5 USGS 1 McHugh 1 File

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-20683

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

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

2. NAME OF OPERATOR: Jerome P. McHugh

3. ADDRESS OF OPERATOR: Box 234, Farmington, N. M. 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 790' fnl, 910' fel
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.: NM 12030

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Nassau

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 36, T27N, R12W

12. COUNTY OR PARISH: San Juan

13. STATE: N. M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 14 miles S.W. Bloomfield, N. M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 790'

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: ---

19. PROPOSED DEPTH: 6230'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6042' R.K.B.

22. APPROX. DATE WORK WILL START*: 8/8/70

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#	200'	175 sx.
7 7/8"	4 1/2"	10.5#	6230'	500 sx.

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OIL CON. COM.
DIST. 3

Plan to drill 7 7/8" hole with mud to Dakota formation.

If productive, set 4 1/2" casing, selectively perforate and fracture Dakota, cleanout, run 1 1/4" tubing and put well on production.

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 Original signed by T. A. Dugan TITLE Engineer DATE 8/7/70

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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AUG 7 1970
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
JEROME P. McHUGH	Nassau	1

Unit Letter	Section	Township	Range	County
A	36	27 North	12 West	San Juan

Actual Footage Location of Well: 790 feet from the North line and 910 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6029	Dakota	Basin	320 Acres

1. Outline the acerage 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 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.

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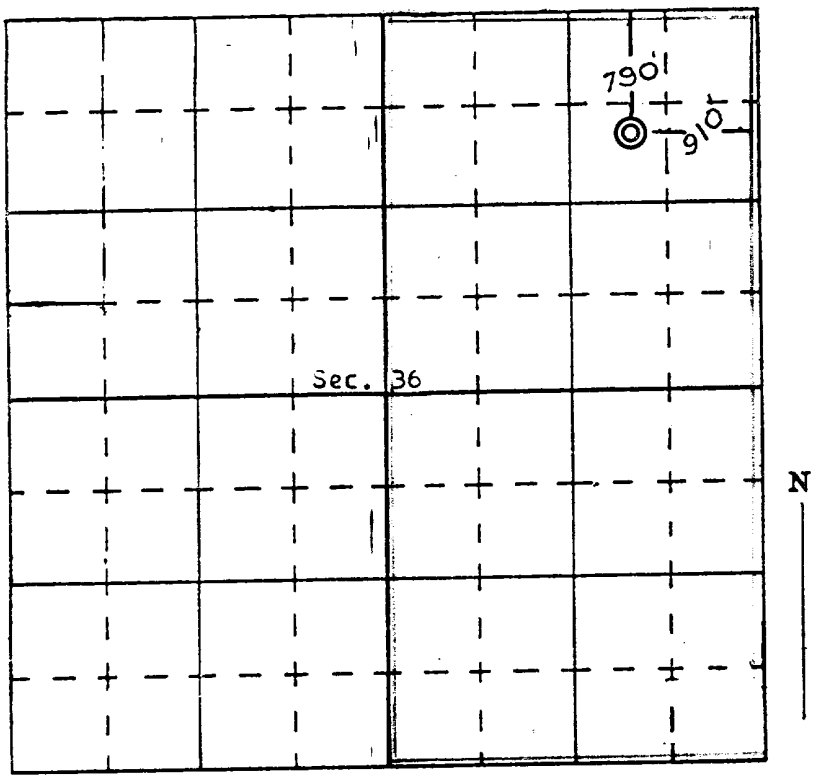
DIST. 3



CERTIFICATION

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

Original signed by T. A. Dugan

Name: Thomas A. Dugan

Position: Engineer

Company: Jerome P. McHugh

Date: 8/7/70

STATE OF NEW MEXICO — REGISTERED LAND SURVEYOR — NO. 3602

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: July 24, 1970

Registered Professional Engineer and/or Land Surveyor

Certificate No. 3602

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

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SEP 4 1970
OIL CON. COM.
DIST. 3

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 9-3-70	
Company: Jerome P McHugh	Connection			
Pool: Basin Dakota	Formation		Unit	
Completion Date	Total Depth: 6232	Plug Back TD: 6175	Elevation: 6042 RKB	Farm or Lease Name: Mesa
Csg. Size: 4.500 / Wt.: 10.5# / d / Set At: 6227		Perforations: From 6124 To 6144		Well No.: 1
Tbg. Size: 1½ / Wt.: 2.4# / d: 1.380 / Set At: 6132		Perforations: From Open End To		Unit: A / Sec.: 36 / Twp.: 27N / Rge.: 12W
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single – Gas		Packer Set At		County: San Juan
Producing Thru	Reservoir Temp. °F @	Mean Annual Temp. °F	Baro. Press. – P_a	State: New Mexico
L	H	Gg: .65	% CO_2	% N_2 / % H_2S / Prover / Meter Run / Taps

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI							1886		1893		
1.											
2.	3/4" Ft.			165					1315		3 HRS.
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1							
2.	12.365		177	1.000	.9601	1.017	2139
3.							
4.							
5.							

NO.	P_t	Temp. °R	T_r	Z
1				
2.				
3.				
4.				
5				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 1905 P_c^2 3,629,025

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1				
2		1321	1,745,041	1,883,984
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9426$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^{n\ .75} = 1.6454$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3520$

Absolute Open Flow 3520 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .75

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Jacobs	Jacobs	