

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-23038

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
Marathon Oil Company

3. ADDRESS OF OPERATOR
P. O. Box 2659, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1630' FSL & 1840' FWL, SW/4 NE/4 SW/4, Unit K
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
6 miles south & 3/4 mile east of Bloomfield, NM

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 1650'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED, See Item 3 on
OR APPLIED FOR, ON THIS LEASE, FT. 13 Point Program

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5641' GL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	225'	250 sacks
7-7/8"	4-1/2"	10.5#	1750'	220 sacks

5. LEASE DESIGNATION AND SERIAL NO.

NM-020501

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Ohio "C" Government

9. WELL NO.

6

10. FIELD AND POOL, OR WILDCAT

West
Fletcher Kutz Pictured Cliff

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 26, T28N, R11W

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

20. ROTARY OR CABLE TOOLS

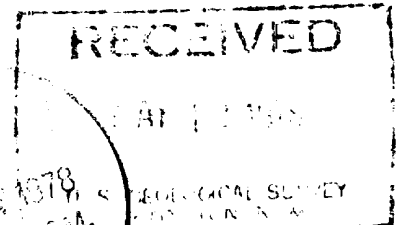
Rotary

22. APPROX. DATE WORK WILL START*

7-20-78

Please see the following attachments:

1. Surveyor's Plat
2. Ten-Point Drilling Program
3. BOP Schematic
4. Thirteen-Point NTL-6
5. Maps



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 B.E. Yester TITLE District Operations Manager DATE May 9, 1978
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

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

Form C-102
Supersedes C-128
Effective 1-1-65

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

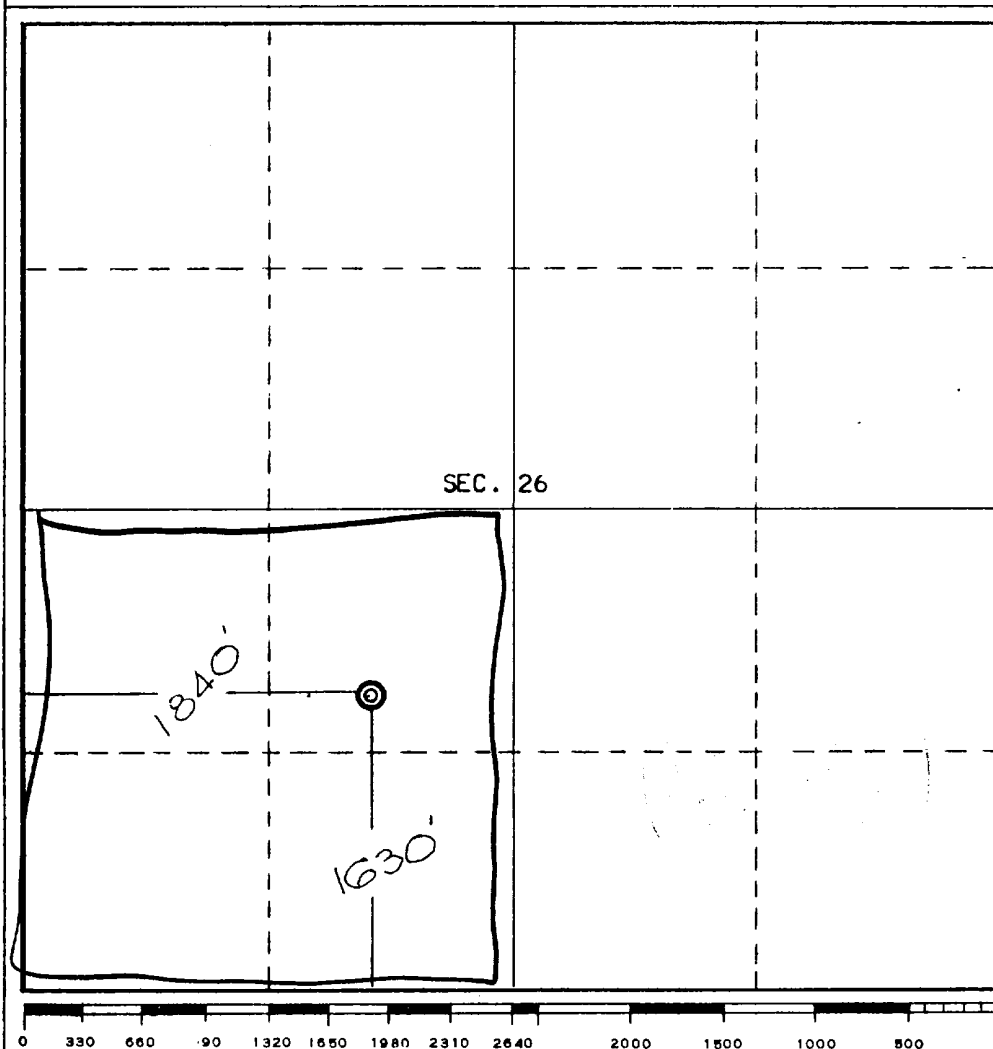
Operator Marathon Oil Company			Lease Ohio "C" Government		Well No. 6
Unit Letter K	Section 26	Township 28 North	Range 11 West	County San Juan	
Actual Footage Location of Well: 1630 feet from the South line and 1840 feet from the West line					
Ground Level Elev. 5641	Producing Formation Pictured Cliffs		Pool Fulcher Kutz Pictured Cliffs	Dedicated Acreage: 0.40 1.60 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 NA

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.

Name

J. F. Wirth

Position

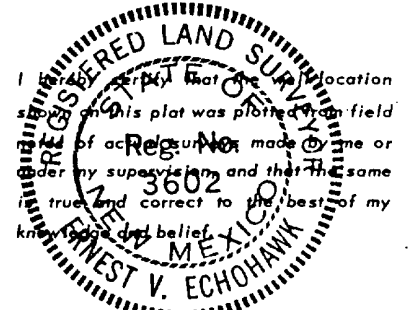
Drilling Superintendent

Company

Marathon Oil Company

Date

May 5, 1978



Date Surveyed

April 27, 1978

Registered Professional Engineer
and/or Land Surveyor

E. V. Echohawk

Certificate No. **3602**

E.V.Echohawk LS

MARATHON OIL COMPANY
Drilling Operations Plan
Ohio "C" Gov't. #6
Section 26, T28N, R11W
San Juan County, New Mexico

1. Geologic name of surface:

Nacimiento (Tertiary)

2. Estimated tops of important geologic markers:

Est. K.B.		5,680'
Ojo Alamo	580'	(+5,100')
Kirtland Shale	605'	(+5,075')
Farmington Sand	1,097'	(+4,583')
Fruitland Sand	1,415'	(+4,265')
Pictured Cliffs	1,605'	(+4,075')
Lewis Shale	1,680'	(+4,000')
T.D.	1,750'	(+3,930')

3. Estimated depths of anticipated water, oil, gas or other mineral bearing formations:

Farmington 1,097' - Gas and water flow
Fruitland 1,415' - Gas
Pictured Cliffs 1,605' - Gas

No other mineral bearing formations are anticipated.

4a. The casing program including the size, grade, weight, whether new or used, and a setting depth of each string:

<u>Min. Hole Size</u>	<u>Casing O.D.</u>	<u>Grade</u>	<u>Weight</u>	<u>Setting Depth</u>	<u>New or Used</u>
12-1/4"	8-5/8"	K-55	24#	225'	New
7-7/8"	4-1/2"	K-55	10.5#	1,750'	New

4b. The cementing program including type, amounts, and additives:

- 8-5/8" Surface Casing: Equip with guide shoe, insert float, and three centralizers. Cement to surface with 250 sacks of API Class "B" cement with 2% CaCl_2 .
- 4 1/2" Production Casing: Equip with a float shoe, baffle collar, and 10 centralizers. Cement to surface with 220 sacks "Light" filler cement followed by approximately 220 sacks of Class "B" cement with 10% sand. All cement to contain 0.5% friction reducer and 2% CaCl_2 .

5. B.O.P. specification and testing: (see the attached schematic diagram for size and pressure ratings):

2,000 psi WP hydraulic double ram preventer with blind rams and drill pipe rams. Operation to be checked daily.

Test Hydraulic Operations

<u>BOP</u>	<u>Pressure</u>	<u>Time</u>	<u>Remarks</u>
Ram Type	1,000 psi	30 minutes	Test before drilling out surface casing.

6. Mud program and anticipated pressures:

<u>From</u>	<u>To</u>	<u>Type Mud</u>	<u>Weight</u>	<u>% Oil</u>	<u>Water Loss</u>
0'	225'	Native	8.5-9.0	--	--
225'	1,350'	Gel-Chem	9.5-10.0	(Be ready to weight up to ppg if gas kicks are encountered)	
1,350'	TD	Gel-Chem	10.0-11.0	vis. 40 sec	10 cc water 1

7a. Type of drilling tools and auxiliary equipment:

Normal rotary tool operation requires:

1. Drill time and pipe weight to be recorded on a geolograph or equivalent instrument from surface to TD.
2. Single shot survey instrument.
3. Desilter or desander.

7b. Deviation Control:

<u>From</u>	<u>To</u>	<u>Maximum Deviation Between Surveys</u>	<u>Maximum Deviation From Vertical</u>	<u>Maximum Chang Per 100' of De</u>
0'	225'	100'	1°	1°
225'	500'	500'	3°	1°

8. Sample, logging, testing, and coring program:

Open Hole Logs: CNL/FDC/CAL/GR, DIL from TD to surface.

Cased Hole Logs: GR/CCL/CBL from PBTD to surface casing.

9. Anticipated abnormal pressures or temperatures:

Gas and water flows possible in Farmington Sand with 10 ppg mud.

Estimated top of Farmington is 1,097' — Maximum expected pressure is 670 psi.
Normal temperature gradient is expected.

10. The anticipated starting date and duration of operation:

Starting Date: 7-20-78

Duration: 5 days

DISTRICT APPROVALS

Approved

Date

M.E. O'Keefe 4/12/78
J.E. Lawrence 4/12/78
D. J. Conway 4-14-78
J. Smith 5-9-78

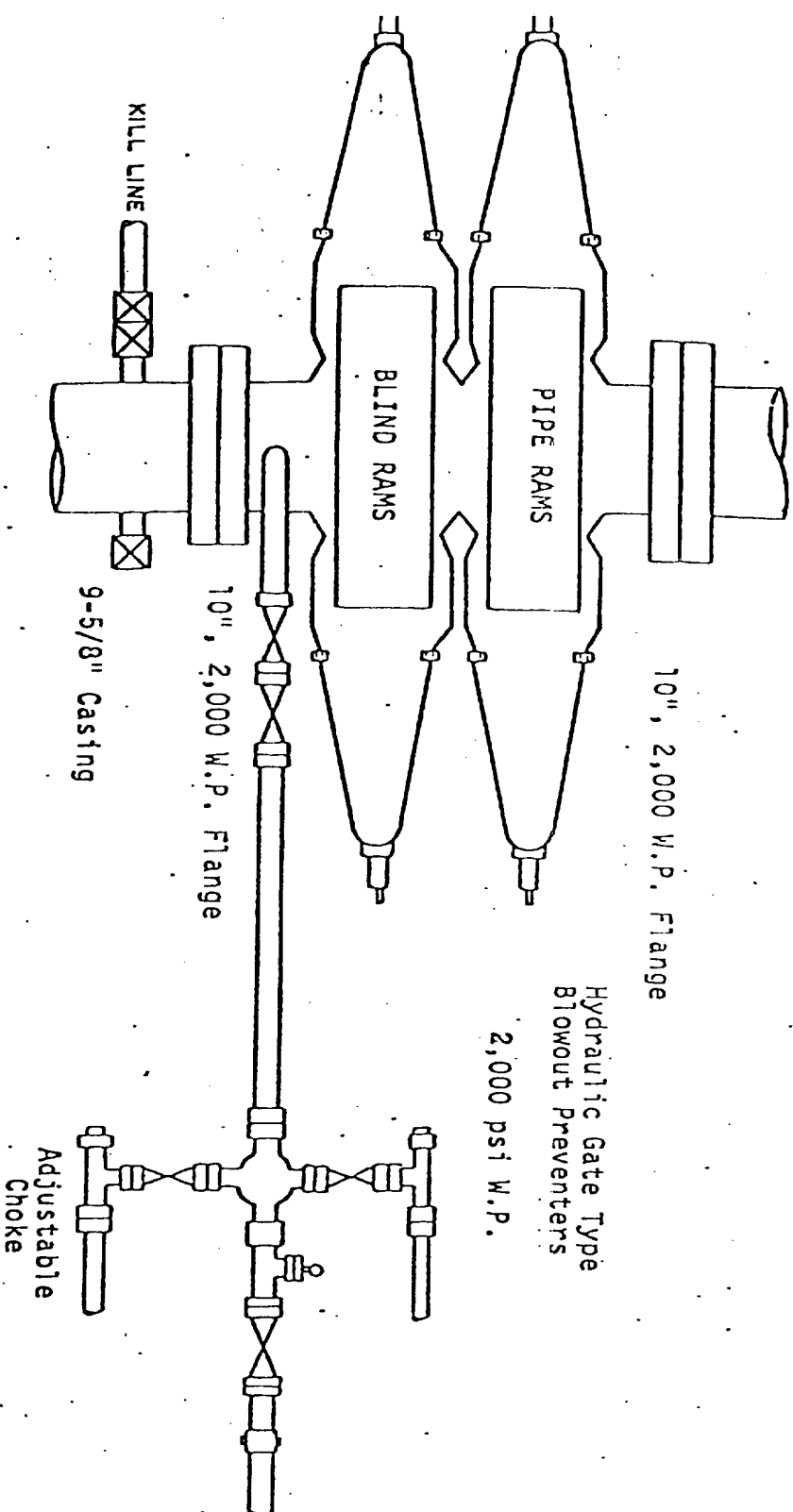
DIVISION APPROVALS

Approved

Date

fittings must be in good condition. Use new API Seal Rings.

2. All fittings (gates, valves, etc.) to be of equivalent pressure rating as preventers. Valves to be flanged and at least 2" unless otherwise specified. Valves next to BOP to be plug type and nominal 3".
3. Equipment through which bit must pass shall be as large as the inside diameter of the casing that it is being drilled through.
4. Safety valve must be available on rig floor at all times and with proper connections. The I.D. of safety valve should be as great as I.D. of tool joint of drill pipe.
5. Kelly safety valve installed, same working pressure BOP's.
6. All lines and controls to preventers must be connected and tested before drilling out of surface pipe.
7. BOP's must be fluid operated, complete with accumulators. Controls may be either on floor or around near steps from rig floor.
8. Fluid line tied to drilling nipple, the connection must be below and approximately 90° to the flow line.
9. Gauge will be installed for testing but removed while drilling.
10. Spool not required, but when side outlet on BOP's is used, it must be below bottom ram.
11. Casinghead and casinghead fittings to be furnished by Marathon Oil Company.
12. Chokes will be adjustable.
13. One side of casinghead may be built plugged.



5. Location and Type of Water Supply:

The water supply will come from the San Juan River near Bloomfield, New Mexico and hauled to the wellsite by a Jobber.

6. Source of Construction Materials:

All construction materials for this location and access road are to be materials accumulated during construction of the location and access road. No additional construction materials from other sources are anticipated.

7. Waste Disposal Handling:

Drill cuttings will be covered after the reserve pit is dried up. All liquid drilling waste will be stored in the reserve pit. All burnable trash will be burned in a suitable burn pit with a steel screen across the pit. Any produced fluids will be caught in a test tank. All non-burnable refuse will be buried to a depth of 5' upon completion of drilling and completion of operations. A sanitation facility will be provided. There are no plans to line the reserve pit. Immediately upon completion of the well, the location will be policed and all waste materials will be picked up.

8. Ancillary Facilities:

There will be no proposed camps or airstrips at the location. There will be one small house trailer to be used by drilling supervisors. These are shown on the attached map.

9. Well Site Layout:

A cross section of the drill pad is shown on the attached schematic. Location of mud tanks, reserve pit, trash burn pit, pipe racks, living facilities, soil materials and stockpiles are shown on the attached schematic. The rig will face the north with the reserve pit to the west. Parking area will be on the east side. The access road will be from the north. The location will require a maximum cut of 1' at the wellbore.

MARATHON OIL COMPANY

Surface Use and Operations Plan

Ohio "C" Government #6
Sec. 26, T28N, R11W
San Juan County, New Mexico
5641' GL

1. Existing Roads:

Highway south from Bloomfield, NM for 3 miles. There is a gate cut in the highway fence on the east side in Sec. 15. Go southeast for 2¼ miles, then due south for 1/16 mile.

2. Access Road:

The attached map shows the new access road, which will be approximately 1/16 mile long and 14' wide. Maximum grade will not exceed 3%. There will be no culverts, gates, turnouts, cattle guards, or fence cuts. The road will be staked. Rehabilitation will consist of requirements by BLM.

3. Location of Existing Wells:

See attached sheet.

4. Location of Production Facilities and Service Lines:

Marathon Oil Company does not own or operate any oil or gas gathering lines, injections lines, or disposal lines within a 1 mile radius of the well.

The proposed well will have one tank, one two stage separator, and a 10' square by 6' deep water disposal pit. The water disposal pit will be fenced. The gathering line will be laid by the purchaser to their line.

The reserve pit will be fenced on three sides while drilling and the 4th side will be fenced after the rig moves off. The reserve pit and unused parts of the location will be graded back to contour and seeded as recommended by BLM.

All above ground equipment will be painted a color that closely matches the Federal Standard #595-36357 (Sage Gray).

10. Plan for Restoration to Surface:

Upon completion of this well those areas not needed for any possible production equipment will be backfilled, leveled, contoured and the topsoil replaced. The area will be reseeded according to BLM's recommendations. At the time of rig release the reserve pit will remain fenced until proper cleanup can be made. Any oil on the reserve pit will be removed. Rehabilitation will be completed by the fall of 1979.

11. Other Information:

The attached archaeological report covers all aspects of the surface characteristics and grants clearance to construct the location and short road, which will not disturb any cultural resources.

In the immediate area there are no known occupied dwelling, archaeological, historical, cultural sites, shallow water wells, or creeks.

12. Representatives:

Marathon Oil Company's representative who is responsible for compliance with the approved surface and operation plan is:

James F. Wirth
Drilling Superintendent
Marathon Oil Company
P. O. Box 2659
Casper, WY 82602
1-(307)-265-7693

13. Certification:

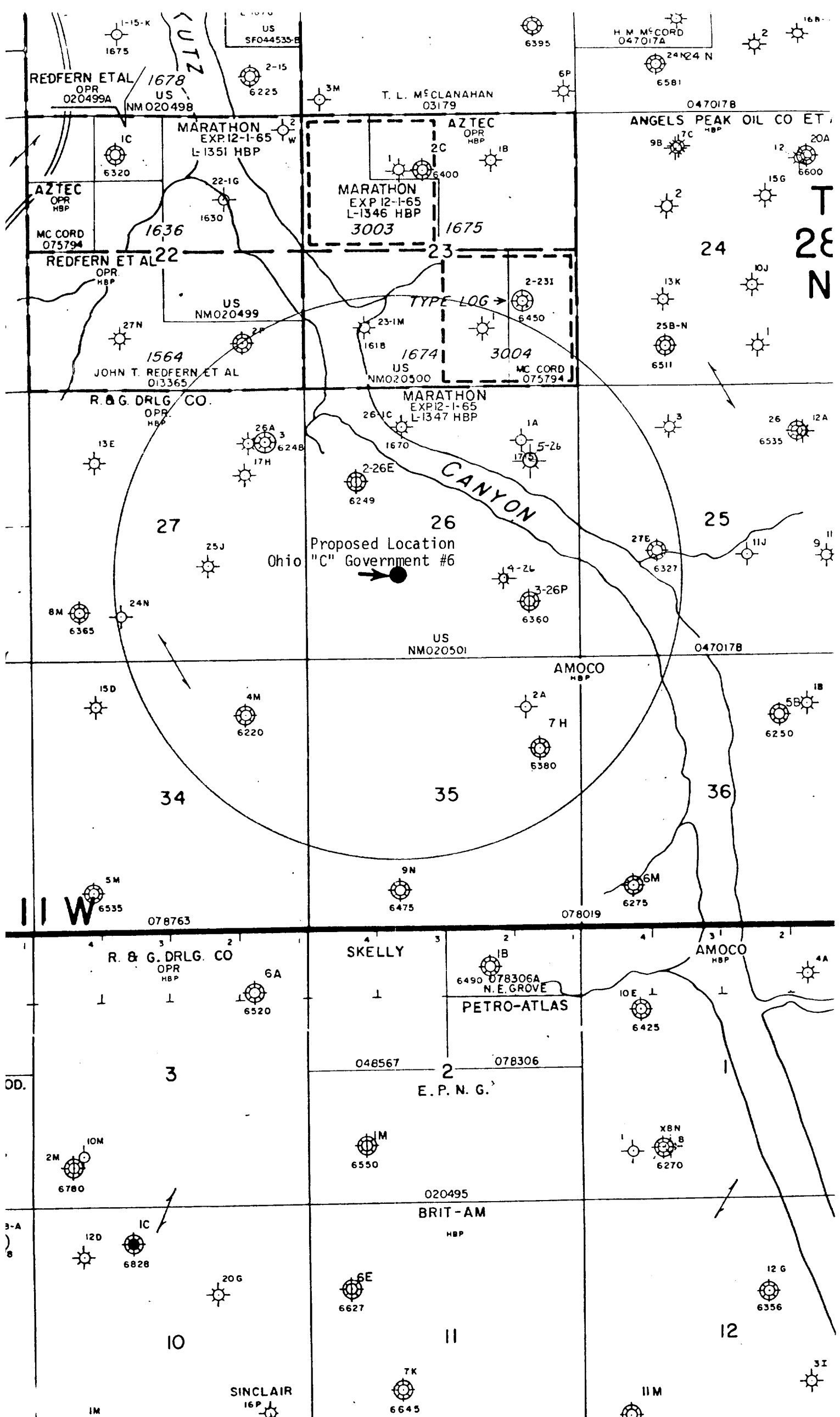
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated 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.

May 9, 1978
DATE

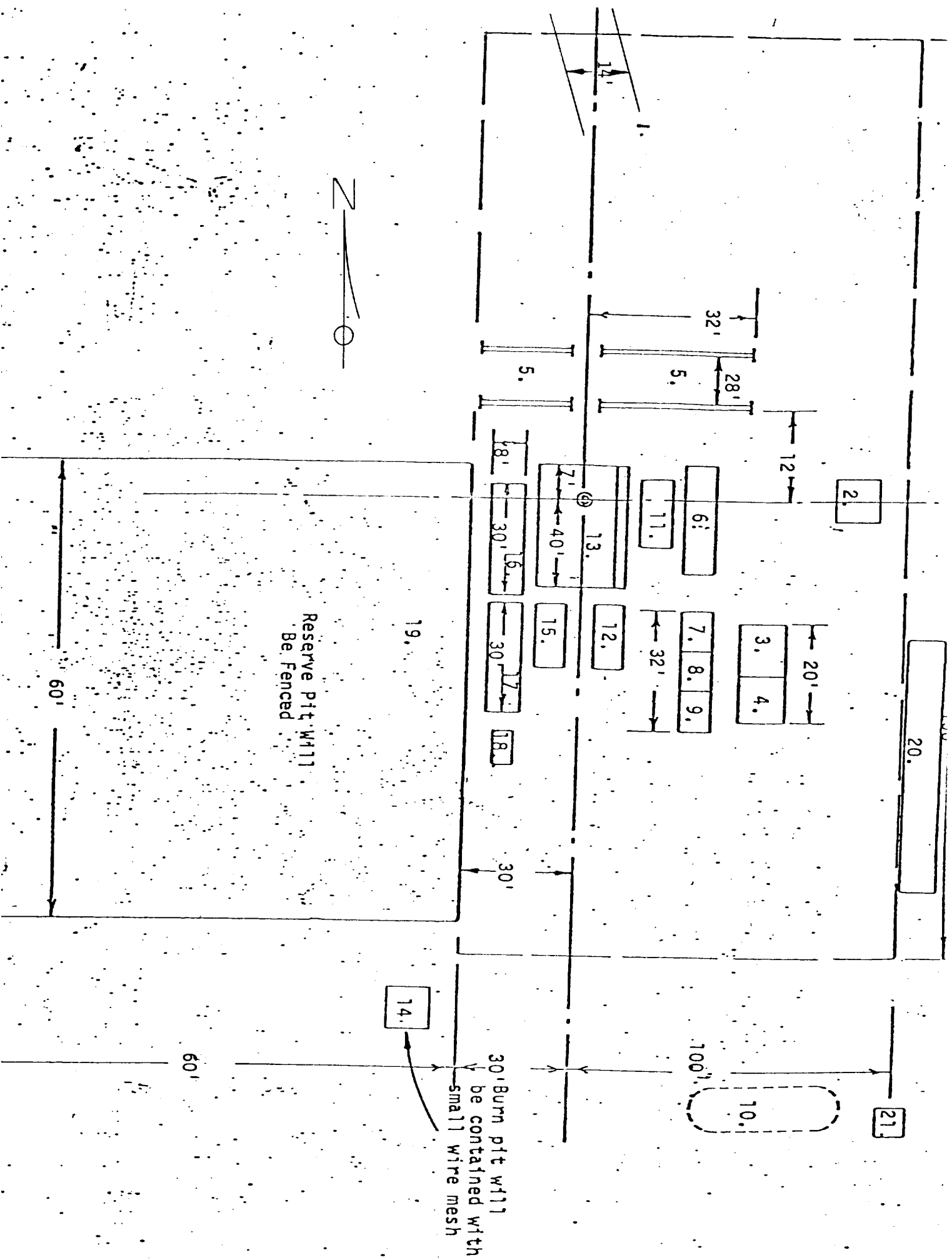
James F. Wirth
NAME
Drilling Supt.
TITLE

OFFSETS TO THE PROPOSED #6, KUTZ CANYON (1-MILE RADIUS)

1)	Energy Reserves Group, Inc. - Pipkin #7-H	Dakota	Sec. 35
2)	Southern Union Prod. - Angel Peak B 27K	Dakota	Sec. 25
3)	Marathon Oil Company - Ohio "B" McCord #1	P.C.	Sec. 23
4)	Marathon Oil Company - Ohio Gov't "B" #1	Fruitland	Sec. 23
5)	Atlantic Richfield - Schlosser Fed 3-A	Dakota	Sec. 27
6)	R & G Drilling Corp - Schlosser 26-A	Fruitland	Sec. 27
7)	R & G Drilling Corp - Schlosser 17-A	Farmington	Sec. 27
8)	R & G Drilling Corp - Schlosser 25-J	Farmington	Sec. 27
9)	R & G Drilling Corp - Schlosser 24-N	P.C.	Sec. 27
10)	Atlantic Richfield - Schlosser Fed 4-A	Dakota	Sec. 34
11)	Marathon Oil Company - Ohio "C" Gov't #1	Fruitland	Sec. 26
12)	Marathon Oil Company - Ohio "C" Gov't 2-26E	Dakota	Sec. 26
13)	Marathon Oil Company - Ohio "C" Gov't 3-26P	Dakota	Sec. 26
14)	Marathon Oil Company - Ohio Gov't #4-26	P.C.	Sec. 26
15)	Marathon Oil Company - Ohio Gov't #5-26	PC & Fruitland	Sec. 26



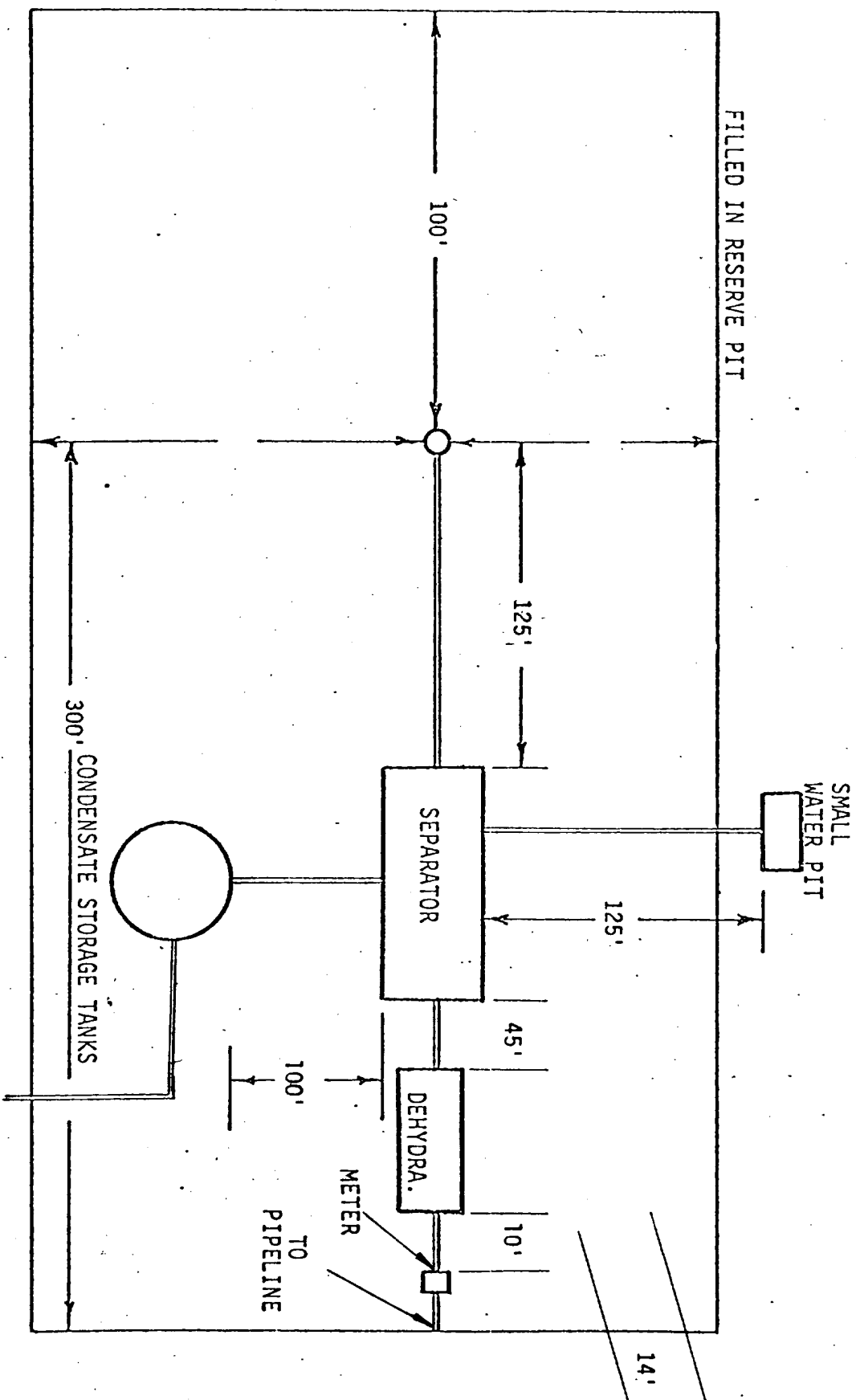
MAKATHUN ULL COMPANY
 OHIO "C" GOVERNMENT #6
 SEC. 26, T28N, R11W
 SAN JUAN COUNTY, NEW MEXICO
 5641' GL



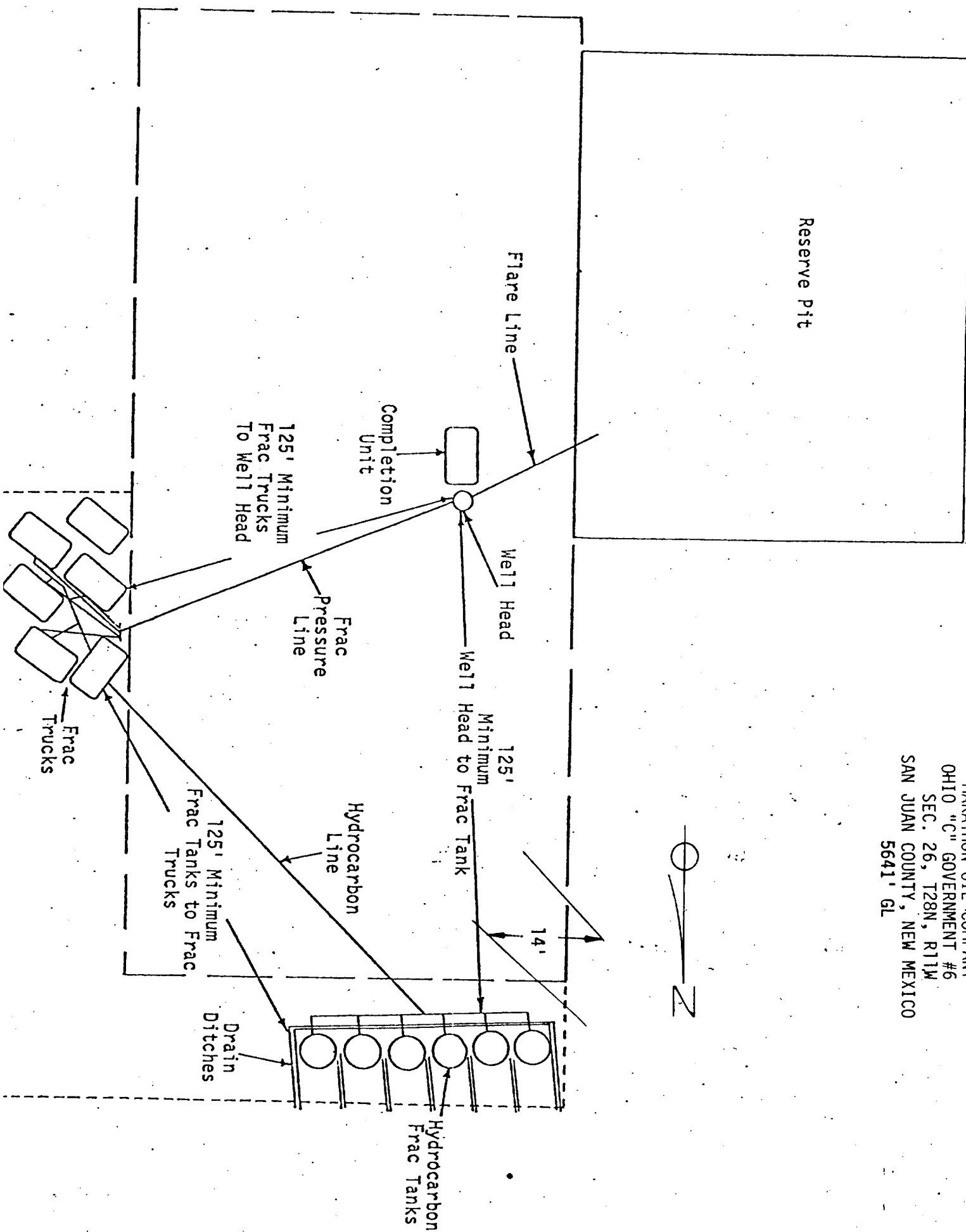
1. Access road
2. Trailer house
3. Fuel tank
4. Water tank
5. Pipe racks
6. Storage pad
7. Light plant
8. Change house
9. Accumulator
10. Soil stock pile
11. Dog house on top of tool house
12. Mud mixer
13. Substructure
14. Burn and trash pit
15. Pumps
16. Shale shaker & Mud tank
17. Suction mud tank
18. Mud house on stand
19. Sump (reserve pit)
20. Parking area
21. Toilet

PROPOSED PRODUCTION FACILITIES

OHIO "C" GOVERNMENT #6
 SEC: 26, T28N, R11W
 SAN JUAN COUNTY, NEW MEXICO
 5641' GL

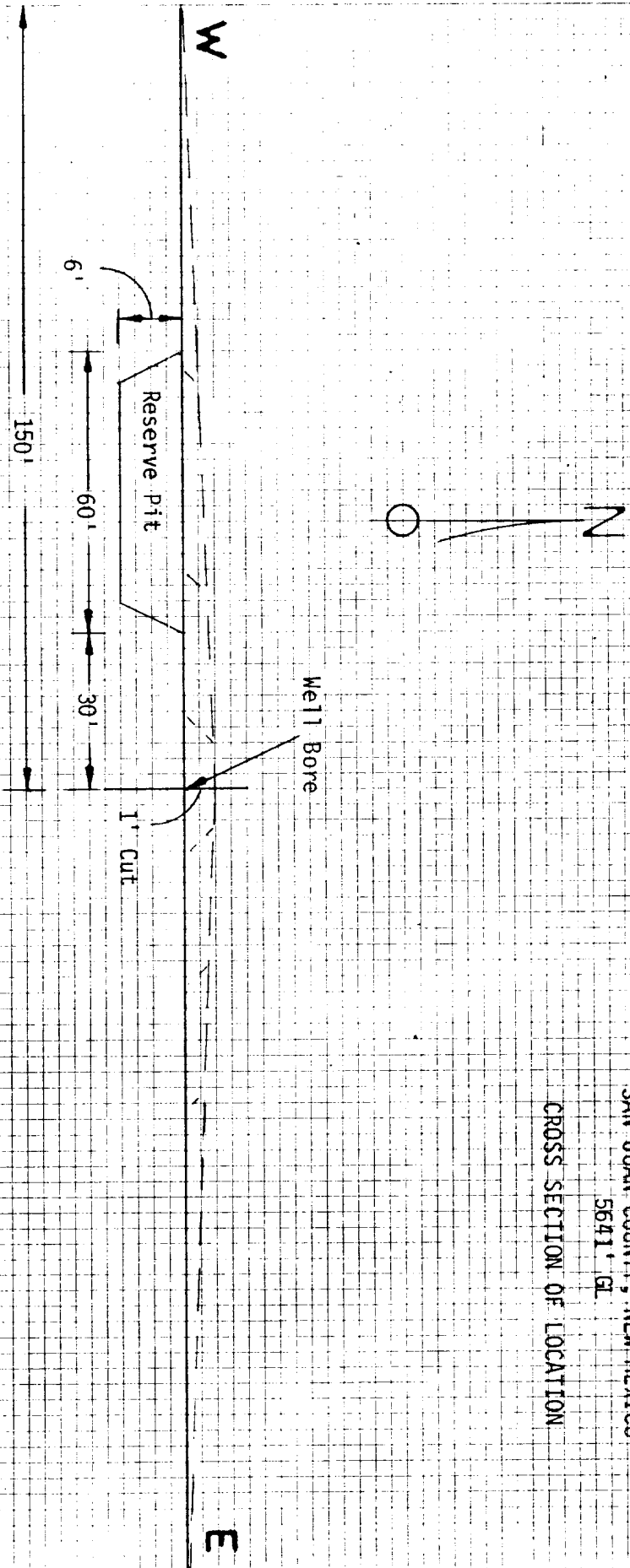


PRODUCTION WELL COMPLETION
OHIO "C" GOVERNMENT #6
SEC. 26, T28N, R11W
SAN JUAN COUNTY, NEW MEXICO
5641' GL



MARATHON OIL COMPANY
OHIO "C" GOVERNMENT #6
SEC. 26, T28N, R11W
SAN JUAN COUNTY, NEW MEXICO
5641' GL

CROSS SECTION OF LOCATION



R 11 W

To BLOOMFIELD 2 1/2 Miles

WATER SUPPLY FROM
SAN JUAN RIVER

5712

5746

PIPELINE

10

11

5472

5476

5764

Gasoline

15

14

5652

5827

44

22

23

T
28
N

CUBA 83 MI.
BLANCO TRADING POST 23 MI.

PROPOSED
ACCESS ROAD

PROPOSED LOCATION
Ohio "C" Government #6

27

26

5826

5636

8M

24N

5682

1057