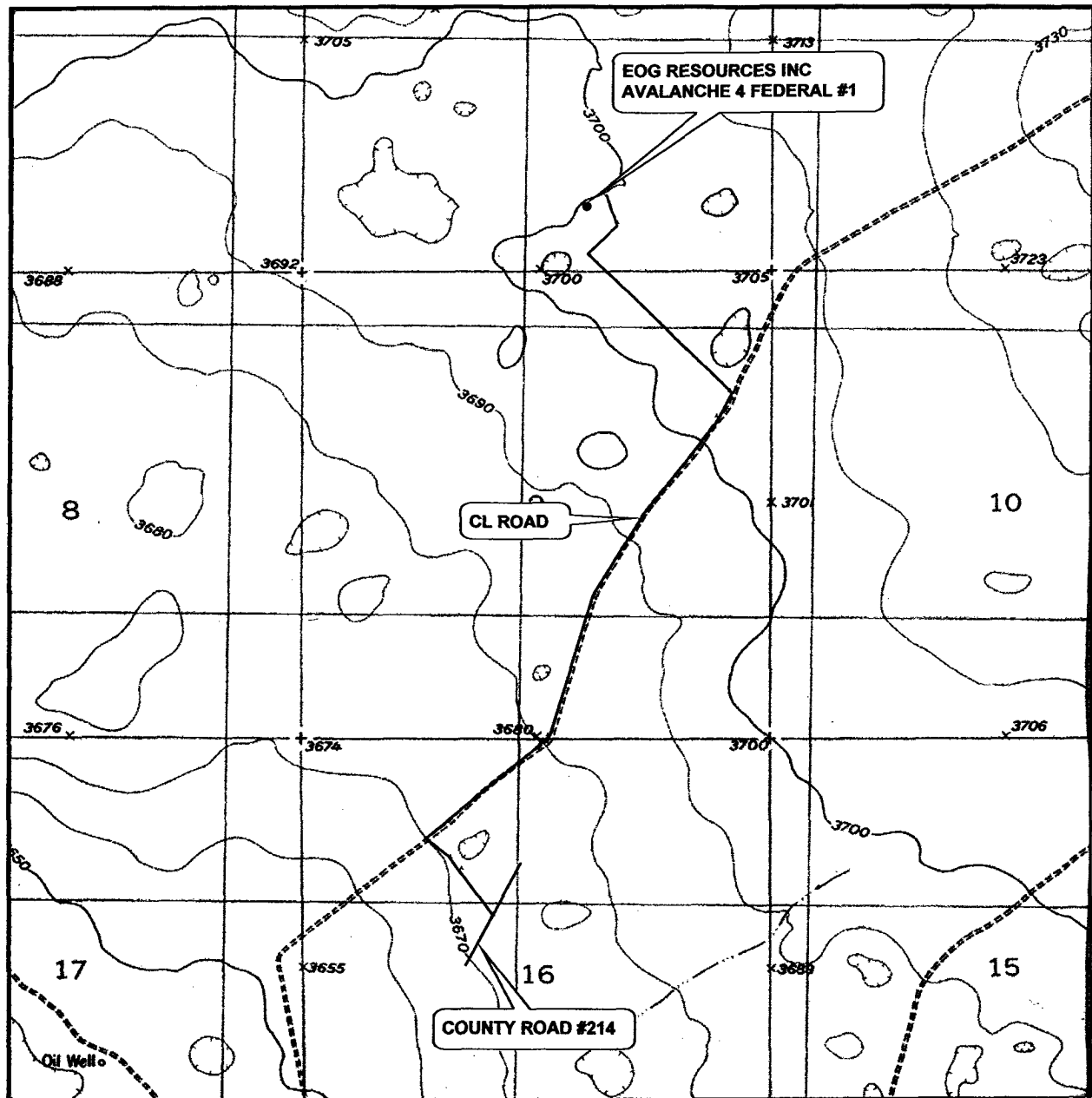
AVALANCHE 4 Fed No. 1

S

4



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BASIN WELL, N.M. - 10'

SEC. 4 TWP. 16-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 2105' FEL

ELEVATION 3698'

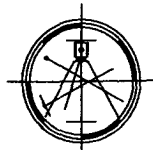
OPERATOR EOG RESOURCES INC.

LEASE AVALANCHE 4 FED. #1

U.S.G.S. TOPOGRAPHIC MAP
BASIN WELL, N.M.

Asel Surveying
& Consulting

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 505-393-9146



SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: EOG Resources, Inc. Well Name & #: Avalanche 4 Federal #1
Location 660 F S L & 2105 F E L; Sec. 04, T. 16 S., R. 29 E.
Lease #: NM-98169 County: Eddy State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- () Lesser Prairie Chicken (stips attached) () Flood plain (stips attached)
() San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(X) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche upon completion of well and it is determined to be a producer.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

(X) Other. Reserve pits will be to the South, V-door will be to the West. Use as much of old existing location as possible.

III. WELL COMPLETION REQUIREMENTS

() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre. If broadcasting, the seeding rate must be doubled.

() A. Seed Mixture 1 (Loamy Sites)

Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0
Plains lovegrass (*Eragrostis intermedia*) 0.5

(X) B. Seed Mixture 2 (Sandy Sites)

Sand Dropseed (*Sporobolus crptandrus*) 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

() C. Seed Mixture 3 (Shallow Sites)

Side oats Grama (*Bouteloua curtipendula*) 5.0
Green Spangletop (*Leptochloa dubia*) 2.0
Plains Bristlegrass (*Setaria magrostachya*) 1.0

() D. Seed Mixture 4 (Gypsum Sites)

Alkali Sacaton (*Sporobolus airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

() OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.

Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

(1) Lined as specified above and

(2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 1 – Avalanche 4 Fed
Operator's Name: EOG Resources, Inc
Location: 0660FSL, 2105FEL, Section 4, T-16-S, R-29-E
Lease: NMNM 98169

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) 234-5972 or (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 11-3/4 inch 8-5/8 inch 5-1/2 inch

C. BOP tests

2. **Although no H₂S has been reported in this section, it has been noted in the township to the east with amounts ranging between 1600 and 7000 ppm. Monitoring equipment to be onsite.**

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 11-3/4 inch surface casing shall be set at **a minimum of 25 feet into the Rustler Anhydrite approximately 400 feet and above the salt,** 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.

Possible loss of circulation in the Grayburg and San Andres formations.

Possible water flow in the Salado and Artesia Groups – major water flow occurred in Sec. 33, T17S, R30E at approximately 380 feet.

Possible karst type structures.

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is **circulate cement to the surface.**

4. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall extend upward a minimum of 200 feet into the intermediate casing.**

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 11-3/4 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 below the 11-3/4 inch casing shall be 3M 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.
 - BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

Engineer on call phone: 505-706-2779

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