Form 3160-3
(December 1990)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

30-025-32054

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

BUREAU OF LAND MANAGEMENT RECEIVED MAY 05 1993 OIL CON. DIV. DIST. 2

5. LEASE DESIGNATION AND SERIAL NO.: NM 90539

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME, WELL NO.: Zuni "22" Federal No. 1

9. API WELL NO.:

10. FIELD AND POOL, OR WILDCAT: Bilbrey (Morrow)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 22, T21S, R32E

12. COUNTY OR PARISH: Lea

13. STATE: NM

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

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

2. NAME OF OPERATOR: Mitchell Energy Corporation

3. ADDRESS AND TELEPHONE NO.: P.O. Box 4000, The Woodlands, TX 77387-4000 (713) 377-5500

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL and 660' FWL (NW/SW)
At proposed prod. zone: 1980' FSL and 660' FWL (NW/SW) Unit L

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 29 miles in a westerly direction from Eunice, NM

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'	640	320
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**
N/A	15,000	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3719 GR — Capitan Controlled Water Basin

22. APPROX. DATE WORK WILL START*: 7-1-93

23. PROPOSED CASING AND CEMENTING PROGRAM — R-111-P Potash

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8", K	54.5#	500'	Class C, TOC = Surface
12-1/4"	9-5/8", K	40 #	3,800'	Lite + Class C, TOC = Surface
8-3/4"	7", N&S	26 #	12,100'	Lite + Class H, TOC = 5000'
6"	4-1/2", N	13.5#	11,850' - TD	Class H, TOC = TOL = 11,850'

The operator proposes to drill to a depth sufficient to test the Morrow formation for gas. If productive, 4½" 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 Equipment
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, 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 TITLE George Mullen Regulatory Affairs Specialist DATE 05-04-93

(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/ Kathy Eaton TITLE Acting State Director DATE 6-24-93

*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 United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DRILLING PROGRAM

Attached to Form 3160-3
Mitchell Energy Corporation
Zuni "22" Federal No. 1
1980' FSL & 660' FWL
NW/SW, Sec. 22, T21S, R32E
Lea Co., New Mexico

1. Geologic Name of Surface Formation:

   Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Wolfcamp	12,110'
Rustler	1150'	Strawn	13,160'
Base Salt	3210'	Atoka	13,310'
Delaware	4870'	Morrow	13,610'
Bone Spring	8750'	Total Depth	15,000'

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

Upper Permian Sands to	100'	Fresh Water
Delaware-Cherry Canyon	5,970'	Oil
Delaware-Brushy Canyon	7,010'	Oil
Atoka	13,310'	Gas
Morrow "A" SS	13,910'	Gas
Morrow "B" SS	14,210'	Gas
Morrow "C" SS	14,660'	Gas

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" casing at 600' and circulating cement back to surface. Any zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them behind the 9-5/8" or 7" intermediate casing or the 4-1/2" liner which will be cemented on bottom.

4. Casing Program:

Hole Size	Interval	OD Casing	Weight, Grade, Jt, Cond, Type
26"	0-40'	20"	Conductor, 0.3" wall thickness
17-1/2"	Surf-500'	13-3/8"	54.5#, K-55, ST&C, New, R-3
12-1/4"	Surf-3,800'	9-5/8"	40#, K-55, LT&C, New, R-3
8-3/4"	Surf-12,100'	7"	26#, N-80 & S-95, LT&C, New, R-3
6"	11,850'-TD	4-1/2"	13.5#, N-80, FJ, New, R-3

Cement Program:

13-3/8" Surface Casing @ 500':	Cemented to surface with 525 sacks of Class "C" + 2% $CaCl_2$ - 1/4#/sx FC.
9-5/8" Intermediate Casing @ 3800':	Cemented to surface with 1100 sacks Halliburton Lite + 15#/sx salt + 1/4#/sx Flocele and 250 sx Class "C" + 2% $CaCl_2$.
7" Intermediate Casing @ 12,100':	Cemented with 900 sacks Lite + 300 sx Class "H" + 5#/sx salt. TOC @ 5000'. Shallow productive zones if present will be cemented by placing a cementing stage tool below the zone of interest and cementing with Class "C" cement.
4-1/2" liner @ TD:	Cemented with 280 sacks Class H + 4% TF-4 + 0.6% CF-9 + 0.6% Flo-LOK-1 + 5#/sx KCl. Cemented to TOL @ 11,850'.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and a bag-type (hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" or 3-1/2" drill pipe rams on bottom as required. Both BOP's will be nippled up on the 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of 9-5/8" intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000 psi and the hydril to 70% of rated working pressure (3500 psi).

The testing procedure will be duplicated before drilling out of 7" intermediate casing and after any use under pressure during the drilling of the well.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 10,000 psi WP rating.

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised 1-1-89

Exhibit #2
Zuni "22" Federal No. 1
Lea County, New Mexico

...to Appropriate
...Office
...State - 4 copies
...Fee - 3 copies

DISTRICT I
...x 1980, Hobbs, NM 88240

DISTRICT II
...ker DD, Artesia, NM 88210

DISTRICT III
...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: ZUNI 22 FEDERAL	Well No.: #1
Unit Letter: L	Section: 22	Township: 21S.	Range: 32E. NMPM	County: LEA
Actual Footage Location of Well: 1980 feet from the SOUTH line and 660 feet from the WEST line				
Ground level Elev.: 3719	Producing Formation: Morrow		Pool: Bilbrey (Morrow)	Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

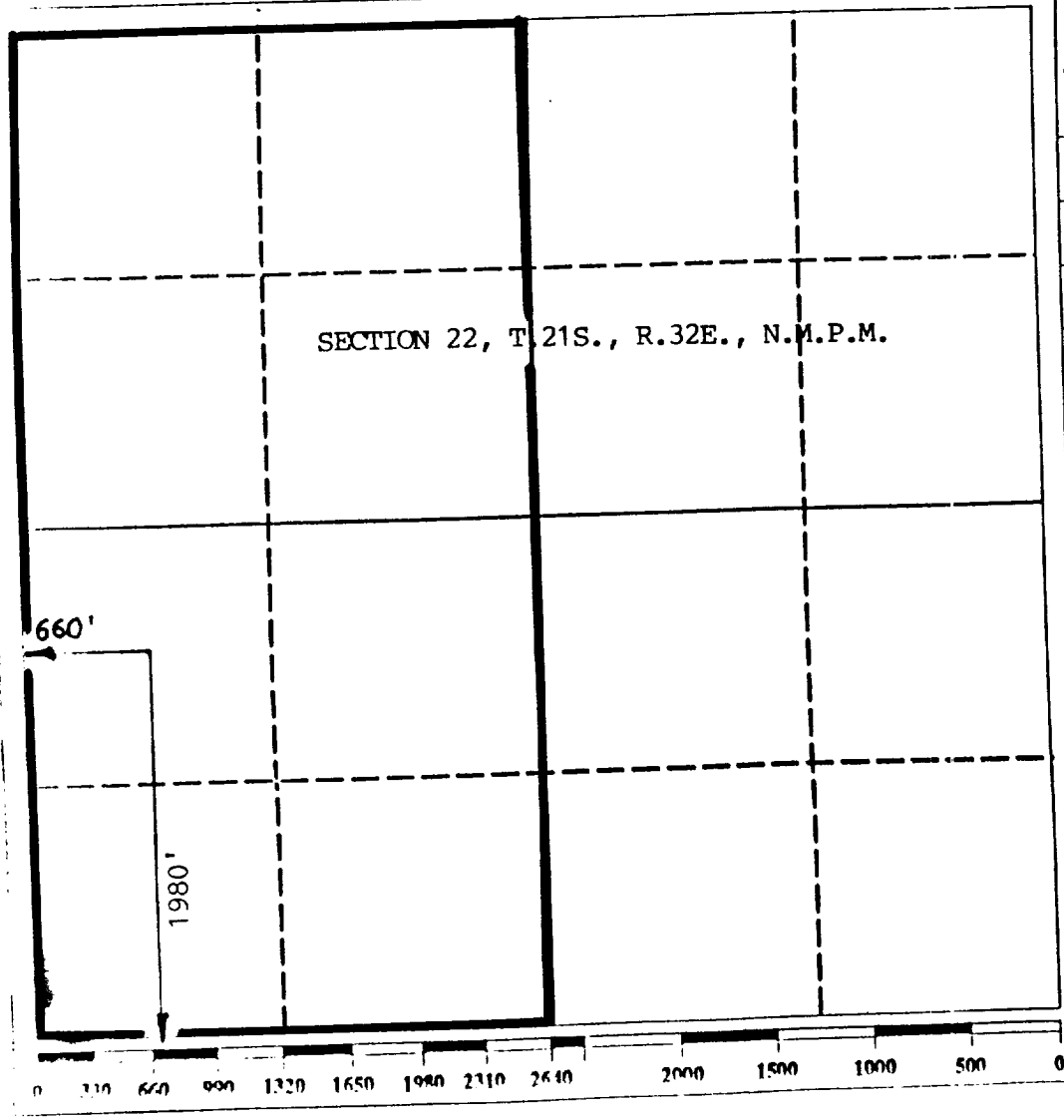
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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 neccessary. _____

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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein in 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 Corp.

Date: April 20, 1993

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 knowledge and belief.

Date Surveyed: 3/2/93

Signature & Seal of Professional Surveyor: JOHN W. WEST, NEW MEXICO, 6290

Certificate No. 6290

ZUNI221

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

10,000 psi Working Pressure

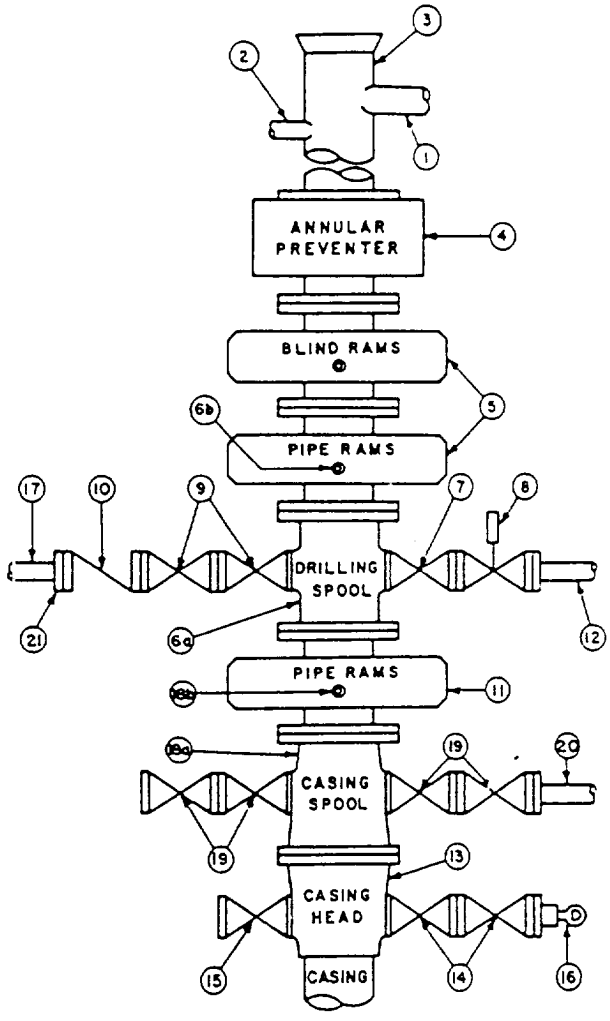
10 MWP

EXHIBIT #1
Zuni "22" Federal No. 1
Lea County, New Mexico

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" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Gate valve	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Gate valves	2-1/16"	
10	Check valve	2-1/16"	
11	Single hydraulically operated ram		
12	Line to choke manifold		3"
13	Casing head		
14	Gate valves	1-13/16"	
15	Gate Valve or Flanged Valve w/Control Plug	1-13/16"	
16	Pressure gauge with needle valve		
17	Kill line to rig mud pump manifold		2"

OPTIONAL			
18a	Casing spool with 2" outlet		
	or		
18b	2" outlet in ram preventer		
19	Gate valves	2-1/16"	
20	Auxiliary choke line (emergency only)		2"
21	Roadside connection to kill line		2"
22	Shear ram blocks for blind rams		



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, including control for hydraulically operated wing valve, to be located near drillers position with remote controls located away from rig floor.
4. Kelly equipped with Kelly cock and Hydril Kelly valve, or its approved equivalent.
5. 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.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Extra set of pipe rams to fit pipe being used on location.
8. Plug type blowout preventer tester.
9. Type RX ring gaskets in place of Type R.
10. Outlet for Halliburton on kill line.

MEC TO FURNISH:

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

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. 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.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. 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.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Approved hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.
12. Rig pumps ready for hook-up to BOP control manifold for emergency use only.