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

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-86153

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 "21" FEDERAL # 4

2. NAME OF OPERATOR: PENWELL ENERGY INC. (BILL PIERCE) Ph 505-683-2534

9. API WELL NO.: 30-025-34566

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

10. FIELD AND POOL, OR WILDCAT: WILDCAT: Wolfcamp

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL & 660' FWL SEC. 21 T23S-R32E
At proposed prod. zone: Same D

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 21 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'	1020	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**
1320'	12,350'	ROTARY

CARLSBAD CONTROLLED WATER BASIN

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3672' GR.

22. APPROX. DATE WORK WILL START*: As soon as 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/Redi-mix
17½"	H-40 13 3/8"	48	600' WITNESS	600 Sx. circulate to surface
12¼"	J-55 8 5/8"	24 & 32	4800'	1400 Sx. " " "
7 7/8"	P-110 5½"	17	12,350'	1000 Sx. Estimated top cement 8000

1. Drill 25" hole to 40'. Set 40' of conductor cement to surface with Redi-mix.
2. Drill 17½" hole to 600'. Run and set 600' of 13 3/8" H-40 48# ST&C casing. Cement with 400 Sx. Class "C" Light tail in with 200 Sx. Class "C" + 2% CaCl circulate cement to surface.
3. Drill 12¼" hole to 4800'. Run and set 4800' of 8 5/8" J-55 24 & 32# ST&C casing as follows: 2300' of 32#, 2000' of 24#, 500' of 32#. Cement with 1000 Sx. Class "C" Light cement tail in with 400 Sx. Class "C" + 2% CaCl circulate cement to surface.
4. Drill 7 7/8" hole to 12,350'. Run and set 12,350' of 5½" P-110 17# LT&C casing. Cement with 600 Sx. Class "H" Light tail in with 400 Sx. Class "H" + additives estimated top of cement 8000'.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS A SPECIAL STIPULATIONS ATTACHED

OPER. OGRID NO. 147380
PROPERTY NO. 20725
POOL CODE -
EFF. DATE 2-1-99
API NO. 30-025-34566

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and p deeper directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer p

24.

SIGNED Bert Jones TITLE Agent DATE 03/17/97

(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 /S/ Lesie Smith TITLE Acting Assistant Field Office Manager, Lands and Minerals DATE JAN 25 1999

*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

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

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-34566	—	WILDCAT; Wolfcamp

Property Code	Property Name	Well Number
20725	TOMCAT "21" FEDERAL	4

OGRID No.	Operator Name	Elevation
147380	PENWELL ENERGY INC.	3672'

Surface Location

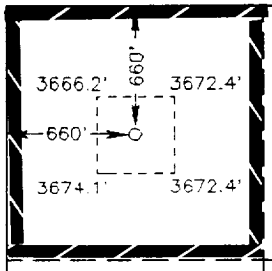
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	23 S	32 E		660	NORTH	660	WEST	LEA

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.

Signature: Joe T. Janica

Printed Name: Joe T. Janica

Title: Agent

Date: 03/17/97

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.

Date Surveyed: March 6, 1997

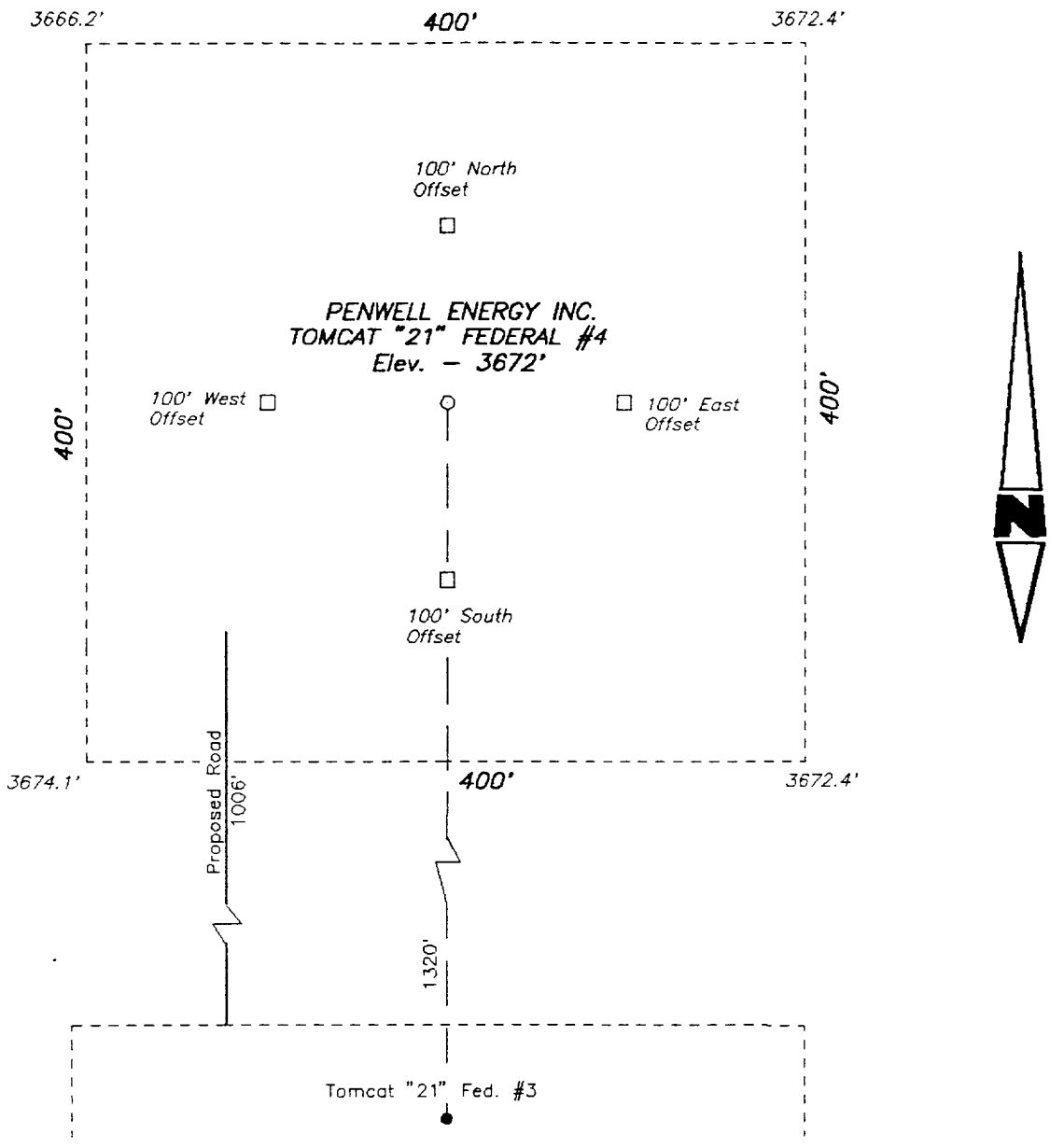
Signature & Seal of Professional Surveyor: Gary L. Jones

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. Num. 7114C

Certificate No. GARY L. JONES 7977

SECTION 21, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO



100 0 100 200 Feet

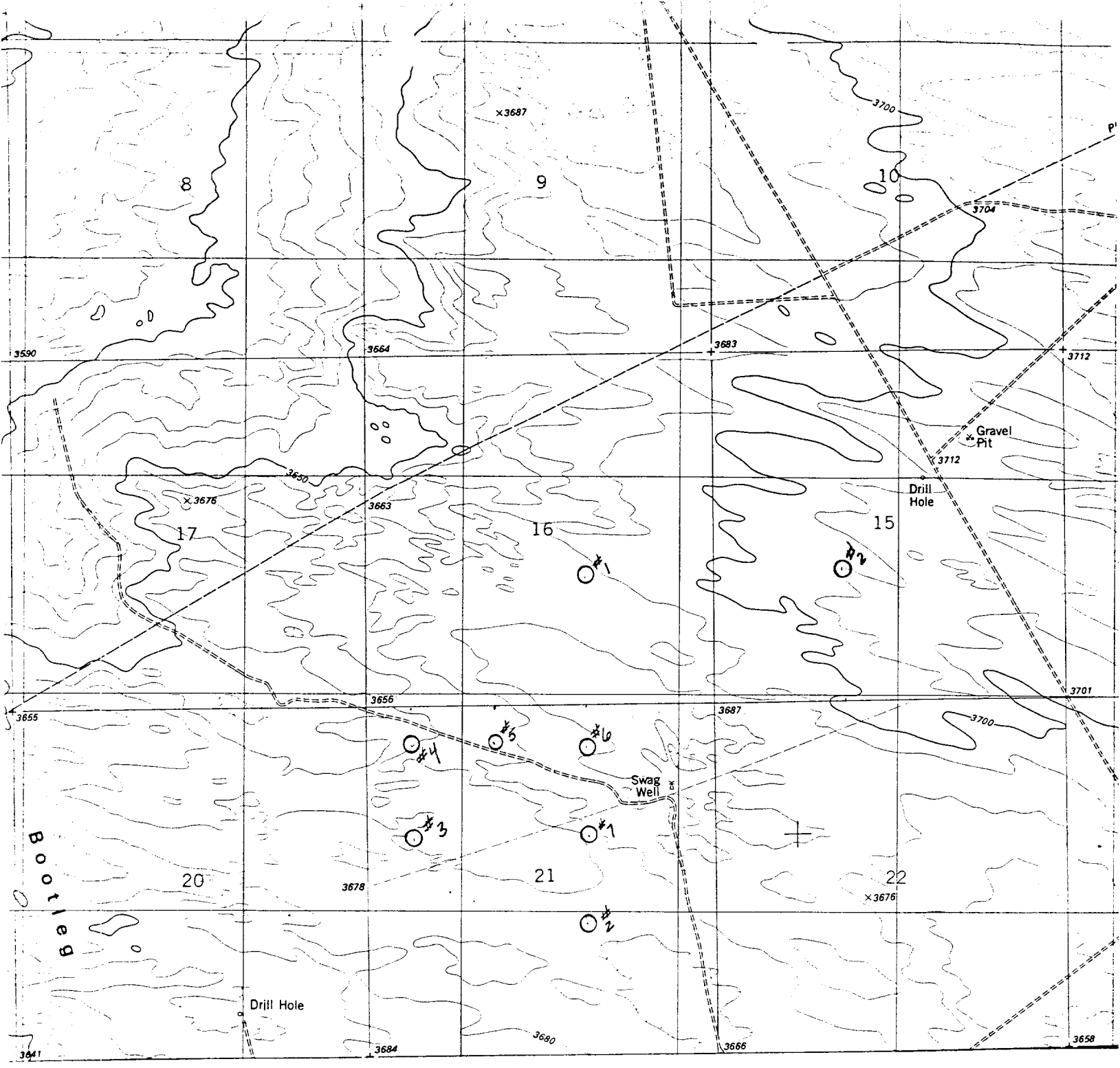
PENWELL ENERGY INC.

REF: Tomcat "21" Federal Number 4 / WELL PAD TOPO

THE TOMCAT "21" FEDERAL No. 4 LOCATED 660' FROM THE NORTH LINE AND 660' FROM THE WEST LINE OF SECTION 21, 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: 7114C	Drawn By: KJG		
Date: 03-10-97	Disk: KJG #3 – 7114C.DWG	Survey Date: 3-6-97	Sheet 1 of 1 Sheets



PENWELL ENERGY INC.
TOMCAT "21" FEDERAL #4
660' FNL & 660' FWL
Sec. 21, T-23-S, R-32-E
Lea County, New Mexico.

N

SCALE: 1"=2000'

2000' 0 2000' 4000 Feet

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

W.O. Number: 7114C	Drawn By: KJG	Survey Date: 03-06-97	Sheet 1 of 1 Sheets

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL #4
SEC. 21 UNIT "D"
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' FNL & 660' FWL SEC. T23S-R32E LEA CO. NM

2. Elevation above sea level: 3672' GR.

3. Geologic name of surface formation: Quaternery Aeolian Deposits.

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

5. Proposed drilling depth: 12,350'

6. Estimated tops of geological markers:

		Bone Spring	8700'
		Wolfcamp	12.150'
Delaware	4900'		

7. Possible mineral bearing formation:

Delaware	Oil
Bone Spring	Oil
Wolfcamp	Oil

8. Casing program:

Hole size	Interval	OD casing	Weight	Thread	Collar	Grade	Condition
25"	0-40	20"	Conductor	NA	NA	NA	New
17½"	0-600	13 3/8"	48	8-R	ST&C	H-40	New
12¼"	600-4800'	8 5/8"	32-24	8-R	ST&C	J-55	New
7 7/8"	4800-12,350'	5½"	17	8-R	LT&C	p-110	New

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL #4
SEC. 21 UNIT "D"
T23S-R32E LEA CO. NM

9. Cementing and Setting Depth:

20"	Conductor	Drill 25" hole to 40'. Set 40'of 20" conductor Cement to surface with Redi-mix.
13 3/8"	Surface	Drill 17½" hole to 600'. Run and set 600'of 13 3/8" 48# H-40 ST&C casing. Cement with 400 Sx. Class "C" Light, tail in with 200 Sx. Class "C" + 2% CaCl circulate cement to surface.
8 5/8"	Intermediate	Drill 12¼" hole to 4800'. Run and set 4800' of 8 5/8" J-55 32 & 24# ST&C casing. Cement with 1000 Sx. Class "C" Light, tail in with 400 Sx. Class "C" + 2% CaCl Circulate cement to surface.
5½"	Production	Drill 7 7/8" hole to 12,350'. Run and set 12,350' of 5½" 17# P-110 LT&C casing. Cement with 600 Sx. Class "H" Light, tail in with 400 Sx. Class "H" + additives estimate top of cement 8000'.

10. Pressure Control Equipment: Exhibit "E". A 1500 Series 5000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP un-t will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nipple up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow 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.	Visc,	Fluid Loss	Type Mud
40-600'	8.6-9	29-36	NC	Fresh water Spud mud add paper for seepage control.
600-11750'	10-10.7	29-32	NC	Brine water add Lime for pH control and paper for seepage.
11,750-12,350'	9-9.6	30-38	10 CC or less	Cut Brine Soda Ash Drispac & Starch for water loss control.

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

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL #4
SEC. 21 UNIT "D"
T23S-R32E LEA CO. NM

12. Testing, Logging and Coring Program:

A. Gamma Ray from TD to surface, Caliper from TD to 8 5/8" casing shoe.

B. CNL-LDT, DUAL Laterlog, MSFL Caliper from TD to 8 5/8" casing shoe.

C. Mud logger on from 4800' to TD.

D. DST'S and cores will be taken as shows dictate.

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 7000 PSI, estimated BHT 185°.

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 50-65 ± 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 Wolfcamp 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 H2S safety instructor to the following:

   A. Characteristics of H2S
   B. Physical effects and hazards
   C. Proper use of safety equipment and life support systems
   D. Principle and operation of H2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid
   F. Proper use of 30 minute pressure demand air pack

2. H2S Detection and Alarm Systems

   A. H2S 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 indicated potential pressure and danger. Red flag, danger, H2S 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 chalkboard is inappropriate.
   C. Two way radio will be used to communicate off location in case emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

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

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

9. If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

SURFACE USE PLAN

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL #4
SEC. 21 UNIT "D"
T23S-R32E LEA CO. N.M.

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 development well as staked.

   B. From Eunice new Mexico take State Hi-way 18 South 2.5 mile to Delaware Basin road (CR-21) go 32.6 miles to State Hi-way 128 turn West go 13.2 miles to Lea-Eddy co line turn Northeast on pipeline road go 3.7 miles turn Northwest go .65 miles to Yates well bear North go .75 miles turn west go .25 miles turn North go .25 mile to location on West side of road.

   C. Lay 3" polyethelene pipeline to transport produced fluids to a common tank battery. Construct a 1250 KV electric power line along road ROW in order to produce oil and gas from this well.

2. PLANNED ACCESS ROADS: Approximately 1320' 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 - See Exhibit "C"

   B. Disposal wells - None known

   C. Drilling wells - see Exhibit "C"

   D. Producing wells - As shown on Exhibit "A-1"

   E. Abandoned wells - See 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 private source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "A".

7. METHODS FOR HANDLING WASTE DISPOSAL

A. 1. Drill cuttings will be disposed of in the reserve pit.

2. Trash, waste paper, and garbage will either be contained in a fenced trash trailer or in a trash pit, fenced with mesh wire to prevent wind-scattering during storage. When the rig moves out, all trash and debris left at the site will be contained to prevent scattering and will be buried at least 36" deep within a reasonable period of time.

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

4. Sewage from trailer houses will drain into holes with minimum depth of 10'00". These holes will be covered during drilling and backfilled upon completion. A "porta John" will be provided for the rig crews. This will be properly maintained during the drilling operations and removed upon completion of the well.

B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITILS

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

A. Exhibit "D" shows location and rig layout.

B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.

C. Mud pits in the active circulating system will be steel pits and 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 PVC or polyethylene line. 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 recountered 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.

SURFACE USE PLAN

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL #4
SEC. 21 UNIT "D"
T23S-R32E LEA CO. N.M.

11. OTHER INFORMATION:

A. Topography as shown on topographic map consists of sand dunes with a Westerly dip toward the Pecos River. The surface is used mainly for live stock grazing and access to Oil & Gas production. Surface vegetation consists of native grasses, shinnery oak, mesquite, sandsage and snake weed.

B. The surface is owned by The Dept. of Interior, Bureau of Land Management.

C. An archaeological survey will be conducted of the location and road. This will be submitted separately to the BLM when it is completed.

D. There are no dwellings within 2 miles of this 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.
1100 ARCO BUILDING
600 NORTH BIG SPRING
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 : 03/17/97
TITLE : Agent

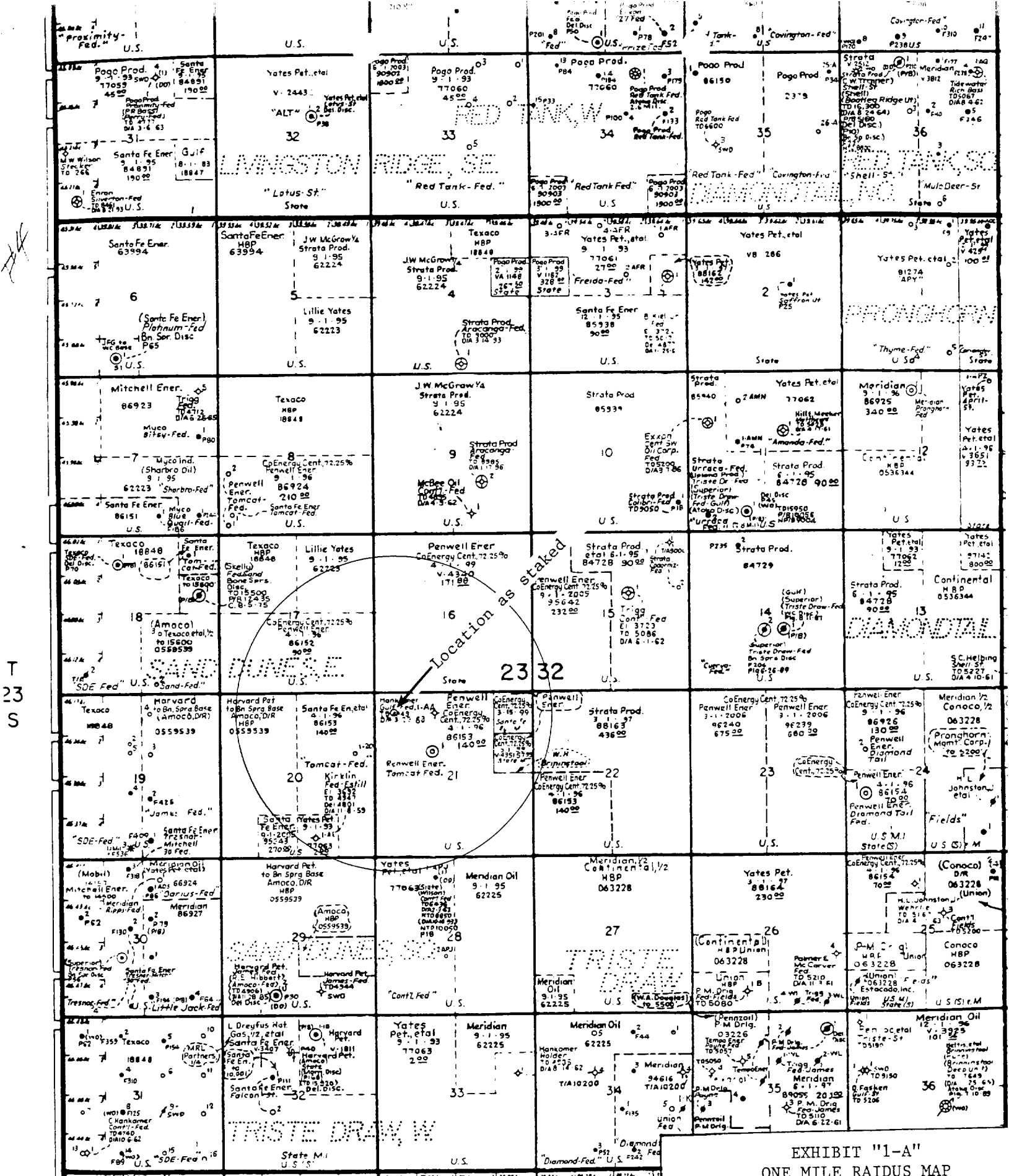


EXHIBIT "1-A"
ONE MILE RAIDUS MAP

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM

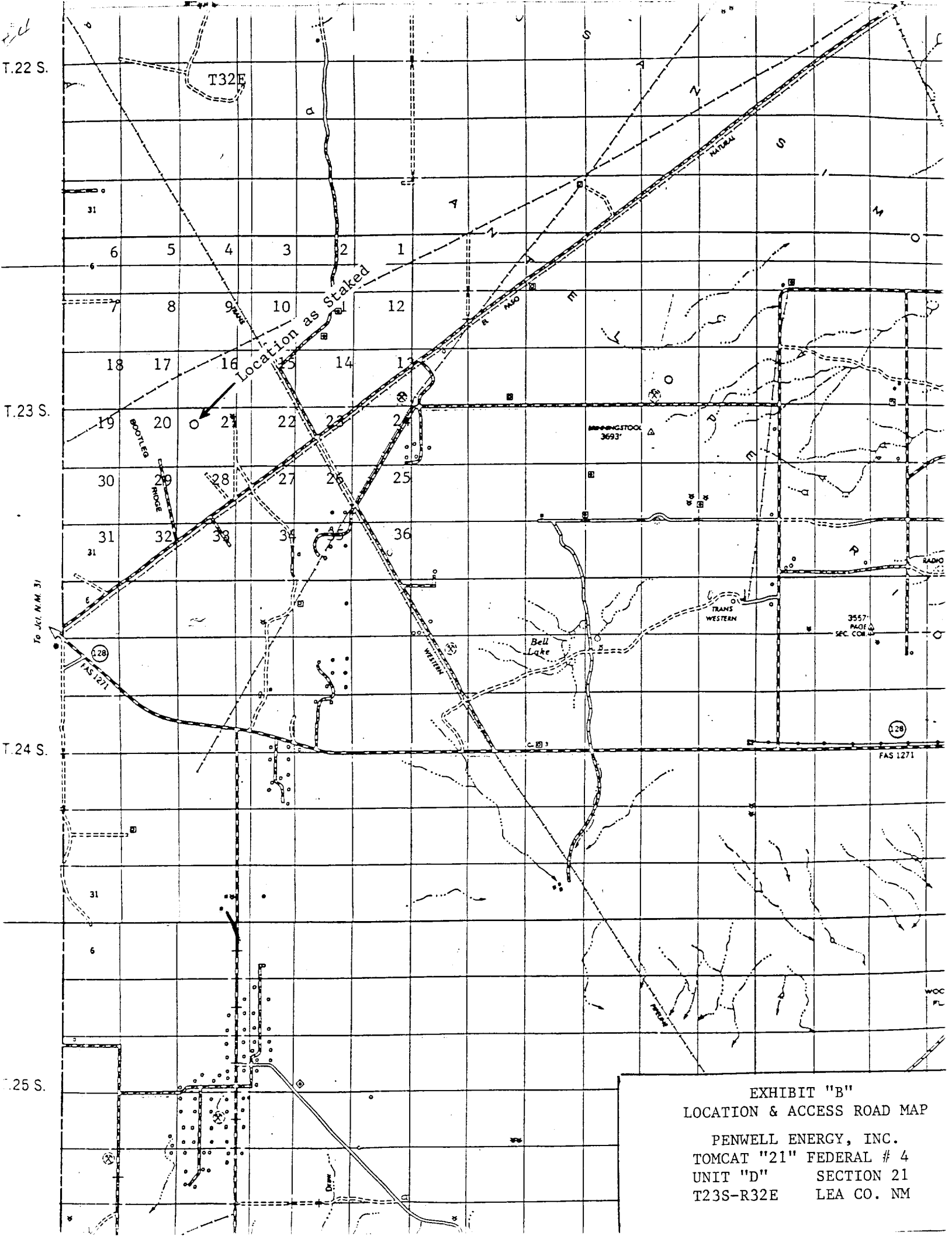


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM

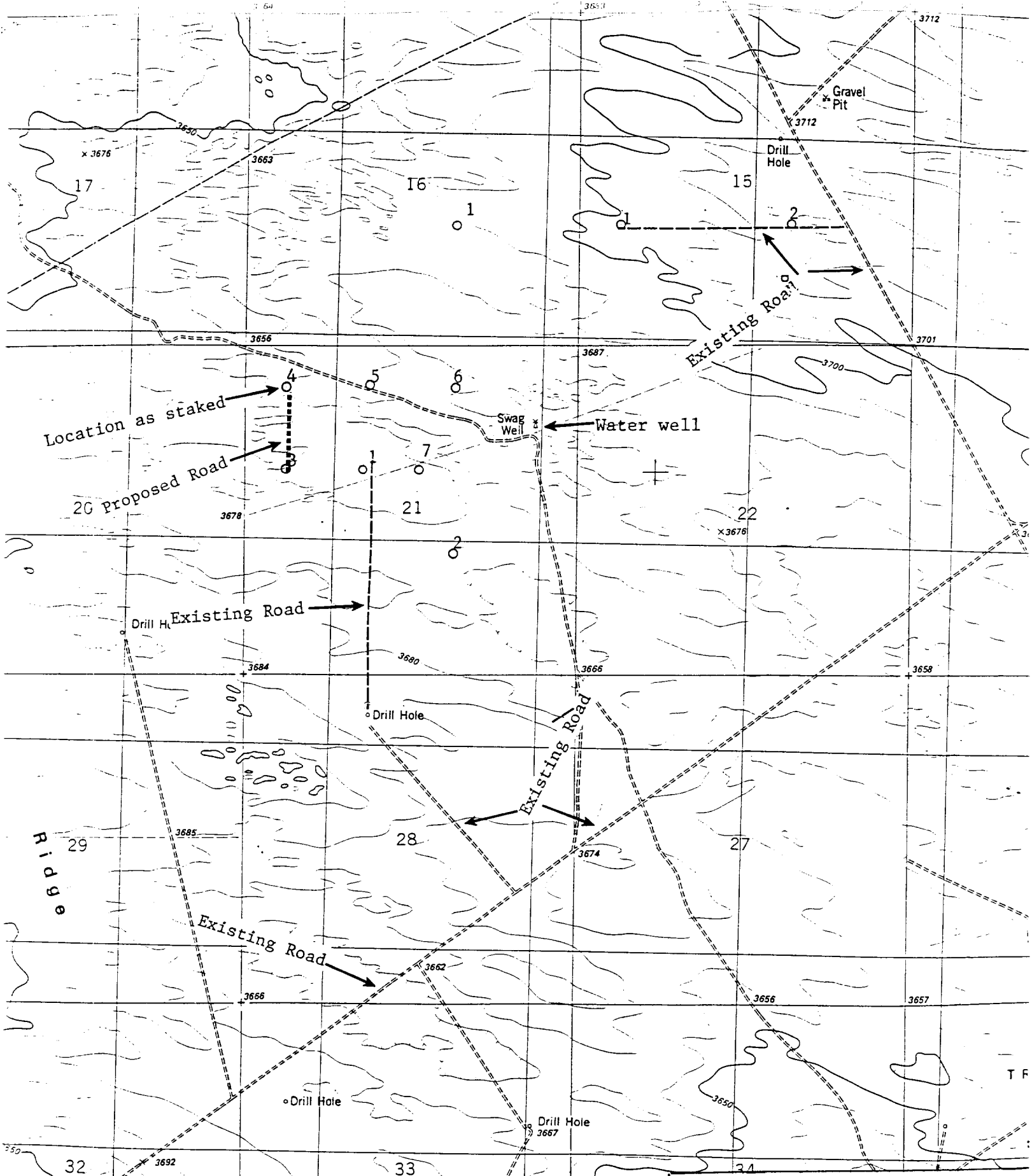
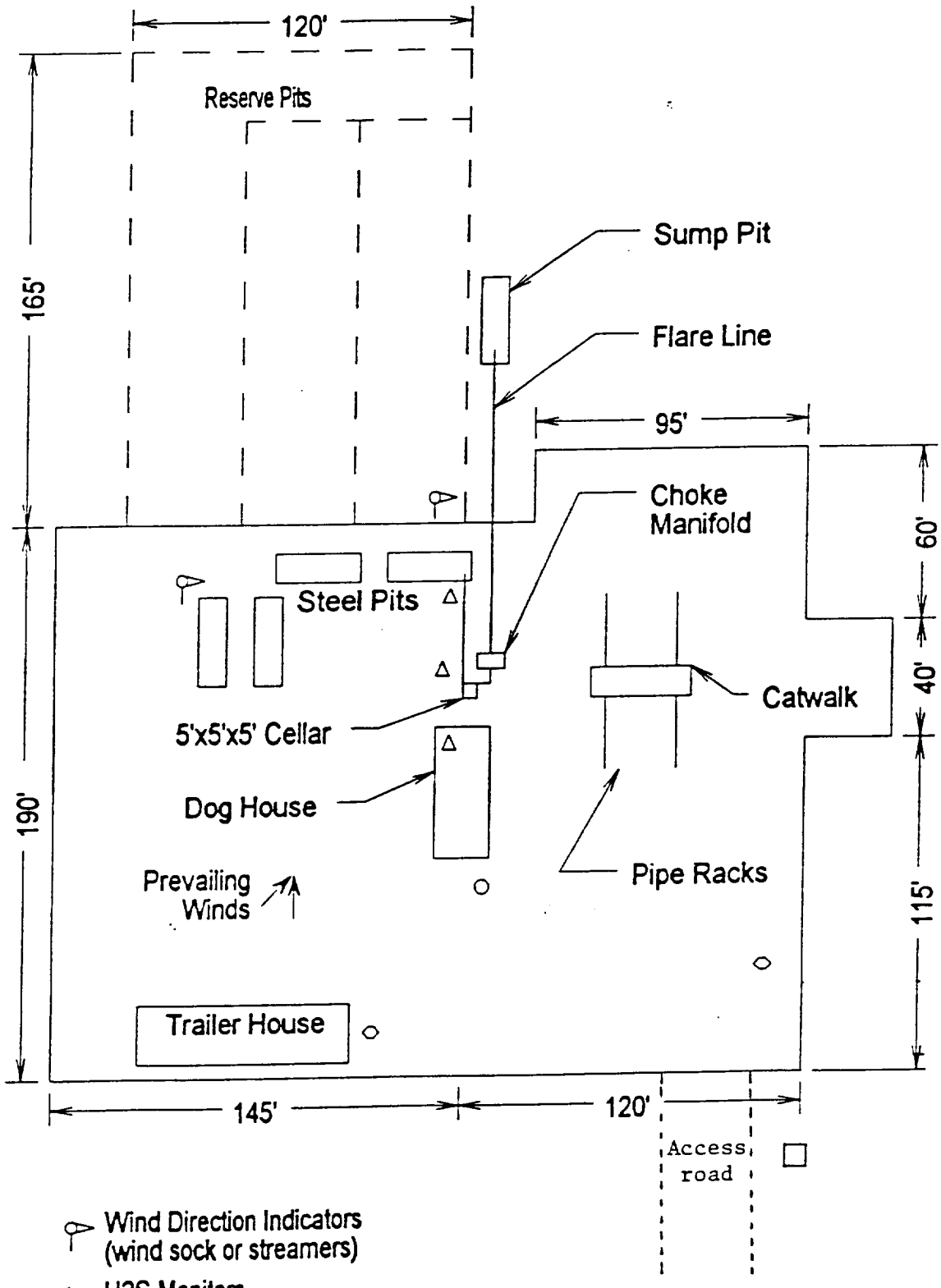


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
DIRECTIONS & ROADS TO

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM



Wind Direction Indicators
(wind sock or streamers)

△ H2S Monitors
(alarms at bell nipple and shale shaker)

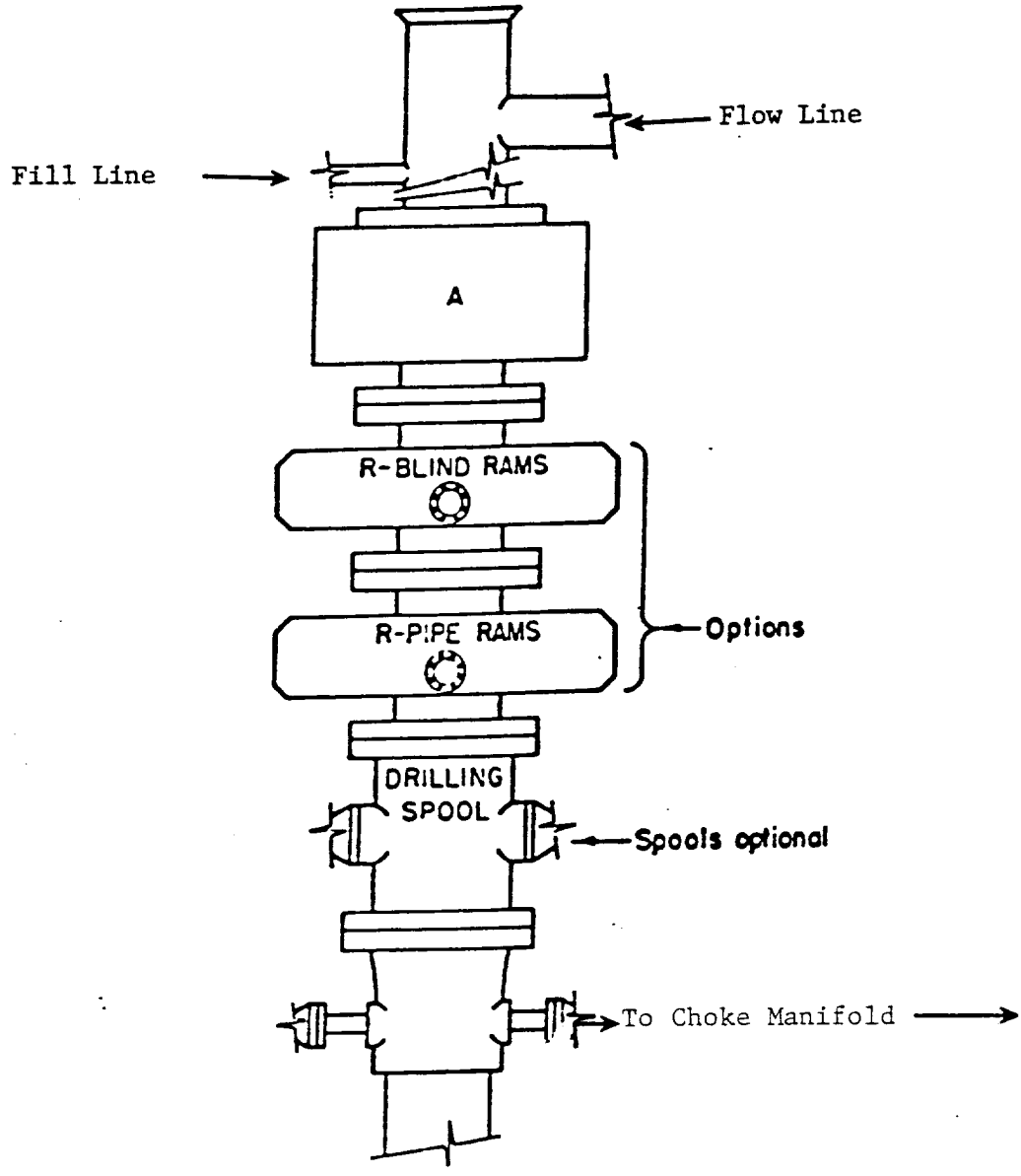
◇ Briefing Areas

○ Remote BOP Closing Unit

□ Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM



ARRANGEMENT SRRA

1500 Series

5000# Working Pressure

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

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM

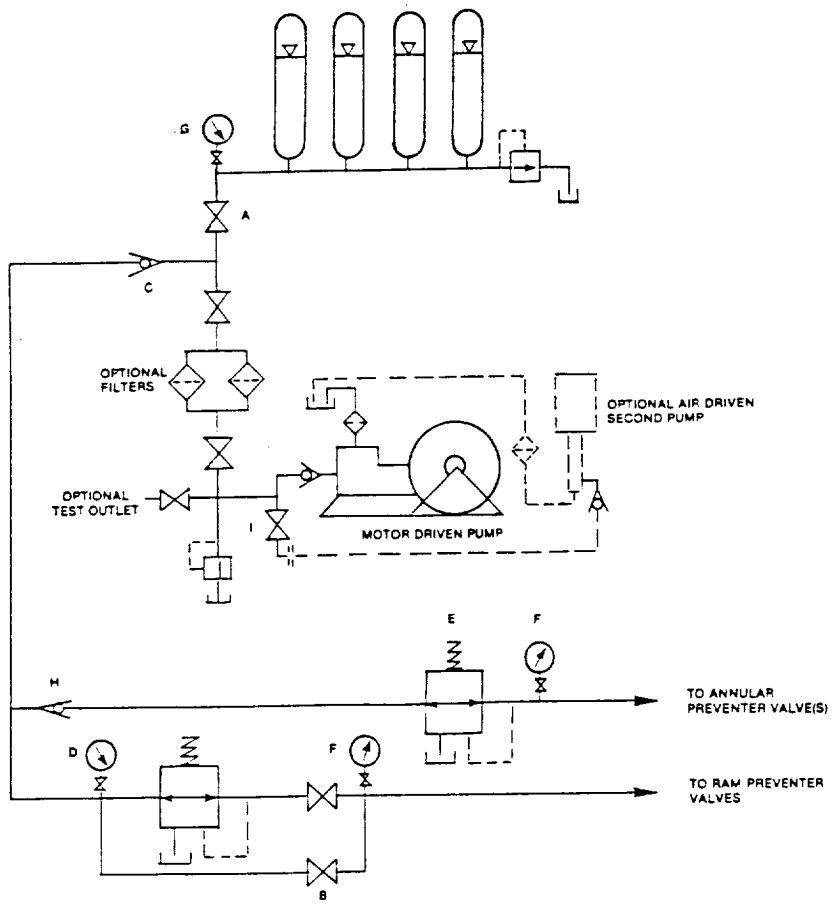


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

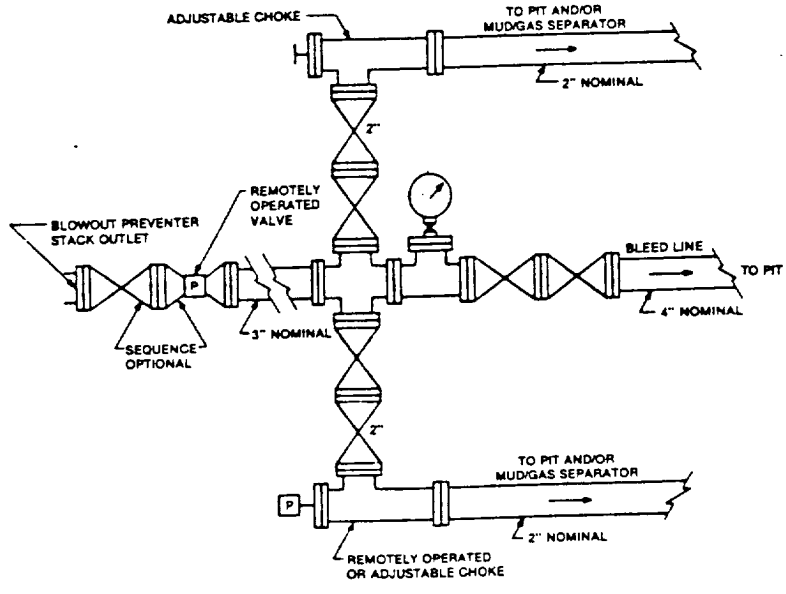


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "1-E"
CHOKE MANIFOLD & CLOSING UNIT

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL # 4
UNIT "D" SECTION 21
T23S-R32E LEA CO. NM