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.: USA BLM NM 81633

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME:

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

8. FARM OR LEASE NAME, WELL NO.: #4 Checkers "24" Federal

2. NAME OF OPERATOR: Penwell Energy, Inc. (915) 683-2534

9. API WELL NO.:

3. ADDRESS AND TELEPHONE NO.: 600 N. Marienfeld, Ste. 1100

10. FIELD AND POOL, OR WILDCAT: Red Tank Bone Spring

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: ~~990~~ 790' FNL & ~~990~~ 790' FEL
At proposed prod. zone: ~~990~~ 790' FNL & ~~990~~ 790' FEL Unit A

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 24, T22S, R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 35 miles East of Carlsbad, New Mexico

12. COUNTY OR PARISH: Lea

13. STATE: N.M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): ~~990~~ 790'

16. NO. OF ACRES IN LEASE: 920

17. 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.: 2250'

19. PROPOSED DEPTH: 9000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3723'

22. APPROX. DATE WORK WILL START*: Nov. 1, 1996

23. PROPOSED CASING AND CEMENTING PROGRAM — WITHIN PECOS RIVER WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	H-40 13 3/8"	48#	850'	600 sx, Cl.C WITNESS Circ.
11"	J-55 8 5/8"	32#	4600'	~~700sx~~ Cl,C+200sx C Neet-Circ
7 7/8"	L-80 5 1/2"	17#	9000'	500sx Cl. H Est.TOC 5,000'

OPER. OGRID NO. 147380
PROPERTY NO. 20022
POOL CODE 51683
EFF. DATE 12/24/96
API NO. 30-025-33739

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
OCT 15 1996
OCD, HOBBS, NEW MEXICO

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 Brenda Coffman TITLE Production Analyst DATE Oct. 10, 1996

(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 (ORIG. SGD.) TONY L. FERGUSON TITLE ADM. MINERALS DATE 12-19-96

*See Instructions On Reverse Side

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
30-025-33739	51683	Red Tank Bone Springs

Property Code	Property Name	Well Number
20022	Checkers 24 Federal	4

OGRID No.	Operator Name	Elevation
147380	Penwell Energy Inc.	3711'

Surface Location

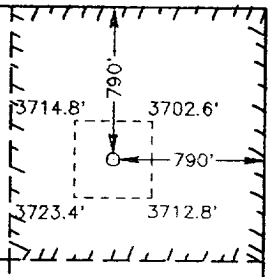
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	22 S	32 E		790	North	790	East	Lea

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.

Brenda Coffman
Signature

Brenda Coffman
Printed Name

Production Analyst
Title

Nov. 7, 1996
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.

October 31, 1996
Date Surveyed

Signature & Seal of Professional Surveyor

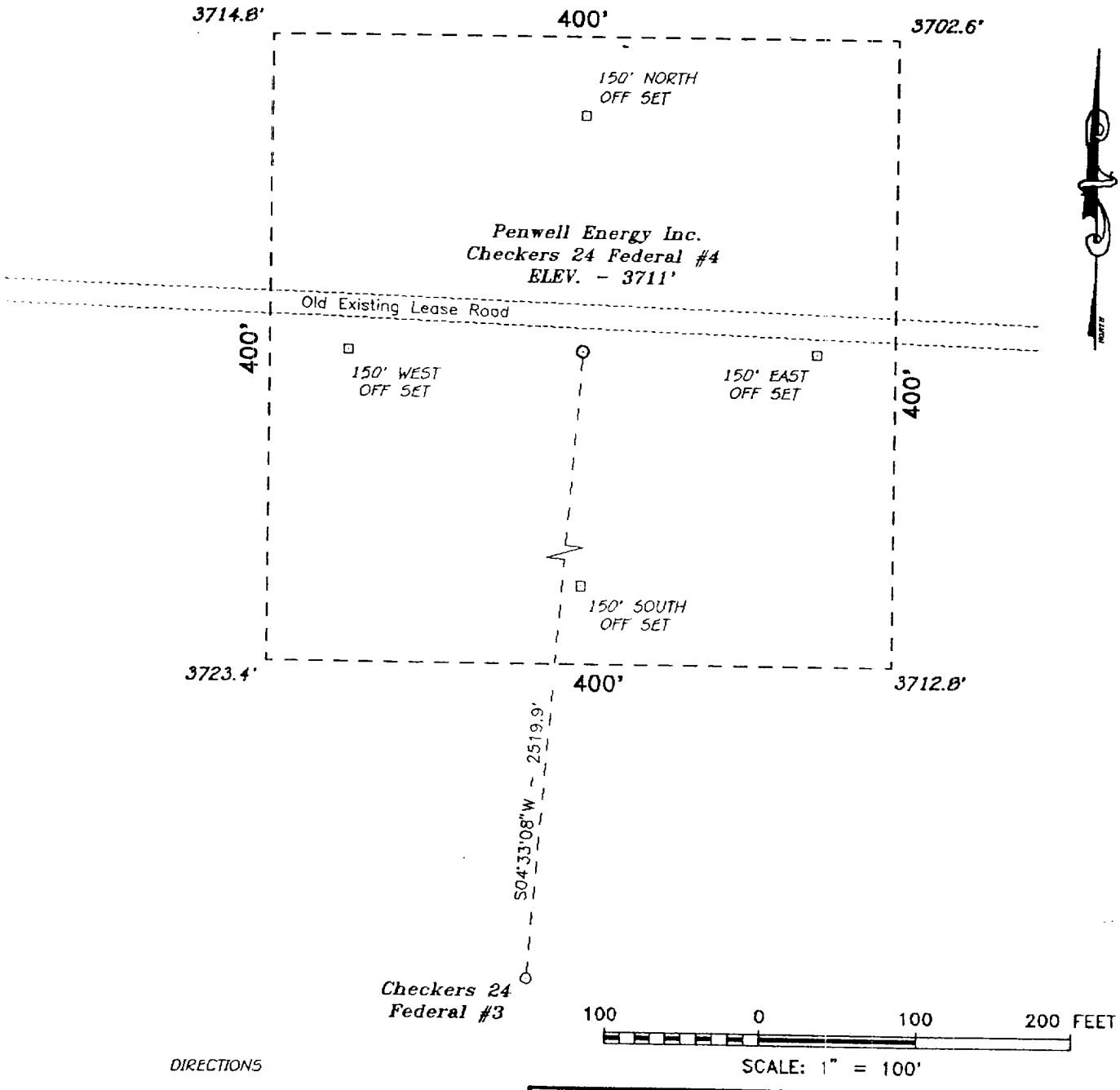
GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 6465a

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 24, TOWNSHIP 22 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



DIRECTIONS

AT THE INTERSECTION OF HWY. 62-180 & HWY. 176, GO EAST, SOUTHEAST ON HWY. 176 6.4 MILES TO A LEASE ROAD, GO SOUTH ON LEASE ROAD AND FOLLOW THE MAIN LEASE ROAD SOUTHERNLY TO THE NORTHEAST CORNER OF THIS SECTION (SEC. 24) PROPOSED LEASE ROAD TIE TO THE MAIN LEASE ROAD ALONG THE EAST SECTION LINE.

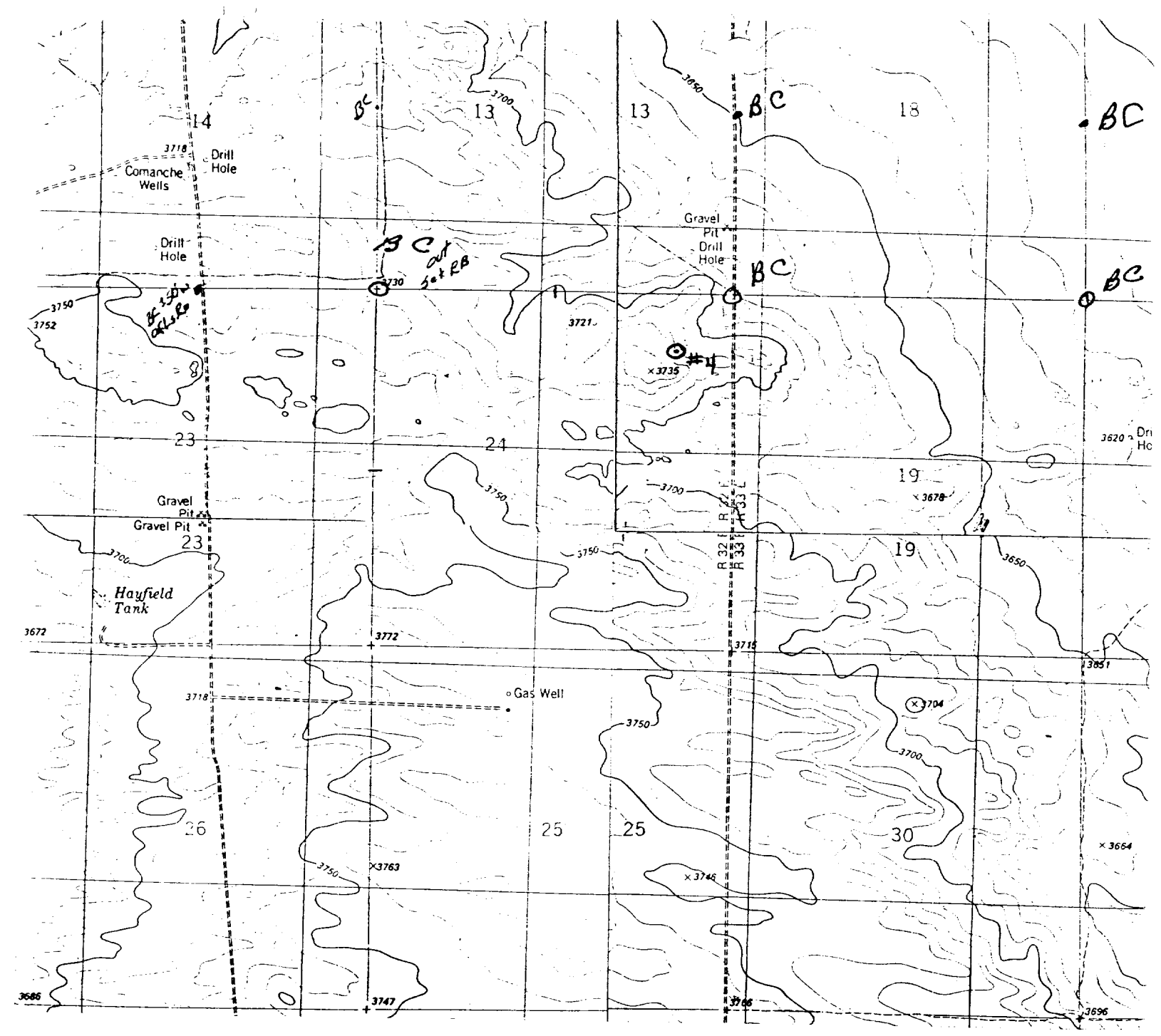
Penwell Energy Inc.

REF: Checkers "24" Federal No. 4 / Well Pad Topo

THE CHECKERS "24" FED. No. 4 LOCATED 790' FROM THE NORTH LINE AND 790' FROM THE EAST LINE OF SECTION 24, TOWNSHIP 22 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 6465	Drawn By: S.C. NICHOLS		
Date: 10-01-96	Disk: SCN #31 - 6465AA.DWG	Survey Date: 10-31-96	Sheet 1 of 1 Sheets



PENWELL ENERGY INC.
CHECKERS 24 FEDERAL #4
790' FNL & 790' FEL
Sec. 24, T-22-S, R-32-E,
Lea County, New Mexico.

NORTH

SCALE: 1" = 2000'

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

2000' 0 2000' 4000 Feet

W.O. Number: 6465	Drawn By: S.C. Nichols	Survey Date: 09-31-96	Sheet 1 of 1 Sheets

PENWELL ENERGY, INC.

CHECKERS "24" FEDERAL #4
990 FNL & 990 FEL
SECTION 24 T22S, R32E
LEA COUNTY, NEW MEXICO

APPLICATION FOR PERMIT TO DRILL

1. LOCATION: 990 FNL & 990' FEL, SECTION 24, T22S, R32E

2. ELEVATION ABOVE SEA LEVEL: 3723'.

3. GEOLOGIC NAME OF SURFACE FORMATION: Kermit-Berino

4.. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using mud for the circulation medium.

5. PROPOSED DRILLING DEPTH: 9000'

6. ESTIMATED GEOLOGICAL MARKER TOPS:

Rustler	980'
Lamar	4890'
Bell Canyon	4950'
Brushy Canyon	7485'
Bone Spring	8750'

7. POSSIBLE MINERAL BEARING FORMATION:

OIL		GAS
Bell Canyon	4950'	NONE
Brushy Canyon	7485'	
Bone Spring	8750'	

CASING PROGRAM:

Hole Size	Interval	OD Csg	Weight	Thread	Collar	Grade	Cond.
17 ½"	0-850'	13 3/8"	48#	8-R	ST&C	H-40	New
11"	0-4600'	8 5/8"	32#	8-R	ST&C	J-55	New
7 7/8"	0-9000'	5 ½"	17#	8-R	LT&C	L-80	New

9. CASING CEMENTING & SETTING DEPTH:

13 3/8"	Surface	Set 850' of 13 3/8" 48#, ST&C casing. Cement with 600 sacks Class "C" Neet + 2% $CaCl_2$ Circulate cement to surface.
8 5/8"	Intermediate	Set 4600' of 8 5/8" 32# J-55 ST&C casing. Cement with 700 sx Class "C" Lite + 200 sx "C" Neet + 2% $CaCl_2$. Circulate cement to surface.
5 ½"	Production	Set 9000' of 5 1/2" 17# , STC casing. Cement with 500 sx Class "H" Lite Estimated top of cement @ 5,000'.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E". A Blow-out Preventer (no less than 900 Series 3000 PSI working pressure) consisting of double ram type preventer with bag type preventer. Units will be hydraulically operated. Exhibit "E-1" Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be nippled up on 13 3/8" casing and remain on well until casing is run and cemented. BOP will be tested as well as choke manifold. BOP will be worked at least once each day while drilling & blind ram will be worked on trips when no drill pipe is in hole. Full opening stabbing valve and upper kelley cock will be utilized. Anticipated BHP 3000 PSI and 141° BHT.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE
0'- 850'	8.4	None	NC	FW
850' - 4600'	10.0	None	NC	BW
4600' - 8500'	Cut Brine	None	NC	CB
8500' - 9000'	Cut Brine	36	15 cc's or less	Starch, Drispac, Soda Ash

12. TESTING, LOGGING AND CORING PROGRAM:

    A. Gamma Ray - Surface casing to T.D.
    B. CNL-LDT,DLL-MFL - Below 4600' to T. D.
    C. Coring - Sidewall only
    D. DST'S - None Anticipated
    E.

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 3000 psi, estimated BHT 141°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

    Road and location construction will begin after BLM approval of APD. Anticipated spud date is November 1, 1996. Drilling is expected to take 18 days. If production casing is run an additional 10 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 Bone Springs pay will be perforated and stimulated. The well will be swab tested and potentialed as a 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 safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazards
   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 H2S safety 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. Cellular telephones will be used to communicate off location in case emergency help is required.

7. DRILLSTEM TESTING

   A. Exhausts will be watered
   B. Flare line will be equipped with an electric ignitor, diesel pilot, 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 separator will be brought into service along with H2S scavengers, if necessary.

SURFACE USE PLAN
PENWELL ENERGY INC.
CHECKERS "24" FEDERAL #4

1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of LEA Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. There will be approximately 473' of new road constructed to BLM specifications.

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

   B. At the intersection of Hwy. 62-180 & Hwy. 176, go east, southeast on Hwy. 176 6.4 miles to a lease road, go south on lease road and follow the main lease road southeasterly to the northeast corner of this section (Sec. 24) Proposed lease road tie to the main lease road along the east section line.

   A. The access road will be crowned and ditched to a 14' wide travel surface with a 30' right-of-way.

   B. Gradient on all roads will be less than 1.00%.

   C. There will be turnouts as needed.

   D. If needed, road will be surfaced with a minimum of 6" of compacted caliche. This material will be obtained from a local source.

   E. Earthwork will be as required by field conditions.

   F. Culverts in the access road will not be used.

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

   A. Water wells - None in immediate vicinity.

   B. Disposal wells - As shown on Exhibit "A-1"

   C. Drilling wells - As shown on Exhibit "A-1"

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

   E. Abandoned wells - As shown on Exhibit "A-1"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.

4. 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.

5. 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".

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 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.

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.

6. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

7. 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 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 polyethylene. 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, as close as possible, to BLM requirements.

8. 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. The pit area will then be leveled and contoured to conform, as closely as possible, to the original and surrounding area. Drainage systems, if any, will be reshaped, as close as possible, 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, as close as possible, 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.

9. OTHER INFORMATION:

A. Topography: The proposed well site and access road consists of stabilized sand dunes. The most common plant varieties in the region are shin oak, mesquite, plains yucca, broom snakeweed and various grasses.

A. Soils in the region consist of loamy sands which belong to the Kermit-Berino association.

B. Flora and Fauna: The vegetation cover is a poor grass cover of three-awn, sand and spike dropseed, bluestem and other misc. native grasses along with small cedar trees. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.

D. Ponds and Streams: None in area.

E. Residences and Other Structures: None in the immediate area, except oil production facilities.

F. Land Use: Cattle grazing.

G. Surface ownership: BLM, Carlsbad, N.M

H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey has been conducted by Archaeological Services By Laura Michalik and their report is being submitted to the appropriate government agencies.

10. OPERATORS REPRESENTIVE:

PENWELL ENERGY, INC.
600 NORTH MARIENFELD, STE. 1100
MIDLAND, TEXAS 79701

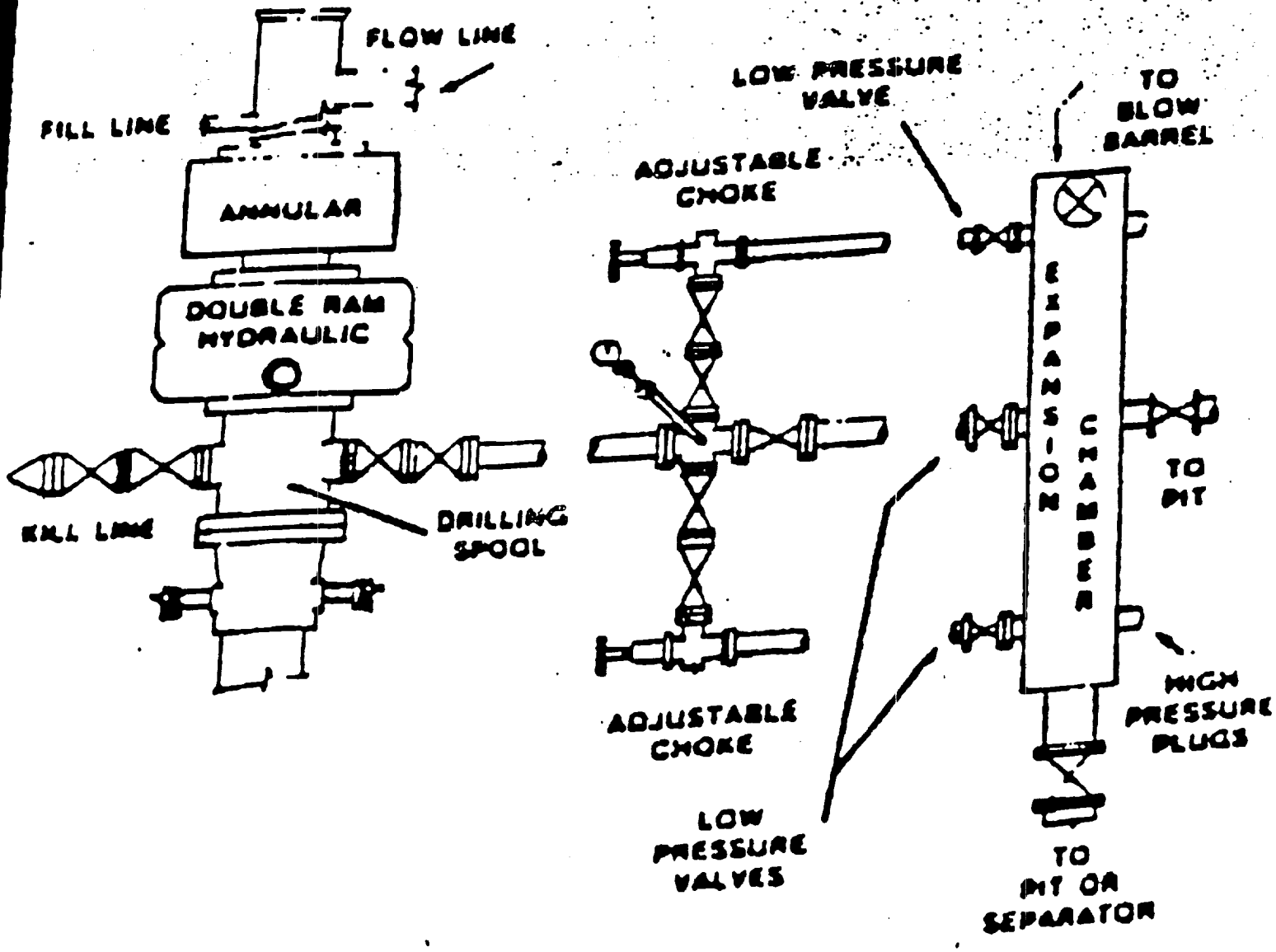
BILL PIERCE PHONE 915 683-2534

11. 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 proposed herein 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 _____
Bill Pierce

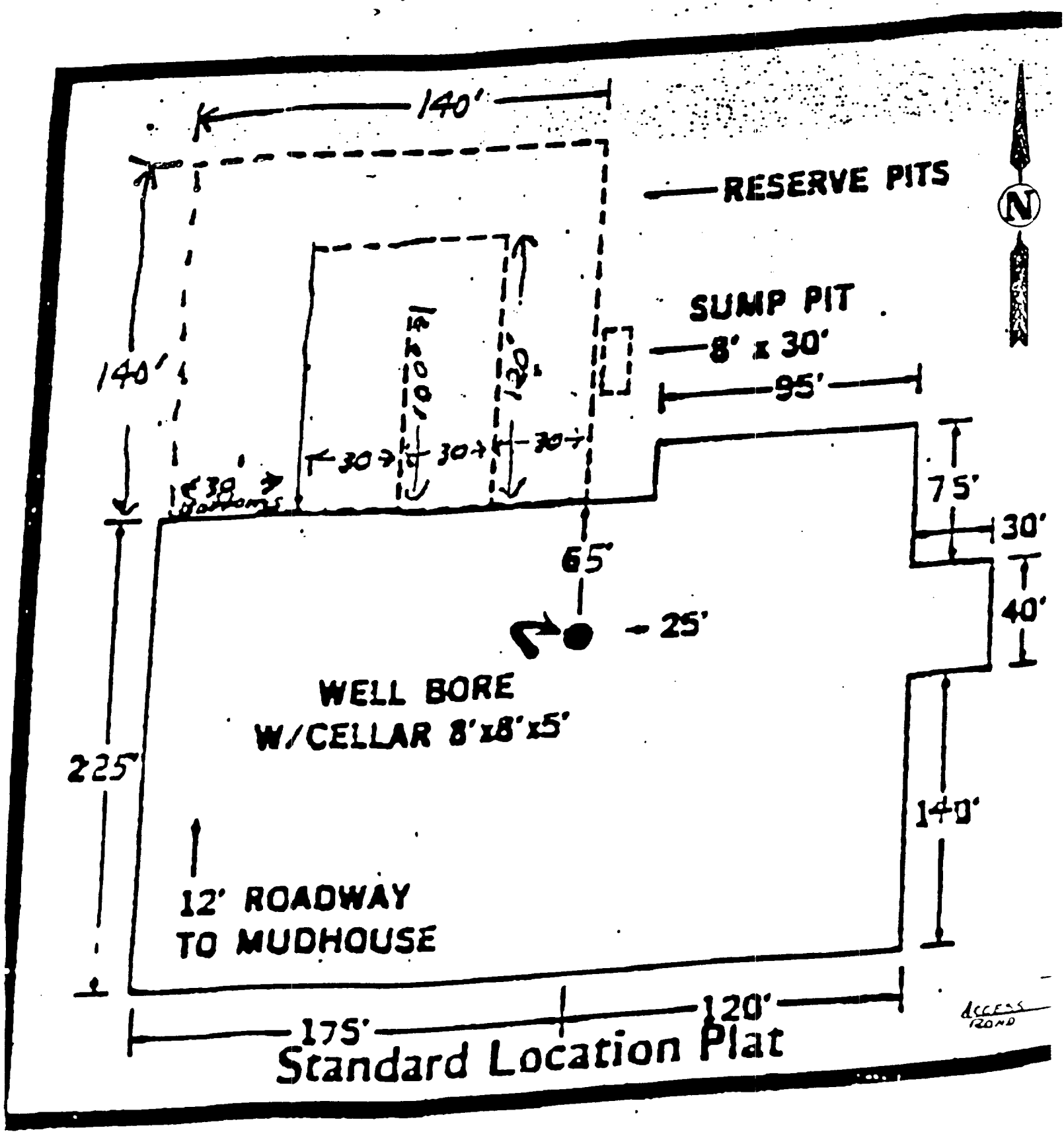
DATE : October 10, 1996

TITLE: Engineer



Standard Blowout Preventer Stack

EXHIBIT "E"
PENWELL ENERGY, INC.



Standard Location Plat