

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-23679

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM 13237
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Marathon Oil Company			7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P.O. Box 2409 Hobbs, New Mexico 88240			8. FARM OR LEASE NAME Martinez "31" Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FSL, 1980' FEL Sec. 31, T-19S, R-29E At proposed prod. zone Same as above			9. WELL NO. 2
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 13 miles Northeast of Carlsbad			10. FIELD AND POOL, OR WILDCAT Winchester Morrow
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1980'	16. NO. OF ACRES IN LEASE 919.88	17. NO. OF ACRES ASSIGNED TO THIS WELL 304.8	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1699' from Well No. 1	19. PROPOSED DEPTH 12,000'	20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3286.4' GL, estimated 3304.4' KB			22. APPROX. DATE WORK WILL START* June 1, 1981

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"	48#/ft. (H-40)	500'	500 sx CIRCULATE
12 1/4"	9 5/8"	36#/ft. (K-55)	3,000'	3,000 sx CIRCULATE
7 7/8"	5 1/2"	17 & 20#/ft (N-80)	12,000'	2,200 sx

Propose to drill no deeper than 12,000'.

All casing will be cemented and tested by approved methods.

Blowout equipment will be 5000# W.P. Cameron pipe and blind rams, or equivalent.
Remote controls will be located on the derrick floor with a closing unit located
a minimum of 75' from the wellbore.

Gas sales are dedicated.

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 Patric Burt TITLE Production Engineer DATE 2-10-81
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY Sgt. GEORGE H. STEWART TITLE DISTRICT ENGINEER DATE FEB 11 1981
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-112
Supersedes O-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Marathon Oil Co.				Lease Martinez 31 Fed.				Acres 2	
Section 31		12 South		20 East		Eddy			
1350		south		1900		east			
3286.4		Morrow		Winchester Morrow		304.8			

1. Indicate the acreage dedicated to the subject well by colored pencil or ballpoint 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?

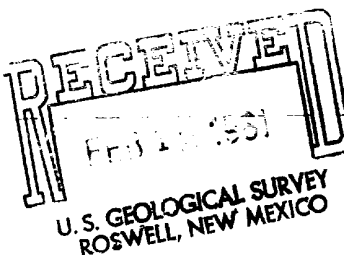
Yes ☐ No ☐ If answer is "Yes" type of consolidation _____

If answer is "No" list the owners and tract descriptions which have actually been consolidated (on reverse side of this form if necessary): _____


No oil/water 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 interests, has been approved by the Commission.

R-29E

1069.2



T
19
S



1069.2

CERTIFICATION

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

Patrick N. Burton

Patrick N. Burton

Production Engineer

Marathon Oil Company

2-10-81

I hereby certify that the well location shown on this plat was obtained from field notes of a land survey made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

1-20-81

Patrick A. Romero

Certificate No.	JOHN W. WEST	676
	PATRICK A. ROMERO	6663
	Ronald J. Eidson	3239



**Marathon
Oil Company**

P.O. Box 2409
Hobbs, New Mexico 88240
Telephone 505/393-7106

February 10, 1981

Mr. George Stewart
U. S. Geological Survey
P.O. Drawer 1857
Roswell, NM 88201

Dear Mr. Stewart:

Enclosed is our application for a permit to drill the following well:

Marathon Oil Company
Martinez "31" Federal Well No. 2
1980' FSL & 1980' FEL, Sec. 31, T-19S, R-29E
Eddy County, New Mexico
Lease: NM-13237

Please note that the dedicated acreage for this well is 304.8 acres due to this well being located on a short section. If this well is successful, we will apply for a proration unit of 304.8 acres.

Also please note that an agreement for Compensation and Rehabilitation for Privately Owned Surface Rights is not included since the well location and access road are situated completely within the boundaries of this Federal Lease.

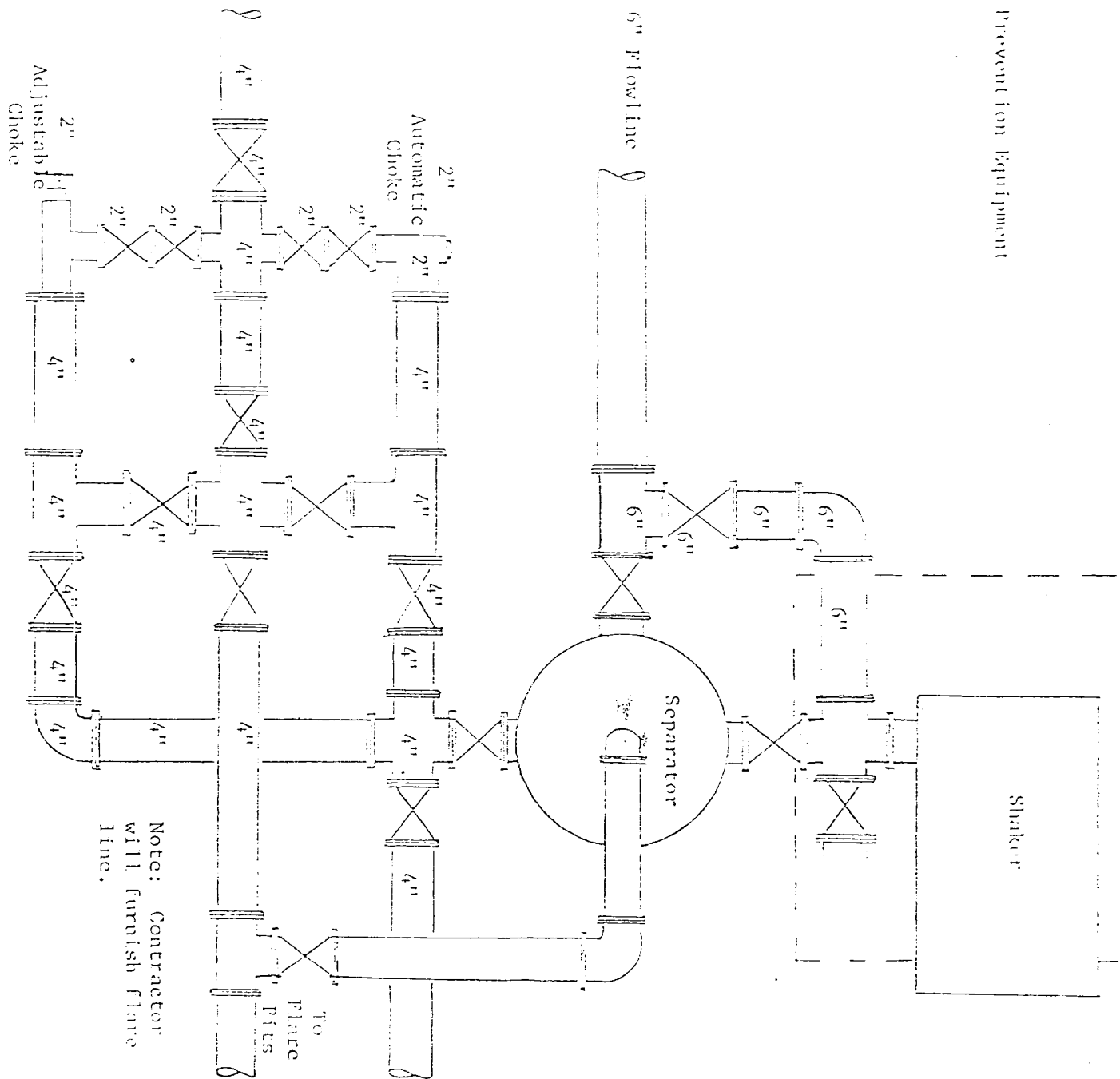
Very truly yours,

Patrick N. Burton
Production Engineer

PNB:lbp

Enclosure

Shall I?



MARATHON OIL COMPANY
MARTINEZ "31" FEDERAL WELL NO. 2
Additional Information
to Comply with NTL-6

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers

Tansill	750'	(+2,550')
Yates	1,050'	(+2,250')
Queen	1,900'	(+1,400')
San Andres	2,500'	(+ 800')

3. Estimated Depths of Anticipated Water, Oil, or Gas Bearing Formations

Ogallala (water)	100'	(+3,200')
Bone Spring (oil & gas)	7,727'	(-4,427')
Wolfcamp-Cisco (oil & gas)	9,126'	(-5,826')
Strawn (gas)	10,149'	(-6,849')
Atoka (gas)	10,448'	(-7,148')
Morrow (gas)	11,137'	(-7,950')

4. Proposed Casing Program

See attached application

5. Blowout Equipment Specifications

--5000 psi working pressure with 10" API flange connections.
--Blind rams, pipe rams, and choke manifold will be tested to 5000 psi.
--Hydril will be tested to 3500 psi.
--Will have both manual and remote controls on pipe and blind rams.
--Pipe rams will be operated daily and blind rams will be operated every time drill pipe is out of the hole.
--Will install a rotating head at 8500'.

(See attached schematic)

6. Proposed Mud Program

0' - 400'	Fresh water containing gel and lime. Mud wt.: 8.8 - 10.0 ppg Viscosity: 34 - 36 sec.
400' - 3,100'	Brine water with paper for fluid loss. Mud wt.: 9.5 - 10.2 ppg Viscosity: 28 - 29 sec.
3,100' - 10,700'	Fresh water with brine addition beginning at 8,400' for hole stability. Mud wt.: 9.6 - 10.0 ppg Viscosity: 32 - 34 sec.
10,700' - T.D.	KCL - Drispac System with 9.6 - 10 ppg weight, and 10 cc water loss. Viscosity: 32 - 34 sec.

7. Auxiliary Equipment

A stabbing valve will be kept on the floor to be used when the Kelly is not in

8. Testing, Logging, and Coring Programs

A. No cores are anticipated.

B. The logging program is as follows:

Compensated Neutron/Compensated Density	TD - 900
Gamma Ray/Caliper	TD - Surface
Dual Induction/Spherically Focused Log	TD - 900
BHC Sonic/Gamma Ray	TD - 900
Gamma Ray/Casing Collar/Cement Bond Log	TD - Surface

C. Possible Drill Stem Tests.

Bone Spring
Wolfcamp
Cisco
Strawn
Atoka
Morrow

9. Abnormal Pressures, Temperatures, or Potential Hazards

None are anticipated

10. Anticipated starting date is June 1, 1981 with completion operations finished by July 30, 1981, barring any unforeseen difficulty.

MULTIPOINT SURFACE USE AND OPERATIONS PLAN

Marathon Oil Company
Martínez "31" Federal Well No. 2
1980' FSL & 1980' FEL, Sec. 31, T-19S, R-29E
Eddy County, New Mexico
Lease: New Mexico 13237

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedure to be followed in rehabilitating the surface after the completion of all operations so that a complete appraisal can be made of the environmental effects associated with the proposed operations.

1. EXISTING ROADS

- A. Exhibit "A" is a portion of a county highway map showing the location of the proposed well as staked. The proposed access route goes 7 3/4 miles East of Carlsbad (just after the 43 mile marker) on U. S. Highway 62-180. Then it proceeds North along an unnamed blacktop for 6 miles where it turns West for 2 miles (the blacktop ends 1 mile after this turn). At this intersection the route turns Northeast for 2 1/2 miles, here the road turns East for .64 miles to the Martínez "31" Federal Well No. 1 location. The proposed access road will go South from this location 1320' and then East 1069' to the well site.
- B. Exhibit "B" is a plat showing all existing roads in a two mile radius of the proposed wellsite and all proposed access roads.

2. PLANNED ACCESS ROADS

A. Length and Width

The new access road will be 12 feet wide and a total of .45 miles in length. The centerline of the proposed road has been staked and flagged with the stakes being visible from any one to the next.

B. Surfacing Material

Six inches of caliche watered, compacted and graded.

C. Maximum Grade

Three percent.

D. Turnouts

None required.

E. Drainage Design

The new road will have a drop of six inches from the centerline to each edge.

F. Culverts

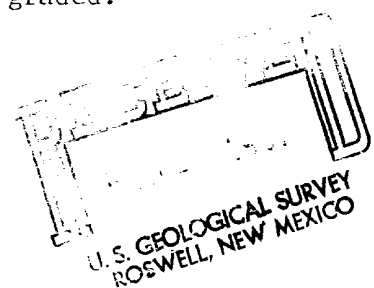
None required.

G. Cuts and Fills

None required.

H. Gates, Cattleguards, and Fences

None required.



3. LOCATION OF EXISTING WELLS

- A. Exhibit "C" is a map showing the location of all of the wells in a two mile radius of the proposed well.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

- A. Existing facilities are located on the drilling pad of Marathon's Martinez "31" Federal No. 1 approximately 1/3 mile Northwest of proposed location.

5. LOCATION AND TYPE OF WATER SUPPLY

- A. Water for drilling will be purchased from Mr. Jimmie Monroe. The water will come from an existing well located approximately one mile Southwest of the proposed well and will be transported by a 3" fast line to the well location. Exhibit "C" shows the location of this well.

6. SOURCE OF CONSTRUCTION MATERIALS

- A. Caliche for surfacing of roads and pad will be obtained from an existing pit located in the S.E. 1/4 of the S.W. 1/4 of Section 25, T-19S, R-28E. The pit is on land owned by the State of New Mexico. The location of the pit is shown on Exhibit "B".

7. METHODS OF HANDLING WASTE DISPOSAL

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits and hauled to an approved salt water disposal well.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24" of dirt. Location of the trash pit is shown on Exhibit "E".
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and completion operations.
- G. All pits will be lined.

8. ANCILLARY FACILITIES

- A. None required.

9. WELLSITE LAYOUT

- A. Exhibit "F" shows the relative locations of pad, mud pits, reserve pit, trash pit, and location of major rig components.
- B. Only minor leveling of the wellsite will be required. No significant cuts or fills will be required. The reserve pit will be located North of the well as staked.

10. PLANS FOR RESTORATION OF SURFACE

- A. After finishing drilling and completion operations all equipment and other materials not necessary for operations will be removed. Pits will be filled and leveled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as is possible.
- B. Any unguarded pits containing fluids or trash will be fenced until they are filled or leveled.
- C. After abandonment of well, and equipment will be removed, the location will be cleaned, and the pad and access road will be ripped and returned to as near the original appearance as is possible.
- D. No private property will be affected.

11. OTHER INFORMATION

A. Topography

The location is near the crest of a ridge overlooking Burton Flats in the S.W.

B. Soil

Fine sand underlain by caliche.

C. Flora and Fauna

The vegetation cover consists of native range grasses with yucca plants, cactus and mesquite. Wild life in the area includes, rabbits, dove, quail, and other inhabitants typical of a semi-arid climate.

D. Ponds and Streams

There are no lakes, ponds, or streams in the area.

E. Residence and Structures

Approximately 3200' due North of the proposed location there is a shade constructed for the cattle. Approximately 1/3 mile Northwest of the proposed location is the Martinez "31" Federal Well No. 1 and the tank battery for this lease.

F. Archeological, Historical, and Cultural Sites

None observed in the area. The Archeological Inspection Report is included with this application.

G. Land Use

Grazing with hunting in season.

H. Surface Ownership

The wellsite and all of the proposed access road is on Federal surface.

12. OPERATORS REPRESENTATIVE

Calvin C. Saathoff
P.O. Box 2409
Hobbs, NM 88240
(505) 393-7106

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently 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 Marathon Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

2-10-81

Date

Patrick N. Burton

Marathon Oil Company

Patrick N. Burton

Associate Petroleum Engineer