STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

March 22, 1988

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Enron Oil and Gas Co.
P.O. Box 2267
Midland, TX 79702

Attention: Betty Gildon

Administrative Order TX-186

Dear Ms. Gildon:

Reference is made to your request for an exception to the tubing setting requirements as contained in Division Rule 107(d)(3) for the below-named well.

Pursuant to the authority granted me by Rule 107(d)(4), you are hereby authorized to set tubing at 10,083 feet in the following well:

Harkey 35 State Well No. 1
Unit J, Section 35, Township 24 South, Range 27 East, NMPM, Eddy County, New Mexico

The Division reserves the right to rescind this authority in the event that waste appears to be resulting therefrom.

Very truly yours,

WILLIAM J. LEMAY
Director

WJL/DRC/ag

cc: Oil Conservation Division - Artesia

pVZV2005152231

ENRON
Oil & Gas Company
P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

March 7, 1988

Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Attn: Mr. William J. LeMay
Division Director

In Re: Harkey 35 State #1 - V-1578
Sec. 35, T24S, R27E
Eddy County, NM

Dear Mr. LeMay:

Tubing for the above-named well has been set at 10,083 feet, and casing perforated from 10,364 to 10,380 feet.

This office requests administrative exception to Rule 107d.

Very truly yours,

ENRON OIL & GAS COMPANY

Betty Gildon

Betty Gildon
Regulatory Analyst

BG

enclosures

ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

March 7, 1988

Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, New Mexico 87501

Re: Harkey 35 State #1

Attn: Mr. William J. LeMay
Division Director

Dear Mr. LeMay:

There are several reasons why we feel that completions utilizing a TIW Polish Bore Receptacle or Insert Seal Assembly is the most advantageous method to complete a well.

1. The inside diameter of the seal assembly is the same as the diameter of the tubing. Therefore, there is no restriction that would reduce the size of wireline tools that could be run in the hole.

2. The Polish Bore Receptacle has a full bore opening to the liner below it. This allows us to run bridge plugs, retainers, or bits into the liner if necessary.

3. The seal assembly - PBR hook-up allows for tubing movement while treating the well. It will withstand higher treating pressures during stimulation than would be possible with most other production packers.

4. In most of the wells drilled in this area there are several zones of interest. By having the seal assembly stung into the PBR, the lowest zone can be tested and if non-productive, acidized and tested. All this can be accomplished without pulling the tubing. This can save a considerable amount of time and money.

The Polish Bore Receptacle is run on top of the liner. The Insert Seal Assembly sets in the tie back sleeve at the top of the liner.

We feel that this Packer system not only saves us a considerable amount of time and money, but also is the most reliable Packer system available. Of the several hundred wells in which Enron Oil & Gas Company has utilized this system over the past years, we have had very few failures. If you have any questions, please feel free to give me a call.

Very truly yours,

Betty Gildon

Betty Gildon
Regulatory Analyst

GMH/bg

enclosure

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

Form C-105
Revised 10-1-78

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# OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5a. Indicate Type of Lease: State [X] Fee [ ]
5. State Oil & Gas Lease No.: V-1578

1a. TYPE OF WELL
b. TYPE OF COMPLETION
OIL WELL [ ] GAS WELL [X] DRY [ ] OTHER
NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:
8. Farm or Lease Name: Harkey 35 State
9. Well No.: 1
10. Field and Pool, or Wildcat: Wildcat Wolfcamp

2. Name of Operator: Enron Oil & Gas Company
3. Address of Operator: P. O. Box 2267, Midland, Texas 79702
4. Location of Well
UNIT LETTER J LOCATED 2180 FEET FROM THE south LINE AND 1980 FEET FROM THE east LINE OF SEC. 35 TWP. 24S RGE. 27E NMPM
12. County: Eddy

| 15. Date Spudded | 16. Date T.D. Reached | 17. Date Compl. (Ready to Prod.) | 18. Elevations (DF, RKB, RT, GR, etc.) | 19. Elev. Cashinghead |
|---|---|---|---|---|
| 10/17/87 | 12/6/87 | 2/23/88 | 3171.1' GR | 3171.1' |

| 20. Total Depth | 21. Plug Back T.D. | 22. If Multiple Compl., How Many | 23. Intervals Drilled By | Rotary Tools | Cable Tools |
|---|---|---|---|---|---|
| 12,920' | 12,000' | | → | X | |

24. Producing Interval(s), of this completion — Top, Bottom, Name: 10,364 - 10,380 (Wolfcamp)
25. Was Directional Survey Made: No
26. Type Electric and Other Logs Run: DLL/MSFL, BHC, RFT, CNL/LDT
27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|---|---|---|---|---|---|
| 13-3/8" | 48# | 590' | 17-1/2" | 450 DLW & 225 Cl C | Circulated |
| 9-5/8" | 36# | 2294' | 12-1/4" | 1300 sacks Cl C | Circulated |
| 7" | 23# | 10450' | 8-1/2" | 550 Pozmix & 325 Cl H | - |
| | | | | | |

29. LINER RECORD

| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN |
|---|---|---|---|---|
| 4-1/2" | 10084' | 12920' | 475 Cl H | - |
| | | | | |

30. TUBING RECORD

| SIZE | DEPTH SET | PACKER SET |
|---|---|---|
| 2-7/8" | 10,083' | PBR 10,083' |
| | | |

31. Perforation Record (Interval, size and number)
12648-12652 (.37" 12)
12471-12475 (.37" 10)
12354-12358 (.37" 10)
12349 & 13250 (.37" 4)
12333-12335 (.37" 6) 10364-10380 (.34" 11)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

| DEPTH INTERVAL | AMOUNT AND KIND MATERIAL USED |
|---|---|
| 12333-12652 | sq. w/50 sx. Cl H |
| 10364-10380 | acdz. w/2500 gal 7-1/2% NeFe |
| | |
| | |

33. PRODUCTION

| Date First Production | Production Method (Flowing, gas lift, pumping — Size and type pump) | Well Status (Prod. or Shut-in) |
|---|---|---|
| 2-23-88 | Flowing | SI |

| Date of Test | Hours Tested | Choke Size | Prod'n. For Test Period → | Oil — Bbl. | Gas — MCF | Water — Bbl. | Gas — Oil Ratio |
|---|---|---|---|---|---|---|---|
| 2-24-88 | 24 | 12/64" | | 1 | 416 | 0 | 416 |

| Flow Tubing Press. | Casing Pressure | Calculated 24-Hour Rate → | Oil — Bbl. | Gas — MCF | Water — Bbl. | Oil Gravity — API (Corr.) |
|---|---|---|---|---|---|---|
| 600 | sealed | | | | | 54.0 |

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Vented
Test Witnessed By:
35. List of Attachments: Logs, Inclination survey

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED Betty Gildon TITLE Regulatory Analyst DATE 3/7/88

## INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

## INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

| Southeastern New Mexico | | | | Northwestern New Mexico | | | |
|---|---|---|---|---|---|---|---|
| T. Anhy | | T. Cherry Canyon | 3156 | T. Ojo Alamo | | T. Penn. "B" | |
| T. Salt | | T. Strawn | 11376 | T. Kirtland-Fruitland | | T. Penn. "C" | |
| B. Salt | | T. Atoka | 11612 | T. Pictured Cliffs | | T. Penn. "D" | |
| T. Yates | Brushy Canyon 4296 | T. Miss Morrow Lime | 12103 | T. Cliff House | | T. Leadville | |
| T. 7 Rivers | | T. Devonian Lower Morrow | 12760 | T. Menefee | | T. Madison | |
| T. Queen | | T. Silurian | | T. Point Lookout | | T. Elbert | |
| T. Grayburg | | T. Montoya | | T. Mancos | | T. McCracken | |
| T. San Andres | | T. Simpson | | T. Gallup | | T. Ignacio Qtzte | |
| T. Glorieta | | T. McKee | | Base Greenhorn | | T. Granite | |
| T. Paddock | | T. Ellenburger | | T. Dakota | | T. | |
| T. Blinebry | | T. Gr. Wash | | T. Morrison | | T. | |
| T. Tubb | | T. Granite | | T. Todilto | | T. | |
| T. Drinkard | | T. Delaware Sand | 2340 | T. Entrada | | T. | |
| T. Abo | | T. Bone Springs Lime | 5928 | T. Wingate | | T. | |
| T. Wolfcamp | 9127 | T. 2nd B.S. Sand | 7482 | T. Chinle | | T. | |
| T. Penn. | 11376 | T. Harkey Sand | 8200 | T. Permian | | T. | |
| T Cisco (Bough C) | | T. | | T. Penn. "A" | | T. | |

## OIL OR GAS SANDS OR ZONES

No. 1, from ..... to ..... No. 4, from ..... to .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

## IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from None to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

## FORMATION RECORD (Attach additional sheets if necessary)

| From | To | Thickness in Feet | Formation | From | To | Thickness in Feet | Formation |
|---|---|---|---|---|---|---|---|
| 0 | 627 | 627 | Surface Rock | 9462 | 9742 | 280 | Sand, Lime |
| 627 | 1754 | 1127 | Anhy | 9742 | 9865 | 123 | Lime |
| 1754 | 2198 | 444 | Salt & Anhy | 9865 | 10477 | 612 | Lime, Shale |
| 2198 | 2700 | 502 | Lime, Anhy | 10477 | 10813 | 336 | Chert, Lime, Shale |
| 2700 | 4365 | 1665 | Sand | 10813 | 10968 | 155 | Shale, Lime |
| 4365 | 5600 | 1235 | Sand, Shale | 10968 | 11412 | 444 | Shale |
| 5600 | 6122 | 522 | Sand | 11412 | 11543 | 131 | Lime, Shale |
| 6122 | 7138 | 1016 | Lime, Shale | 11543 | 12011 | 468 | Chert, Lime, Shale |
| 7138 | 8035 | 897 | Lime, Shale, Sand | 12011 | 12150 | 139 | Lime, Shale |
| 8035 | 8370 | 335 | Lime | 12150 | 12287 | 137 | Lime |
| 8370 | 8505 | 135 | Lime, Shale | 12287 | 12358 | 71 | Chert, Lime, Shale |
| 8505 | 8904 | 399 | Lime | 12358 | 12409 | 51 | Lime, Sand |
| 8904 | 9462 | 558 | Lime, Shale, Sand | 12409 | 12502 | 93 | Shale |
| | | | | 12502 | 12920 | 418 | Lime, Sand, Shale |