

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-22705

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

1450' FNL & 950' FEL NW/4 SE/4 NE/4, Unit H

At proposed prod. zone

Sec. 26, T28N, R11W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

6 1/2 miles SE from Bloomfield, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

950'

16. NO. OF ACRES IN LEASE

640

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2263'

19. PROPOSED DEPTH

1710

17. NO. OF ACRES ASSIGNED
TO THIS WELL

Sec. 26, T28N, R11W 160-

20. ROTARY OR CABLE TOOLS

Rotary

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

5685' GL

22. APPROX. DATE WORK WILL START*

September 19, 1977

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#	230'	260 sacks
6 3/4"	4 1/2"	10.5#	1710'	440 sacks

Ohio "C" Government #5 is proposed as a dual completed gas well in the Fruitland (1435') and Pictured Cliffs (1625') sands, with T.D. 1710'.

A 2,000 psi W.P.-hydraulic double ram preventer with blind and drill pipe rams will be used.

Please see 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

TITLE

Acting

District Operations Manager

DATE

Aug. 25, 1977

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

AUG 29 1977

*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.

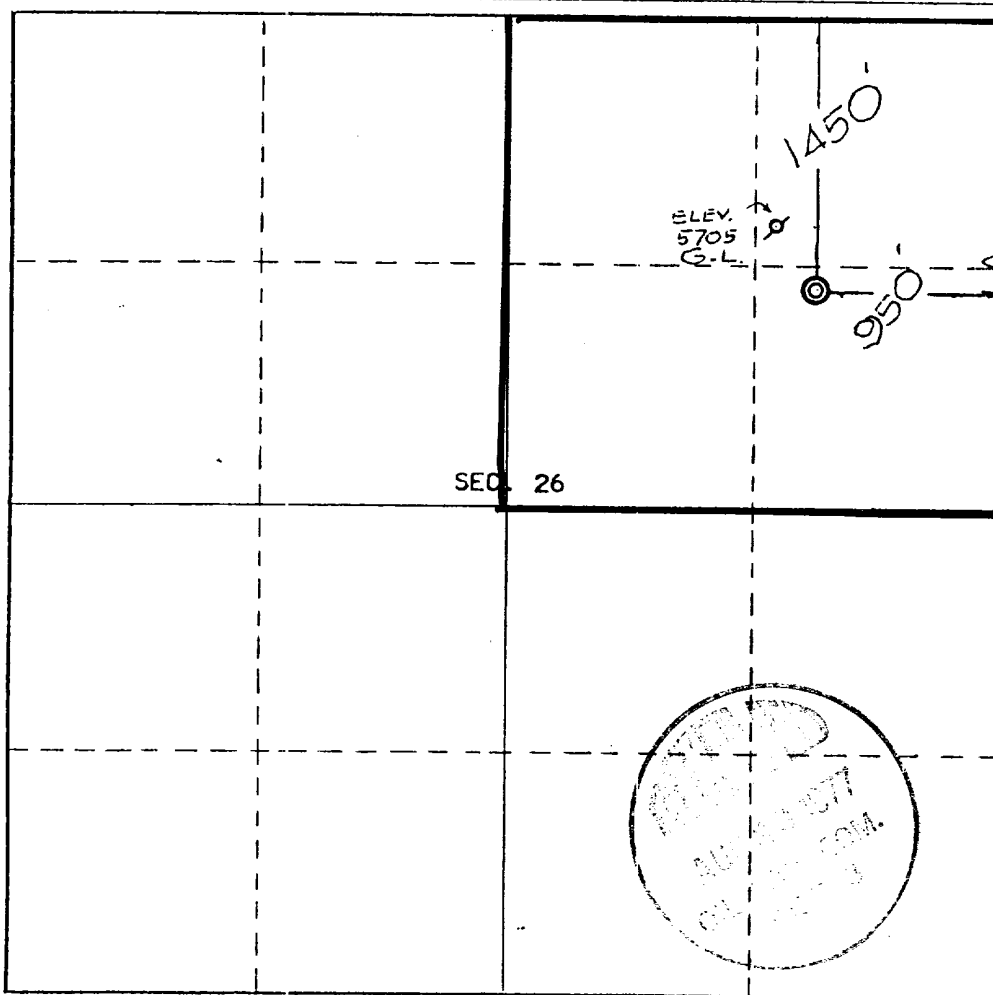
Operator Marathon Oil Company			Lease Ohio "C" Government		Well No. 5
Unit Letter H	Section 26	Township 28 North	Range 11 West	County San Juan	
Actual Footage Location of Well: 1450 feet from the North line and 950 feet from the East line					
Ground Level Elev. 5685	Producing Formation PICTURE CLIFFS FRUITLAND	Pool FUCHS KUTZ PC KUTZ FUCHS		Dedicated Acreage: 160 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.

James L. Campbell
Name

James L. Campbell

Position

District Operations Manager

Company

Marathon Oil Company

Date

August 22, 1977

Date Surveyed

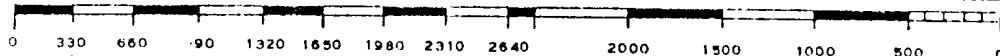
August 4, 1977

Registered Professional Engineer
and/or Land Surveyor

E.V. Ech hawk

Certificate No. 3602

E.V. Ech hawk LS



MARATHON OIL COMPANY

Drilling Operations Plan
Ohio "C" Government #5
1450' FNL, 950' FEL
Sec 26, T28N, R11W, Unit H
San Juan County, New Mexico
Elevation: 5685' GL

1. Geologic name of surface:

Nacimiento (Tertiary) San Juan

2. Estimated tops of important geologic markers:

Ojo Alamo	640'
Kirtland Shale	660'
Farmington Sand	815'
Fruitland Sand	1435'
Pictured Cliffs	1625'
Lewis Shale	1710'
Total Depth	1710'

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

Farmington 815', gas and water flow
Fruitland 1435', gas
Pictured Cliffs 1625', gas

No other water, oil or other mineral bearing formations are known to exist.

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#	230'	New
6 3/4	4 1/2	K-55	10.5#	1710'	New

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

The 8 5/8" surface casing string, equipped with a guide shoe, insert float, and three centralizers, will be cemented to surface with approximately 260 sacks API Class "B" cement with 2% calcium chloride.

The 4½" production casing string, equipped with a float shoe, baffle collar, and 10 centralizers will be cemented to surface with approximately 220 sacks "light" filler cement followed by approximately 220 sacks Class "B" cement with 10% salt. All cement will contain 0.5% friction reducer.

5. B.O.P. specification and testing: (see the attached schematic diagram for size and pressure ratings):
2,000 psi W.P.-hydraulic double ram preventer with blind and drill pipe rams.
Operation to be checked daily.

Test Hydraulic Operations

<u>BOP</u>	<u>Pressure</u>	<u>Time</u>	<u>Remarks</u>
Blind Rams	1,000 psig	30 minutes	Before drilling out of surface casing.
Pipe Rams	1,000 psig	30 minutes	

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'	230'	Native	8.5-9.0	-	- - -
230'	1,350'	Gel-Chem	9.5-10.0	(Be ready to weight up to 12 ppg (gas kicks)	
1,350'	T.D.	Gel-Chem	10-11	(vis. 40 sec) 10 water loss	

Barite will be used as weighting material.

7a. Type of drilling tools and auxiliary equipment:

Drill time and drill pipe weight will be recorded on a geograph or equivalent instrument from surface to total depth.

A Kelly Cock will be used. There will be no float at the bit and no automatic monitoring equipment on the mud system. There will be a full opening safety valve with sub on the rig floor at all times.

7b. Deviation Control:

<u>From</u>	<u>To</u>	<u>Maximum Deviation Between Surveys</u>	<u>Maximum Deviation From Vertical</u>	<u>Maximum Change Per 100' of Depth</u>
0'	230'	100'	1°	1°
230'	T.D.	500'	3°	1°

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

Logging program:

Open hole: IES and FDC-GR-Caliper-CNL from T.D. to shoe of surface casing.
Cased hole: GR Correlation log from PBD to approximately 650'.

No other testing or coring is anticipated.

9. Anticipated abnormal pressures or temperatures:

Possible gas and water flows from the Farmington Sand with 480 to 500 psi.
Mud wgt of 12 ppg should hold this formation. No abnormal temperatures are anticipated.

10. The anticipated starting date and duration of operation:

Starting Date: September 19, 1977

Duration: 2 weeks

DISTRICT APPROVALS

Approved

Date

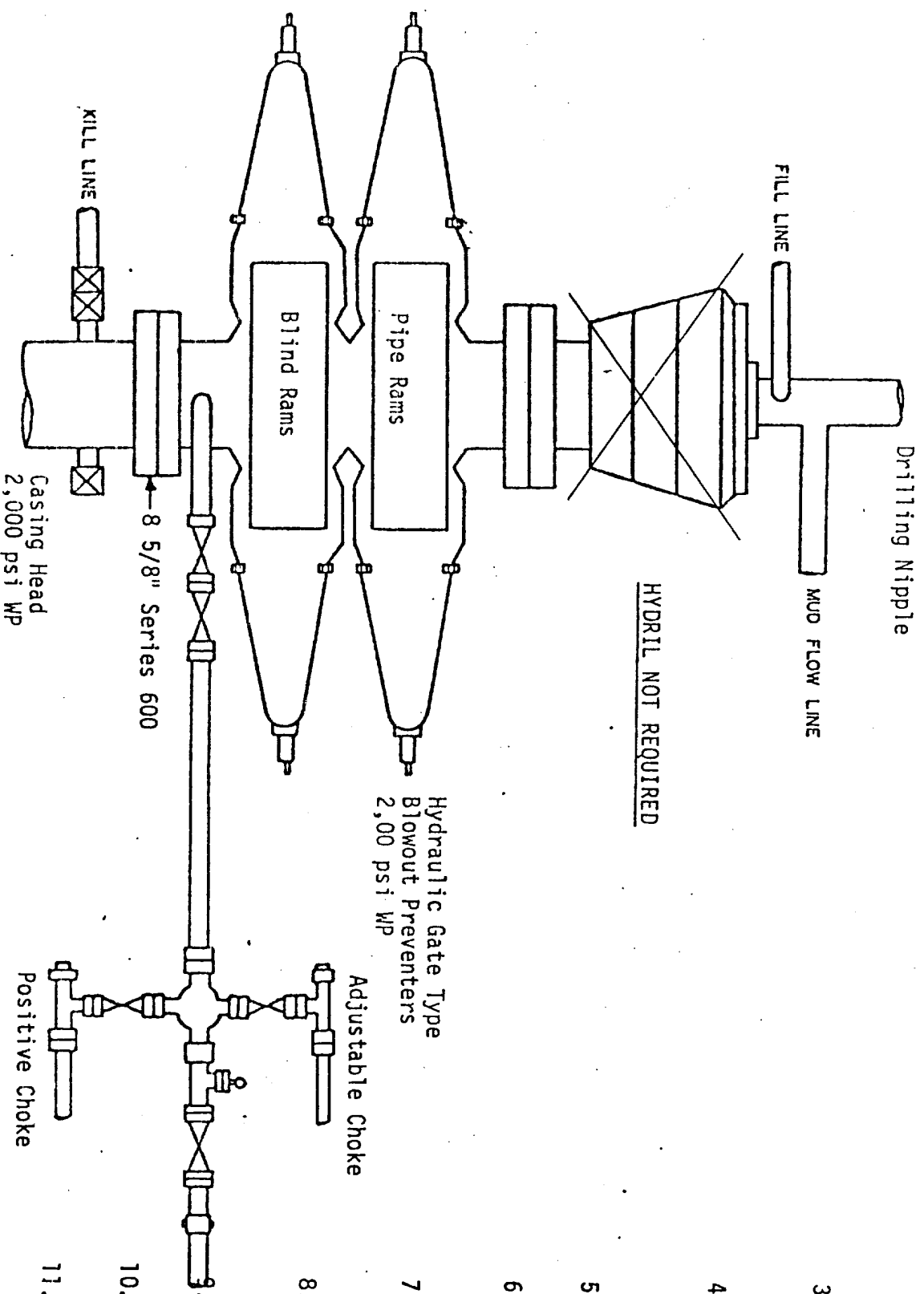
[Signature] 8-25-77
[Signature] 8-25-77

DIVISION APPROVALS

Approved

Date

Proposed Blowout Preventer Installation
Ohio "C" Government #5
Sec. 26, T28N, R11W, Unit H
San Juan County, New Mexico



1. Blowout preventers, master valve, plug valve and all 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 is being drilled through.
4. Safety valve (Omsco or equivalent) must be available on rig floor at all times and with proper connections. The I.D. of safety valves should be as great as I.D. of tool joints on drill pipe.
5. Kelly safety valve installed, same working pressure as 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 accumulator. Controls may be either on floor or ground near steps from rig floor.
8. Fillup 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.

MARATHON OIL COMPANY

Surface Use and Operations Plan
Ohio "C" Government #5
1450' FNL, 950' FEL
Sec. 26, T28N, R11W, Unit H
San Juan County, New Mexico

1. Existing Roads:

The proposed well site as staked is shown on the attached survey plat. The well is offset by reference stakes. The well is located SE of Bloomfield, New Mexico. From Bloomfield one travels SW on Highway 44 for 1½ miles, then turns SE on the Southern Union Gasoline Plant road for 2¼ miles to the plant. At the south edge of the plant turn SW on a lease road. Follow this road south for 1-¾ miles, then turn SW on the access road. All roads are shown on the attached map.

Existing roads within a 1 mile radius of this development well are shown on the attached map. No improvements or maintenance of existing county roads will be made. The new road will be maintained by grading when needed.

2. Access Road:

The attached map shows the new access road which is approximately ¾ mile long, and will have a width of 14'. The first ½ mile of the road will have a maximum grade of 5% with the last ¼ mile having a grade exceeding 5%. The road will have no turnouts and will cross no drainage runs. No culverts will be used. Surface material will consist of native material available at the site. There will be no gates, cattle guards, or fence cuts. The road is staked.

3. Location of Existing Wells:

The attached map shows the existing producing wells. There are no known water wells or monitoring wells, temporarily abandoned wells, disposal wells, drilling wells, shut-in-wells, or injection wells within a 1 mile radius of the location.

There is one abandoned well, Sec. 26-T28N-R11W, Payne #1 within a 1 mile radius of the location.

4. Location of Production Facilities and Service Lines:

Marathon Oil Company does not own or operate any oil or gas gathering lines, injection lines, or disposal lines within a 1 mile radius of the well. Each Marathon Pictured Cliffs Fruitland well (Ohio "B" McCord, Ohio "B" Aztec) has a two stage separator, and water disposal pit, and connecting lines within 200' of each well.

The proposed well will have no tanks, one two stage separator, and a 10' square by 6' deep water disposal pit. The water disposal pit will be fenced to protect it from livestock and wild life. The gathering line will be laid by the purchaser to their line approximately ½ mile to the north.

The reserve pit will be fenced to protect it from livestock and wild life. The reserve pit and unused parts of the location will be graded back to contour and seeded as recommended by BLM.

5. Location and Type of Water Supply:

The water supply is the San Juan River located in the NW/4 of Section 27, T29N, R11W. This is shown on the attached map. Water will be hauled by truck using the existing roads as shown on the attached map.

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 port-a-potty will be provided to handle sewage. 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 lay in a northeast southwest position with the reserve pit to the northwest. Parking area will be on the southwest side. The access road will be from the southeast. The location will require a maximum cut of 6'.

The reserve pit will not be lined.

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 1978.

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 dwellings, 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 E. Lawrence
Marathon Oil Company
P. O. Box 2659
Casper, WY 82602
Phone: (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.

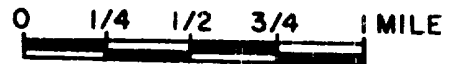
8-22-77
DATE

J. E. Lawrence
NAME

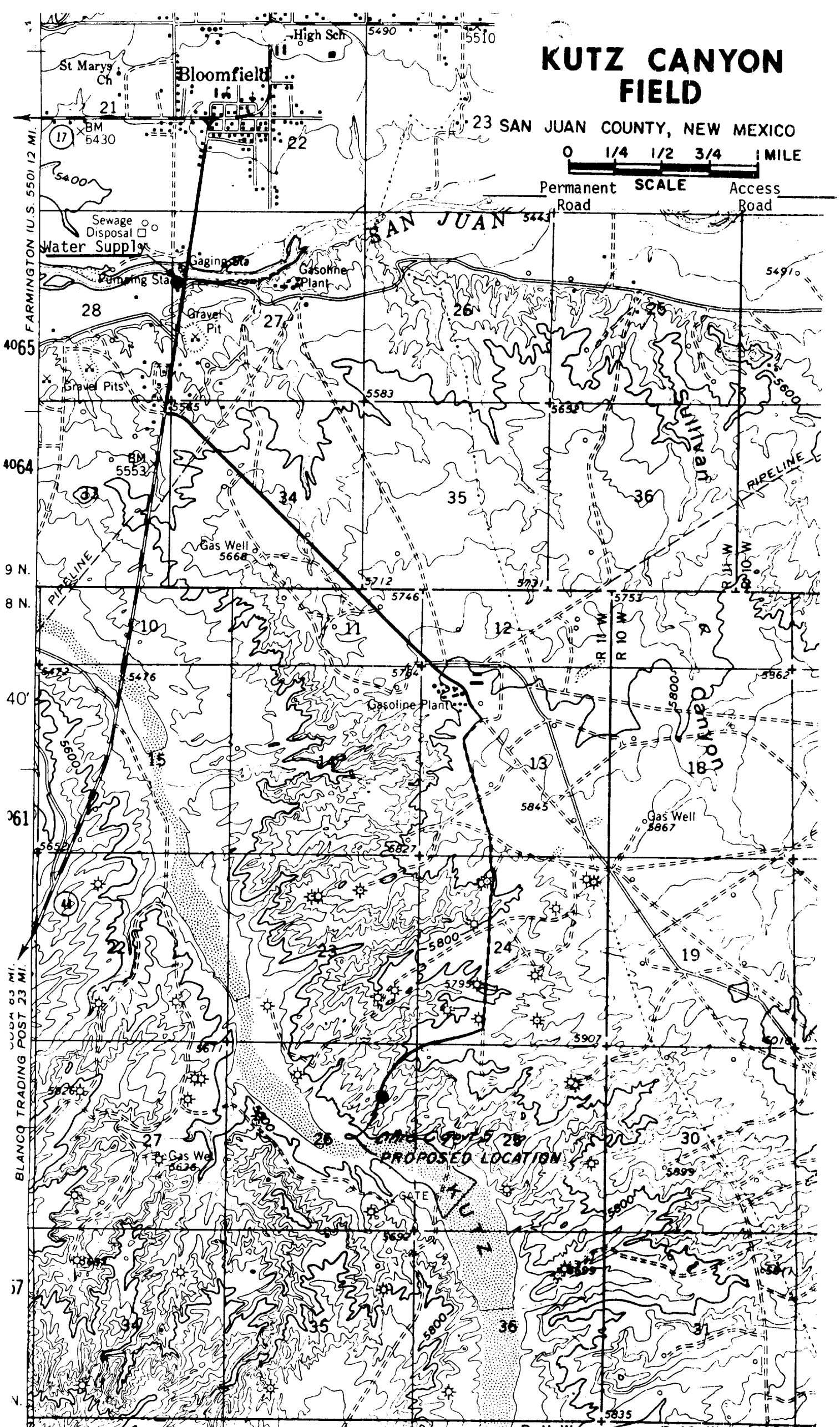
Operations Engineer
TITLE

KUTZ CANYON FIELD

SAN JUAN COUNTY, NEW MEXICO



Permanent Road	SCALE	Access Road



Ohio "C" Government #5
1450' FNL, 950' FEL, Section 26, T28N, R11W
Unit H
San Juan County, New Mexico

40'

Reserve Pit

30'

cut 6'

Well Bore

70'

50'

50'

Grade Slope 12%

cut 6'

NE

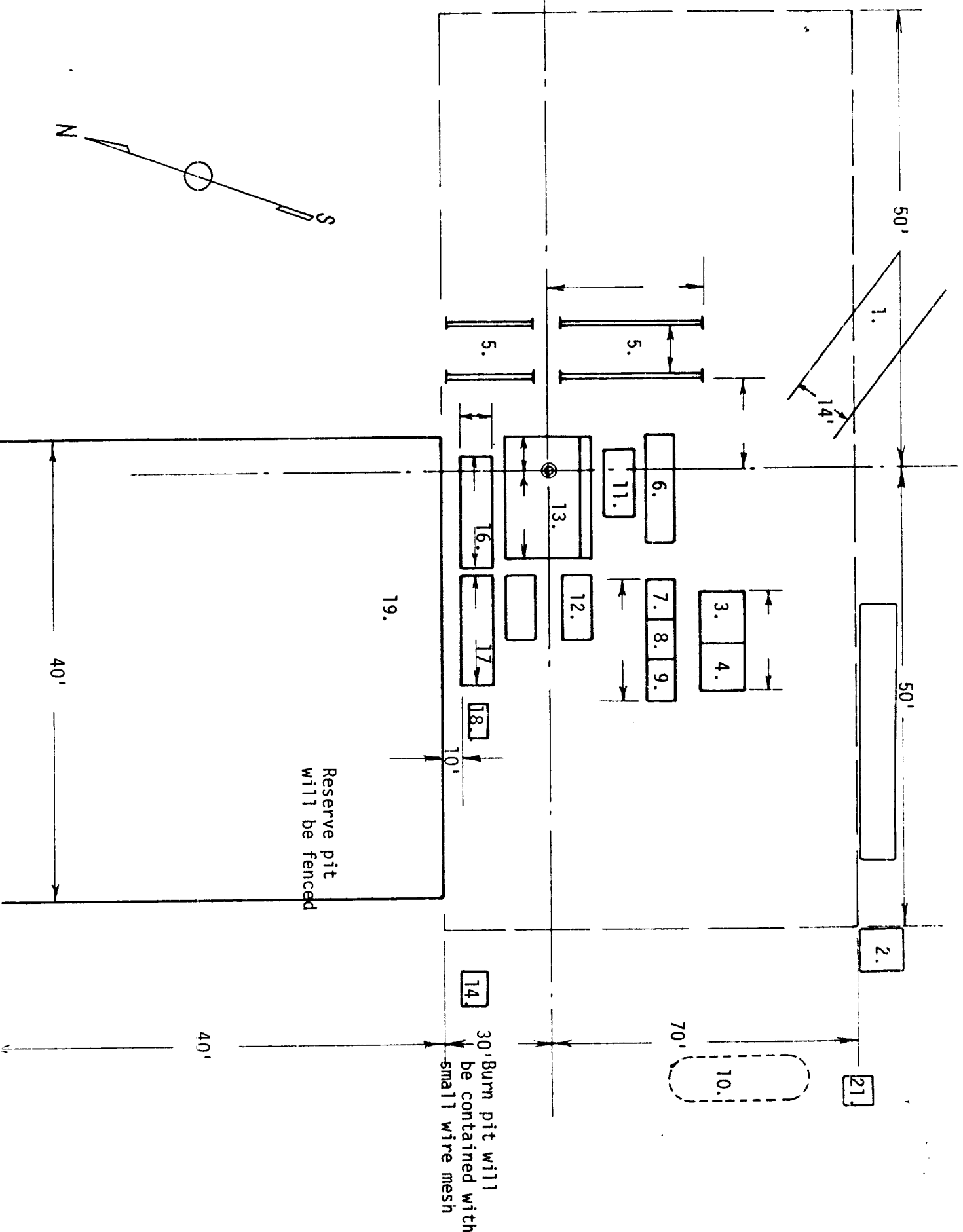
SE

NW

NE

Ohio "C" Government #5
 Sec. 26, T28N, R11W, Unit H
 San Juan County, New Mexico

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. Engines
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 Unit
Ohio "C" Government #5
Sec. 26, T28N, R11W, Unit H
San Juan County, New Mexico

