

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Mitchell Energy Corporation

3. ADDRESS OF OPERATOR
P.O. Box 4000, The Woodlands, Texas 77387-4000

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
660' FNL & 1980' FWL (NE/NW)
At proposed prod. zone
660' FNL & 1980' FWL (NE/NW)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
25 miles SW of Hobbs, NM

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 660'

16. NO. OF ACRES IN LEASE
520 Lse; 960 Unit

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. 3,350'

19. PROPOSED DEPTH
8,100

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3651 GL

22. APPROX. DATE WORK WILL START*
3-15-91

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	400' 500'	425 sx Class CIRCULATE
12-1/4"	8-5/8"	24#	3500'	1100 sx Light + 250 sx Prem CIRCULATE
7-7/8"	5-1/2"	17#	8100'	500 sx 50-50 POZ, SEE STIPS.

The operator proposes to drill to a depth sufficient to test the Delaware formation for oil. If productive, 5-1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with federal regulations. Specific programs as per Onshore Oil & Gas Order #1 are outlined in the following attachments:

Drilling Program

Surface Use & Operating Plan
Exhibit #1 & 1A - Blowout Preventer Equip.
Exhibit #2 - Location & Elevation Plat
Exhibit #3 - Planned Access Roads
Exhibit #4 - One-mile Radius Map

Exhibit #5 - Production Facilities
Layout
Exhibit #6 - Drilling Rig Layout
Exhibit #7 - Cultural Resources
Examination

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 George Mullen George Mullen TITLE Reg. Affairs Specialist DATE 3-8-91

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY Orig. Signed by Richard L. Adams AREA MANAGER
CONDITIONS OF APPROVAL, IF ANY: TITLE CARLEBAH RESOURCE AREA DATE 3-19-91

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

*See Instructions On Reverse Side

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

ITEM 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR Part 3160.

PRINCIPAL PURPOSE: The information is to be used to process and evaluate your application for permit to drill, deepen, or plug back an oil or gas well.

ROUTINE USES: (1) The analysis of the applicant's proposal to discover and extract the Federal or Indian resources encountered. (2) The review of procedures and equipment and the projected impact on the land involved. (3) The evaluation of the effects of proposed operation on surface and subsurface water and other environmental impacts. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions, as well as routine regulatory responsibility.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if the lessee elects to initiate drilling operation on an oil and gas lease.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq) requires us to inform you that:

This information is being collected to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases.

This information will be used to analyze and approve applications.

Response to this request is mandatory only if the lessee elects to initiate drilling operations on an oil and gas lease.

Submit to Appropriate
District Office
State Lease - 4 copies
Free Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

SAPPHIRE FEDERAL
UNIT NO. 2
LEA COUNTY, NM
EXHIBIT 2

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

WELL LOCATION AND ACREAGE DEDICATION PLAT
All Distances must be from the outer boundaries of the section

Operator Mitchell Energy Corporation			Lease Sapphire Federal Unit		Well No. #2
Unit Letter C	Section 23	Township 19S.	Range 33E.	County N.M.P.M.	Lea
Actual Footage Location of Well: 660 feet from the North line and 1980 feet from the West line					
Ground level Elev. 3651	Producing Formation Wolfeamp Delaware		Pool Wildcat		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interest 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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

OPERATOR CERTIFICATION

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

Signature
George Mullen

Printed Name
George Mullen

Position
Reg. Affairs Specialist

Company
Mitchell Energy Corporation

Date
3/4/91

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 knowledge and belief.

Date Surveyed
1/12/91

Signature & Seal of Professional Surveyor

Certificate No.
6290

FILED 12-1-91

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

5,000 psi Working Pressure

5 MWP

Sapphire Federal Unit
Well No. 2
Lea County, New Mexico

EXHIBIT 1

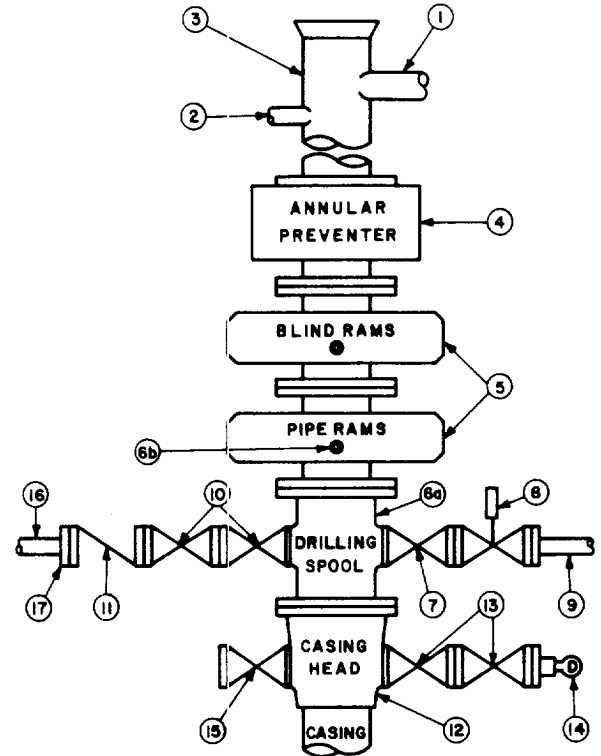
STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min. choke line outlets or		
6b	2" minimum kill line and 3" minimum choke line outlets in ram. (Alternate to 6a above.)		
7	Gate valve	3-1/8"	
8	Gate valve — power operated	3-1/8"	
9	Line to choke manifold		3"
10	Gate valves	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Gate valves	1-13/16"	
14	Pressure gauge with needle valve		
15	Gate Valve or Flanged Valve w/Control Plug	1-13/16"	
16	Kill line to rig mud pump manifold		2"

OPTIONAL

17	Roadside connection to kill line		2"
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CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

- All equipment and connections above bradenhead or casinghead.
- Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
- BOP controls, including control for hydraulically operated wing valve, to be located near drillers position with remote controls located away from rig floor.
- Kelly equipped with Kelly cock and Hydril Kelly valve, or its approved equivalent.
- Hydril Kelly valve or its approved equivalent and approved inside blow-out preventer to fit drill pipe in use on derrick floor at all times.
- Kelly saver-sub equipped with rubber casing protector at all times.
- Extra set of pipe rams to fit pipe being used on location.
- Plug type blowout preventer tester.
- Type RX ring gaskets in place of Type R.

10. Outlet for Halliburton on kill line.

MEC TO FURNISH:

- Bradenhead or casinghead and side valves.
- Wear bushing, if required.

GENERAL NOTES:

- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers. Valves must be full opening and suitable for high pressure mud service.
- Controls to be of standard design and each marked, showing opening and closing position.
- Chokes will be positioned so as not to hamper or delay changing of choke

beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.

- All valves to be equipped with handwheels or handles ready for immediate use.
- Choke lines must be suitably anchored.
- Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
- All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Approved hoses will be permitted.
- Casinghead connections shall not be used except in case of emergency.
- Do not use kill line for routine fill-up operations.
- Rig pumps ready for hook-up to BOP control manifold for emergency use only.

DRILLING PROGRAM

Attached to Form 3160-3
Mitchell Energy Corporation
Sapphire Federal Unit No. 2
660' FNL & 1980' FWL
Sec. 23, T19S, R33E
Lea Co., N.M.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface
Top Salt	1775'
Base Salt	3100'
Yates	3470'
Seven Rivers	3600'
Queen	4325'
Delaware	5890'
Delaware SS	7180'
Bone Spring	7950'
Wolfcamp	10,945'
TD	11,550'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands to	100'	fresh water
Yates/Seven Rivers	3600'	oil
Delaware SS	7180'	oil
1st Bone Spring SS	9140'	oil
Wolfcamp	10,945'	oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" csg at 400' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them behind the 8-5/8" csg or by inserting a cementing stage tool into the 5-1/2" prod csg which will be run at TD.

ELF
huck 7-5-91