



(SUBMIT IN TRIPPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYLand Office Santa Fe
Lease No. H.M. 02427
Unit L

SUNDRY NOTICES AND REPORTS ON WELLS

RECEIVED
SUN 21 1961

- NOTICE OF INTENTION TO DRILL
NOTICE OF INTENTION TO CHANGE PLANS
NOTICE OF INTENTION TO TEST WATER SHUT-OFF
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL
NOTICE OF INTENTION TO SHOOT OR ACIDIZE
NOTICE OF INTENTION TO PULL OR ALTER CASING
NOTICE OF INTENTION TO ABDONMENT

- SUBSEQUENT REPORT OF WATER SHUT-OFF
SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
SUBSEQUENT REPORT OF ALTERING CASING
SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
SUBSEQUENT REPORT OF ABDONMENT
SUPPLEMENTARY WELL HISTORY

D. C. C.
ARTESIA OFFICE

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

June 14, 1961

Leonard FederalWell No. 1 is located 1980 ft. from S line and 660 ft. from W line of sec. 34NW 1/4 of SW 1/4 Sec. 34 16S
(Sec. and Sec. No.)30EM. M. P. M.

(Range)

(Meridian)

Square Lake
(Name)Eddy

(County or Subdivision)

New Mexico

(State or Territory)

The elevation of the derrick floor above sea level is 3742 ft.

U.S. GOVERNMENT PRINTING OFFICE

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

This well was original drilled by Sanders Bros. and completed in Oct. '41 to T.D. 2980' and re-completed in Sept. '45 to T. D. 3110'. In Nov. '55, well was P.R.A. W propose to re-enter surf. hole and clean out to top of 8 5/8" casing (shot off at 175'), run new 8 5/8" 24# J-55 and screw back into old casing and test surf. pipe to 485' for water shut-off. Proceed to clean out and drill cement plug, enter 5 1/2" casing (shot off 1668'), then proceed to old T.D. (3110'). We will completely seal off all the old open hole with cement 2920' to 3110'. Pull back up and set cement plug in top of 5 1/2" stub between 1668' & 1680'. At approx. 1650 to 1660' will set whipstock (approx. 3° off) to kick out and drill new hole to approx. 3200'. Set oil string to T.D. (either 4 1/2" or 5 1/2" new elec. well casing and perforate and complete in Grayberg or San Andres section, all according to Gov't specification. Later, after permission is obtained, it is planned for this well to be used as a water injection well.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company J. CLEO THOMPSONAddress 1203 Kirby Blk.Dallas 1, TexasBy Jimmie Thompson
Title Chief Engineer

1. A sequence of numbers $\{x_n\}$ is called bounded if there exists a number M

such that for every n , $x_n < M$ and $x_n > -M$. Prove that if a sequence of real numbers is bounded, then it has a limit point.

2. Consider the following two statements: a) every Cauchy sequence is convergent; b) every Cauchy sequence is bounded. Which of these statements is true? Justify your answer.

3. Prove that if a sequence of real numbers is bounded, then it has a limit point.

4. Prove that if a sequence of real numbers is bounded, then it has a limit point. Hint: consider the following sequence of points in the interval $[0, 1]$: