C/SF

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-25895

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC-029388(d)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Johnson "B" Federal

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: ~~Undesignated~~ TAMANO (Bone Spring)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 11, T-18-S, R-31-E

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

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

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

2. NAME OF OPERATOR: Marathon Oil Company

3. ADDRESS OF OPERATOR: P.O. Box 552, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: 2260' FSL & 1980' FEL
At proposed prod. zone: Same as above

MAR 23 '88
O. C. D.
ARTESIA, OFFICE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles ESE from Loco Hills, New Mexico

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

16. NO. OF ACRES IN LEASE: 960.26

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.: 1349'

19. PROPOSED DEPTH: 8950'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3739.3' GR

22. APPROX. DATE WORK WILL START*: As soon as possible

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½"	13 3/8"	48	750'	800 sxs Circulate
~~11"~~ [redacted] SJS	8 5/8"	24, 32	2,700'	1360 sxs Circulate
7 7/8"	5½"	15.5	8,950'	1350 sxs

→ Bore Hole to be 11" as per Kevin Wilson; Drlg. Engr. SJS 3/21

Propose to drill no deeper than 8950'.
All casing will be cemented in accordance with regulations and by approved methods.
Blowout preventors will be as outlined in Additional Information (See Exhibits).

RECEIVED

POST ID#1
NL & API
4-1-88

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. maps

24.

SIGNED Jerry D. Lewis TITLE Dist. Drlg Superintendent DATE 2-11-88

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 3-22-88

CONDITIONS OF APPROVAL, IF ANY:

*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	Lease	Well No.
Marathon Oil Company	Johnson "B" Federal	5

Unit Letter	Section	Township	Range	County
J	11	18 South	31 East	Eddy

Actual Footage Location of Well: 2260 feet from the South line and 1980 feet from the East line

Ground Leve. Elev.	Producing Formation	Pool	Dedicated Acreage:
3739.3	Bone Spring	TAMANO BONE SPRING ~~Undesignated~~	40 Acres

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

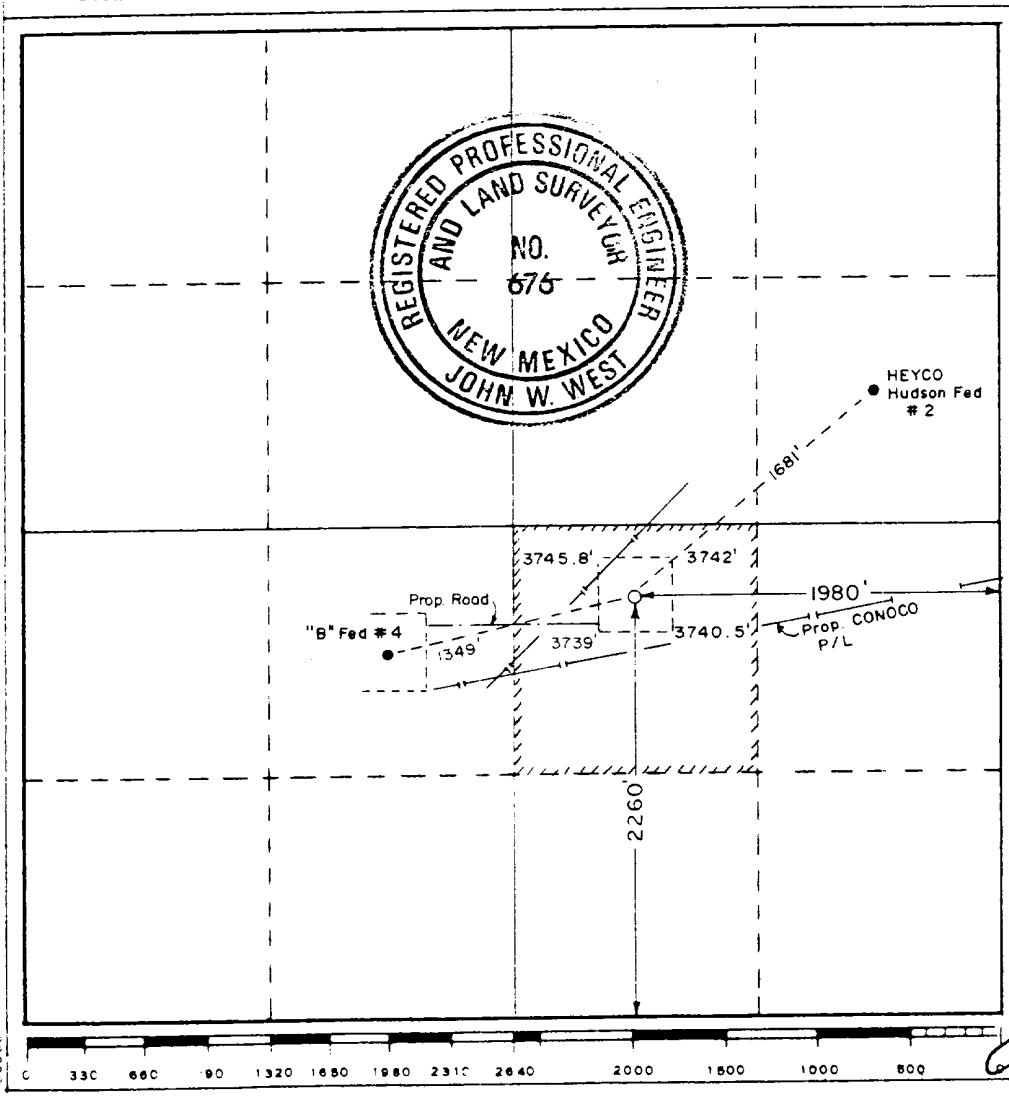
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Name: Terry L. Rivers

Position: Dist. Drlg Superintendent

Company: Marathon Oil Company

Date: February 11, 1988

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: February 2, 1988

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239

96560

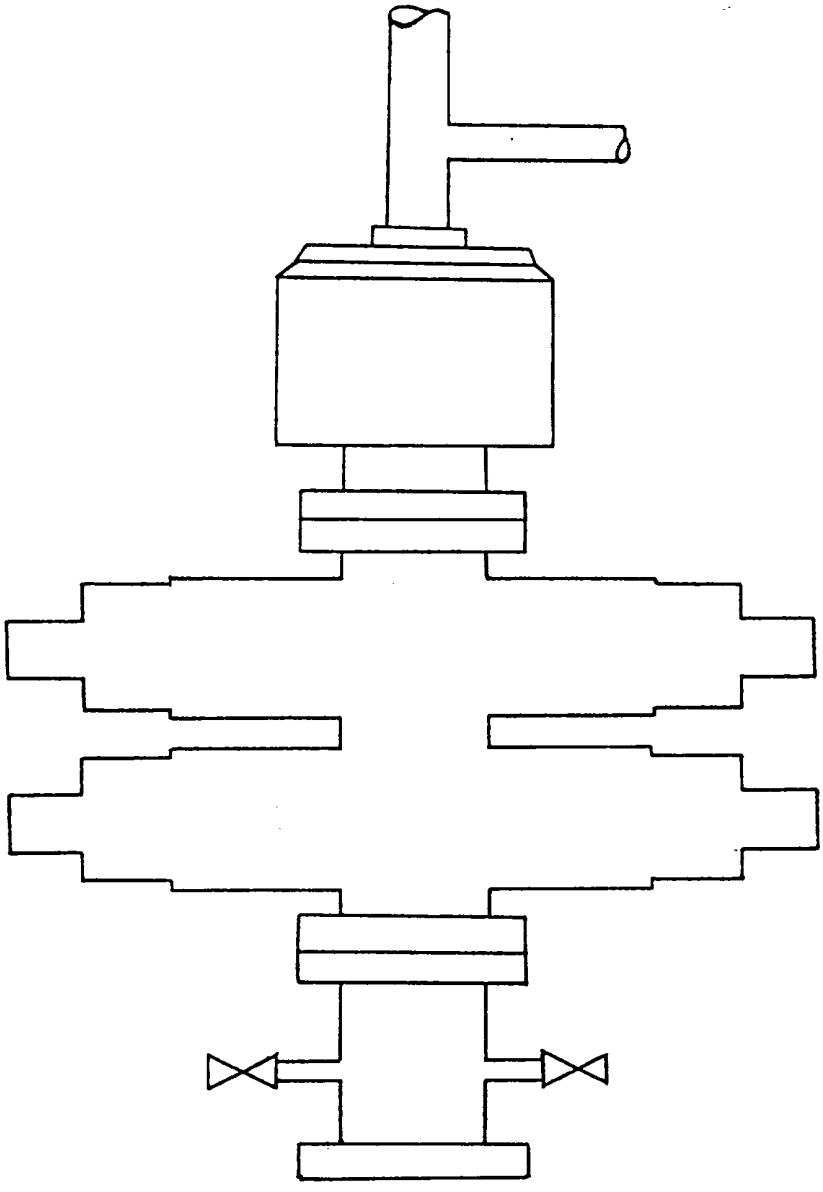


EXHIBIT "A"

Johnson "B" Federal #5

BOP Stack Arrangement

13 3/8" Surface Casing

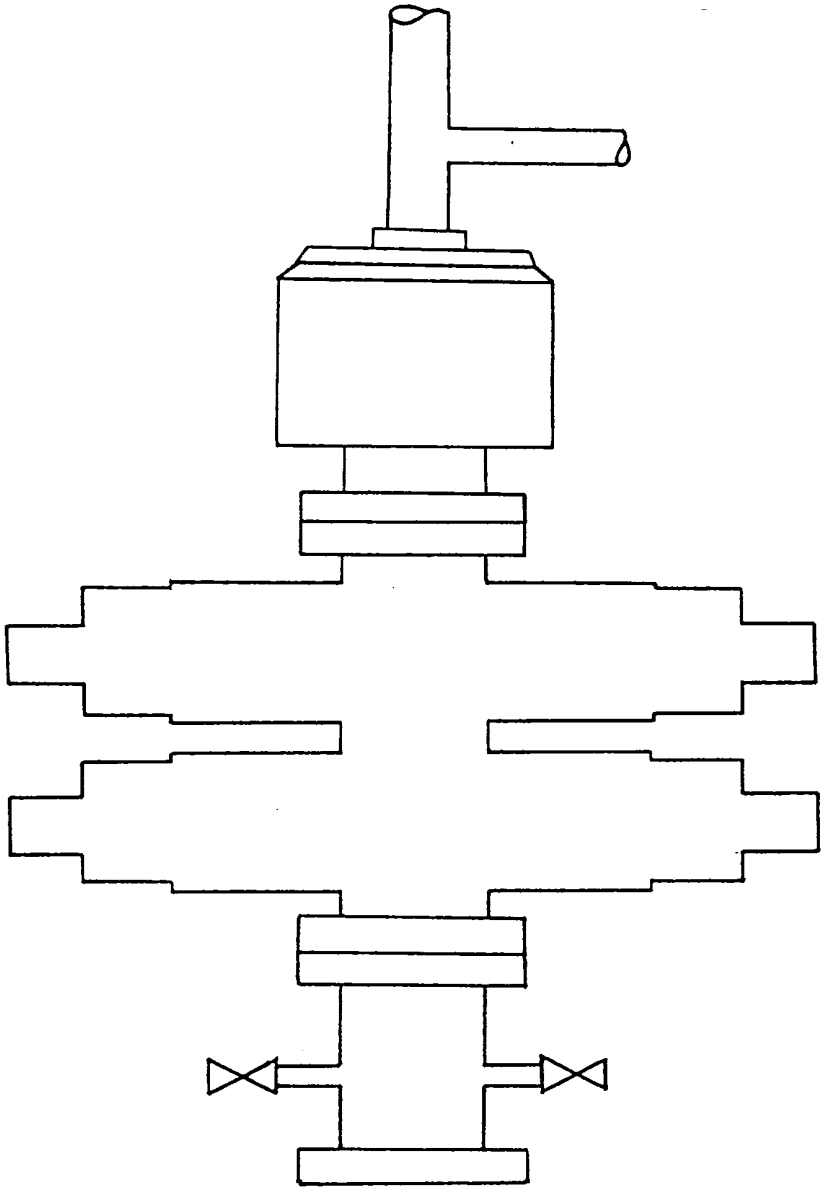


EXHIBIT "B"

Johnson "B" Federal #5

BOP Stack Arrangement

8 5/8" Intermediate Casing

MARATHON OIL COMPANY

JOHNSON "B" FEDERAL WELL NO. 5
ADDITIONAL INFORMATION
Comply with Order 1

In conjunction with Form 9-331C, Application to drill subject well, Marathon Oil Company submits the following items of informations in accordance with BLM requirements:

1. Geologic Name of Surface Formation

   Quaternary Alluvium

2. Estimated Tops of Important Geologic Markers

Rustler	800	Bone Spring	5760
Yates	2270	1st Sand	7605
Seven Rivers	2730	2nd Carb	7915
Queen	3370	2nd Sand	8215
Grayburg	3758	3rd Carb	8890
San Andres	4330		
Delaware	4625		

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

Yates (Water)	2270	Bone Spring	5760
Seven Rivers (Water)	2730	1st Sand (Water & Oil)	7605
Queen (Water & Oil)	3370	2nd Carb (Water & Oil)	7915
Grayburg (Water & Oil)	3758	2nd Sand (Water & Oil)	8215
San Andres (Water & Oil)	4330	3rd Carb (Water & Oil)	8890
Delaware (Water & Oil)	4625		

4. Casing and Cementing Program

13 3/8" Surface to 750':	Cement to surface with 800 sxs Class "C" with 2% $CaCl_2$
8 5/8" Intermediate to 2700':	Cement to surface with 1160 sxs Modified Lite followed by 200 sxs Class "C" with 2% $CaCl_2$
5½" Production to 8950':	Cement to 2200' w/1350 sxs Class "H" Pozmix

5. Pressure Control Equipment (Exhibits A & B)

13 3/8" Surface:	11" 3000 psi working pressure annular preventor tested to 2000 psi
	11" 3000 psi working pressure pipe and blind rams tested to 3000 psi
8 5/8" Intermediate:	11" 3000 psi working pressure annular preventor tested to 3000 psi
	11" 3000 psi working pressure pipe rams and blind rams tested to 2000 psi

6. Proposed Mud Program

0 - 750	Native; Mud Wt: 8.3 - 9.2, Viscosity 28-34 Sec
750 - 2,700	Brine Water; Mud Wt: 9.0 - 10.0, Viscosity 28-32 Sec
2,700 - 7,000	Cut Brine; Mud Wt: 8.6-8.8, Viscosity 28-32 Sec
7,000 - 8,950	Cut Brine; Mud Wt: 8.8 - 9.2, Viscosity 32-44 Sec

7. Auxiliary Equipment

A stabbing valve will be kept on the floor to be used when the kelly is not in the string.

8. Testing, Logging, and Coring Programs

A. Coring Program:

1 Core - 120', starting at top of 2nd Bone Spring Carbonate

B. Testing Program:

1 DST in 2nd Bone Spring Carbonate

C. Logging Program:

TD to surface casing - GR-Sonic
TD to Intermediate casing - LDT-CNL, DLL, Spectral GR

9. Abnormal Pressures, Temperatures or Potential Hazards

None are anticipated

10. Anticipated Starting Date:

As soon as possible

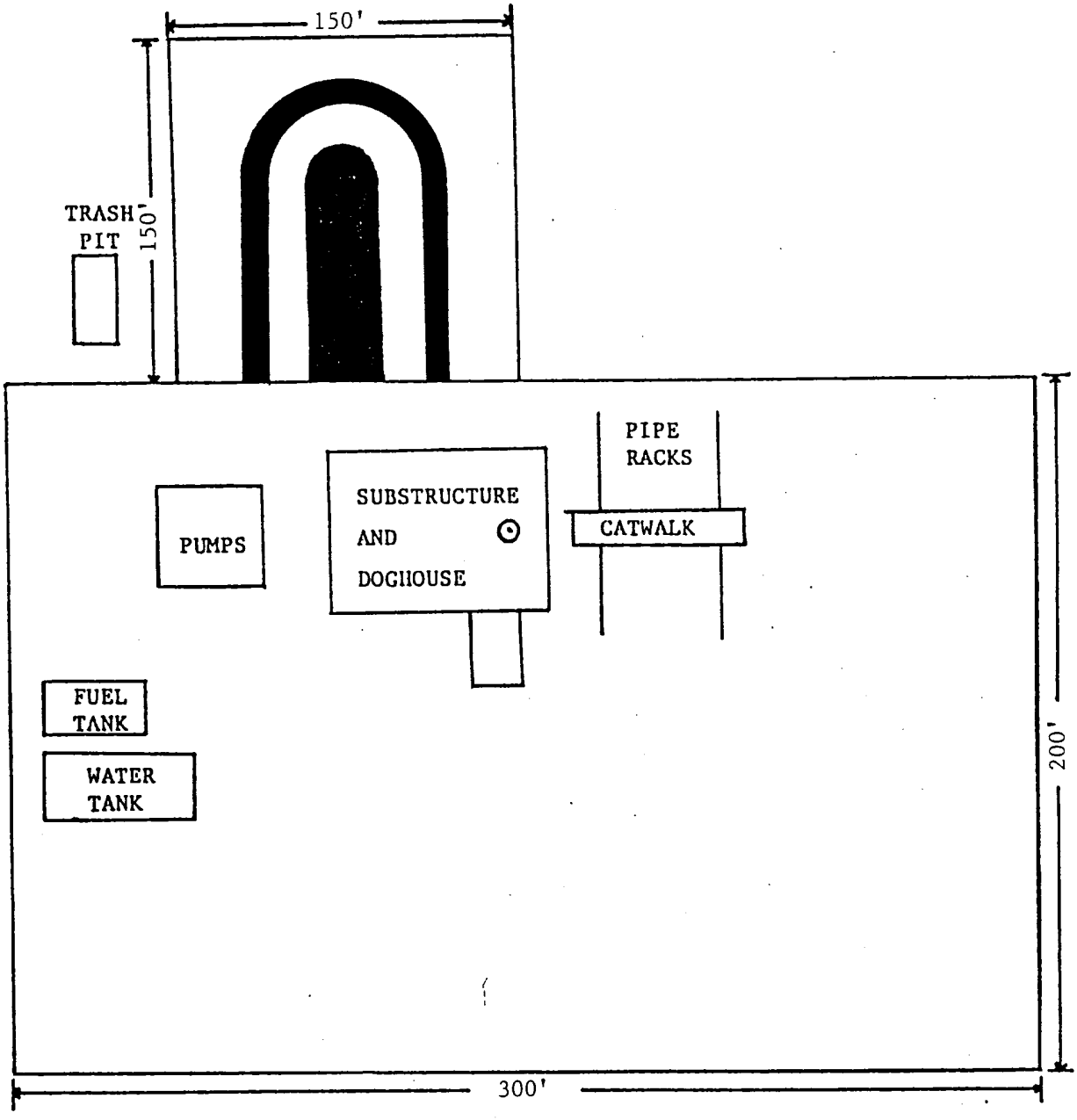


EXHIBIT "E"

Relative Location

of

Rig Components

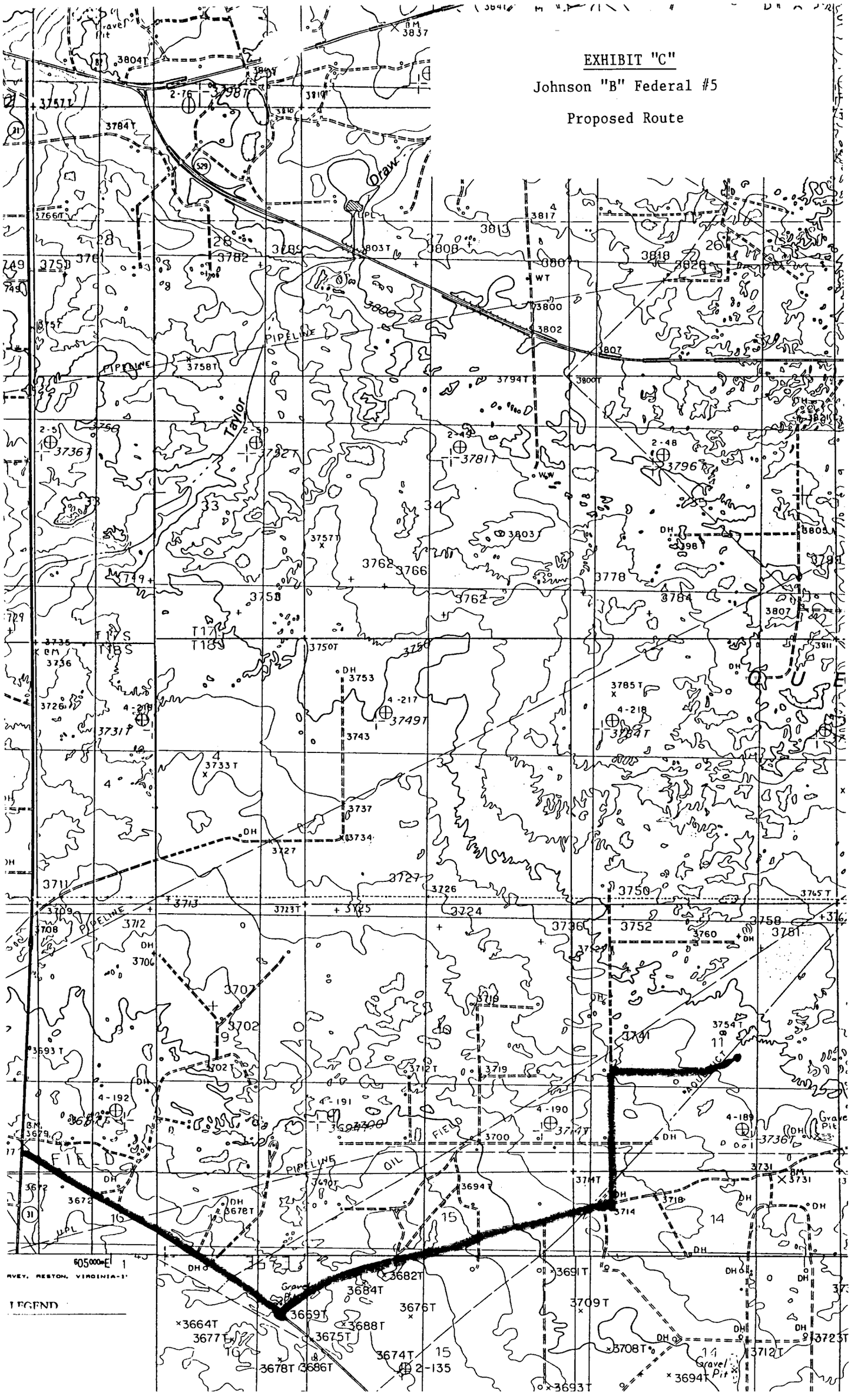


EXHIBIT "C"
Johnson "B" Federal #5
Proposed Route
Draw
Taylor
PIPELINE
PIPELINE
PIPELINE
OIL
FIELD
T17S
T18S
LEGEND