

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

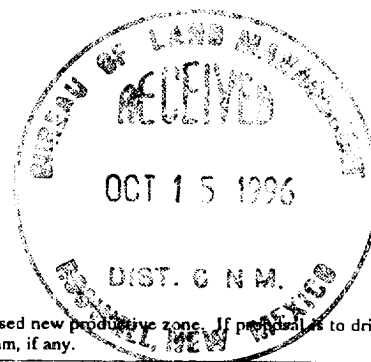
APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. USA BLM NM 81633	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Penwell Energy, Inc. (915) 683-2534		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 600 N. Marienfeld, Ste. 1100, Midland, Texas 79701		8. FARM OR LEASE NAME, WELL NO. #2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 660' FSL & 990' FEL At proposed prod. zone 760' FSL & 990' FEL		9. API WELL NO. Checkers "24" Federal	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 35 miles East of Carlsbad, New Mexico		10. FIELD AND POOL, OR WILDCAT Red Tank Bone Spring	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 24, T22S, R32E	
16. NO. OF ACRES IN LEASE 920		12. COUNTY OR PARISH Lea	
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		13. STATE N.M.	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N.A.		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3749'		22. APPROX. DATE WORK WILL START* Nov. 1, 1996	

PROPOSED CASING AND CEMENTING PROGRAM

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 Neet - Circ.
11"	J-55 8 5/8"	32#	4600'	200sx Cl. C + 200sx C Neet-C
7 7/8"	L-80 5 1/2"	17#	9000'	500 sx Cl. H Est. TOC5,000

OPER OGRID NO. 147380
PROPERTY NO. 20022
PROD. ZONE 51683
EPR. DATE 1/27/97
API NO. 30-D25-33798



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 October 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 ADM, MINERALS
DATE 1-23-97

*See Instructions On Reverse Side

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-33798	Pool Code 51683	Pool Name Red Tank Bone Springs
Property Code 20022	Property Name Checkers 24 Federal	Well Number 2
OGRID No. 147380	Operator Name Penwell Energy Inc.	Elevation 3751'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	24	22 S	32 E		760	South	990	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 40	Joint or Infill	Consolidation Code	Order No.
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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 Brenda Coffman Printed Name Production Analyst Title October 29, 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 supervision, and that the same is true and correct to the best of my belief. October 24, 1996 Date Surveyed Signature & Seal of Professional Surveyor W.C. No. 64510 Certificate No. Gary L. Jones 7977

PENWELL ENERGY, INC.

CHECKERS "24" FEDERAL #2

660 FSL & 990 FEL

SECTION 24 T22S, R32E

LEA COUNTY, NEW MEXICO

APPLICATION FOR PERMIT TO DRILL

1. LOCATION: 660 FSL & 990' FEL, SECTION 24, T22S, R32E
2. ELEVATION ABOVE SEA LEVEL: 3749'.
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 1/2"	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 1/2"	17#	8-R	LT&C	L-80	New

PENWELL ENERGY, INC.
CHECKERS "24" FEDERAL #2
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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 1/2"	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 nipped 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:

<u>DEPTH</u>	<u>MUD. WT.</u>	<u>MUD VISC.</u>	<u>FLUID LOSS</u>	<u>TYPE</u>
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

PENWELL ENERGY, INC.
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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:

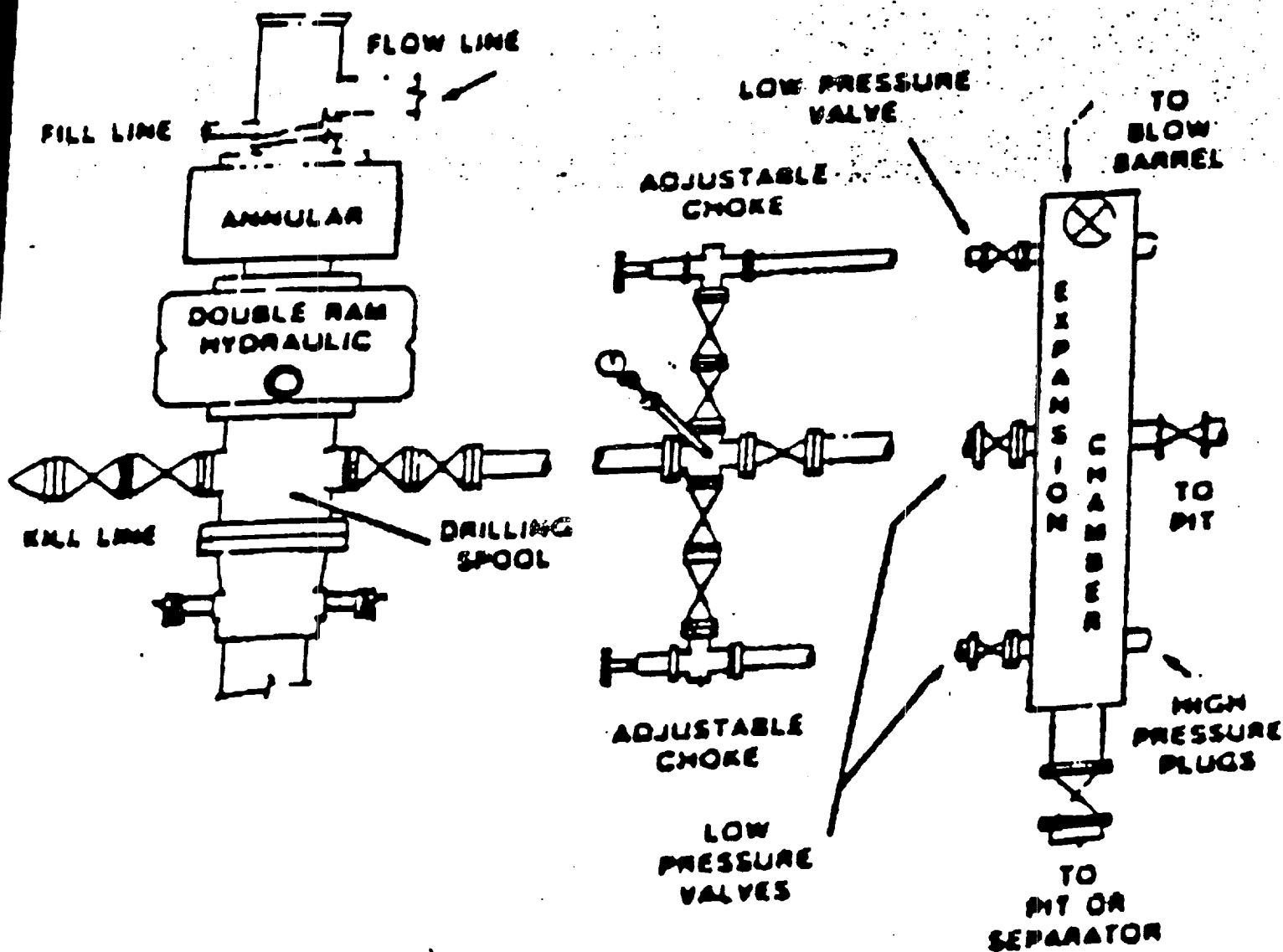
No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 3000 psi, 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 potentialized as a oil well.



Standard Blowout Preventer Stack

EXHIBIT "E"
PENWELL ENERGY, INC.

DDP Specifications