

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ELM RIDGE RESOURCES, INC.

3a. Address P. O. BOX 189

FARMINGTON, NM 87499

3b. Phone No. (505) 632-3476

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 1085' FSL & 1260' FEL

At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*

7 AIR MILES NORTHEAST OF COUNSELORS

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

1,260'

16. No. of Acres in lease

2,560

17. Spacing Unit dedicated to this well WC Basin Mancos
OTERO GALLUP SESE = 40 ACRES 160
BASIN DAKOTA: S2 = 320 ACRES

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

286'

19. Proposed Depth

6,900'

20. BLM/BIA Bond No. on file

#886441C (BIA - NATION WIDE)

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

6,655' GL

22. Approximate date work will start*

UPON APPROVAL

23. Estimated duration

4 WEEKS

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.
2. A Drilling Plan.
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

Comments

The only other well in the quarter-quarter is an Elm Ridge PC well.

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

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

cc: BIA, BLM (&OCD), Elm (D & F), Nation

25. Signature

[Signature]

Name (Printed/Typed)

BRIAN WOOD

Date

8-9-03

Title

CONSULTANT

PHONE: 505 466-8120

FAX: 505 466-9682

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Date

3/9/05

Title

Acting Field Manager - Mancos

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 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.

NMOC

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

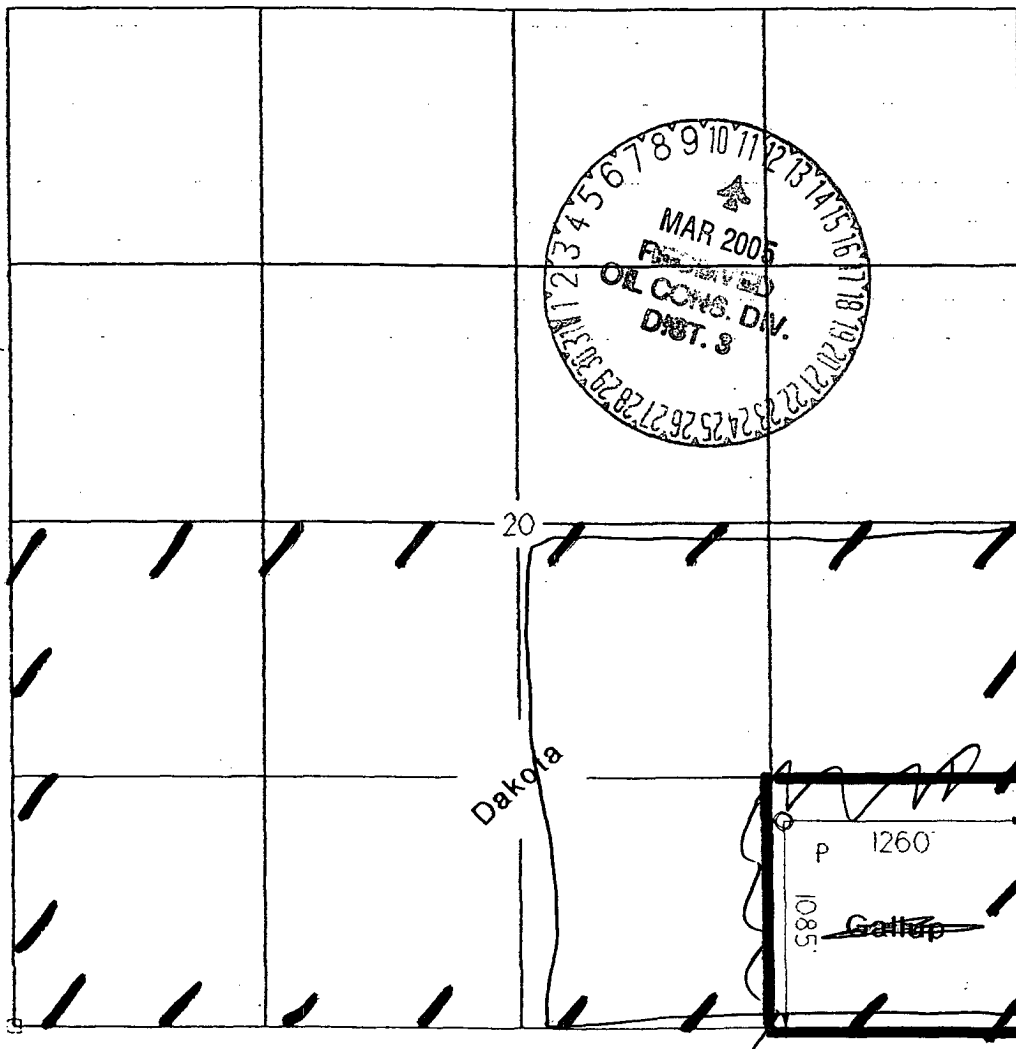
APA Number 30039-29285	Pool Code 97232 48450 & 71599	Pool Name WC Basin Mancos OTERO GALLUP & BASIN DAKOTA
Property Code 19026	Property Name Jicarilla Apache B	Well Number IOE
OGRID No. 149052	Operator Name ELM RIDGE RESOURCES	Elevation 6655'

Surface Location									County
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	
P	20	24 N.	5 W.		1085'	SOUTH	1260'	EAST	RIO ARriba

Bottom Hole Location If Different From Surface									County
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from >	North/South	Feet from >	East/West	

Dedication 160 48 & 320	Joint ? .	Consolidation .	Order No. .
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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 <i>Brian Wood</i> Printed Name BRIAN WOOD Title CONSULTANT Date AUGUST 9, 2003	
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 21 NOVEMBER 2002 Signature and Seal of Surveyor 	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

WELL API NO.	30-039-
5. Indicate Type of Lease	STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.	BIA # 11
7. Lease Name or Unit Agreement Name	JICARILLA APACHE B
8. Well Number	10E
9. OGRID Number	149052
10. Pool name or Wildcat	OTERO GALLUP & BASIN DAKOTA

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other
2. Name of Operator ELM RIDGE RESOURCES, INC.
3. Address of Operator P.O. BOX 156, BLOOMFIELD, NM 87413
4. Well Location Unit Letter <u>P</u> : <u>1085</u> feet from the <u>SOUTH</u> line and <u>1260</u> feet from the <u>EAST</u> line Section <u>20</u> Township <u>24N</u> Range <u>5W</u> NMPM County <u>RIO ARRIBA</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,655' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Reserve Depth to Groundwater ~390' Distance from nearest fresh water well ~1.3mi Distance from nearest surface water ~340'

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <u>RESERVE PIT</u> <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

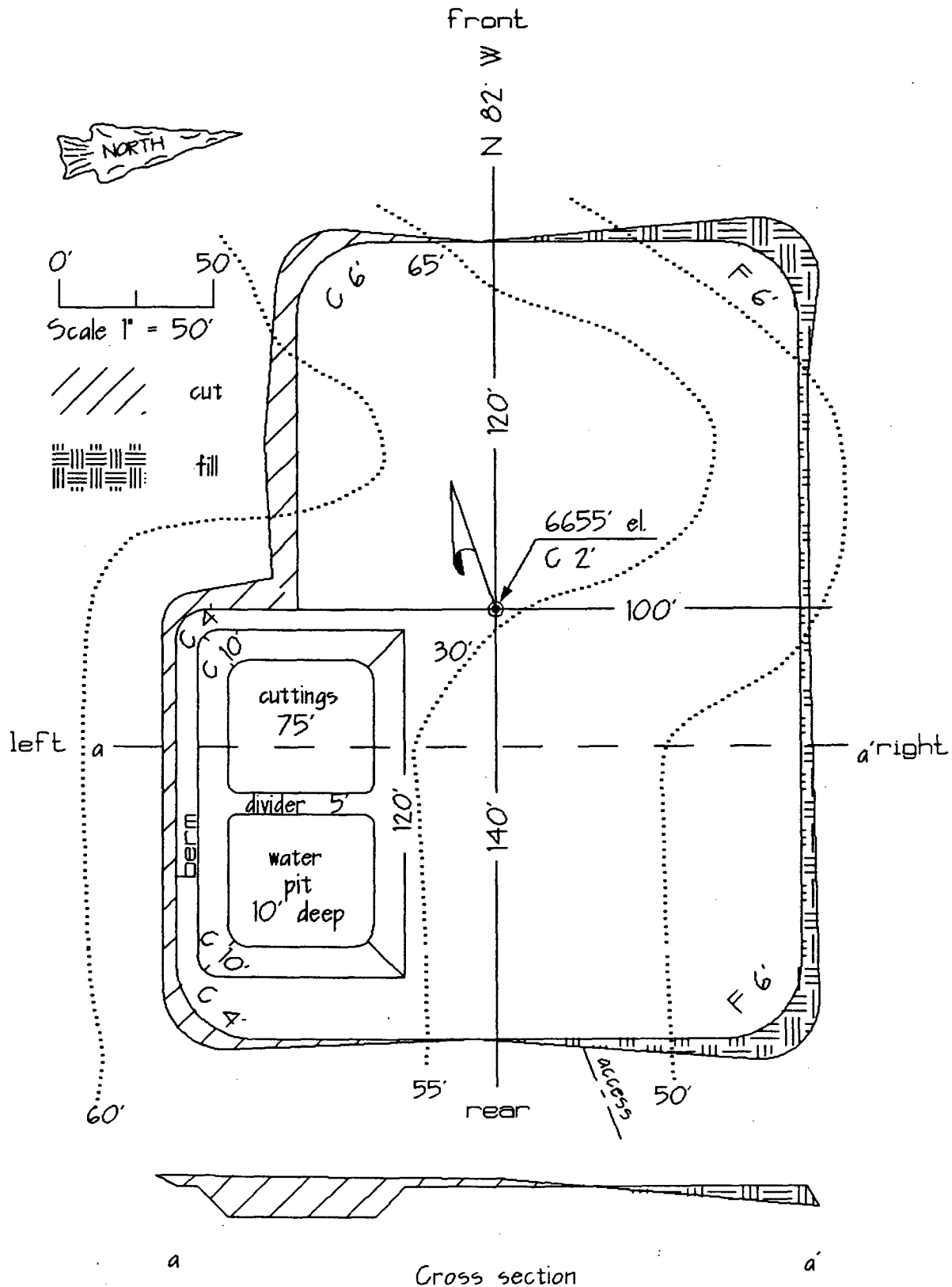
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.



I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Craig M. Fiehler TITLE Biologist DATE 12/30/04
Type or print name Craig M. Fiehler E-mail address: craig@permitswest.com Telephone No. 505-466-812
For State Use Only
APPROVED BY: Original Signed By DENNY G FOUST TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3 DATE JAN - 4 2004
Conditions of Approval (if any):

Jicarilla Apache B # 10 E
well pod & section



Elm Ridge Resources, Inc.
Jicarilla Apache B 10 E
1085' FSL & 1260' FEL
Sec. 20, T. 24 N., R. 5 W.
Rio Arriba County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	000'	12'	+6,655'
Kirtland-Fruitland	2,030'	2,042'	+4,625'
Pictured Cliffs Ss	2,270'	2,282'	+4,385'
Lewis Shale	2,355'	2,367'	+4,300'
Pt. Lookout Ss	4,455'	4,467'	+2,200'
Mancos Shale	4,655'	4,667'	+2,000'
Gallup Ss	5,505'	5,517'	+1,150'
Greenhorn	6,455'	6,467'	+200'
Dakota	6,660'	6,672'	+5'
Total Depth (TD)*	6,900'	6,912'	-245'

* all elevations reflect the ungraded ground level of 6,655'

2. NOTABLE ZONES

Oil & Gas Zones

Ojo Alamo
Pictured Cliffs
Gallup
Dakota

Water Zones

San Jose
Ojo Alamo

Coal Zones

Fruitland

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

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3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3. A $\geq 3,000$ psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a 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.

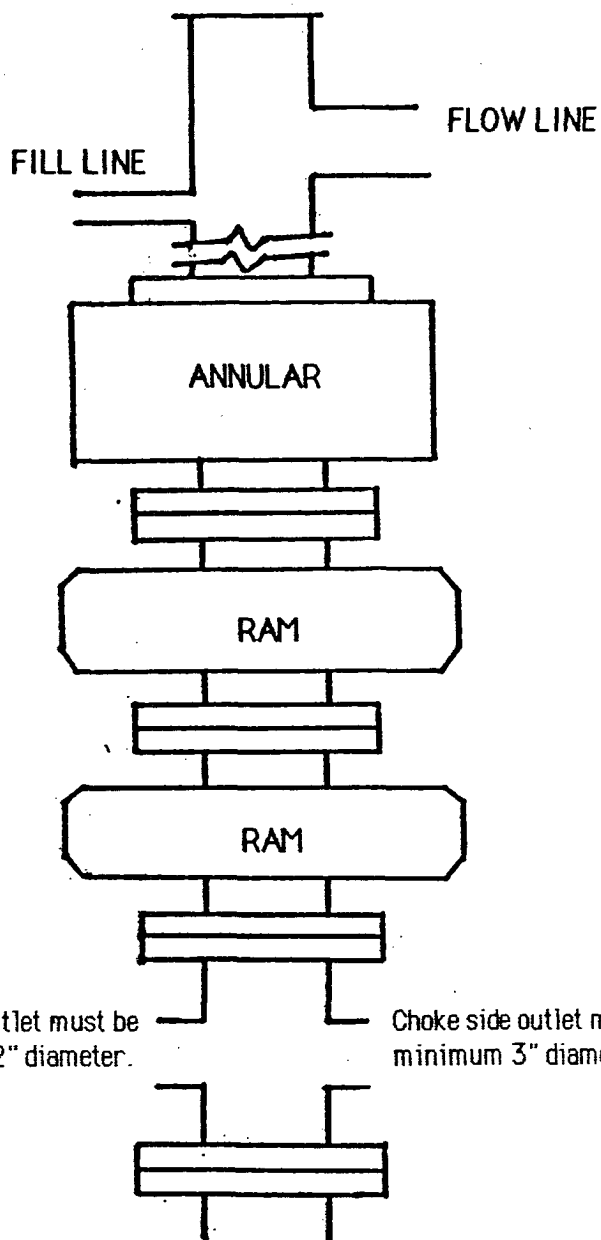
All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24	K-55	S T & C	New	350'
7-7/8"	4-1/2"	10.5	J-55	L T & C	New	6,900'

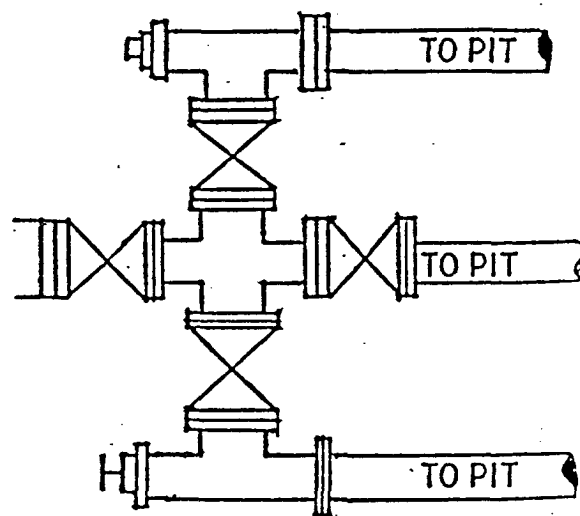
Surface casing will be cemented to the surface with ≈ 290 cubic feet (≈ 246 sacks) Class B with 1/4#/sk Flocele + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to surface in 2 stages. Set stage tool @ $\approx 4,750'$. Volume $\geq 75\%$ excess, but caliper log will be used to determine actual volume needed. Centralizers will be installed on middle of the shoe joint and on every joint thereafter (total of ≈ 30 centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.



TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
Safety valve and subs will fit all drill string connections in use.
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

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First stage volume will be $\approx 1,337$ cubic feet. First stage will consist of ≈ 330 sacks Halliburton Lite with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈ 610 sacks Class B + 2% CaCl_2 (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

Second stage volume will be $\approx 2,004$ cubic feet. Second stage will consist of $\approx 1,040$ sacks of Halliburton Lite with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈ 50 sacks Class B + 2% CaCl_2 (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon)..

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' - 350'	Fresh water gel	9.0	50	NC	9
350' - TD'	Fresh water gel	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

6. CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments. Samples will be collected every 10' from $\approx 4,000'$ to TD. Samples will be collected every 30' elsewhere.