

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Limark Corporation

3. Address and Telephone No.
P.O. Box 10708, Midland, Texas 79702-7708 915/684-5765

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: 1395' FSL & 1575' FEL, Section 27, T20N, R4W
BHL: same

5. Lease Designation and Serial No.
NM - 98716

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
N/A

8. Well Name and No.
Federal 27 #1

9. API Well No.

10. Field and Pool, or Exploratory Area
Wildcat (Entrada)

11. County or Parish, State
Sandoval, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Initial completion
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Per attached scope of work, we plan to drill out the casing shoe and drill to the Chinle Formation. Then step rate injection test for water injection per BLM/OCD requirements. Then squeeze cement upper portion of 7" casing per previous sundry notice (approved: 02/05/98). Then complete and start production from existing perforations and injection in new open hole section.

Anticipated start date is July 1, 1998.

RECEIVED
JUL 17 1998

OIL CON. DIV.
BOSTON

14. I hereby certify that the foregoing is true and correct

Signed Mark A. Philpy Title President

Date 05/28/98

(This space for Federal or State office use)

Approved by Linda M. Hester Title Lands and Mineral Resources

Date 7-15-98

Conditions of approval, if any:

Approval for completion. Approval to inject from NMOC required.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FEDERAL 27-1

**LIMARK CORPORATION
SANDOVAL COUNTY, NEW MEXICO**

Scope of Work: Rig up. Unseat pump and TOH with rods and production equipment. ND WH. NU and test BOPE. Unseat anchor and tally out with production tubing laying down same. PU 6 1/8" bit, BS, 8 x 3 1/2" collars and TIH on 2 7/8" workstring to PBTD. Establish conventional circulation and drill out float equipment, cement and shoe. Circulate hole clean. Drill out from shoe approximately 66' or to the Chinle Formation whichever occurs first. Circulate wellbore clean and TOH. PU 2 7/8" TP, 7" Baker Lok-Set Model A-3 packer, 2 7/8" on-off tool and TIH on workstring. Set Lok-Set @ $\pm 6,000'$ and perform step-rate injection test per BLM / OCD requirements. Release from on-off tool and TOH w/ workstring.

RU wireline. Pick up 7" retrievable bridge plug ("RBP") and RIH to $\pm 4,500'$. Set RPB. RIH w/ 4" guns and shoot squeeze perforations 4 JSPF @ 4,022'. RD wireline. PU 1 jt 2 7/8" FG TP, 7" compression set packer (Model "R") and TIH on workstring to RBP. Cap RBP w/ 25 sx sand. PU and set packer @ $\pm 3,800'$. Load and pressure backside to 500 psig. Establish circulation to surface via 7" X 9 5/8" annulus. Pump cement per BJ recommendation circulating cement to surface. Displace cement to perforations w/ FW. WOC as recommended.

Unset packer and TOH laying down same. PU 6 1/8" bit, BS, 8 x 3 1/2" collars and TIH on 2 7/8" workstring. Establish reverse circulation and drill-out cement. Test casing to 1500 psig and TOH laying down bit and collars. PU retrieving tool and TIH to RBP. Reverse sand from top of RBP, retrieve and TOH laying down 2 7/8" workstring.

PU 2 7/8" on-off tool and TIH on 3,500' 2 7/8", 6.5#, J-55 EUE injection tubing. PU Baker parallel string tubing anchor and continue TIH w/ 2 3/8" flush connection injection tubing to $\pm 6,000'$. Latch on to Lok-Set and pull 20 pts tension. PU J Latch assembly, 2 7/8" TP, Stator and TIH on production tubing. Land production string into anchor and pull 10 pts tension. ND BOPE. NU WH. PU rotor and RIH on 1" guided rods. Space well out and NU drivehead. POP.

Elevation: GL - 6,847'; KB - 6,864'

Drillers TD: 6,040'

Production casing: 7", 26#, CF-95 LT&C set @ 6,034' MD
7", 23#, CF-95 LT&C c/o @ 71 jts

Intermediate casing: 9 5/8", 36#, ST&C set @ 324' MD

Completion Information:

Entrada:

Perforations @ 5,864' - 5,866' MD
4 JSPF, 12 X 0.42" Perforations)

Treatment Detail:

Natural

Proposed Completion Information:

Entrada:

6 1/8" Open-Hole From 6,034' to Chinle Formation or 6,100'

Treatment Detail:

Natural

PROCEDURE

Day 1

1. MIRU PU. ND Drivehead. Unseat Pump and TOH w/ rods and rotor inspecting same. ND WH. NU and Test BOPE.
2. Unseat TAC. Tally-Out w/ production string and stator laying down same.

Day 2

3. PU 6 1/8" bit, BS, 8 X 3 1/2" DC's, C/O and TIH to PBTD (float equipment @ $\pm 5,946'$). Establish conventional circulation w/ FW*. Drill out float equipment, cement and shoe. Continue drilling Entrada formation for 66' or to top of Chinle Formation whichever occurs first. Circulate wellbore clean w/ FW. TOH.

Day 3

4. PU 1 jt 2 7/8" TP, Baker Lok-Set Model A-3 packer c/w 2 7/8" on-off tool (1.87" profile) and TIH on 2 7/8" workstring. Set Lok-Set @ $\pm 6,000'$. Establish injection into Entrada interval and perform step-rate test per BLM and OCD specifications. Release from on-off tool and TOH w/ workstring.
5. RU Wireline. PU RBP, RIH and set @ $\pm 4,500'$. RIH w/ 4" guns c/w CCL. Log correlation from 4,500' to 3,500' and perforate 4 JSPF @ 4,022'. POOH and RD wireline.
6. PU 1 jt 2 7/8" FG TP, 7" compression set packer (Baker Model "R") and TIH on workstring to RBP. Cap RBP w/ 10 ft sand (~2.5 cf sand). PU to $\pm 3,800'$ and set packer. Establish rate through perforations and circulation via 7" X 9 5/8" annulus w/ FW. Load and pressure backside to 500 psig.
7. RU BJ Services. Pump 450 sx 35:65 poz c/w 1% CaCl₂ and 6% gel followed by 50 sx poz c/w 3% CaCl₂. Circulate cement to surface and displace to perforations w/ FW. WOC as recommended.

Days 4

8. Unseat packer and TOH w/ 2 7/8". PU 6 1/8" bit, BS, 8 X 3 1/2" DC's, C/O and TIH to TOC ($\pm 3,850'$). Tag PBTD and establish circulation w/ FW. Drill out cement and test squeeze to 1,500 psig.
9. TOH w/ workstring laying down bit and collars. PU RBP retrieving tool and TOH on 2 7/8" workstring. Tag PBTD and reverse sand from top of RBP. Latch onto RBP, release and TOH laying down 2 7/8" workstring.

Days 5 & 6

10. PU 2 7/8" on-off tool (1.87" profile) and TIH w/ 3,500' new 2 7/8", 6.50#, J-55 EUE tubing. PU C/O, Baker Model D Parallel String Anchor and TIH w/ 2,500' 2 3/8", 4.60# J-55 IJ tubing. Latch onto Lok-Set packer set @ $\pm 6,000'$ and pull 20 pts tension.
11. PU 2 3/8" J Latch sub, 2 3/8" X 2 7/8" C/O, PS, slimhole stator and TIH on 2 7/8", 6.50#, J-55 EUE production tubing. Space well out, latch into anchor and pull 10 pts tension.
12. PU rotor and RIH on 1" D rods c/w guides. Space well out. NU Drivehead. POP. RDMO PU.

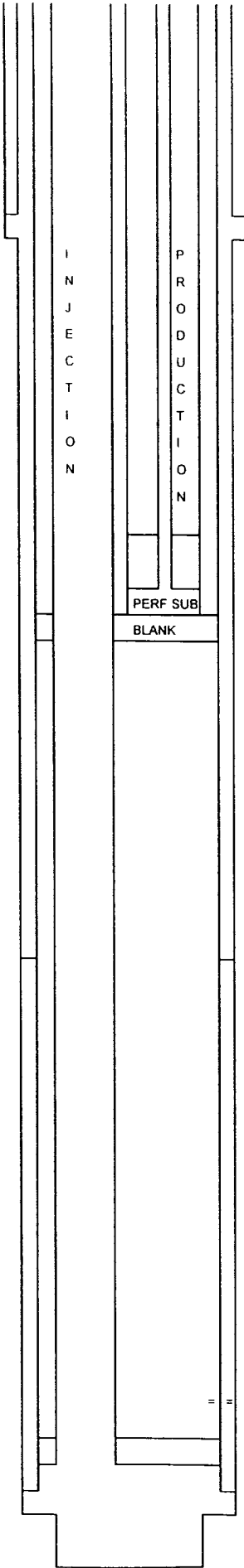
- * If unable to establish circulation, RU Jammers and reduce MW w/ aeration until circulation is established. Maintain circulation w/ increased aeration as required.

LIMARK CORPORATION

FEDERAL 27-1 WELL
1395' FSL & 1575' FEL
SECTION 27, T 20 N, R 4 W
SANDOVAL COUNTY, NEW MEXICO

WELLBORE SCHEMATIC

KB - 6864'
GL - 6847'



SURFACE CEMENTING DETAIL
225 SX CLASS 'B' - CIRCULATED TO SURFACE

SURFACE CASING DETAIL
7 JTS - 9 5/8" 36.0#/FT ST&C SET @ 324.24'

SURFACE HOLE - 12 1/4" @ 326'

PROPOSED UPPER INJECTION STRING
2,500' - 2 3/8" FLUSH JOINT (OD - 2.375")

PROPOSED PRODUCTION TUBING
2,500' - 2 7/8" TUBING (COLLAR OD - 3.6")

PROPOSED ROD STRING
2,500' - 1" RODS WITH ROD GUIDES

PROPOSED PUMP
3.5" OD PROGRESSIVE CAVITY PUMP
SET AT 2,500'

PROPOSED ANCHOR
BAKER - MODEL D PARALLEL STRING
ANCHOR WITH J LATCH SUB

PROPOSED FINAL CEMENTING DETAIL
450 SX CLASS 'H' (35/65 POZ)
W/ 1% CaCl + 6% GEL
+ 50 SX POZ W/3% GEL

PROPOSED LOWER INJECTION STRING
3,500' - 2 7/8" TUBING

LONG STRING CEMENTING DETAIL
250 SX CLASS 'B' W/ 2% SODIUM METASILICATE
+ 150 SX CLASS 'H' W/ 2% GEL
CEMENT TOP @ 4022'

LONG STRING CASING DETAIL
1 JT - 7" 23#/FT J-55 LT&C (ID - 6.241" DRIFT)
70 JTS - 7" 23#/FT C-95 LT&C (ID - 6.241" DRIFT)
69 JTS - 7" 26#/FT C-95 LT&C (ID - 6.151" DRIFT)
7" FLOAT COLLAR @ 5945.65'
2 JTS - 7" 26#/FT LT&C
7" CEMENT SHOE @ 6033.37'

PROPOSED INJECTION PACKER
BAKER - MODEL A-3 LOK SET RETRIEVABLE
CASING PACKER SET AT 6,000'

PERFORATIONS
5864 - 66' (12 - 0.42" HOLES)

PROPOSED OPEN HOLE
6 1/8" 6034' - 6100'

8 3/4" HOLE @ 6040'