

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. LC-068281-A
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Highland Production Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR 810 N. Dixie Blvd., Suite 202, Odessa, Texas, 79761		8. FARM OR LEASE NAME Conoco Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1662' from East line and 2310' from South line. At proposed prod. zone 1662' from East line and 2310' from South line.		9. WELL NO. 2
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 21 Miles SW of Jal, New Mexico		10. FIELD AND POOL, OR WILDCAT East Mason (Delaware)
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 330' FNL	16. NO. OF ACRES IN LEASE 160	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 19, T-26-S, R-32-E, NMPM
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1332'	19. PROPOSED DEPTH 4550'	12. COUNTY OR PARISH Lea
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3170.5 GR		13. STATE New Mexico
22. APPROX. DATE WORK WILL START* March 20, 1987		

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24#	1200 Feet	125 SX Class C Circulate
7 7/8"	5 1/2"	15.5#	4550 Feet	1200 SX HLC/W Class C Circulate

Additional Information:

- Surface formation is Tertiary with some Triassic exposed.
- Estimated geological tops: Rustler - 950', Anhydrite - 1,000', ^{Top} ~~Base~~ Salt - 1,300', Lamar Lime - 4,100', Delaware Top - 4,300'.
- Pressure control equipment: Double hydraulic pressure tested to 3,000 PSI, full closing hydril on top tested to 3,000 PSI. Pressure control diagram is attached. Testing will be on installation, daily and on trips.
- Proposed circulating medium: 0-1,200' - Spud Mud, 1,200-4,500' - Brine Water.
- Estimate will encounter water from 890' to 950'.
- Estimate will encounter oil at 4,370 feet.
- Logging Program: Gamma Ray Neutron Log
- No coring or drill stem testing.
- No abnormal pressures or temperatures are expected to be encountered.
- Anticipated starting date is March 20, 1987.

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. Marvin L. Smith SIGNED Marvin L. Smith TITLE President DATE March 5, 1987

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY David Adams TITLE DATE 3-16-87

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED

MAR 19 1987

PLS
H. J. ...