

COPY TO O. & G.

Form 9-321 C
(May 1963)SUBMIT IN TRIPLIC
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 42-R1425.UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

HILLIARD OIL & GAS, INC.

3. ADDRESS OF OPERATOR

1190 Midland National Bank Tower, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface 330' from South Line & 660' from East line of Section
17, Township 9 South, Range 35 East of N.M.P.M.
At proposed prod. zone

Same

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

2.5 Miles West Northwest of Crossroads, N.M.

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

660

16. NO. OF ACRES IN LEASE

520

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.

None

19. PROPOSED DEPTH

12,700'

20. ROTARY OR CABLE TOOLS

Rotary

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

4165' GR

22. APPROX. DATE WORK WILL START*

October 10, 1980

23. 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" O.D.	48#	400'±	425 sxs. Circulate to surface.
11"	8-5/8" O.D.	24# & 32#	4100'±	1800 sxs. Circulate to surface.
7-7/8"	5-1/2" O.D.	17#	12,700'±	225 sxs.

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
- "B" Designation of Operator
- "C" Ten-Point Compliance Program
- "D" Multi-Point Requirements for A.P.D.
- "E" Access Road Map
- "F" Area Well Location Map
- "G" Schematic Diagram of Pressure Control Equipment
- "H" Drill Pad & Rig Layout Plat
- "I" Well Site Layout Plat After Location Restoration
- "J" Rehabilitation Plan

RECEIVED

SEP 22 1980

U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

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

John A. Weideman
John A. Weideman

TITLE Production Engineer

DATE Sept. 19, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

(Orig. Sgd.) GEORGE H. STEWART

APPROVED BY

TITLE

DATE

OCT 03 1980

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

N MEXICO OIL CONSERVATION COMMISS
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.

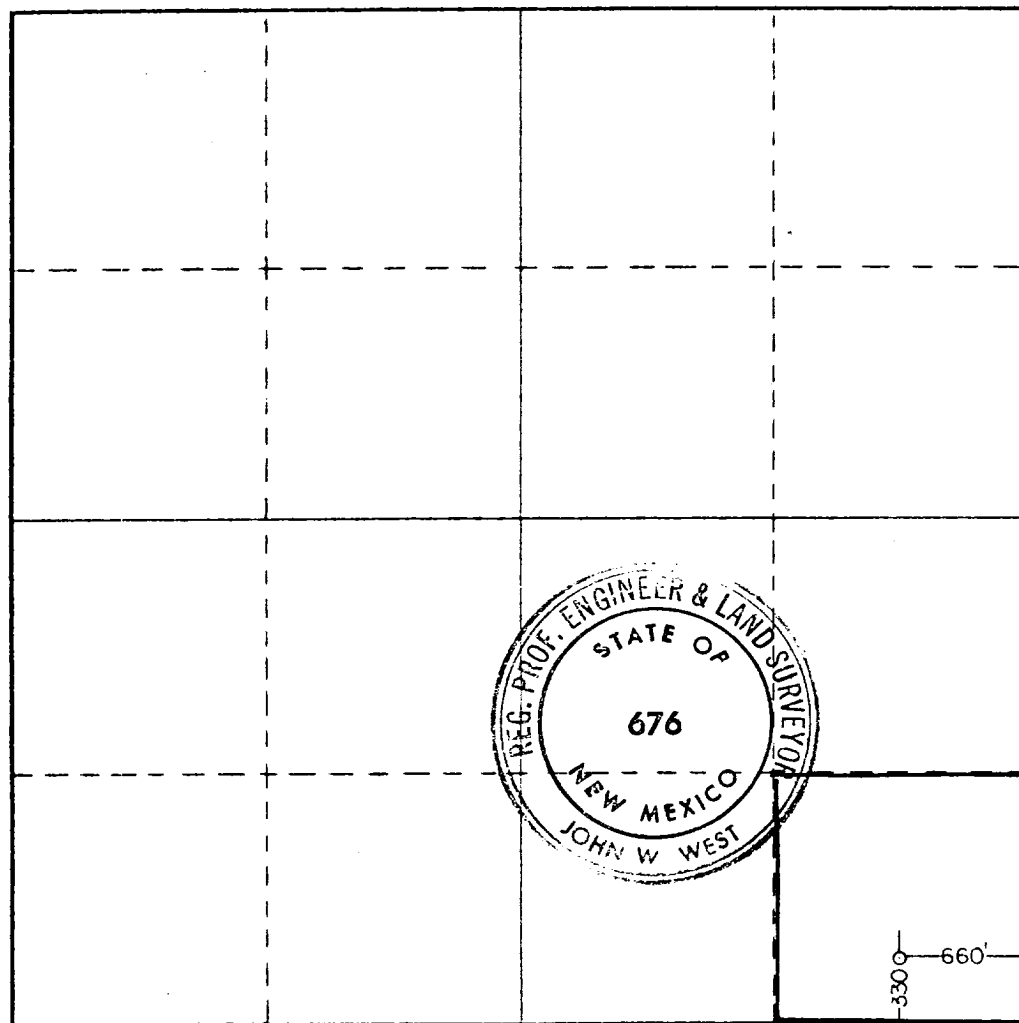
Operator Hilliard Oil & Gas, Inc.,			Lease USA		Well No. 1
Unit Letter P	Section 17	Township 9 South	Range 35 East	County Lea	
Actual Footage Location of Well: 330 feet from the South line and 660 feet from the East line					
Ground Level Elev. 4165.0	Producing Formation		Pool Wildcat	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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
John A. Weideman

Position
Production Engineer

Company
Hilliard Oil & Gas, Inc.

Date
September 19, 1980

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
September 3, 1980

Registered Professional Engineer
and/or Land Surveyor

John W. West
Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6665
Ronald J. Eidson 3239

EXHIBIT "C"

Ten-Point Compliance Program
of NTL-6 Approval of Operations

HILLIARD OIL & GAS, INC., U.S.A. NO. 1

Lea County, New Mexico

1. The surface formation is Ogallala of Miocene Age.
2. Estimated tops of important geologic markers:

Rustler	2210'	Wolfcamp	8930'
Salt	2320'	Bough "C"	9720'
Yates	2780'	Penn. Marker	9950'
San Andres	4020'	Atoka	11,180'
Glorieta	5460'	Miss. Lime	11,770'
Clearfork	5760'	Woodford Sh.	12,420'
Tubb	6390'	Devonian	12,540'
Abo Shale	7720'		

3. Estimated depths at which anticipated water, gas, oil or other mineral bearing formations are expected to be encountered:

Water Zones: Random sands encountered in the gross Penn. section from 9950' to 11,770'.

Gas Zones: None

Oil Zones: San Andres Dolomite at 4800', Bough "C" Sand at 9720' and Devonian Limestone at 12,540'.

Other mineral Zones: None

4. Proposed Casing and Cementing Program:

<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>SECTION LENGTH</u>	<u>SIZE (O.D.)</u>	<u>WEIGHT, GRADE & JOINT</u>	<u>NEW OR USED</u>
SURFACE:					
17-1/2"	0-400'	400'	13-3/8"	48#, H-40, STC	New
INTERMEDIATE:					
11"	0-2400'	2,400'	8-5/8"	24#, K-55, STC	New
	2400-4100'	1,700'	8-5/8"	32#, K-55, STC	New

EXHIBIT "C" cont'd.

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PRODUCTION:

	0-1400'	1,400'	5-1/2"	17#, N-80, BUTT.	New
7-7/8"	1400-11000'	9,600'	5-1/2"	17#, N-80, LTC	New
7-7/8"	11000-T.D.	1,700'	5-1/2"	17#, S-95, LTC	New

- (1) Total depth estimated at 12,700'.
- (2) All LTC & STC joints are 8 rd. thread.

SURFACE: 425 Sxs. of Class "C" containing 2% CaCl. Circulate cement returns to surface.

INTERMEDIATE: 1500 sxs. HALCO Light containing 15# salt, 3# Gilsonite and 1/4# Flocele per sk. followed by 300 sxs. Class "C" containing 2% CaCl.

PRODUCTION: 225 sxs. HALCO Pozmix "A" containing 2% gel and 0.75% CFR-2.

5. Minimum Specifications for Pressure Control:

A schematic diagram of the blowout preventers and auxiliaries is attached as EXHIBIT "G". All pressure control equipment will have an API Series 1500 rating. The preventers will be hydraulically tested to the working pressure or 70% of casing yield after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period. Blind rams and annular preventer will be checked each time pipe is pulled out of hole. Checks of preventers will be noted on the daily drilling report.

Accessories to the preventers will include a kelly cock, floor safety valve and a choke manifold with pressure rating equivalent to the B.O.P. stack.

6. Proposed Mud Program:

<u>INTERVAL</u>	<u>TYPE SYSTEM</u>	<u>WEIGHT, P.P.G.</u>	<u>VISCOSITY, SEC./QT.</u>	<u>WATER LOSS, CC.</u>
0-400'	Spud mud to clean hole.			
400-4100'	Brine & Native	10.0-10.3	32-35	No Control
4100-9500'	Salt Water Base	9.4- 9.6	35-38	No Control
9500-T.D.	Salt Water Base	9.3-9.4	38-60	8-15

Adequate stocks of weighting and lost circulation materials will be maintained on location.

7. Auxiliary control equipment to be used will consist of a kelly cock and a full opening valve equipped with a sub for stabbing into drill pipe. A mud logging unit including a gas detection device will monitor the mud system while drilling below the intermediate casing. Mud system will also be monitored visually.

8. Proposed Testing, Logging & Completion Programs:

All significant shows of oil and/or gas will be drill stem tested. Testing of oil shows in the Bough "C" and Devonian formations is anticipated. A test of the porosity zone in the San Andres formation is also possible.

Schlumberger Well Services Dual Induction Laterolog and Compensated Neutron-Density log will be run from intermediate casing point to total depth. Also, a gamma ray log will be run from surface to total depth.

No coring is planned.

Anticipated Completion Program:

- (a) Move in and rig up completion unit.
- (b) Run combination cement bond and depth correlation log.
- (c) Jet perforate casing opposite zone of completion in the Devonian formation.
- (d) Run 2-3/8" O.D. tubing string. Include Baker Model R-3 packer in string.
- (e) Acidize formation using 1000 gals. of mud acid.
- (f) Swab back acid residue and load fluids and then conduct swabbing and/or flowing production tests.
- (g) Install surface production equipment. Refer to EXHIBIT "I" (Well Site Layout Plat After Location Restoration).

9. No abnormal pressures or temperatures or other potential hazards such as hydrogen sulfide gas are anticipated.

10. Projected start of drilling operations is October 10, 1980. Estimated duration of operations will be 50 days for drilling and 7 days for completion.