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OPERATOR _____

NEW MEXICO OIL CONSERVATION COMMISSION

30-025-26836
Form O-101
Revised 1-1-77

1A. Initial Type of Lease
STATE ☒ FILE ☐

1B. Lease No. or Lease No.
OG-1847

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2A. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			3. Unit Agreement Name --		
4. Type of Well A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <input type="checkbox"/> K <input type="checkbox"/> L <input type="checkbox"/> M <input type="checkbox"/> N <input type="checkbox"/> O <input type="checkbox"/> P <input type="checkbox"/> Q <input type="checkbox"/> R <input type="checkbox"/> S <input type="checkbox"/> T <input type="checkbox"/> U <input type="checkbox"/> V <input type="checkbox"/> W <input type="checkbox"/> X <input type="checkbox"/> Y <input type="checkbox"/> Z <input type="checkbox"/>			5. Name of Lessee State "BG"		
6. Operator Read & Stevens, Inc.			7. Well No. 4		
8. Address P. O. Box 1518, Roswell, New Mexico 88201			9. Field and Pool, or Wildcat Quail Queen		
10. Location TWP. 19-S RGE. 34-E NMPM 660 FEET FROM THE East LINE OF SEC. 14			11. County Lea		
12. Proposed Depth 6200'			13. Formation Queen		
14. Rotary or C.T. Rotary			15. Approx. Date Work will start June 15, 1980		
16. Kind & Status Plug Bond Statewide			17. Drilling Contractor Kenai Drilling of Texas		
18. Depth of Hole 3959.3' GR - 3971.3' RKB			19. Cement Program See attached well prognosis for proposed drilling program and blowout preventer data.		

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8"	24#	1900'	575	Circulated
7 7/8"	4 1/2"	10.5#	6200'	785	3,200'

See attached well prognosis for proposed drilling program and blowout preventer data.

2. PROPOSED PROGRAM OF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signature Shari Hamilton Title Authorized Agent Date May 28, 1980

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT DATE JUN 2 1980

**MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-63

All distances must be from the outer boundaries of the Section.

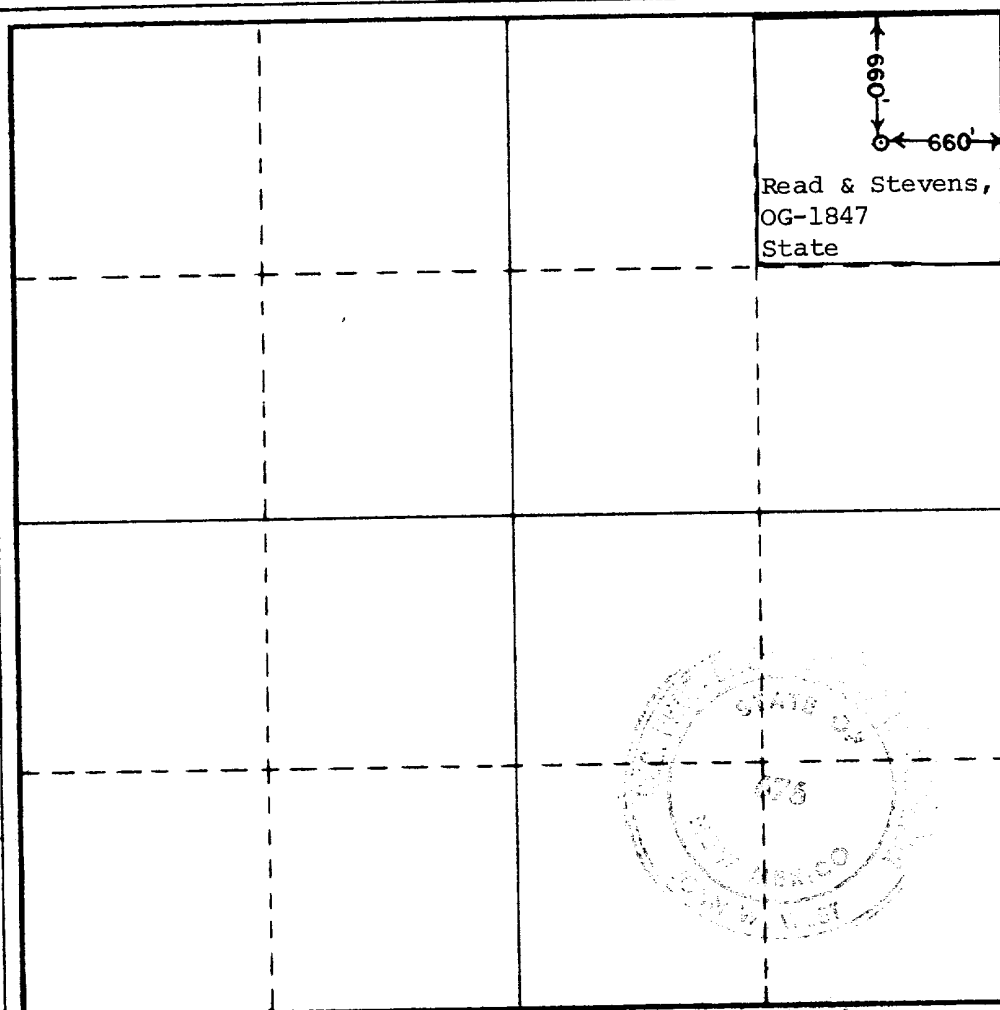
Operator Read & Stevens			Lease State BG		Well No. 4
Unit Letter A	Section 14	Township 19 South	Range 34 South	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the East line					
Ground Level Elev. 3959.3	Producing Formation Queen		Pool Quail Queen		Dedicated 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 royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests 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 the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Shari Hamilton
Name

Shari Hamilton

Position
Authorized Agent

Company
Read & Stevens, Inc.

Date
May 19, 1980

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
February 26, 1980

Registered Professional Engineer
and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST 678**
PATRICK A. ROMERO 6888
Ronald J. Eldon 3232

0 220 440 660 880 1100 1320 1540 1760 1980 2200 2420 2640 2860 3080 3300 3520 3740 3960 4180 4400 4620 4840 5060 5280 5500 5720 5940 6160 6380 6600



MAJOR ITEMS of EQUIPMENT

Rig No. 19

Recommended Depth for Drilling 9,000' - 11,000'

DRAWWORKS:

Emsco Model GA 500 w/Parkersburg 36" Hydromatic Brake, and
2 - Model D-353 TA (400 HP) Caterpillar Engines

MAST:

L. C. Moore 127' 480,000# Capacity w/11' Substructure

MUD SYSTEM:

Emsco Model D-500 Pump (Forged Steel Fluid End)
Emsco Model D-175 w/Caterpillar D-342 Engine Pump Unit
Link Belt Vibrating 4 x 5 Shale Shaker
3 - 5 x 8 x 30 Steel Mud Pits with guns and jets

OVER-HEAD EQUIPMENT:

McKissick 4-36 200 Ton Traveling Block
Ideco SS 250 - 250 Ton Capacity Swivel
B.J. Model 4200 200 Ton Triplex Hook

ROTARY EQUIPMENT:

Emsco Model JCS 20-1/2" 250 Ton Rotary Table

WELL CONTROL EQUIPMENT:

Shaffer 10" Series 900 Type 48-E Double Hydraulic B.O.P.
Closing Unit and Accumulator
Flanged Kill Line and Valves
Flanged 4" Valves and Lines with Double 2" Choke Manifold
Upper and Lower Kelly Cocks
Drill Pipe Dart Valve

OPERATIONAL INSTRUMENTS:

Bell Automatic Driller, Martin Decker 3 Pen Recordergraph,
Martin-Decker Torque Gauge, A-1 Sureshot 14"

ELECTRICAL SYSTEM:

1 - Waukesha VRD 283 30 KW Electric Set
1 - String of Rig-O-Lite Vapor Proof Lights

WATER STORAGE:

500 bbl. Horizontal Water Tank

DRILLING STRING:

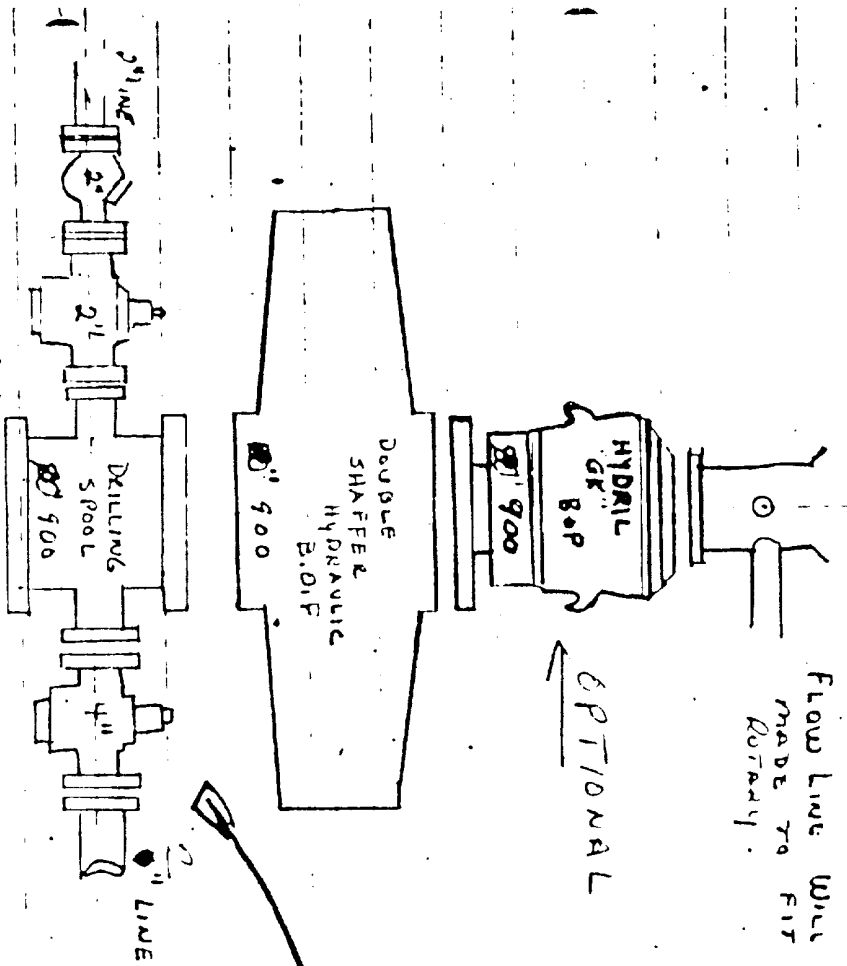
4" O. D. Grade E Drill Pipe (11,000')
Size and number required of Drill Collars and Subs

MISCELLANEOUS EQUIPMENT:

30' Trailer House with beds, kitchen and bath
Other equipment available from yard as job requires

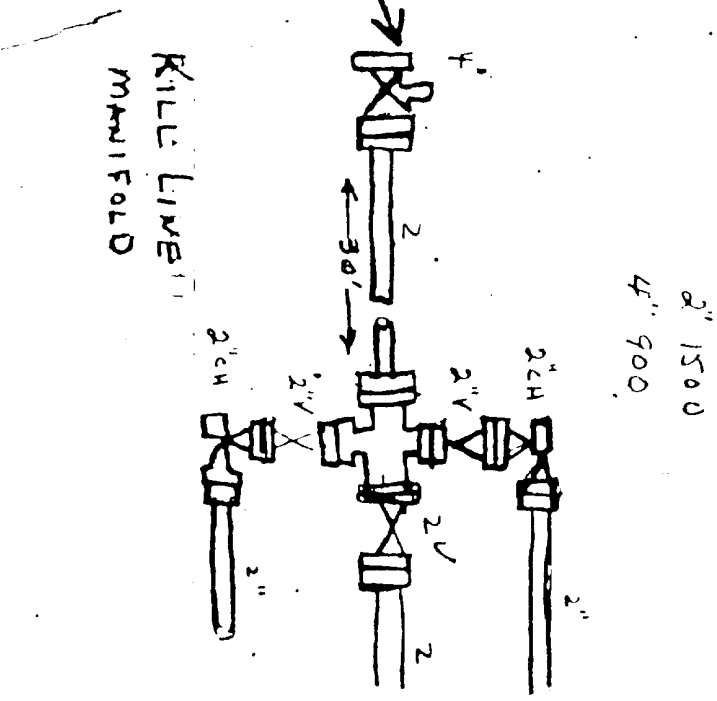


Rotary Table



Flow line will have to be made to fit under Rotary.

OPTIONAL



2" 1500
4" 900

WELL PROGNOSIS

OPERATOR: READ & STEVENS, INC.
WELL: #4 State BG
FIELD & DEPTH: Quail Queen - 6,200'
LOCATION: 660' FNL & 660' FEL Sec. 14, T-19-S, R-34-E, Lea County, New Mexico
CONTRACTOR: Kenai Drilling Company of Texas, Rig #19
ELEVATION: 3959.3' GR - 3971.3' RKB

ESTIMATED FORMATION TOPS

T/Anhydrite	1844' (+2127)
T/Salt	1972' (+1999)
B/Salt	3322' (+ 649)
T/Yates	3587' (+ 384)
T/Queen sand	4792' (- 821)
T/Penrose sands	5069' (-1098)
T/Grayburg	5462' (-1491)
T/San Andres	5992' (-2021)
T/Delaware	6242' (-2271)

CASING PROGRAM

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt. Per Foot</u>	<u>Setting Depth</u>	<u>Cement</u>
11"	8 5/8"	24#	1900'	575 sx. Circulated
7 7/8"	4 1/2"	10.5#	6200'	785 sx.

MUD PROGRAM

0' - 1,850' Spud mud with gel/lime slurry. Mud wt. 9.0#-9.5#, Vis. 32-34, WL no control.

1,850' - 4,600' Clear water and native mud. Mud wt. 10.0#-10.2#, Bis. 28-32, WL no control.

4,600' - 6,200' Salt gel mud system. Mud wt. 9.5#-10.2#, Vis. 36-38, WL 20.

DRILLING AND CEMENTING PROGRAM

1. Drill 11" hole to 1,900' and set 8 5/8", 24#, S. T. & C. casing at 1,900' cemented with 575 sx. Class C Cement with 2% CaCl_2 and 8# salt per sx. Cement will be circulated.
2. Drill 7 7/8" hole to 6,200' and, if production is indicated, set 4 1/2" casing to total depth. Cement from total depth to 3,200' with 785 sx. Class C pozmix with 1/4# floseal and 6# salt per sx. with .5 of 1% CFR-2.

EVALUATION PROGRAM

Start salt gel mud system at 4,600' for increased sample quality. Drill to total depth and run logs. Take selected sidewall cores for additional formation evaluation.

LOGGING PROGRAM

Run Simultaneous Gamma Ray-Caliper, Compensated Neutron Formation Density as porosity tool with Dual laterolog as Resistivity tool. Detail from 3,400' to total depth. Mud logging from 4,000' to total depth.

BLOWOUT PREVENTER SYSTEM

Drilling rig will be equipped with a 10" Shaffer Type 48-E Double Hydraulic Series 900 blowout preventer with closing unit and accumulator, flanged kill line and valves, flanged 4" valves and lines with double 2" choke manifold, upper and lower Kelly Cocks and drillpipe dart valve (see attached plat).

WELL SUPERVISION

Well site supervision will be maintained from surface to total depth. Samples will be caught, washed and sacked from below surface string to 1,900' to total depth at 10 foot intervals. Mechanically recorded drilling time will be maintained from surface to total depth. Blowout preventer stack and casing head will be independently pressure tested before drilling into the Queen formation. A daily check of the blowout preventer system will be made from 4,600' to total depth.