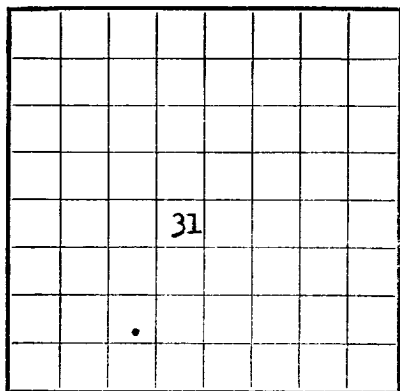




LOCATE WELL CORRECTLY



U. S. LAND OFFICE Santa Fe
SERIAL NUMBER NM 019411
LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

JUN 1962

LOG OF OIL OR GAS WELL

Company Southern Union Production Co. Address P. O. Box 808, Farmington, N. M.
Lessor or Tract Federal Und. Mesaverde
Field Basin Dakota State New Mexico
Well No. 1-31 Sec. 31 T30N R. 11W Meridian N.M.P.M. County San Juan
Location 790 ft. {N.} of S Line and 1850 ft. {E.} of W Line of Section 31 Elevation 5857

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 G. D. Noland Jr.
G. D. Noland, Jr. Title Drilling Superintendent

Date May 28, 1962

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

Commenced drilling ----- 3/23 -----, 19 62 Finished drilling ----- 4/30 -----, 19 62

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6710 to 6698 KD-G No. 4, from 6484 to 6592 KD-G
No. 2, from 6560 to 6588 KD-G No. 5, from 3740 to 3737 NV-G
No. 3, from 6632 to 6624 KD-G No. 6, from 3728 to 3727 NV-G

IMPORTANT WATER SANDS

No. 1, from _____ to _____

No. 2, from _____ to _____

No. 3, 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		Purpose
							From—	To—	
10-3/4	42.75	10.00	1-1/2	38.75	10.00	10.00	10.00	10.00	10.00
1-1/2	2.75	10.00	1-1/2	38.75	10.00	10.00	10.00	10.00	10.00
1-1/2	2.90	10.00	1-1/2	38.75	10.00	10.00	10.00	10.00	10.00

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4	289 kb	250 sacks	Circ.	**	
5-1/2	6762 kb	1330 Cu. Ft.			
1-1/2	3684				
1-3/2	6345				

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
Perf 4 shots/ft. 6716-6698, 6560-6588, 6632-6624, 6484-6502. Sand-water frac w/68,000						
20-40 sand and 77180 gal. water. N.V. Formation. Perf 3 shots/ft. 3740-3737, 3728-3727 complete natural. Spotted 250 gal. 15% BSA and pump into formation.						

TOOLS USED

Rotary tools were used from 0 feet to 6773 feet, and from feet to feet.

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

DATES

-----5/23, 1962----- Put to producing -----, 19-----

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

If gas well, cu. ft. per 24 hours $Q = 2981$ KD _____
 Gallons gasoline per 1,000 cu. ft. of gas _____

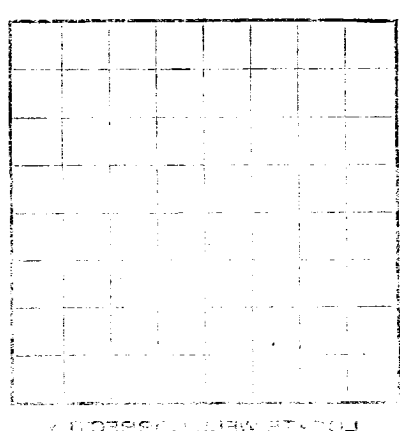
Rock pressure, lbs. per sq. in. ----- $\sigma = 3250$ $\sigma_{\text{AV}} - \sigma_{\text{AOF}} = 3483$, SITP 1961,
 $\sigma_{\text{AV}} - \sigma_{\text{AOF}} = 4305$, SITP 1244, SICP 1245

EMPLOYEES

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
Surf	775	775	Wasatch
775	1775	1000	Kirtland
1775	2040	265	Fruitland
2040	2155	115	Pictured Cliffs
2155	3630	1475	Lewis
3630	4710	1080	Mesaverde
4710	6436	1726	Mancos
6436	6773	337	Dakota

** Stage collars set @ 4006' & 2209'. Cmt first stage w/220 cu. ft. 50-50 Pozmix w/ 6% Gel., 12% Gilsonite/sk and 100 cu. ft. 50-50 Pozmix, 2% Gel. 6% Gilsonite/sk. Cmt second stage w/250 cu. ft. 50-50 Pozmix w/2% Gel & 12% Gilsonite/sk. Cmt third stage w/760 cu. ft. 40% Diacel "D" & 4% Calcium Chloride.



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Name
Address
State
County
Well No.
Location
The information given herewith is a complete and correct record of the well and all work done thereon
Signed
Date

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

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1 from to
No. 2 from to
No. 3 from to
No. 4 from to
No. 5 from to
No. 6 from to

IMPORTANT WATER SANDS

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

CASING RECORD

Size	Weight	Threads per inch	Make	Amount	Kind of steel	Cut and drilled from	Tested	Purpose
							From	To
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 "struck" 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.								

HISTORY OF OIL OR GAS WELL

MUDDING AND CEMENTING RECORD

Size	Weight	Amount of mud used	Method used	Mud gravity	Amount of mud used

PLUGS AND ADAPTERS

Heaving plug - Material
Adapters - Material
Length
Depth set

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

The production for the first 24 hours was
% water; and % sediment
If gas well, cu. ft. per 24 hours
Rock pressure, lbs. per sq. in.

EMPLOYEES

Driller
Driller
Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION