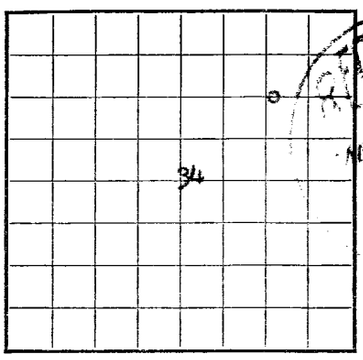
Form 9-330

Form approved.
Budget Bureau No. 42-R355.4.

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER SF-078714
LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company E. Lewm & Maiatico Address P. O. Box 351, Durango, Colorado
Lessor or Tract Humble Oil & Ref. Co. Field Undesignated State New Mexico
Well No. 1 Sec. 34 T. 24N R. 8W Meridian N.M.P.M. County San Juan
Location 790 ft. {N. / S.} of N Line and 790 ft. {E. / W.} of E Line of said Sec. 34 Elevation 6828 KB (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed John F. Mitchell
Date March 20, 1962 Title Agent

The summary on this page is for the condition of the well at above date.

Commenced drilling August 25, 1961 Finished drilling September 7, 1961

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

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

No. 1, from ____ to ____ No. 3, from ____ to ____
No. 2, from ____ to ____ No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
8 5/8"	24#	8 rnd		246'	Open guide				Surface
4½"	11.6#	8 rnd		6522'	Open guide		6390'	6394'	
							5219'	5214'	

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8"	246'	175	Pump	———	———
4½"	6522'	350 (shoe)	Pump		PBD 6490'
		(Leak at 417'.. Squeezed with 100 sacks)			

PLUGS AND ADAPTERS

Heaving plug—Material Plugs, Squeeze Length 760' Depth set 5690' to 6450'
Adapters—Material Squeeze Cement Size 225' 5230' to 5005'
25' 0' to 25'

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 6535 feet, and from T.D. feet to ____ feet
Cable tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet

DATES

Abandoned February 17, 1962 Put to producing Test on pump December 12, 1961.

The production for the first 24 hours was 20 barrels of fluid of which 100% was oil; no% emulsion; no% water; and no% sediment. Gravity, °Bé 37° API

If gas well, cu. ft. per 24 hours ____ Gallons gasoline per 1,000 cu. ft. of gas ____

Rock pressure, lbs. per sq. in.

FOLD | MARK

Form approved
Budget Bureau No. 42-R014.

U. S. LAND OFFICE .....

Serial Number .....

Lease or Permit to Prospect .....

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company ..... Address .....

Lessor or Tract ..... Field ..... State .....

Well No. ..... Sec. ..... T. ..... R. ..... Meridian ..... County .....

The information given herein is complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signature ..... Title .....

The summary on this page is for the condition of the well at above date.

Commenced drilling ..... 19.. Finished drilling ..... 19..

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

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

No. 1, from ..... to ..... No. 3, from ..... to .....

No. 2, from ..... to ..... No. 4, from ..... to .....

CASING RECORD

Size of casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From	To	Purpose

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "skidded" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

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MUDDING AND CEMENTING RECORD

Size of hole	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

..... 19.. Put to producing ..... 19..

The production for the first 24 hours was ..... barrels of fluid of which ..... % was oil; ..... % emulsion; ..... % water and ..... % sediment.

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

ATTACHED TO AND MADE PART OF THE LOG OF OIL OR GAS
WELL REPORT DATE MARCH 20, 1962: SF-078714

History of Oil or Gas Well:

8-25-61: Spudded well. Drilled to 250' and cemented 8 5/8" csg. at 246' with 175 sacks. circulated cement.

8-26 thru 9-6-61: Drilled 7 7/8" hole to 6535'. Ran Schlumberger Sonic-Gamma 6535' to 4000'....Induction-ES 6535'

9-7-61: Cemented 304 joints 4½" csg. at 6522' with 300 sacks of 50/50 pozmix followed by 50 sacks of neat cement. Open guide shoe in bottom with float collar at 6490'. Float failed, therefore, held pressure on casing and landed in head immediately.

9-10-61: Moved in Stone Completion Rig. Mercury ran cement top log from float collar at 6490' to 4700'. Found indicated cement top at 4864'. Perforated 4½" csg. 6392-6384'(2nd Dakota) with six 3 1/8" Dyna-jets per foot. Treated 2nd Dakota with sand-water frac through 4½" csg. using 30,000# 20-40 sand and 29,000 gals. of "slick" water treated with 1% $CaCl_2$;(7# J-2 per 1000 gals. and 25# F-4/1000 gals mixed only in first 10,000 gals of water) Initial breakdown 3800#, momentarily dropped to 1550# at 11 B/M and increased to 2400# at 36 B/M. Started sand at ¼#/gal. and increased to 1#. Injection pressure dropped to 1925# when sand hit formation. Increased sand to 1 ¼# at 49 B/M injection rate. Flushed sand with 130 bbls. of water calculated to over flush by 26 bbls. Instant S.I. pressure 1150#. Average injection rate 35.4 B/M. Well stood for 2 hrs. and casing went on vacuum. Ran tubing and found top of sand at 6465' (25' fill above float collar at 6490') Pulled up and landed tubing at 6312' (72' above perforation) Swabbed 130 bbls. of water. No gas.

9-11,12-61: Swabbed back and recovered all load water and continued swabbing formation water but failed to lower fluid level below 1200' while swabbing at rate of 440 B/D. Swabbed at total of 1070 bbls. of water.

9-13-61: Plugged 2nd Dakota, perforations 6384-92' with 65 sacks of cement. Equalized thru 2" tubing hung at 6450'. Pulled up and loaded hole and squeezed. Stood 4 hrs. Found top of plug at 5690' indicating 10 sacks squeezed to perforations. Pressure tested 4½" csg. and fluid pumped away. Located leak in 4½" csg. at 4178' by use of Howco Retrievable packer. Squeezed 4½" csg. leak at 4178' thru 2" tbg set on packer at 3860' with 100 sacks of neat cement treated with 2% $CaCl_2$ and ¼#/sack of Flocele. Displaced 80 sacks thru leak. Squeezed to 3500 p.s.i.g. for 11 min. Calculated top at 3930'.

9-14-61: Released packer and pulled out. Ran back with bit. Standing cemented.

9-15-61: Found top of cement at 3931' and drilled out hard cement to 4178'. Ran to 5680' and displaced water with oil and spotted 350 gals. of acid on bottom. Mercury perforated 4½" csg. 5214-5219' with six 3 1/8" Dyna-jets/ft.

9-15-61: Treated Gallup (5214 to 5219') with sand-oil frac using 34,000 gals. of oil and 19,000# 20-40 sand followed by 10,000# 10-20 sand. Breakdown pressure 2500 p.s.i.g. Average treating pressure 2900 Psig Maximum and final pressure 3100 psig. Started sand at ½#/gal. & increased in ¼# increments up to maximum of 1¼#/gal. Average injection rate 27.1 B/M at 0.9#/gal. Instant S.I. pressure 2700 psig. Closed in 3 hours. Bled to tanks and flowed 115bbls. Started swabbing.

9-16 thru 9-18-61: Well was alternately swabbed and flowed to tanks. Oil rate declined from 50 B/D to 8 B/D. Landed tubing at 5179' and moved out completion rig.

9-19 thru 12-2-61: Well flowed through 14-26/64" choke with 100 psig tubing pressure & 250 psig casing pressure. Recovered all load oil and produced 129 bbls. new oil. Average daily rate 8 bbls, no water.

12-3 to 12-5-61: Moved in Lehman Service rig and ran 2" X 1¼" X 12' insert pump with anchor and set in 2" tubing at 5155'/ Well flowed through casing. Difficult to keep engine running. Installed Separator. ~~Started pump~~

12-20-61: Started Pump.

1-30-62: Shut well in. Produced 420 bbls on pump at average of 9 B/D.

2-17-62: Moved in Lehman Service Rig. Pulled rods & pump. Hung tubing at 5230' and equalized 20 sacks. Pulled to 4855'. Cleared tubing and shut in. Felt for top after cement set and found top of solid cement at 5005' which calculates 3.6 sacks squeezed into perforations at 5214-5219'. Pulled and laid down tubing. Placed 25' cement plug in top of 4½" casing and salvaged casing and tubing head. Welded and cement 4½" marker in top of 8 5/8". Well Abandoned 2-17-62.