

WELL WORK RECOMMENDATIONS
Proposals for Well Reconditioning and Subsurface Maintenance
Workovers, Expense DD's, PB's, and Conversions

Lease: NORTH VACUUM ABO UNIT Well No. 157
Field: NORTH VACUUM (ABO)
County: LFA State: NEW MEXICO

RECOMMENDED PROCEDURE:

1. MOVE IN A PULLING UNIT, PULL THE PRODUCING EQUIPMENT,
AND CLEAN THE WELL OUT TO P.P.T.D. OF 10,490.

2. SPOT 500 GALS OF 15% NON-EMULSION, HCL ACID IN THE
BOTTOM OF THE HOLE AND PERFORATE THE FOLLOWING INTERVALS
IN THE ABO FORMATION WITH 1 JET PER PLANE:

8,570' 8,576' 8,592' 8,604' 8,634'

8,571' 8,584' 8,594' 8,606' 8,637'

8,572' 8,586' 8,597' 8,628' 8,640'

8,575' 8,588' TOTAL - 70' OR - 17 HOLES

PERFORATIONS WERE SELECTED FROM SCHLUMBERGER'S PDC LOG DATED 8-6-7.

3. TREAT THE ABO PERFORATIONS (8,570' - 8,640') (70' OR - 36 HOLES)
WITH 1,000 GALS OF THE FOLLOWING CLEANOUT SOLUTION:

A. 800 GALS OF XYLENE BOTTOMS.

B. 200 GALS OF 15% REGULAR, HCL ACID,

C. 2 GALS OF ADOFOAM (10 GALS OF ADOFOAM / 1000 GALS OF ACID).

NOTE: BLEND THE ADOFOAM INTO THE ACID PRIOR TO MIXING
THE ACID AND XYLENE BOTTOMS.

DISPLACE 800 GALS OF THE CLEANOUT SOLUTION INTO
THE FORMATION AND ALLOW THE REMAINING 200 GALS
TO SOAK THE FORMATION FACE FOR 24 HRS.

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RECOMMENDED PROCEDURE:

4. SWAB AND CLEAN UP THE WELL UNTIL ALL THE CLEANOUT SOLUTION HAS BEEN REMOVED.

5. ACIDIFY THE ABO PERFORATIONS (8,570'-8,640') (70' CA-36 HOLES) WITH 5,000 GALS OF 15% NON-EMULSION, IRON-STABILIZED, HCL ACID. TREAT AT 2 TO 5 BBL/MIN AND INJECT A SUFFICIENT QUANTITY OF RUBBER-COVERED NYLON BALL SEALERS TO OBTAIN A COMPLETE BALL-OUT. APPROXIMATELY 55 BALL SEALERS WILL BE REQUIRED. RELEASE THE BALL SEALERS AND INJECT 15,000 GALS OF FRESH WATER TREATED WITH 2 GALS OF ADMALL / 1000 GALS OF WATER.

6. RUN 2" (BUTTFUS THREAD COUPLING, N-80) INJECTION TUBING AND A MODEL "NB" PICKER*. LOAD THE TUBING-CASING ANNULUS WITH FRESH WATER TREATED WITH 10 GALS OF CORTRON 2207 / 1000 GALS OF WATER. SET THE PICKER APPROXIMATELY 50' ABOVE THE INJECTION INTERVAL.

7. PUT THE WELL ON INJECTION. NOTE: A HIGH PRESSURE ALTERNATE GAS AND WATER INJECTION PROJECT IS PLANNED.

* REFER TO ATTACHED SKETCH FOR PICKER HOOK-UP DETAIL.

5-14-73 JN

Oper. Engr.
Form - 1/73

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DIAGRAMMATIC WELL SKETCH
NORTH VACUUM ABO UNIT WELL NO. 157
NORTH VACUUM (ABO) POOL
LEA COUNTY, NEW MEXICO

GL ELEV = 4,038'
 ELEV =

13 3/8" - 48 #/ft. H-40 SET WT 1375 SX.
 Min. Burst Press = 1730 CIRC.

— 350'

2 7/8" Tubing 2016' to surface
 J-55

LINER TOP —

— 4,308'

9 5/8" - 40 #/ft. S-95 SET WT 2900 SX.
 Min Burst Press. = 5750 CIRC.

— 5,000'

2 3/8" N-80 Tubing

Hydramite
 C.I. BP. —

ABO PERFORATIONS

8,585' - 8,639' - 540A - 19 HOLES

— 8,703'

— 10,490' PBD

— 10,500'

UPPER PENN PERFS.

10,578' - 10,710' - 22 HOLES

— 11,766'

— 11,791'

Tubing cut off 11,788'

BAKER MODEL "D" PKR. —

Plug set in F nipple at 11,826'

MORROW PERFS.

11,887' - 11,908' - 21 HOLES

— 12,500' T.D.

7" - 26 #/ft. S-95 SET WT 12100 SX. CIRC.
 MIN. BURST PRESS = 5870
 11-23-73
 (11-23-73)