

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*

(Other instructions on

AM CLE 07/85: st 6000 MISSION

30-015-26882  
Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

Artesia, NM 88210

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER IN-FILL WELL

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

AVON ENERGY CORPORATION

Ph. 505-677-3223

3. ADDRESS OF OPERATOR

P.O. Box 38

Loco Hills, New Mexico 88255

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1270' FNL, 1460' FEL, Sec. 30-17S-31E

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

4.5 miles southeast of Loco Hills, New Mexico

16. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

1270'

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

900'

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

3592' GR

23.

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE    | SIZE OF CASING  | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT              |
|-----------------|-----------------|-----------------|---------------|---------------------------------|
| 17-1/2"         | 12-1/4" 13 3/8" | 48#             | 350'±         | 500 sx Class C (Circulate)      |
| 11-7/8" 10 5/8" | 8-5/8"          | 24#             | 1400'±        | 600 sx LW+200 sx Cl. C (Circ)   |
| 7-7/8"          | 5-1/2"          | 15.5#           | 3700' 4900'   | 1250 sx LW+1000 sx Cl. C (Circ) |

Propose to drill to 3700'± and complete as an in-fill non-standard Grayburg-San Andres producer in the Turner "B" Waterflood Project.

Circulate cement on above casing strings to isolate all porosity zones. Selectively perforate favorable zones. Run 2-7/8" tubing and treat formation with 15% NeFe. Sand frac formation and test to tank.

See attached Drilling data and Surface Use Plan.

\*NOTE: All changes as per 3160-5 Rec'd 11/12/91. (SJS)

Post ID-1  
11-22-91  
New loc & API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

JERRY N. LONG

TITLE Permit Agent

DATE October 10, 1991

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

ANLA MCKELL

CARLEAD MCKELL

DATE

11-15-91

APPROVED BY

TITLE

APPROVAL SUBJECT TO

GENERAL REQUIREMENTS AND

SPECIAL STIPULATIONS

ATTACHED

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

5. Lease Designation and Serial No.

LC-065014

6. If Indian, Allottee or Tribe Name

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7. If Unit or CA, Agreement Designation

Turner "B" Waterflood

8. Well Name and No.

Max Friess "MA" No.6

9. API Well No.

10. Field and Pool, or Exploratory Area

Grayburg-Jackson

11. County or Parish, State

Eddy County, N.M.

**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

Drilling Well

2. Name of Operator

AVON ENERGY CORPORATION

3. Address and Telephone No.

P.O. Box 38

Ph. 505-677-3223

Loco Hills, New Mexico 88255

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

1270' FNL, 1460' FEL, Sec. 30-17S-31E

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

**TYPE OF SUBMISSION**

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

**TYPE OF ACTION**

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☐ Other

☒ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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.)\*

Propose to change depth to 4900' San Andres.

Change Casing Program, as follows:

| HOLES SIZE | CASING SIZE | WEIGHT | SETTING DEPTH | CEMENT          |
|------------|-------------|--------|---------------|-----------------|
| 17-1/2"    | 13-3/8"     | 48#    | 350'±         | 500 sx - Circ.  |
| 10-5/8"    | 8-5/8"      | 24#    | 1400'±        | 600 sx - Circ.  |
| 7-7/8"     | 5-1/2"      | 15.5#  | 4900'±        | 1250 sx - Circ. |

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

Signed

JERRY W. LONG

Title Permit Agent

Date November 9, 1991

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

PETROLEUM ENGINEER

Date

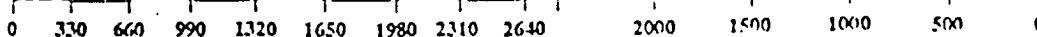
11/15/91

Santa Fe, New Mexico 87504-2088

All Distances must be from the outer boundaries of the section

|                            |  |                          |                                |
|----------------------------|--|--------------------------|--------------------------------|
| Ground level Elev.<br>3592 | Producing Formation<br>Grayburg-San Andres | Pool<br>Grayburg-Jackson | Dedicated Acreage:<br>40 Acres |
|----------------------------|--|--------------------------|--------------------------------|

- Certificate No  
8112



SUPPLEMENTAL DRILLING DATA

AVON ENERGY CORPORATION  
No.6 Max Friess "MA"  
NWNE Sec.30-17S-31E  
Eddy County, N.M.

LC-065014

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Order No.1:

1. SURFACE FORMATION: Recent

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

|              |       |            |       |
|--------------|-------|------------|-------|
| Salt         | 575'  | Queen      | 2550' |
| Yates        | 1550' | Grayburg   | 2950' |
| Seven Rivers | 1900' | San Andres | 3350' |

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATION:

Water - Possible groundwater from 0' to 300'

Oil - 1900' to TD

Gas - None anticipated

See Form  
3160-3

(SJS)

4. PROPOSED CASING PROGRAM:

12-1/4" Casing - Set 350' of 42#, H-40, Conductor Pipe

8-5/8" Casing - Set 1400' of 24#, J-55, Intermediate Casing

5-1/2" Casing - Set 3700' of 15.5#, J-55, Production Casing

Intermediate and Production casing will be satisfactorily tested to 1000 psi.

5. PRESSURE CONTROL EQUIPMENT: Install a 2M, Series 900, Type "E" Shaffer Double Hydraulic BOP on the 8-5/8" Intermediate casing prior to drilling into the Queen. Due to depleted nature of the reservoir, it is requested that a waiver be granted to test pressure control equipment to 1000 psi. using rig pump, instead of the normal 2000 psi. test. Exhibit D is a diagramatic sketch of the BOP equipment.

6. CIRCULATING MEDIUM: Drill with fresh water from surface to setting depth of Conductor pipe. Drill remainder of hole with brine water, using additives to control water loss, viscosity and mud weight.

7. AUXILIARY EQUIPMENT: Equipment will include pit level monitor and a full-opening safety valve.
8. TESTING, LOGGING AND CORING PROGRAM:
- Samples: Samples will be caught at 10' intervals from below the conductor pipe to total depth.
- DST and Cores: None anticipated
- Logging: Density-Neutron log  
Gamma Ray-Neutron log
9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:  
No abnormal pressures or temperatures anticipated.  
Precautions will be taken to monitor possible traces hydrogen sulfide gas in the Grayburg.
10. ANTICIPATED STARTING DATE: Drilling will commence upon approval. Drilling and completion will require about 30 days.

PERTINENT INFORMATION

For

AVON ENERGY CORPORATION  
No.6 Max Friess "MA"  
NWNE Sec.30-17S-31E  
Eddy County, N.M.

LOCATED: 4.5 air miles southeast of  
Loco Hills, New Mexico

FEDERAL LEASE NUMBER: LC-065014

LEASE ISSUED: December 31, 1938 HBP

ACRES IN LEASE: 160 Ac.

RECORD LESSEE: Soccoro Petroleum Company

BOND COVERAGE: Alta Corporation Statewide Bond

AUTHORITY TO OPERATE: Assignment of Operating Rights

SURFACE OWNERSHIP: State

GRAZING PERMITTEE: Williams & Son Cattle Co.  
Box 30  
Maljamar, New Mexico 88264  
Phone 505-676-2293

POOL RULES: General Oil Rules - 40 Ac. Spacing

EXHIBITS: A. Road and Contour Map  
B. Lease and Well Map  
C. Rig Layout  
D. BOP Diagram

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

AVON ENERGY CORPORATION  
No.6 Max Friess "MA"  
NWNE Sec.30-17S-31E  
Eddy County, N.M.

LC-065014

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. The well is approximately 4.5 miles southeast of Loco Hills, New Mexico.
- B. Directions: Go east from Loco Hills, N.M. on U.S. 82 a distance of 4.9 miles. Go south on lease road for 0.8 mile. Turn west and go 0.5 mile. Go 0.1 mile north to location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be about 50' long and about 20' wide.
- B. Surfacing Material: The new road and well pad will be surfaced with 6" of caliche.
- C. Maximum Grade: Less than 1%
- D. Turnouts: No traffic turnouts are necessary.
- E. Drainage Design: The existing lease road will be maintained with a 6" crown and appropriate water turnouts to provide proper drainage.
- F. Culverts: None necessary

G. Cuts and Fills: Construction of the drill pad will require about 1' of fill over the entire drill pad to prevent erosion during heavy rains.

H. Gates, Cattle Guards: None necessary

3. LOCATION OF EXISTING WELLS:

A. See Exhibit B

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Temporary test facilities will be located on the well pad.

B. An application for permanent flow lines will be filed at a later date, if the well is commercial.

C. Power for production facilities will be obtained from an existing power line which is adjacent to the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. Water for drilling and completion will be obtained from a commercial source and trucked over existing roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche for surfacing the road and pad will be purchased from a Federal pit located in the SESW Sec.20-17S-31E.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during test will be disposed of in the drilling pits. Oil produced during test will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "C".

- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required

9. WELL SITE LAYOUT:

- A. The wellsite, surrounded by a 400' X 400' area has been surveyed and flagged.
- B. Dimensions and relative location of the drill pad and pit are shown on Exhibit C.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the well is non-productive the disturbed area will be rehabilitated to surface owner requirements and will be accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The wellsite and access road are located in a sheet washed area below the Nimenim escarpment. The area is interlaced with shallow sandy washes. The project area drains to the west toward Cedar Lake Draw.
- B. Soil: The surface soil is sand with caliche and chert inclusions.
- C. Flora and Fauna: Vegetation consists of mesquite, sagebrush, yucca, and various weeds and grasses. Ground cover is about 10%. Wildlife in the area is that typical of semi-arid desert land, such as coyotes, rodents, reptiles and birds.
- D. Ponds or Streams: Cedar Lake is located 2 miles southwest of the well pad.

E. Residences and Other Structures: None

F. Archaeological, Historical and Other Cultural Sites:  
A previously recorded site is located east of the well pad. An Archaeological report will be prepared by ASC of Roswell, New Mexico and furnished to BLM.

G. Land Use: The surface is used for cattle grazing.

H. Surface Ownership: The drillsite and 50' of new road are located on State surface. The Operator has posted a Blanket Surface Damage Bond with the New Mexico State Land Office. The grazing lessee for all of the disturbed area is Williams & Son Cattle Company, Box 30, Maljamar, New Mexico.

12. OPERATOR'S REPRESENTATIVE:

Representative responsible for assuring compliance with the approved Surface Use Plan:

Mr. Robert Setzler  
P.O. Box 38  
Loco Hills, New Mexico 88255  
Phone 505-677-2360

13. CERTIFICATION:

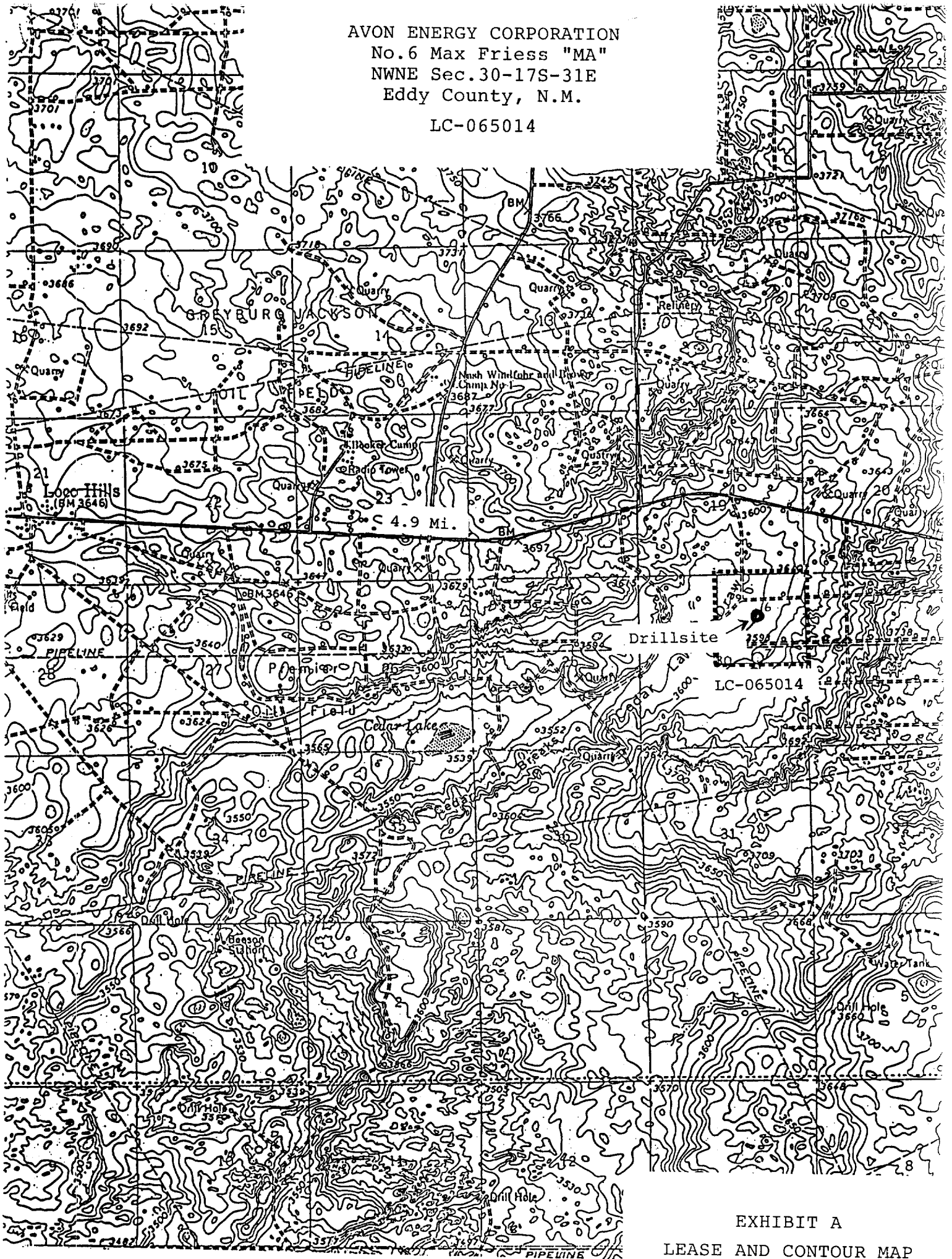
I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; that the work associated with the operations proposed herein will be performed by AVON ENERGY CORPORATION and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

October 10, 1991  
Date:

  
JERRY W. LONG, Permit Agent for:  
AVON ENERGY CORPORATION

AVON ENERGY CORPORATION  
No.6 Max Friess "MA"  
NWNE Sec.30-17S-31E  
Eddy County, N.M.

LC-065014



LC-065014

EXHIBIT A  
LEASE AND CONTOUR MAP

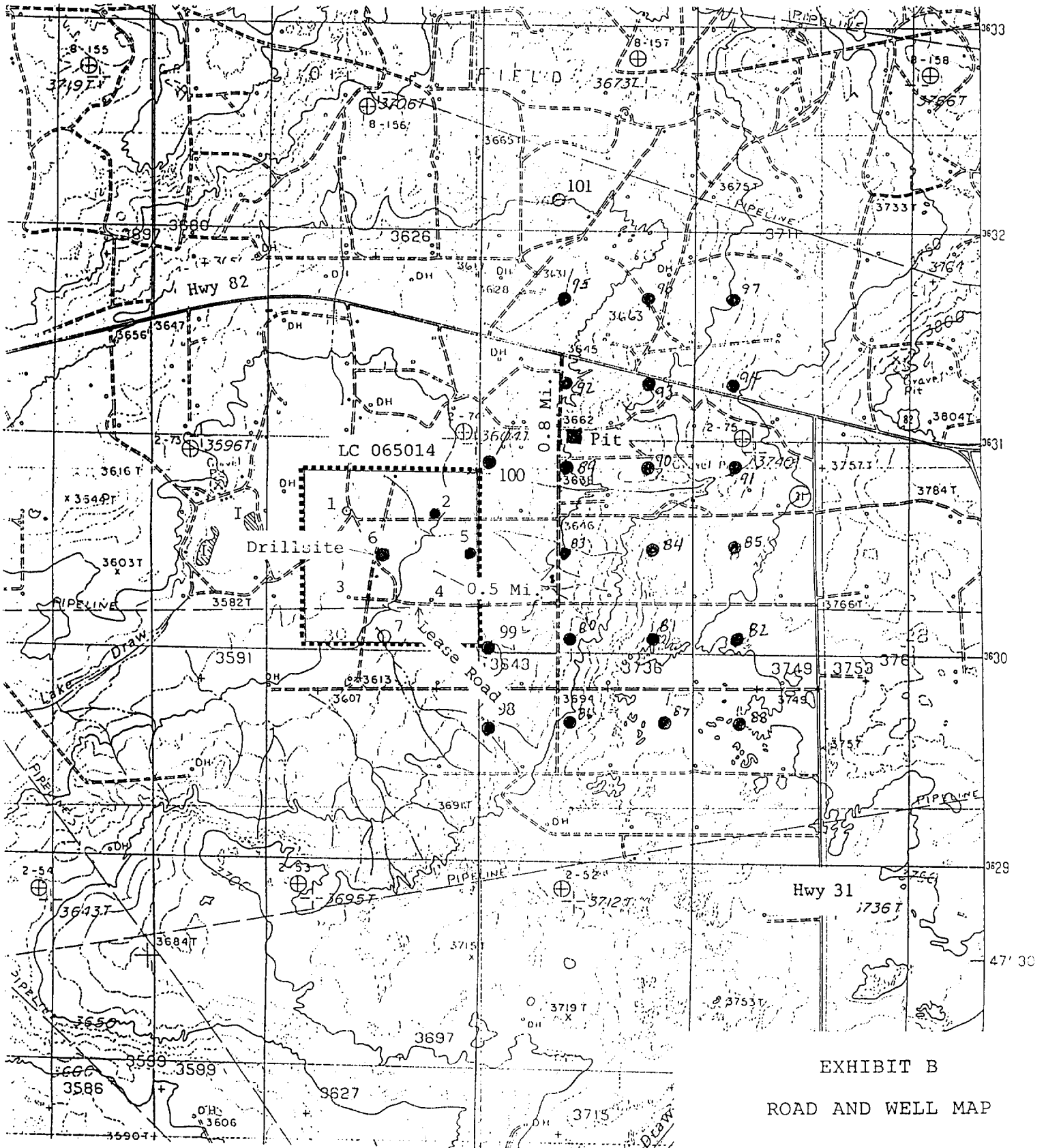
AVON ENERGY CORPORATION

No.6 Max Friess "MA"

NWNE Sec.30-17S-31E

Eddy County, N.M.

LC-065014



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No.6 Max Friess "MA"  
NWNE Sec.30-17S-31E  
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LC-065014

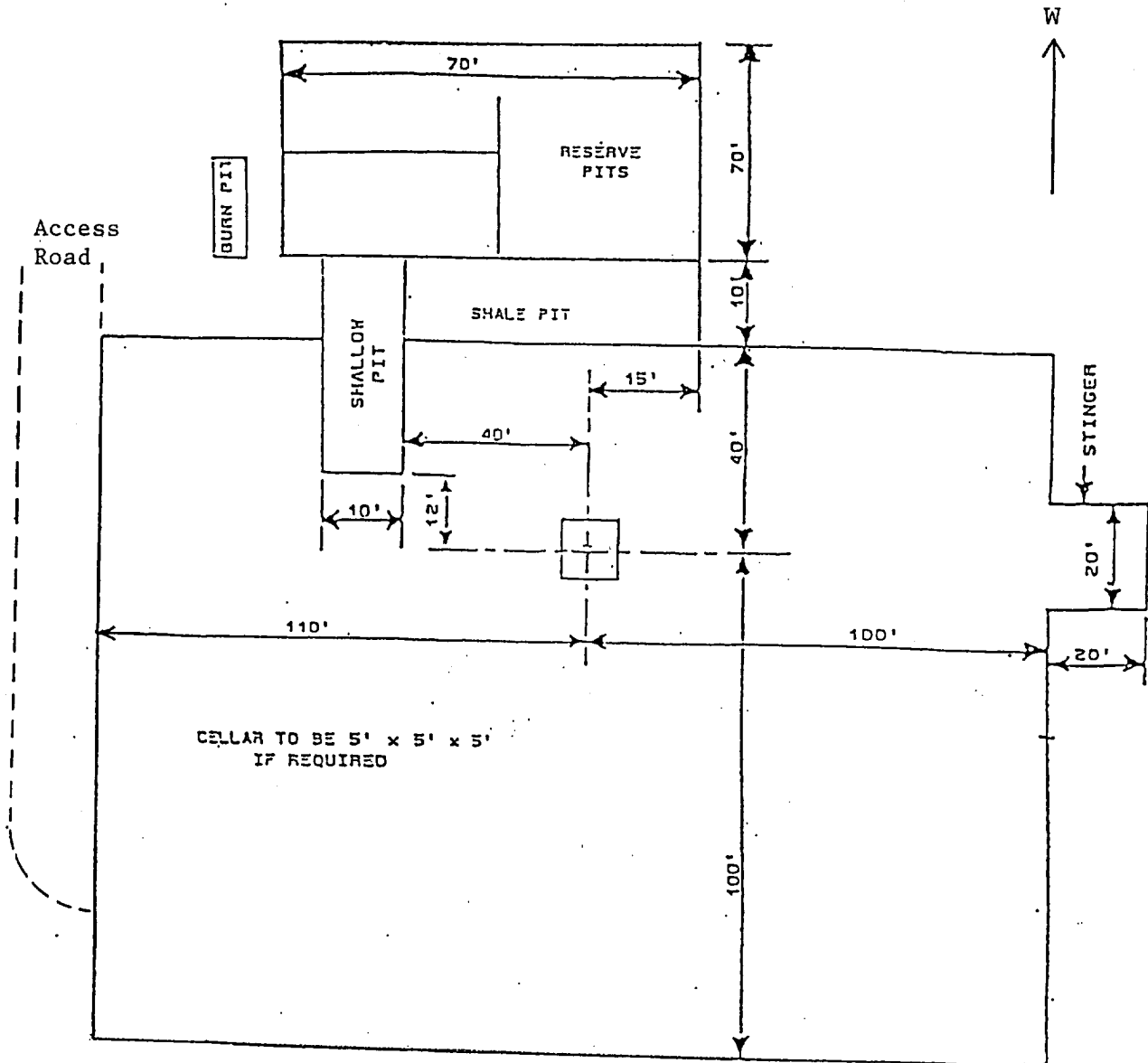
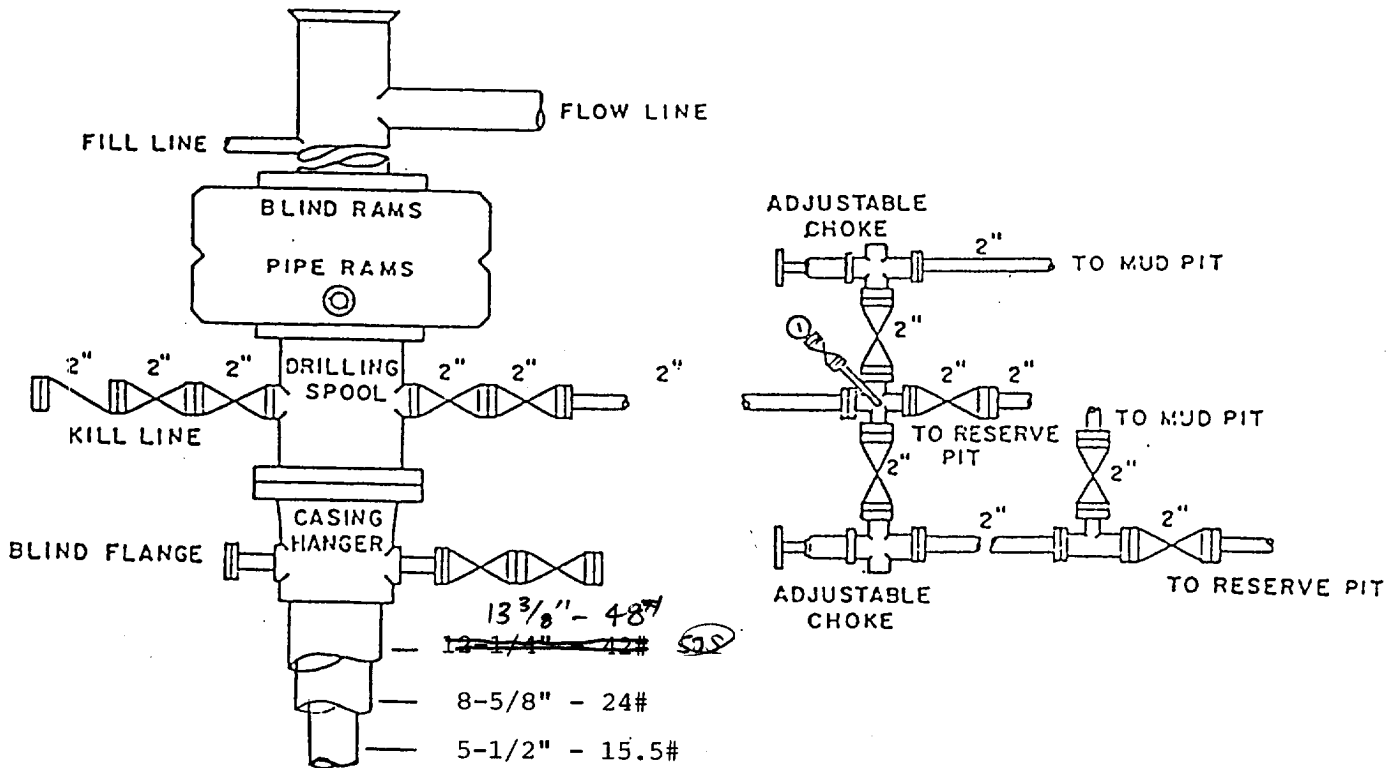


EXHIBIT C  
DRILL PAD LAYOUT

AVON ENERGY CORPORATION  
 No.6 Max Friess "MA"  
 NWNE Sec.30-17S-31E  
 Eddy County, N.M.

LC-065014



BOP DIAGRAM

2000# Working Pressure  
 Rams Operated Daily