

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 3/12/2014

Well information:

Operator Elm Ridge, Well Name and Number Chacon Amigos H19

API# 30-043-21213, Section 2, Township 22 N/S, Range 3 E/W

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☐ Hold C-104 for directional survey & "As Drilled" Plat
- ☐ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☐ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Charlie Perry
NMOCD Approved by Signature

5-30-2014
Date

RECEIVED

MAR 20 2014

Form 3160-3
(March 2012)

Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BUREAU OF INDIAN AFFAIRS

MAR 17 2014

JICARILLA AGENCY
Office of the Superintendent

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. BIA 360
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 checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name JICARILLA APACHE NATION
2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC		7. If Unit or CA Agreement, Name and No. N/A
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413	3b. Phone No. (include area code) (505) 632-3476	8. Lease Name and Well No. CHACON AMIGOS 19
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FSL & 660' FEL At proposed prod. zone SAME		9. API Well No. 30-043- 21213
14. Distance in miles and direction from nearest town or post office* 13 AIR MILES NW OF CUBA, NM		10. Field and Pool, or Exploratory LINDITH GALLUP-DAKOTA, WEST
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 4,620'	16. No. of acres in lease 2,541	11. Sec., T. R. M. or Blk. and Survey or Area SESE 2-22N-3W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,234' (Chacon Amigos 2)	19. Proposed Depth 7,400'	12. County or Parish SANDOVAL
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,162' UNGRADED	22. Approximate date work will start* 05/01/2014	13. State NM
17. Spacing Unit dedicated to this well SE4		
20. BLM/BIA Bond No. on file BIA nationwide OKC 606114		
23. Estimated duration 1 MONTH		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be 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 Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature 	Name (Printed/Typed) BRIAN WOOD (PHONE: 505 466-8120)	Date 03/12/2014
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Title
CONSULTANT (FAX: 505 466-9682)

Approved by (Signature) 	Name (Printed/Typed) J. M. Mankielee	Date 5/14/14
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Title AFM	Office FFO
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Application approval 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.
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.

(Continued on page 2)
BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

OIL CONS. DIV DIST. 3* (Instructions on page 2)
OIL CONS. DIV DIST. 3

MAY 19 2014

MAY 19 2014

NMOCDA

This action is subject to technical and procedural review pursuant to 43 CFR 3155.3 and appeal pursuant to 43 CFR 3155.4

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

**Drilling Condition of Approval: Refer to attached Jicarilla Apache Nation
Standard Stipulations C.6: Surface casing must be set a minimum 500 feet.**

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

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MAR 20 2014

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

Farmington Field Office
Bureau of Land Management, AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043- <u>21213</u>	² Pool Code 39189	³ Pool Name LINDRITH GALLUP-DAKOTA. WEST
⁴ Property Code 22998	⁵ Property Name CHACON AMIGOS	⁶ Well Number 19
⁷ OGRID No. 149052	⁸ Operator Name ELM RIDGE EXPLORATION COMPANY, LLC	⁹ Elevation 7162

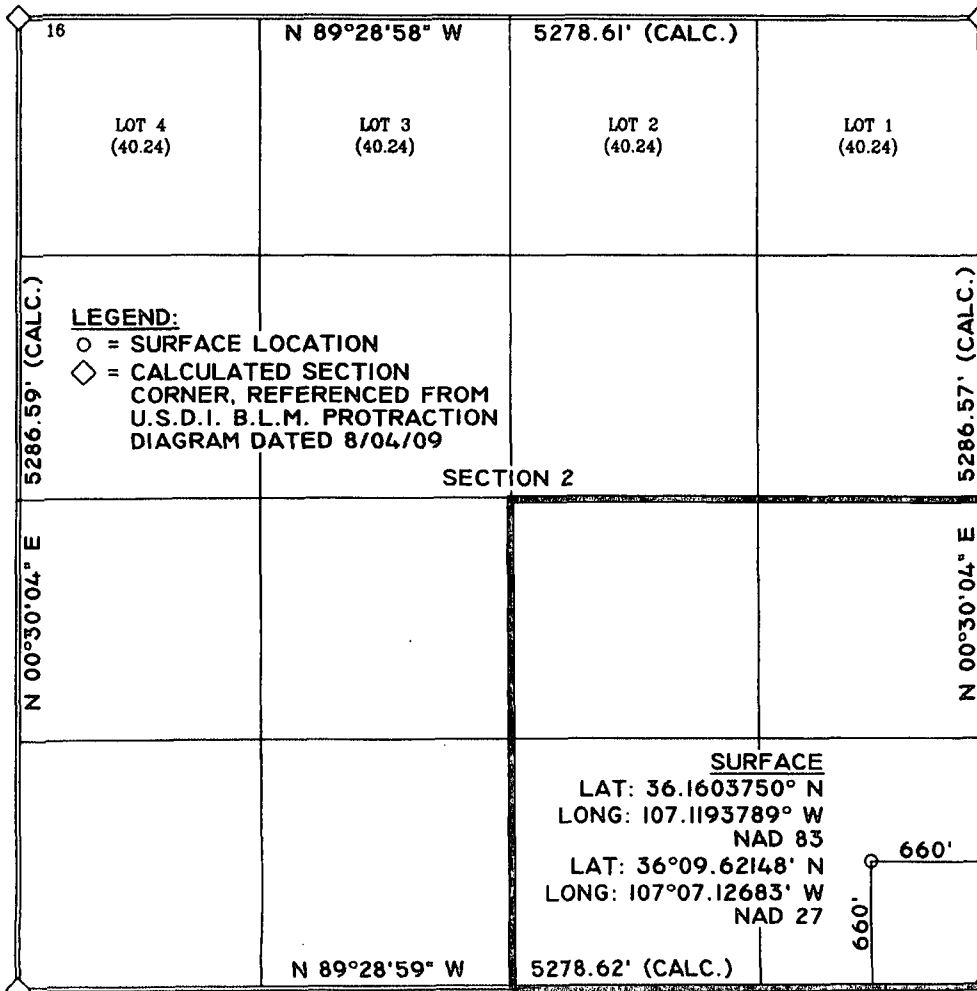
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	2	22 N	3 W	<u>700</u>	660	SOUTH	660	EAST	SANDOVAL

¹¹ 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
¹² Dedicated Acres 160		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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



¹⁷ 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.

Brian Wood 3-12-14
Signature Date
BRIAN WOOD
brian@permitswest.com
E-mail Address

¹⁸ 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 are true and correct to the best of my belief.

10/08/13
Date of Survey
Signature and Seal of Professional Surveyor
JOHNA VUKOVICH
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
14831
Certificate Number
United Field Services, Inc. 12172013

Elm Ridge Exploration Company, LLC
Chacon Amigos 19
660 FSL & 660 FEL
Sec. 2, T. 22 N., R. 3 W.
Sandoval County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>TVD</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	12'	+7,162'
Ojo Alamo	2,277'	2,289'	+4,885'
Kirtland	2,407'	2,419'	+4,755'
Fruitland Coal	2,512'	2,524'	+4,650'
Pictured Cliffs Ss	2,607'	2,619'	+4,555'
Lewis shale	2,767'	2,779'	+4,395'
Chacra Ss	3,407'	3,419'	+3,755'
Cliff House Ss	4,107'	4,119'	+3,055'
Menefee	4,252'	4,264'	+2,910'
Point Lookout Ss	4,682'	4,694'	+2,480'
Mancos Shale	4,927'	4,939'	+2,235'
Gallup Ss	5,677'	5,689'	+1,485'
Greenhorn	6,732'	6,744'	+430'
Dakota	6,867'	6,879'	+295'
Morrison	7,267'	7,279'	-105'
Total Depth	7,400'	7,412'	-238'

2. NOTABLE ZONES

Oil & Gas Zones

Ojo Alamo
Pictured Cliffs
Mancos
Gallup
Dakota

Water Zones

San Jose
Ojo Alamo
Fruitland

Coal Zone

Fruitland

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

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. The $\geq 3,000$ -psi BOP and choke manifold system will be installed and tested to 2,000-psi before drilling the 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 the Kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPE 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 that 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>Setting Depth</u>
12-1/4"	8-5/8"	24	J-55	S T & C	New	360'
7-7/8"	5-1/2"	15.5	J-55	L T & C	New	7,400'

	<u>Drift</u>	<u>Torque</u>	<u>Burst</u>	<u>Collapse</u>	<u>Tension</u>	<u>Pressure Test</u>
	<u>inch</u>	<u>feet-pounds</u>	<u>psi</u>	<u>psi</u>	<u>1000 psi</u>	<u>psi</u>
Surface	7.972	3070	2950	1370	381	1000
Production	4.653	2020	4810	4040	248	3500

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Surface casing will be cemented to the surface with ≈ 310 cubic feet (≈ 262 sacks) Class B with 1/4 pound per sack cellophane + 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. Will test to ≈ 800 psi for ≈ 30 minutes.

Production casing will be cemented to the surface in two stages with $\geq 75\%$ excess. A stage tool will be set at $\approx 4,625'$ ($\approx 200'$ above the Mancos). Will pressure test to 2,000-psi for 30-minutes.

First stage volume will be $\approx 1,472$ cubic feet. First stage will consist of ≈ 365 sacks (682 cubic feet) Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by ≈ 670 sacks (790 cubic feet) Class B + 2% CaCl_2 mixed at a yield of 1.18 cubic feet per sack and a weight of 15.2 pounds per gallon.

Second stage volume will be $\approx 1,742$ cubic feet. Second stage will consist of ≈ 900 sacks (1,683 cubic feet) of Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl_2 mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by ≈ 50 sacks (59 cubic feet) Class B + 2% CaCl_2 mixed at a yield of 1.18 cubic feet per sack and a weight of 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' - 360'	Fresh water gel	9.0	50	NC	9
360' - TD'	Fresh water gel	9.0	38-50	6.0	9

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

6. CORES, TESTS, & LOGS

No core or drill stem test is planned. Spectral density, high-resolution induction, and cement bond logs will be run the base of the surface casing to TD. Samples will be collected every $\approx 10'$ from $\approx 200'$ above the Point Lookout to TD.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum bottom hole pressure will be $\leq 3,204$ psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 2 weeks to drill and ≈ 3 weeks to complete the well.

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660 FSL & 660 FEL
Sec. 2, T. 22 N., R. 3 W.
Sandoval County, New Mexico

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Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See PAGES 10 - 14)

From the equivalent of Mile Post 80.5 on US 550...

Go Northeast 2.9 miles on gravel J-37

Then turn right and go ESE 1.3 miles on dirt J-38 to just past a cattle guard

Turn left and go Northeast 1.5 miles to just past a 3-way junction

Then turn right and go East \approx 560' cross country to the proposed pad

Roads will be maintained to at least equal to their present condition.

2. ROAD TO BE BUILT OR UPGRADED (See PAGES 11 & 12)

Upgrades will consist of repairing potholes. The \approx 560' of new road will be built to BLM Gold Book standards. Road will be crowned and ditched, have a \approx 14' wide running surface, and will be rocked where needed. Borrow ditches will be turned out at least twice. One vehicle turnout will be built. No cattle guard or culvert is needed. Maximum disturbed width will be 30' (all within 40' pipeline corridor). Maximum cut or fill = 2'. Maximum grade = 3%.

3. EXISTING WELLS (See PAGE 13)

Seventeen gas or oil wells and two plugged and abandoned wells are within a mile radius. There are no water or injection wells within a mile.

4. PROPOSED PRODUCTION FACILITIES (See PAGES 11 & 12)

Production facilities will include a separator, dehydrator, meter run, and two \approx 300 bbl tanks. All of the equipment will be painted a flat juniper green.

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A 1,943.01.' long steel 4-1/2" O. D. natural gas pipeline will be laid west and north along roads to Elm Ridge's Chacon Amigos 2 pipeline. The pipeline will be buried ≈36" deep, 10' to 15' from any road, and downhill from the new road.

5. WATER SUPPLY

Water will be trucked from the Tribal water well that is one mile northwest of the junction of NM 537 and US 550.

6. CONSTRUCTION MATERIALS & METHODS (See PAGES 14 & 15)

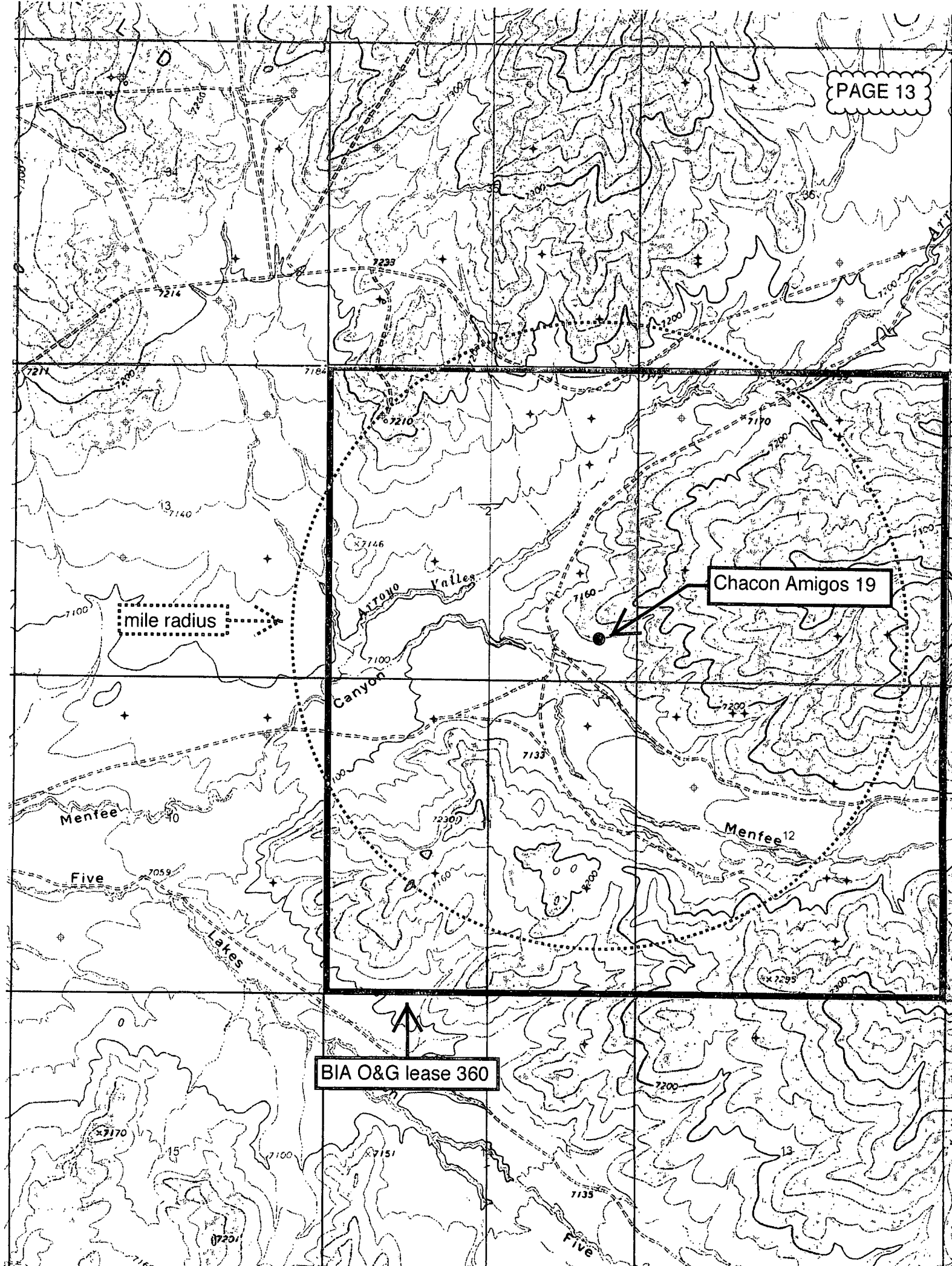
Trees will be cut into 16" lengths and hauled to the Tribal wood yard in Dulce. Sagebrush will be brush hogged. The top 6" of soil and will be bladed and piled north of the pad. A diversion ditch will be cut north of the topsoil pile.

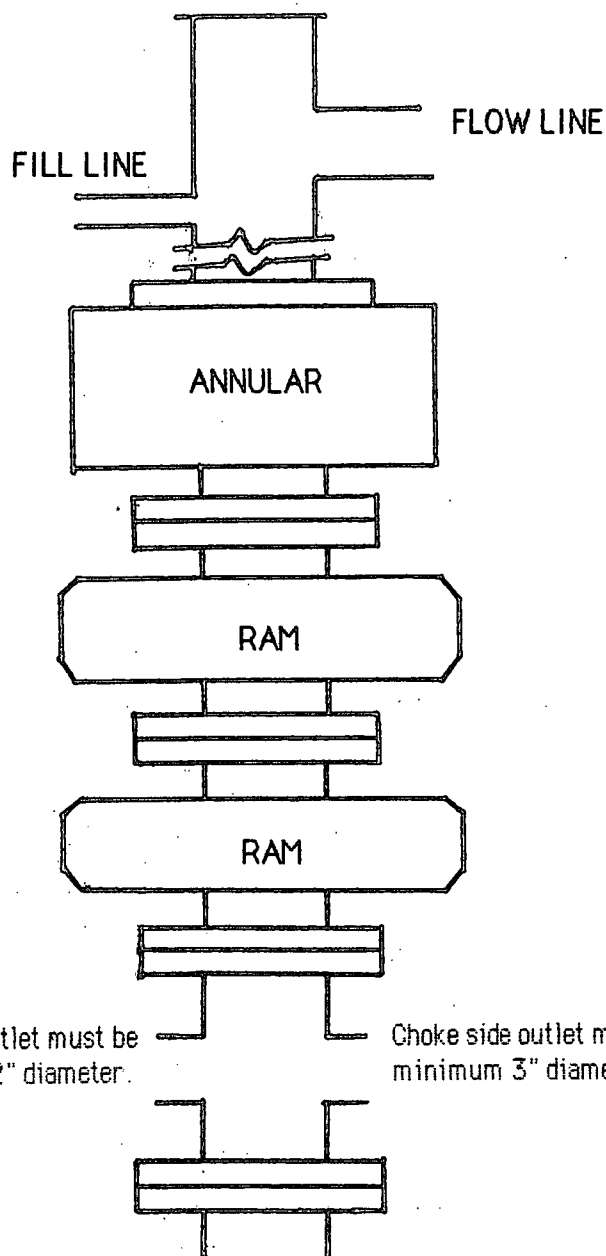
7. WASTE DISPOSAL

- ✓ A closed loop system will be used instead of a reserve pit. Tank contents will be hauled to a State approved disposal site off the Jicarilla Apache Nation. All trash will be placed in a portable trash cage. It will be hauled to an approved landfill. Human waste will be disposed of in chemical toilets.

8. ANCILLARY FACILITIES

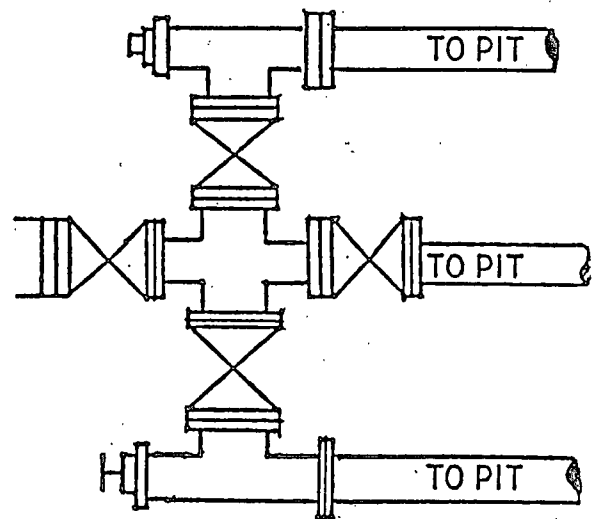
There will be no airstrip or man camp. Camper trailers will be on location for the company man, tool pusher, and mud logger.





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.