Form 3160-3
(July 1992)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-95642

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ----------

7. UNIT AGREEMENT NAME: ----------

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: Tomcat "15" Federal # 4

2. NAME OF OPERATOR: PENWELL ENERGY, INC. (BILL PIERCS) 915-683-2534

9. API WELL NO.: 30-025-34379

3. ADDRESS AND TELEPHONE NO.: 600 NORTH MARIENFELD SUITE 1100 MIDLAND, TEXAS 79701

10. FIELD AND POOL, OR WILDCAT: Diamond Tail Delaware

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 660' FWL SEC. 15 T23S-R32E LEA CO. NM
At proposed prod. zone: SAME

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 15 T23S-R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 30 miles West of Jal New Mexico

12. COUNTY OR PARISH: Lea Co.

13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	280	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
1300'	5000'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3686' GR.

22. APPROX. DATE WORK WILL START*: WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor 20"	NA	40'	Cement to surface with Redi-mix
12¼"	J-55 8 5/8"	24	1250'	700 Sx. circulate to surface.
7 7/8"	J-55 5½"	15.5	5000'	400 Sx. estimate top cement 1000'

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.

2. Drill 12¼" hole to 1250'. Run and set 1250' of 8 5/8" 24# J-55 ST&C casing. Cement with 500 Sx. of Light cement + additives, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.

3. Drill 7 7/8" hole to 5000'. Run and set 5000'of 5½" 15.5# J-55 ST&C casing. Cement with 200Sx. of light cement + additives, tail in with 200 Sx. of Premium Plus cement. Estimate top of cement 1000'.

WITNESS

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Joe T Janica TITLE Agent DATE 02/16/98

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

APPROVED BY _____ TITLE Acting FIELD MINERALS MANAGER DATE [illegible] 1998

*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.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34379	17647	DIAMONDTAIL-DELAWARE

Property Code	Property Name	Well Number
~~20204~~ 23208	TOMCAT "15" FEDERAL	4

OGRID No.	Operator Name	Elevation
147380	PENWELL ENERGY INC.	3686'

Surface Location

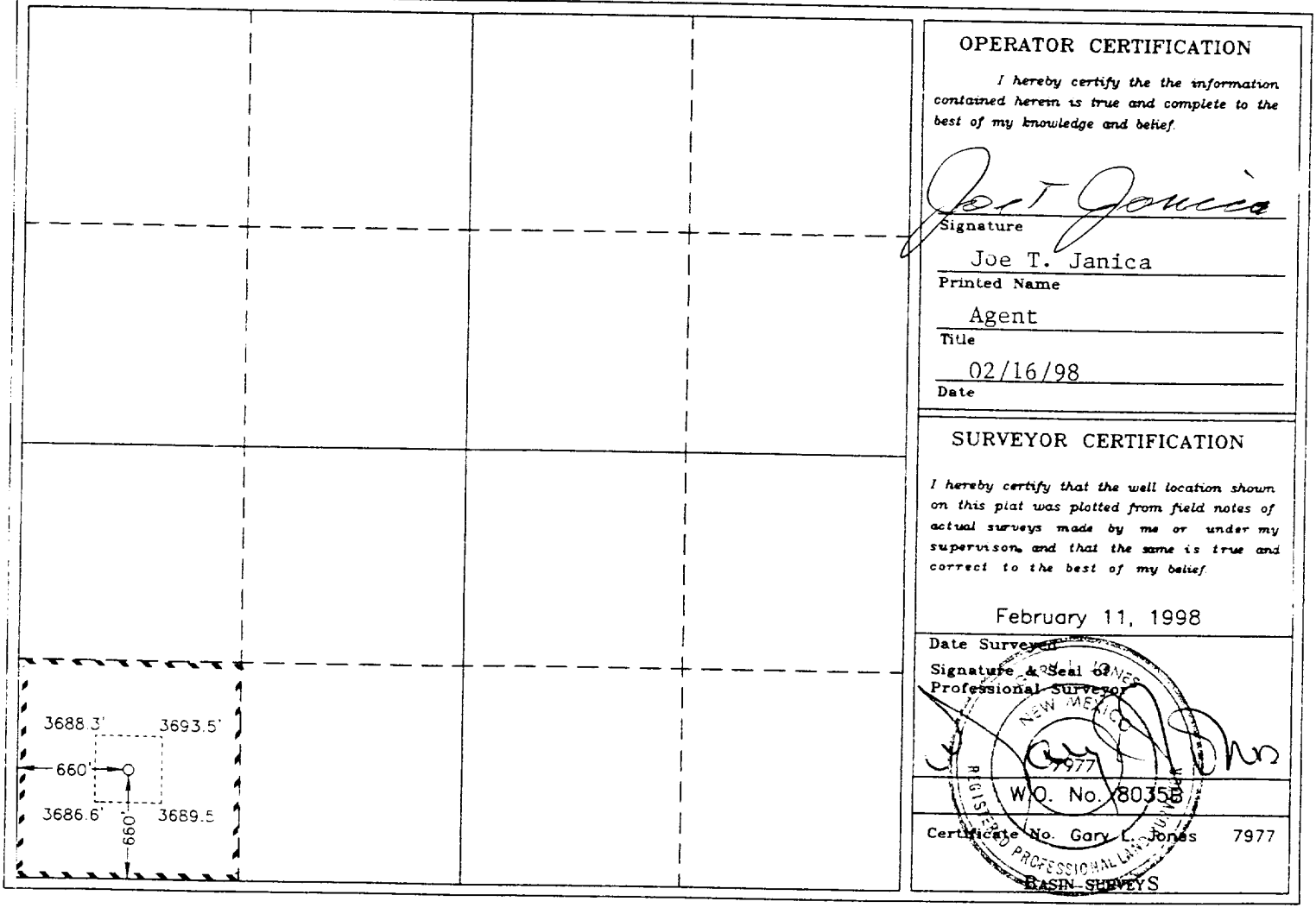
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	23 S	32 E		660	SOUTH	660	WEST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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



OPERATOR CERTIFICATION

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

Joe T. Janica
Signature

Joe T. Janica
Printed Name

Agent
Title

02/16/98
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 supervison, and that the same is true and correct to the best of my belief.

February 11, 1998
Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

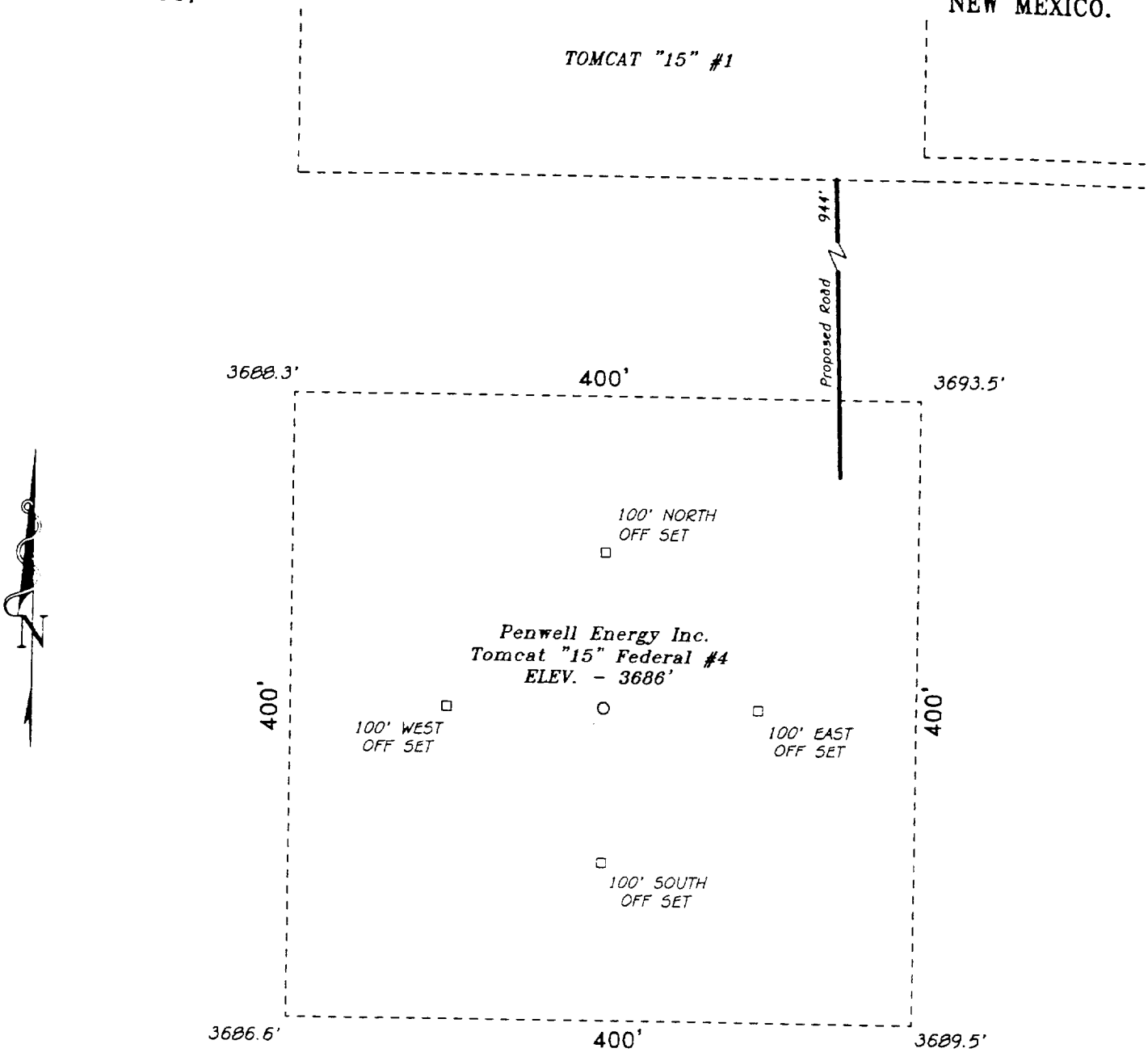
W.O. No. 80358

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

EXHIBIT "A"

SECTION 15, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

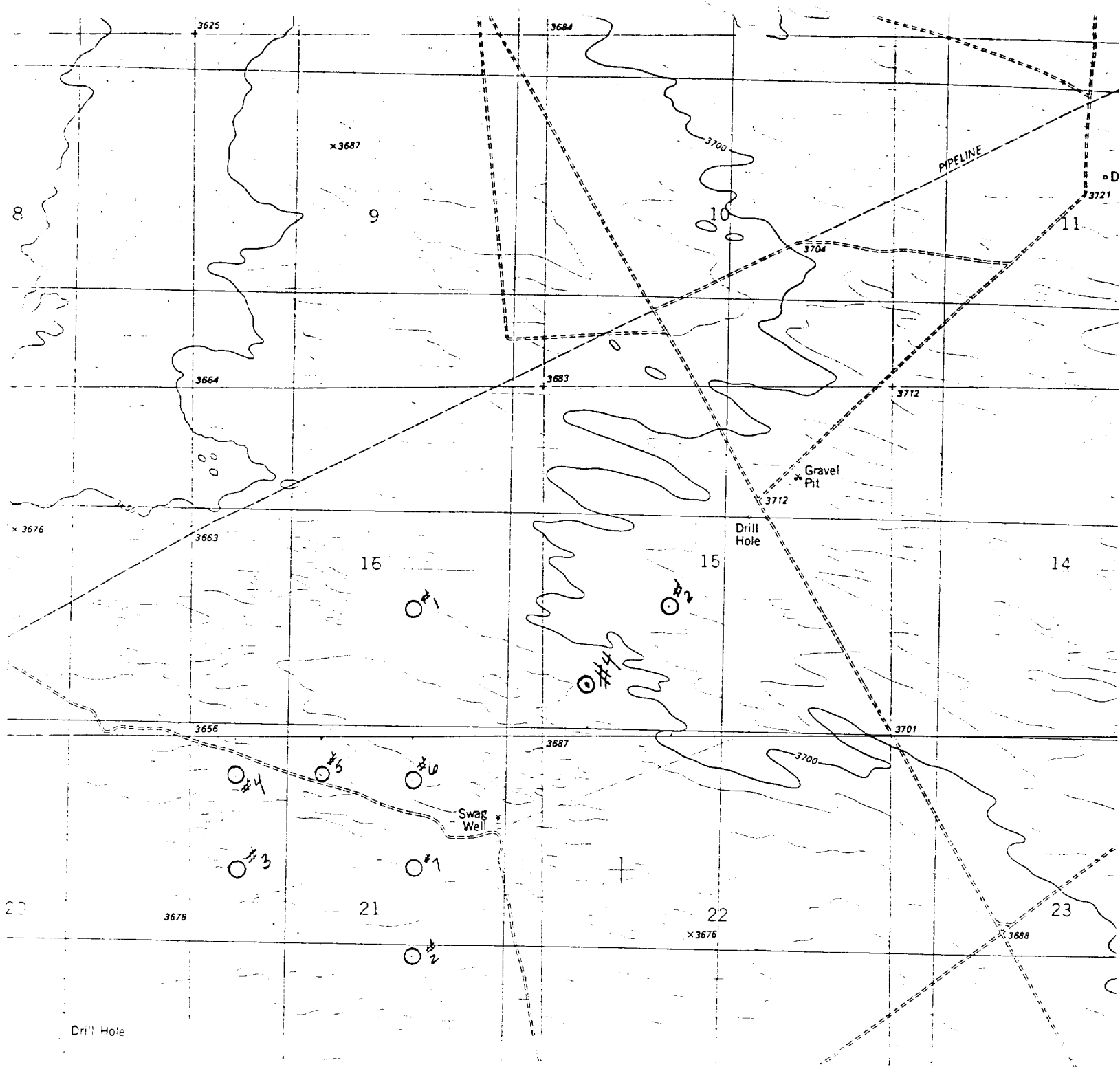
Penwell Energy Inc.

REF: Tomcat "15" Federal No. 4 / Well Pad Topo

THE TOMCAT "15" FEDERAL No. 4 LOCATED 660' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF SECTION 15, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 8035	Drawn By: K. GOAD		
Date: 02-12-98	Disk: KJG #90 – 8035B.DWG	Survey Date: 02-11-98	Sheet 1 of 1 Sheets



PENWELL ENERGY INC.
TOMCAT "15" FEDERAL #4
660' FSL & 660' FWL
Sec. 15, T-23-S, R-32-E,
Lea County, New Mexico.

N

SCALE: 1"=2000'

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

2000' 0 2000' 4000 Feet

W.O. Number: 8035	Drawn By: K. GOAD	Survey Date: 02-11-98	Sheet 1 of 1 Sheets

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT " 15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: 660' FWL & 660' FSL SEC. 15 T23S-R32E LEA CO. NM

2. Elevation above sea level: 3686' GR.

3. Geologic name of surface formation: Quaternary

4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5. Proposed drilling depth: 5000'

6. Estimated tops of geological markers:

Rustler Anhydrite	1225'	Castille	4665'
Salado	1580'	Bell Canyon	4930'

7. Possible mineral bearing formation:

Bell Canyon Oil

8. Casing program:

Hole size	Interval	OD casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
12¼"	0-1250'	8 5/8"	24	8-R	ST&C	J-55
7 7/8"	0-5000'	5½"	15.5	8-R	ST&C	J-55

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT " 15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

9. Cementing & Setting Depth:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 1250' of 8 5/8" 24# J-55 ST&C casing. Cement with 500 Sx. of Light Cement, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
5½"	Production	Set 5000' of 5½" 15.5# J-55 ST&C casing. Cement with 200 Sx of Light cement + additives, tail in with 200 Sx. of Premium Plus cement. Estimate top of cement 1000'.

10. Pressure Control Equipment: Exhibit "E". A series 900 3000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP unit will be hydraulically operated. Exhibit "E-1" is a Choke manifold and closing unit. BOP will be nipple up on the 13 3/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. Flo sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Viscosity	Fluid Loss	Type Mud
40-1250'	8.6-8.8	30-38	NC	Fresh water spud mud, add paper to control seepage & lime for pH control.
1250-4000'	10-10.5	32-36	NC	Brine water, add paper to seepage and lime to control pH.
4000-5000	10-10.5	34-38	10 cc or less	Brine water Dris-Pac system use soda ash to control pH.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and water loss may have to be adjusted in order to meet these needs.

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT " 15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

12. Testing, Logging and Coring Program:

A. Open hole logs: Dual-laterolog CNL,Density, Micro-SFL, Gamma Ray & Caliper from TD to 1250', Run Gamma Ray, Neutron from TD to surface.

B. No DST's are anticipated, no cores are planned at this time.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 2500 PSI, estimated BHT 135° .

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 12-18 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Delaware pay will be perforated and stimulated. The well will be swab tested and potentialed as an oil well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

1. EXISTING ROADS. Area map, Exhibit "B" is a reproduction of the New Mexico General Hi-way Co. Map. Exhibit "C" is a reproduction of a topographic map. Existings roads and proposed roads are shown on each exhibit. All roads will be maintained in a condition equal to or better than of construction.

   A. Exhibit "A" shows the proposed well as staked.

   B. From Eunice New Mexico take State Road 18 2.5 miles South to junction with Delaware Basin Road (CO. ROAD 21) turn West and follow C-21 33 miles to junction of State Hi-way 128, turn West and go 13.2 miles to Lea-Eddy Co. line, turn Northeast on pipeline road and go 5.6 miles turn Northwest go 1+ miles turn West go .6 miles, turn South go 1000' to location.

   C. Construct oil and gas pipelines along road Right-Of-ways that are necessary to produce this lease. Construct all necessary Power lines that may be required to produce oil and gas from this lease.

2. PLANNED ACCESS ROADS: Approximately 1000' of new road will be constructed.

   A. The access road will be crowned and ditched to a 12'00" wide travel surface with 40' right-of-way.

   B. Gradient on all roads will be less than 5.00%.

   C. No turnouts will be necessary.

   D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.

   E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.

   F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Lopography.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

   A. Water wells - One approximately ½ mile Southwest of location.
   B. Disposal wells - None known
   C. Drilling wells - None known
   D. Producing wells - As shown on Exhibit "A-1"
   E. Abandoned wells - As shown on Exhibit "A-1"

4. If, upon completion this well is a producer Penwell Energy Inc. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit"C".

7. METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be disposed of in the reserve pit.

B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.

C. Salts remaining after completion of well will be picked up by supplier including broken sacks.

D. Sewage from living quaters will drain into holes with a minium depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.

E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

9. WELL SITE LAYOUT

A. Exhibit "D" shows the proposed well site layout.

B. This exhibit indicated proposed location of reserve and sump pits and living facilities.

C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.

D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

11. OTHER INFORMATION:

A. Topography consists of grassy flats and rolling plains interspersed with low dunes. Vegetation consists of native grasses, yucca, mesquite, snakeweed, drainage is to the West Southwest toward Bootleg Ridge. Sandy soils disturbed by two track roads. Surface is used for grazing livestock, and oil production.

B. The surface & minerals are owned by the U.S. Department of Interior, Bureau of Land Management.

C. An Archaeological survey will be conducted on the proposed roads and location which will be submitted to the Bureau of Land Management in Carlabad, New Mexico.

D. There are no dwellings located within 1 mile of location.

12. OPERATORS REPRESENTIVE:

Before construction:

TIERRA EXPLORATION INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PHONE 505-392-2112
JOE T. JANICA

During and after construction:

PENWELL ENERGY INC.
600 NORTH MARIENFELD
SUITE 1100
MIDLAND, TEXAS 79701
BILL PIERCE PHONE 915-683-2534

13. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposedherein will be performed by Penwell Energy Inc., its contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME : Joe T Janica
DATE : 02/16/98
TITLE : Agent

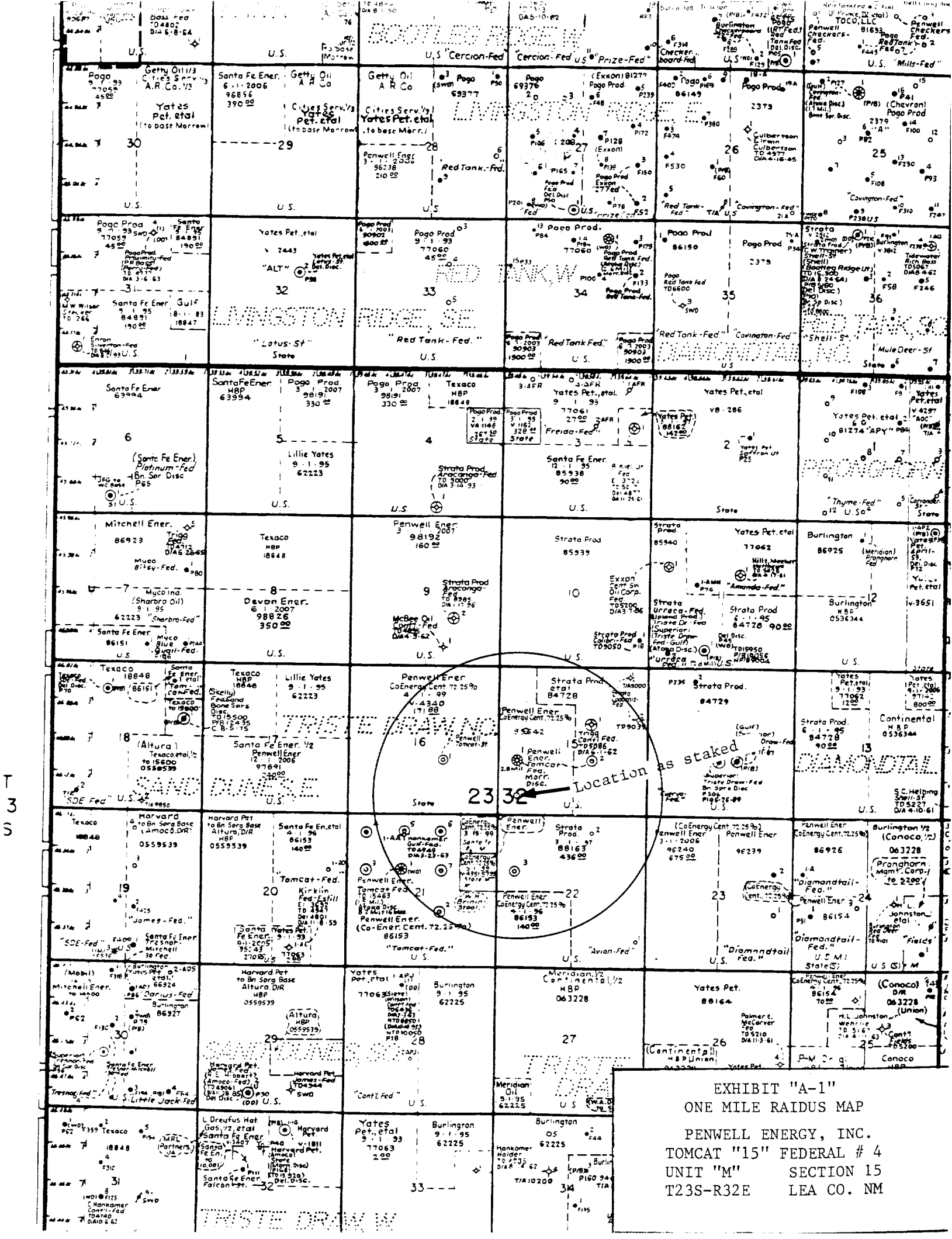


EXHIBIT "A-1"
ONE MILE RAIDUS MAP

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

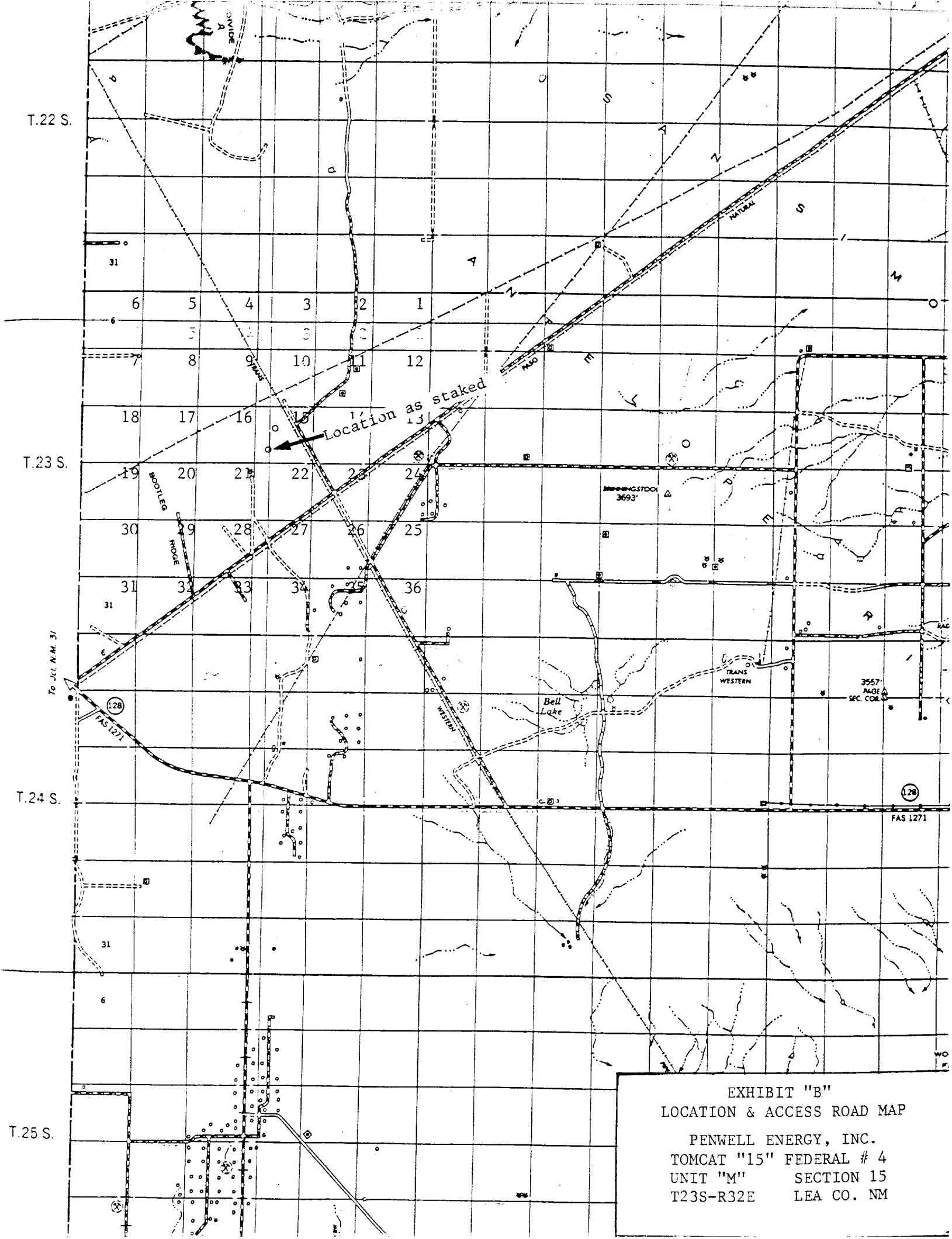


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

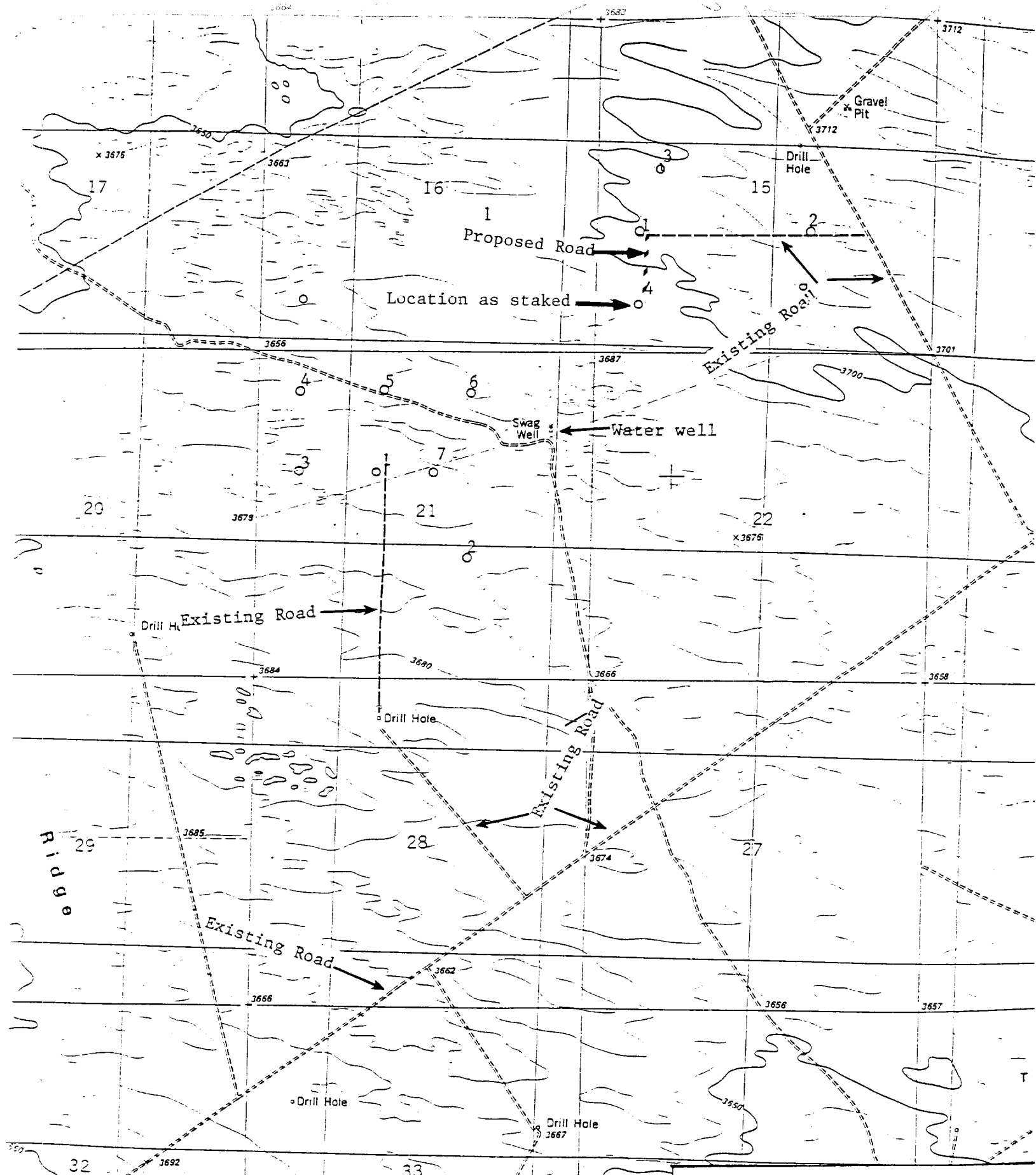
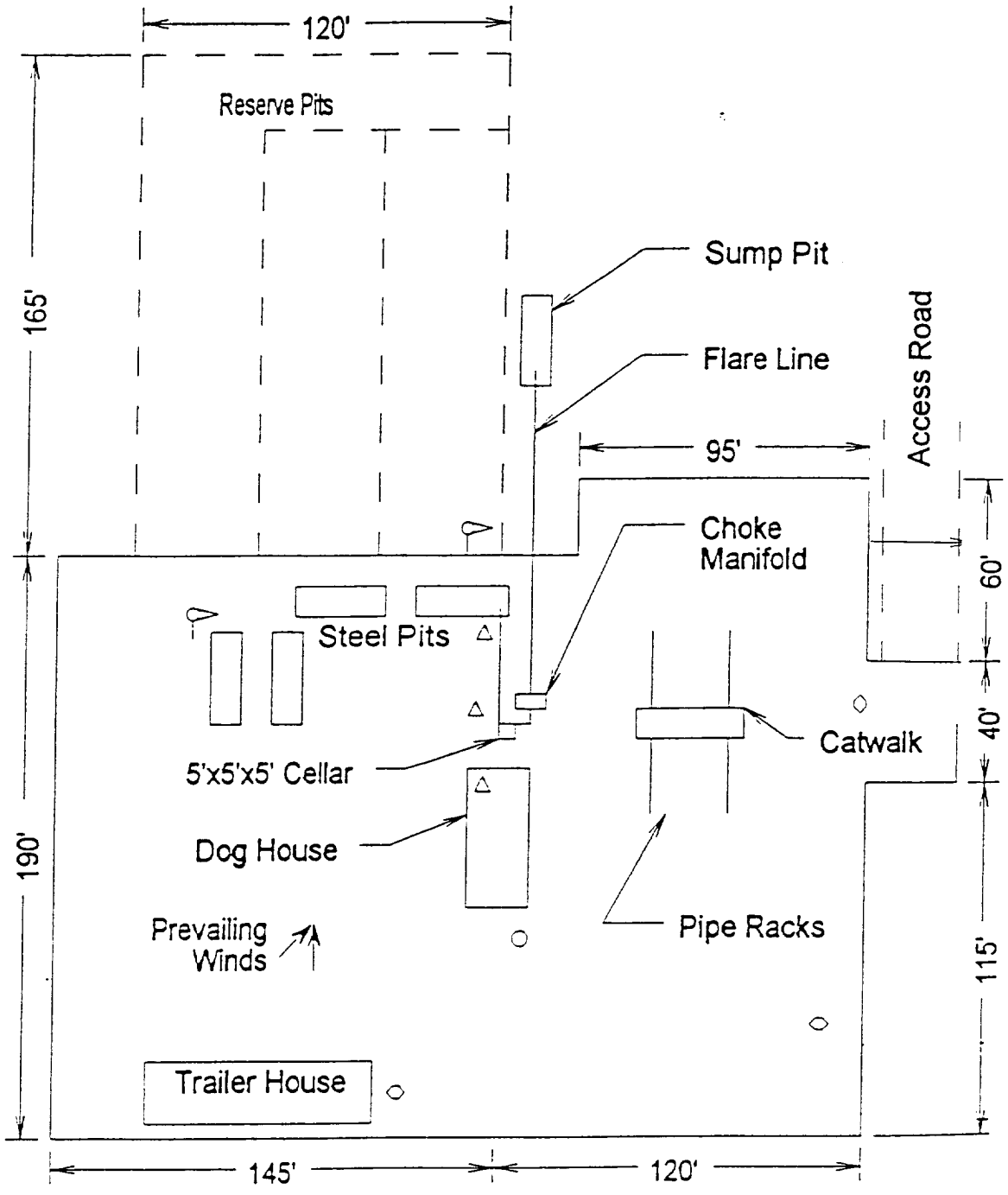


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

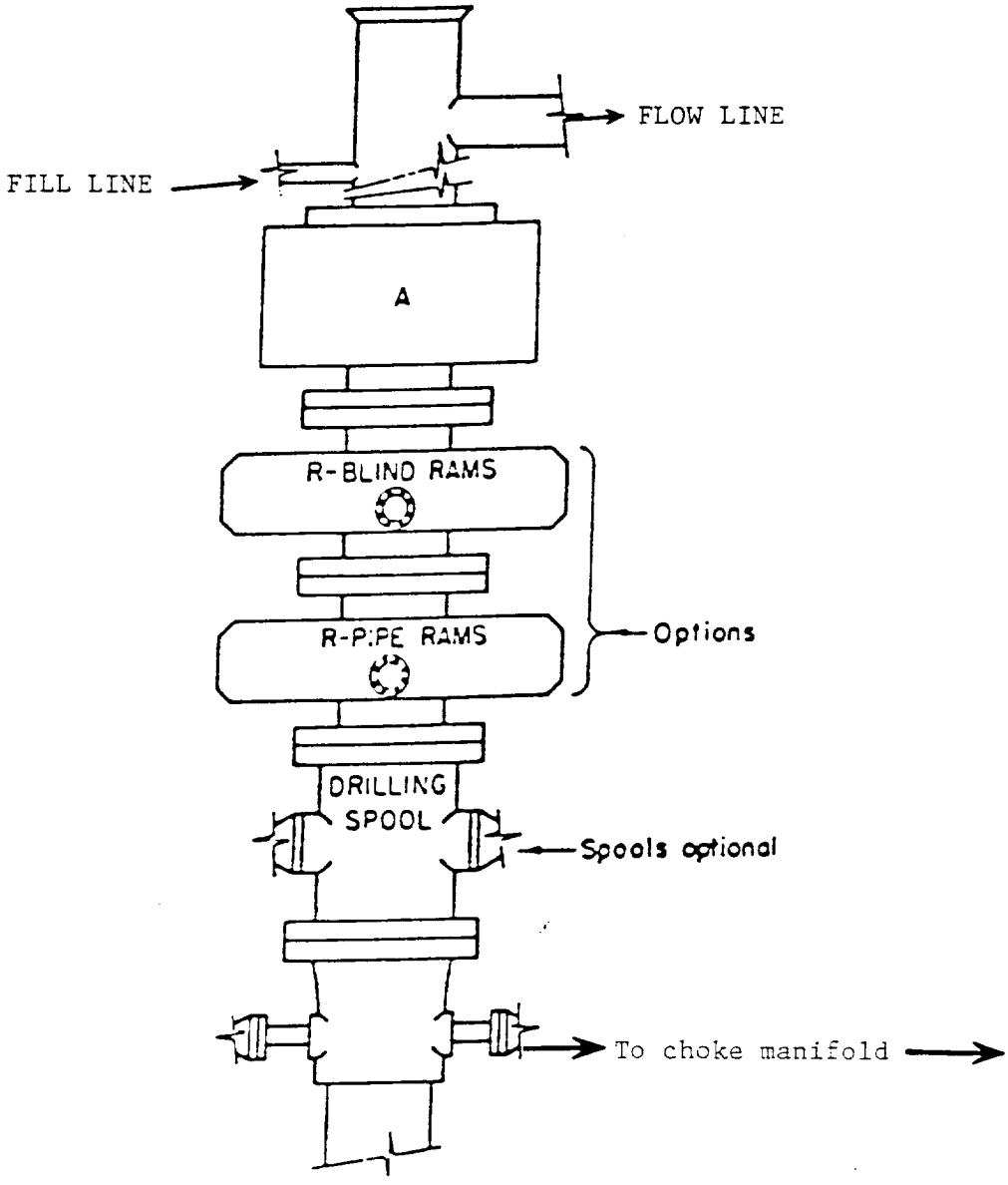
PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM



- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- ○ Briefing Areas
- ○ Remote BOP Closing Unit
- ⊏ Sign and Condition Flags

EXHIBIT "D"
RIG LAYOUT PLAT

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM

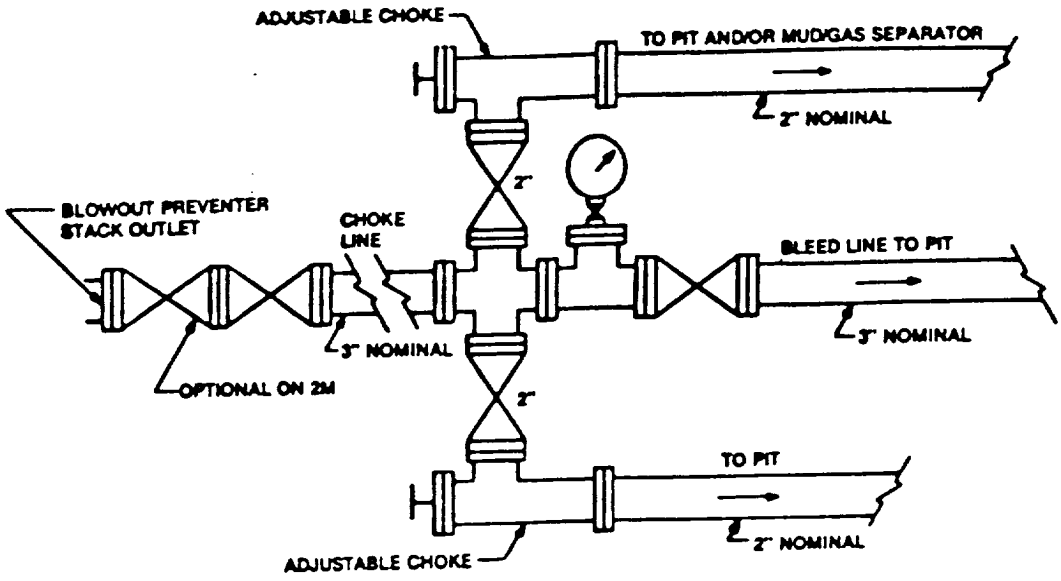


ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
B.O.P. SKETCH TO BE ON

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM



Typical choke manifold assembly for 3M WP system

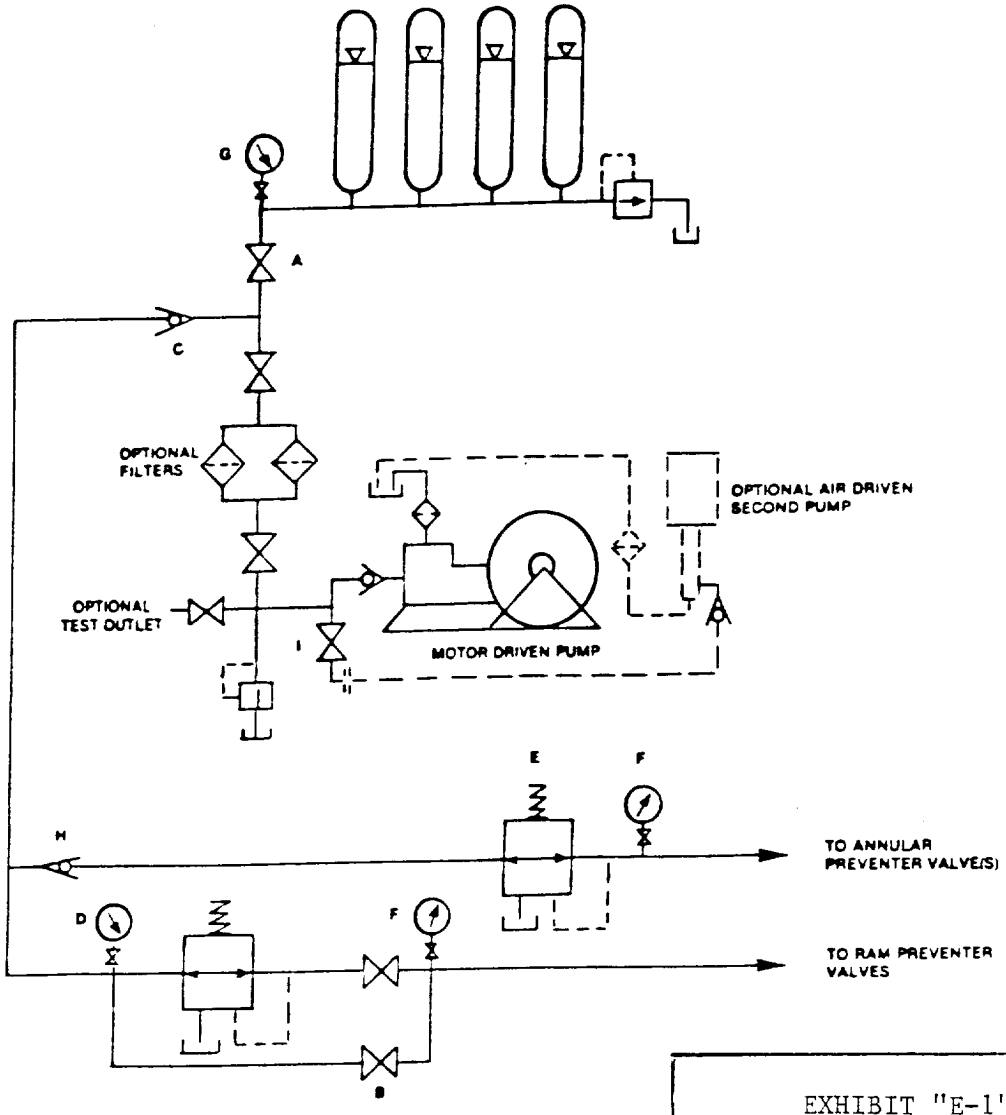


EXHIBIT "E-1"
CHOKE MANEFOLD & CLOSING UNIT

PENWELL ENERGY, INC.
TOMCAT "15" FEDERAL # 4
UNIT "M" SECTION 15
T23S-R32E LEA CO. NM