

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROW/APD

FORM APPROVED
Budget Bureau No. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work

DRILL ☒DEEPEN ☐

b. Type of Well

Oil Well ☐ Gas Well ☒ Other ☐Single Well ☒ Multiple Zone ☐

2. Name of Operator

Merrion Oil & Gas Corporation

3. Address and Telephone No.

610 Reilly Ave Farmington NM 87401
ph: (505) 327-9801

4. Location of Well (Footages)

At Surface ~~823' fsl & 823' fwl (on SW)~~
1567' 1496'

At proposed prod. zone Same

5. Lease Designation and Serial No.
SF-080384-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Hickman A No. 3R

9. API Well No.

30-045-30897

10. Field and Pool, or Exploratory Area
Basin Fruitland Coal11. Sec., T., R., M., or BLK.
and Survey or Area

K Section 10, T26N, R12W

14. Distance in Miles and Directions from Nearest Town or Post Office

18 miles south of Farmington NM, near Chaco Plant

12. County or Parish
San Juan13. State
NM15. Distance from Proposed Location to Nearest
Property or Lease Line, Ft

823'

16. No. of Acres in Lease

958 acres

17. No. of Acres Assigned to This Well

320 acres

18. Distance from Proposed Location to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT

-100'

19. Proposed Depth

-1515'

20. Rotary or Cable Tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc)

6074 GR 6079 RKB

22. Approximate Date Work will Start

As soon as permitted

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7" J55	23 ppf	~120' KB	~30 sx (35 cuft)
6-1/4"	4-1/2" J55	10.5 ppf	~1515' KB	~118 sx (179 cuft)

Merrion proposes to drill 8-3/4" hole with native mud to approx 120' and set 7" 23# J55 surface casing, cement to surface with ~30 sx 'B' w/ 2% CaCl₂ (35 cuft). Will drill 6-1/4" hole to TD @ approx 1515' KB with low solids non-dispersed mud system. Will set 4-1/2" 10.5 ppf J55 production casing from TD to surface. Will cement with ±45 sx 'B' (92 cuft) lead slurry followed by ±74 sx 'B' (87 cuft) cement to fill from total depth to surface. Top of Cement should circulate to surface (will adjust volumes based upon caliper log).

A water spacer will be pumped ahead of the lead slurry to prevent mud contamination of the cement. If cement does not reach surface, a temperature log or cement bond log will be run to determine top of cement.

Will test Fruitland Coal through perforated casing. Will fracture stimulate and put on for production test. Drilling operations below surface casing will be conducted with a Bag type BOP in place, minimum working pressure 1000 psig. Additional drilling technical details attached.

Additional drilling technical details and locator maps are on file in the original Hickman A #3 APD package. Also included are the documents for Archaeological clearance, T&E and EA. The original well was drilled and completed about 2 1/2 years ago. There will be no further disturbance outside the existing location.

The access road and pipeline for the existing well will be used for this well.

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal to deepen, give present productive zone and proposed new productive zone.

COPIES: BLM+5, WELL FILE+1

24. I hereby certify that the foregoing is true and correct

Signed

Connie S. Dinning Title Production Engineer

Date August 10, 2001

(This space for Federal or State office use)

Permit No.

Approval Date

Application approval does not warrant or certify that 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:

APPROVED BY:

TITLE

DATE

MINOR FOR STATUS CHANGE R. G. 7

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMSF080384B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.7. If Unit or CA/Agreement, Name and/or No.
30-045-30897

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other: COAL BED METHANE8. Well Name and No.
HICKMAN A 3R2. Name of Operator
MERRION OIL & GAS CORPContact: CONNIE DINNING
E-Mail: merrion@cyberport.com9. API Well No.
30-045-30897-00-X13a. Address
610 REILLY AVE
FARMINGTON, NM 87401-26343b. Phone No. (include area code)
Ph: 505.327.9801 Ext: 126
Fx: 505.326.590010. Field and Pool, or Exploratory
BASIN

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 10 T26N R12W SWSW 823FSL 838FWL

11. County or Parish, and State

SAN JUAN COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Merrion Oil & Gas proposes to change the location for the subject well. It was originally staked at 823' fsl & 838' fwl. A new topo locator map, cut/fill diagram and C-102 are attached. The new well will be on the existing Hickman A No. 1R location so there will be no additional surface disturbance. The gas will be sold through the existing Hickman A No. 1R pipeline and no additional access will be required.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #9539 verified by the BLM Well Information System
For MERRION OIL & GAS CORP, sent to the Farmington
Committed to AFMSS for processing by Lucy Bee on 05/17/2002 (02LXB0768SE)

Name (Printed/Typed) CONNIE DINNING

Title ENGINEER

Signature (Electronic Submission)

Date 12/04/2001

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Jim Lovato

Title

Date AUG - 9 2002

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

NMOCD

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

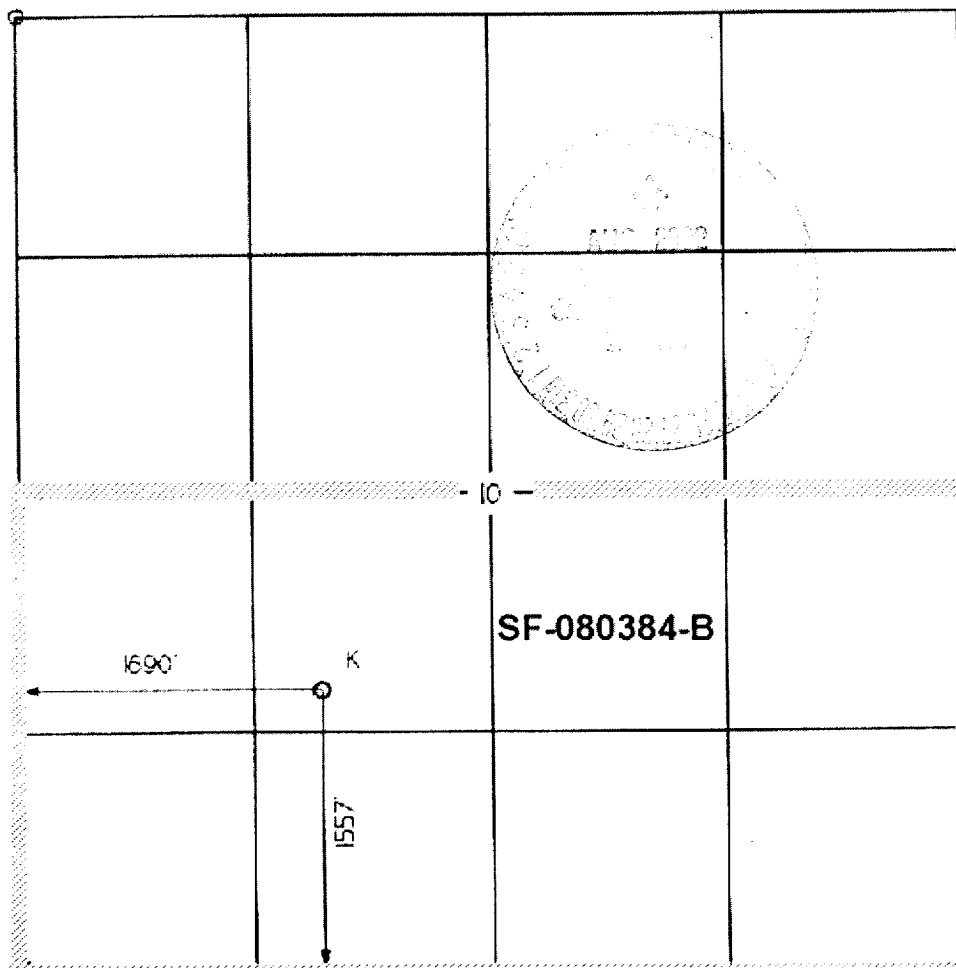
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045-30897	Pool Code	Pool Name Basin Fruitland Coal
Property Code 7802	Property Name HICKMAN A	Well Number 3 R
OGRD No. 14634	Operator Name MERRION OIL & GAS	Elevation 6090'

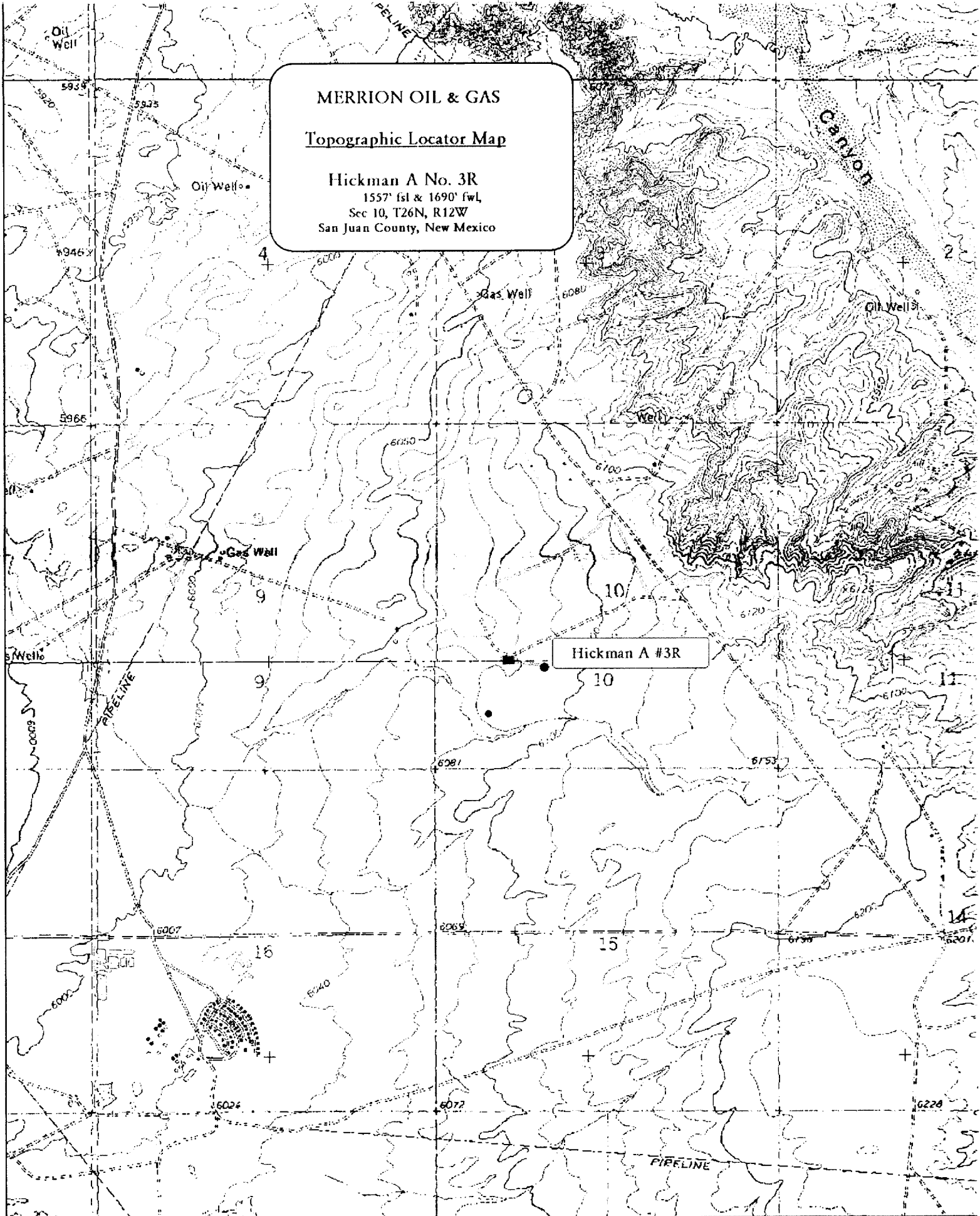
Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Lth.	Feet from	North/South	Feet from	East/West	County
K	10	26 N.	12 W		1557'	SOUTH	1690'	WEST	SAN JUAN

Bottom Hole Location if Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Lth.	Feet from	North/South	Feet from	East/West	County
Dedication	Joint ?	Consolidation	Order No.						

NO ALLOWABLE WILL 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. Signature	
Printed Name Connie S. Dinning	
Title Production Engineer	
Date November 30, 2001	
SURVEYOR CERTIFICATION I hereby certify that the well location 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. Date of Survey	
Signature Professional Surveyor 	



MERRION OIL & GAS CORPORATION

DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

HICKMAN A NO. 3

823' fsl & 838' fwl (sw sw)
Section 10, T26N, R12W, NMPM
San Juan County, New Mexico

1. ESTIMATED FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH KB</u>	<u>EST PSI</u>
Kirtland Shale	328'	
Fruitland	713'	
Main Coal	1290'	335 psi
Pictured Cliffs	1312'	341 psi
Total Depth	1515'	

2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawings attached) is a BAG type preventer, and will be used in 1000 psi service. Merrion requests a waiver from O&G Order No. 2 requirements for 2M service.
- B. Minimum required working pressure rating for BOP stack is 1000 psi. Anticipated bottomhole pressure = 394 psi. Well Control Anticipated Surface Pressure (ASP) = $390 \text{ psi} - (0.22 * 1515') = 61 \text{ psi}$, assuming a partially gas cut column.
- C. BOP pressure testing will be conducted at time of installation and prior to drillout of surface casing shoe. BAG type preventer will be tested to 250 psi. The BOPs will be activated on each trip for a bit and recorded in the driller's log. A choke manifold will be installed (Refer to schematic drawing). Working pressure for choke manifold is greater than 1000 psi. In addition, a kill line from the mud pump will be hooked to the bradenhead as depicted in the schematic.
- D. Stabbing valves for drill pipe and drill collars will be available on the rig floor. No kelly cock valve will be installed.

3. DRILLING MUD PROGRAM

- A. A 9-3/4" surface hole will be drilled with fresh water system, lime and gel added to provide viscosity as needed.
- B. A 6-1/4" hole will be drilled to total depth utilizing a native mud system. Additives such as starch, cmc, and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added to the drilling fluid in hazardous quantities.

Lost circulation materials will not be stored on location.

Mud weighting materials will not be stored on location.

<u>INTERVAL</u>	<u>MUD SYSTEM</u>	<u>WEIGHT #/GAL</u>	<u>VISCOSITY SEC/QT</u>	<u>WATER LOSS CC</u>
0 - 120'	Native	< 9.0	35-55	NA
120' - 1515'±	Native	8.6-9.0	28-45	NA

Maximum anticipated mud weight is 9.0 lb./gal (0.47 psi/ft).

- C. Mud trip monitoring will be done visually.

4. HAZARDS

- A. Abnormal Pressure is not expected to be a problem in this area.
- B. Lost circulation is not expected to be a major problem in this area.
- C. No H₂S is expected. However, should H₂S be found during drilling, detection and warning equipment will be installed.
- D. Unintentional hole deviation is not expected to be a problem. Single shot surveys giving hole inclination will be run a minimum of every 500 feet on the vertical well.

5. LOGGING AND TESTING

- A. An Induction, Density Log will be run from TD to surface.
- B. Drill stem tests will not be run.
- C. No coring is anticipated.
- D. No mud logging unit will be used during drilling.

6. CASING PROGRAM

- A.

	Description	Top	Bottom
1	7" 23# J55	Surface	120' ft ±
2	4-1/2" 10.5# J55	Surface	1515' ft ±

- B. A wellbore schematic is attached.