

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

30-005-32191
Form approved.
Budget Bureau No. 1004-0136
Expires December 31, 1988

3. LEASE DESIGNATION AND SERIAL NO.
NM-77087

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 ☐

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Armstrong Energy Corporation

3. ADDRESS OF OPERATOR

P.O. Box 1973 Roswell, N.M. 88202

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

660' FSL & 990' FEL

At proposed prod. zone

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

30 miles West of Eunice, N.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 AVAILABLE

360

NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL DRILLING COMPLETED
OR APPLIED FOR, ON THIS LEASE, FT.

None

19. PROPOSED DEPTH

9000'

20. ROTARY OR CABLE TOOLS

Rotary

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

3708.2 GL

22. APPROX. DATE WORK WILL START*

September 1, 1993

PROPOSED CASING AND CEMENTING PROGRAM

R-111-P Potash

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
36"	30"	Conductor	40'	6 Yds.
26"	20"	94	500'	700 sx CIRCULATE
17 1/2"	13 5/8"	54.5, 61 & 68	3400'	1400 sx CIRCULATE
11"	8 5/8"	24 & 32	5300'	400 sx [SEE STIPS]
7 7/8"	5 1/2"	15.5 & 17	9000'	500 sx

The operator proposes to drill to a depth sufficient to test the Delaware formation for oil. If productive, 5 1/2" casing will be cemented at T.D. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per Onshore Oil & Gas Order #1 are outlined in the following attachments.

Drilling Program

Surface Use and Operating Plan

Exhibit #1 & 1-A Blowout Preventer Equipment

Exhibit #2 Location & Elevation Map

Exhibit #3 Planned Access Road

Exhibit #4 One Mile Radius Map

Exhibit #5 Production Facilities Layout

Exhibit #6 Drilling Rig Layout

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.

SIGNED

TITLE President

DATE 7-6-93

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

*See Instructions On Reverse Side

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

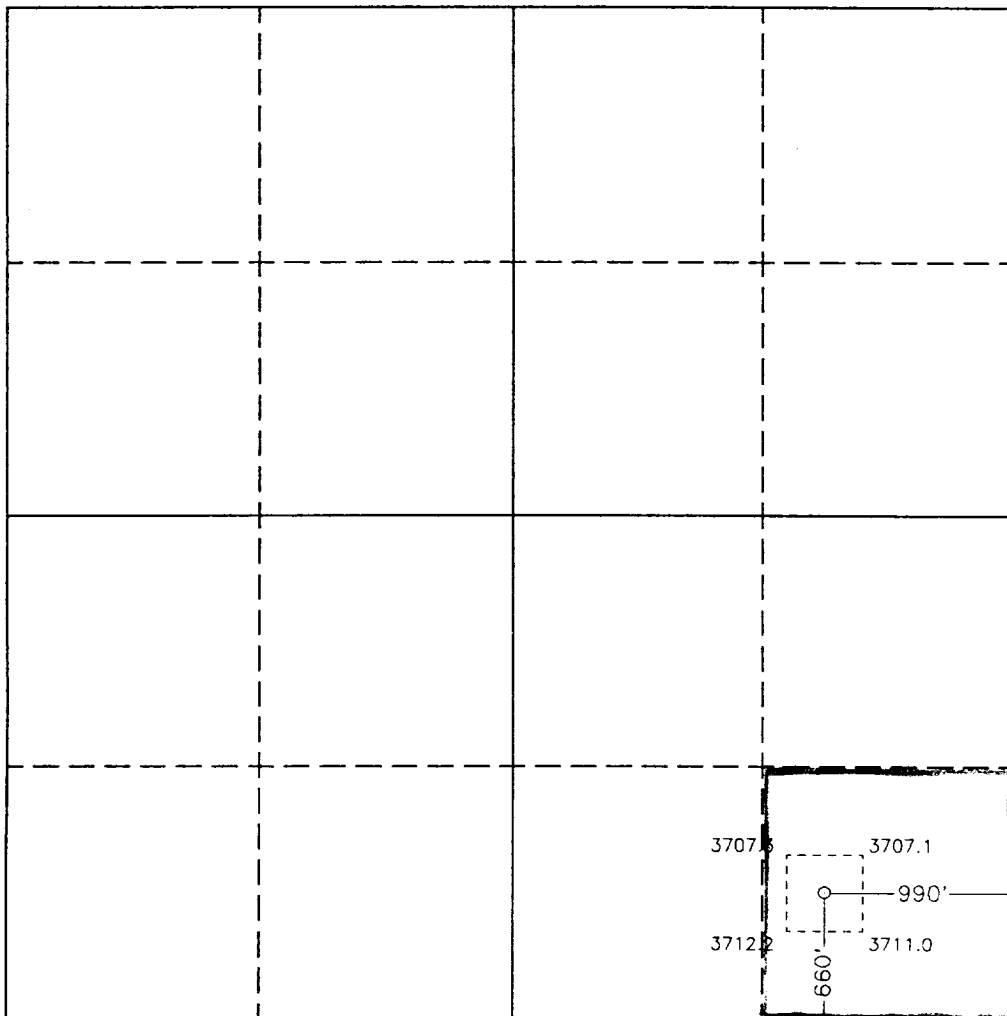
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator ARMSTRONG ENERGY CORP.			Lease AEC FEDERAL 29		Well No. 1
Unit Letter P	Section 29	Township 20 SOUTH	Range 34 EAST	County NMPM	LEA
Actual Footage Location of Well: 660 feet from the SOUTH line and 990 feet from the EAST line					
Ground Level Elev. 3708.2	Producing Formation Delaware	Pool Wildcat	Dedicated Acreage: 40 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and
 3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
- If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.) _____
- No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

Signature
Robert G. Armstrong
Printed Name
President
Position
Armstrong Energy Corp.
Company
7-6-93
Date

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 knowledge and
belief.

Date Surveyed
JUNE 23, 1993
Signature & Seal of
Professional Surveyor

GARY L. JONES
NEW MEXICO
Certified Professional Surveyor
JAMES W. WEST, 876
RONALD J. EDSON, 8239
GARY L. JONES, 7977
95-11-1175

DRILLING PROGRAM

ATTACHED TO FORM 3160-3
ARMSTRONG ENERGY CORPORATION
AEC "29" FEDERAL NO.1
660' FSL, 990' FEL SEC.29-T20S-R34E N.M.P.M.
LEA COUNTY, NEW MEXICO

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Permian	Surface
Rustler	1750'
Salado	1900'
B. Salt	3400'
Yates	3540'
Seven Rivers	3800'
Delaware	5480'
Bone Springs	8700'
Total Depth	9000'

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

<u>Formation</u>	<u>Depth</u>	<u>Substance</u>
Upper Permian Sands	300'	Fresh Water
Yates	3540'	Oil
Delaware	5480'	Oil
Bone Springs	8700'	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 20" casing at 500' and circulating cement back to surface. Potash will be protected by setting 13 3/8" casing at 3400' and circulating cement back to surface. A 8 5/8" casing string will be set at 5300', if lost circulation is encountered in the 7-Rivers interval. Cement will be brought 300' back into the 13 3/8" casing. Any shallower zones above total depth (TD) which contain commercial quantities of oil and/or gas will have cement circulated across them.

AEC "29" FEDERAL NO.1
DRILLING PROGRAM
PAGE 2

4. Casing Program

Hole Size (in)	Interval (ft)	Casing OD (in)	Casing Description
36"	0- 40	30"	Conductor Pipe
26"	0- 500	20"	94 ppf, J-55, ST&C
17 1/2"	0-3400	13 3/8"	54.5, 61 & 68 ppf, J-55, ST&C
11"	0-5300	8 5/8"	24 & 32 ppf, J-55, ST&C
7 7/8"	0-9000	5 1/2"	15.5 & 17 ppf, J-55, LT&C

Cement Program

<u>Casing (in)</u>	<u>Cement</u>
30	Cement with ready-mix to surface
20	Cement with 400 sx Premium Plus Lite Cement with 1/4 #/sx Flocele, 300 sx Premium Plus Cement with 2 % Calcium Chloride, circulate to surface.
13 3/8	Cement with 1100 sx Premium Plus Lite Cement with 15 #/sx salt and 1/4 #/sx Flocele and 300 sx Premium Plus cement with 2 % calcium chloride, circulate to surface.
8 5/8	Cement with 400 sx Premium Plus Cement with 2 % calcium chloride and 1/2 #/sx Flocele. TOC at 3200'.
5 1/2	500 sx Class "H". TOC at 5000'.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit No.1 will consist of a double ram-type (3000 psi WP) preventer. The BOP will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOP's will be nipped up on the surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi.

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. A 2" kill line and a 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) as well as choke lines and choke manifold with 3000 psi rating.

6. Types and Characteristics of the Proposed Mud System:

Depth	Type	Weight (ppg)	Viscosity (sec)	Water Loss(cc)
0-500'	Fresh water gel	9.0-9.5	33-36	NC
500'-3400'	Brine	10.0	29	NC
3400'-5300'	Fresh water gel	9.0-9.5	29-35	NC
5300'-9000'	Cut brine with gel and starch	9.0	33-34	12-15

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.

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

(C) The drilling fluids system will also be visually monitored at all times.

(D) A mud logging unit, complete with H₂S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 3400' to TD.

8. Logging, Testing and Coring Program:

(A) Drillstem tests will be run on the basis of drilling shows.

(B) The electric logging program will consist of GR-Dual Laterolog-MSFL and Dipmeter across pay zones, Gamma Ray from TD to surface and Compensated Neutron-Density from TD to intermediate casing. Selected side wall cores may also be taken in zones of interest.

(C) No conventional coring is anticipated.

(D) Further testing procedures will be determined after the production casing has been cemented at TD based on drill shows, log evaluation and drill stem test results.

9. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 140°F and estimated maximum bottom hole pressure (BHP) is 3500 psi. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in the area. Lost circulation zones have been reported while drilling the Seven Rivers Reef from 4000' to 5000'. Lost circulation material will be used to control any loss through this interval.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from BLM. The anticipated spud date is September 1, 1993. Once commenced, the drilling operation should be completed in approximately 30 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

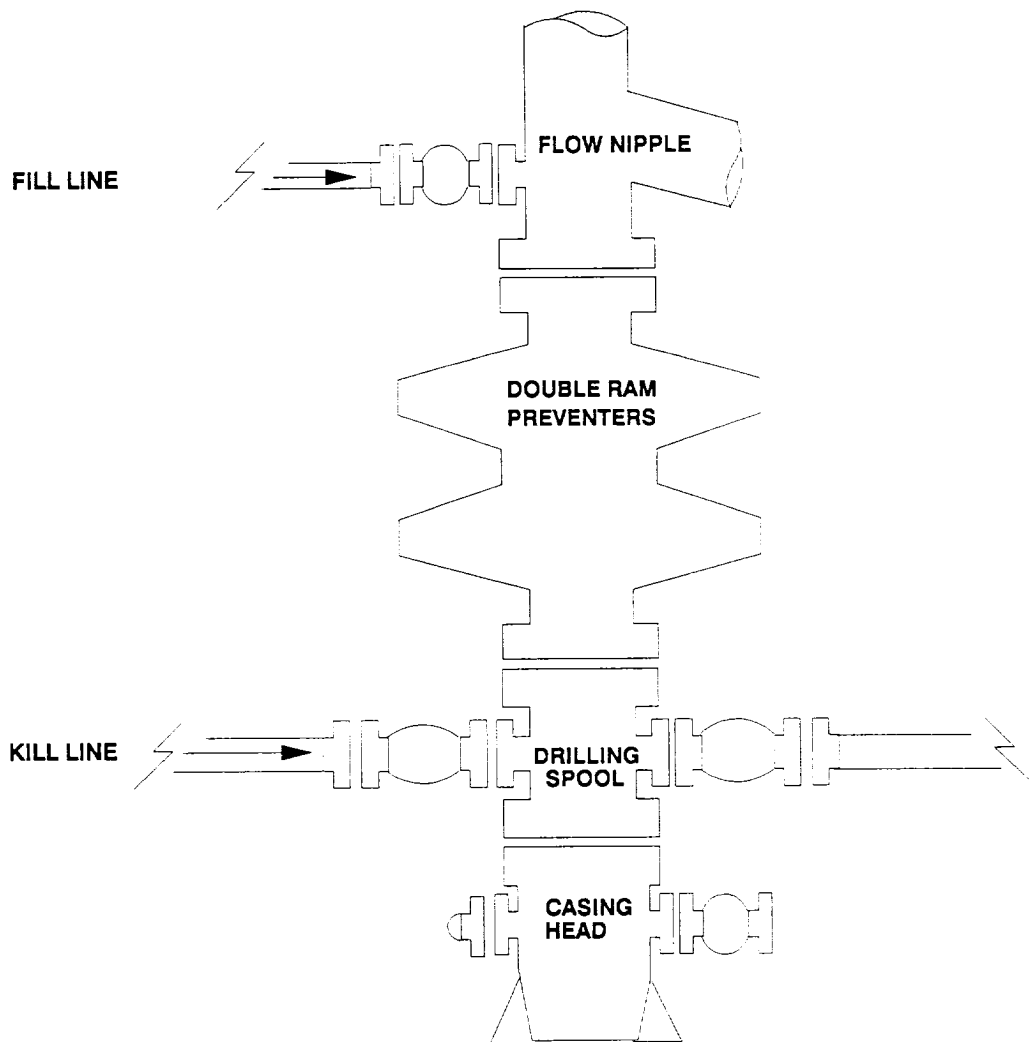
11. Potash Leases in the Area:

Two Potash leases exist within one mile of the proposed location. They are:

Eddy Potash, Inc.
Attn: Mr. Robert Kreal
P.O. Box 31
Carlsbad, N.M. 88220

Mississippi Chemical
Attn: Mr. Randy Foote
P.O. Box 101
Carlsbad, N.M. 88220

Copies of the APD's have been sent to each company by registered mail with a return receipt requested. Copies of the cover letters are attached.



ARMSTRONG ENERGY CORPORATION

BLOWOUT PREVENTER SCHEMATIC

3000 PSI WP

AEC "29" FEDERAL NO.1

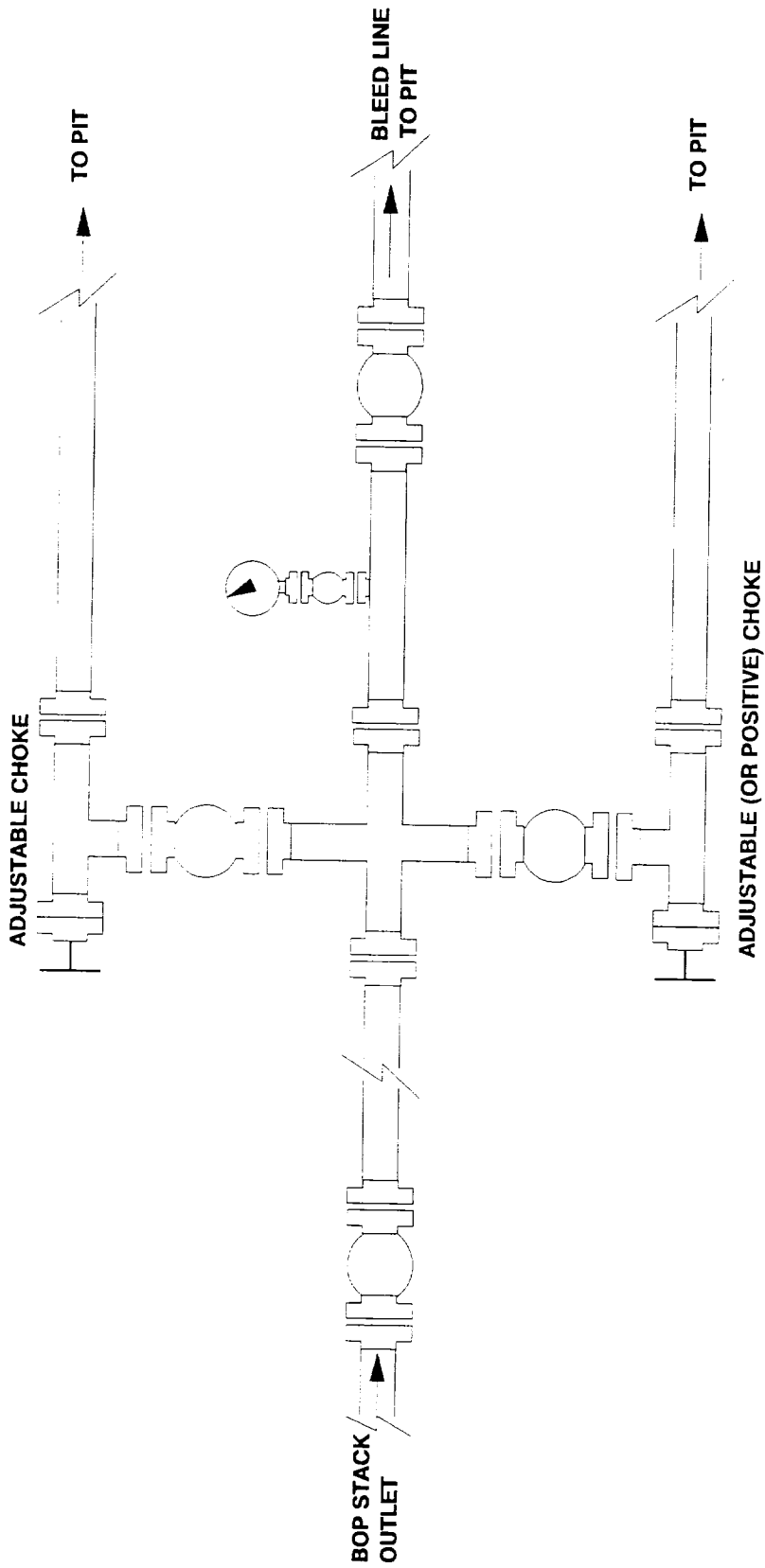
660' FSL, 990' FEL SEC 29 T20S R34E

LEA COUNTY, NEW MEXICO

EXHIBIT 1

Attachment to Exhibit No.1
NOTES REGARDING THE BLOWOUT PREVENTERS
AEC "29" Federal No.1
Lea County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through the rotary table opening, with minimum I.D. equal to the blowout preventer (BOP) bore.
2. Wear ring to be properly installed in head.
3. Blowout preventer (BOP) and all fittings must be in good condition with a minimum of 3000 psi working pressure.
4. All fittings to be flanged.
5. Safety valve (inside BOP) must be available on the rig floor at all times with proper connections; valve must be full bore and 3000 psi W.P. minimum.
6. All choke and fill lines to be securely anchored.
7. Equipment, through which bit must pass, shall be at least as large as the diameter of the casing being drilled through.
8. A kelly cock will be installed at all times on the kelly.
9. Extension wrenches and hand wheels to be properly installed.
10. BOP control to be located as close to driller's position as feasible.
11. BOP closing equipment to include minimum 40 gallon accumulator, two (2) independent sources of pump power on each closing unit installation and meet all API specifications.



ARMSTRONG ENERGY CORPORATION

MINIMUM CHOKE MANIFOLD REQUIREMENT
 3000 PSI WORKING PRESSURE
 (MINIMUM 2" CHOKE AND KILL LINES)

AEC "29" FEDERAL NO.1

660' FSL, 990' FEL SEC 29 T20S R34E

LEA COUNTY, NEW MEXICO

EXHIBIT 1-A