

U. S. LAND OFFICE Santa Fe, New Mex.  
SERIAL NUMBER SF 078064  
LEASE OR PERMIT TO PROSPECT \_\_\_\_\_


LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address 101 South Behrend, Farmington, New Mex.  
Lessor or Tract Carson Unit Field Bisti State New Mexico  
Well No. 21-13 Sec. 13 T. 25N R. 12W Meridian NMPM County San Juan  
Location 660 ft. S. of N Line and 1880 ft. E. of W Line of Sec. 13 Elevation 6365 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 \_\_\_\_\_

Date May 27, 1958 Title Exploitation Engineer

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

Commenced drilling April 15, 19 58 Finished drilling April 20, 19 58

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

No. 1, from 4860 (gross) to 4974 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		Purpose
							From—	To—	
8 5/8"	24	8	Nat'l	93	Baker	----	----	----	Surface
4 1/2"	9.5	8	----	4999	Baker	----	4860	4974	Production
							(gross)		

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8"	103'	100	Displacement	----	-----
4 1/2"	5007	150	Displacement	----	-----

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 0 feet to 5010 feet, and from ---- feet to ---- feet  
Cable tools were used from ---- feet to ---- feet, and from ---- feet to ---- feet

DATES

May 27, 19 58 Put to producing May 15, 19 58

The production for the first 24 hours was 870 barrels of fluid of which 99.9 % was oil; \_\_\_\_\_ % emulsion; \_\_\_\_\_ % water; and 0.1 % sediment. Gravity, °Bé. Approx. 39° API

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

Rock pressure, lbs. per sq. in. \_\_\_\_\_

EMPLOYEES

W. Black, Driller C. Adams  
Brinkerhoff Drilling Co., Driller  
E. Babcock, Driller \_\_\_\_\_, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
1184	1395	211	Pictured Cliffs
1395	1565	170	Lewis
1565	2037	472	Cliff House
2037	3690	1653	Allison Menefee
3690	3846	156	Point Lookout
3846	4760	914	Mancos
4760	----	---	Gallup

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 "sidetracked" 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

SHELL OIL COMPANY

Carson Unit

WELL NO. 21-13

## DRILLING REPORT

FOR PERIOD ENDING

13

(SECTION OR LEASE)

T25N, R12W

(TOWNSHIP OR RANCHO)

Bisti

(FIELD)

San Juan, New Mexico

(COUNTY)

4-21-58

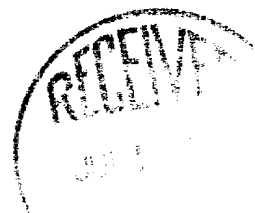
DAY	DEPTHS		REMARKS
	FROM	TO	
			<p><u>Location:</u> 660' S and 1880' E of NW Corner, Section 13, T25N, R12W, N.M.P.M., San Juan County, New Mexico</p> <p><u>Elevations:</u> DF 6364.1 GR 6356.4 KB 6365.3</p>
4-15 to 4-16	0	2234	Spudded 1:15 P.M. 4-15-58. Ran and cemented (93') 8-5/8" 24#, J-55, Nat'l. casing at 103' with 100 sacks cement treated with 2% calcium chloride. Good returns to surface. Flanged up and waited on cement. Pressure tested BOP and casing with 700 psi, OK.
4-17 to 4-20	2234	4889	<u>Drilled 2655'</u>
4-21	4889	5010	<p><u>Drilled 121':</u> Ran electrical survey and microlog. Ran and cemented (4999') 4-1/2", 9.5# casing at 5007' with 150 sacks cement treated with 4% gel displaced with oil. Released rig 9:15 P.M. 4-21-58.</p> <p>Checked BOP daily Mud Summary</p> <p>Wt. 9.2 - 9.7#/gal. Vis 37 - 85 sec WL 8-12 cc FC 2/82"</p> <p>Contractor: Brinkerhoff Drilling Co.</p> <p>Drillers: W. F. Black E. Babcock C. C. Adams</p>

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		

DRILL PIPE SIZES



R. D. Allen

SHELL OIL COMPANY

Carson Unit

WELL NO. 21-13

Bisti

## DRILLING REPORT

FOR PERIOD ENDING

13

(SECTION OR LEASE)

San Juan, New Mexico

(COUNTY)

4-21-58

T25N R12W

(TOWNSHIP OR RANCHO)

DAY	DEPTHS		REMARKS
	FROM	TO	
4-28	5010	TD	Ran Gamma Ray - collar log. Perforated w/four $\frac{1}{2}$ " bullet holes/ft. 4860-86', 4890-4900', 4940-4954', and 4958-4974'.
4-30			Ran tubing to 4964'.
5-1			Spotted 200 gal. mud acid, <u>Sand Oil Fracture #1</u> . Broke down formation at 2200 psi, injected 18,000 gal. crude and 18,000 # sand. Blender locked. Flushed with 120 bbl. crude.
5-2			Broke down formation at 2650'. Injected 4000 gal. crude with 1#/gal. sand, dropped 50 nylon core balls. Injected 5000 gal. crude and 1#/gal. sand, dropped 50 nylon core balls. (Pressure increased from 2650 to 2700). Injected 10,000 gal. crude with 1#/gal. sand, dropped 50 nylon core balls. (Pressure increased from 2700 to 2750 psi) Injected 5000 gal. crude and 1#/gal. sand, dropped 25 nylon core balls. (Pressure increased from 2750 to 2900 and broke back to 2800).
			Injected 5000 gal. crude with 1#/gal. sand, dropped 25 nylon core balls. (Pressure increased from 2800 to 3400 psi. Injected 10,000 gal. crude and 1#/gal. sand. Flushed with 160 bbls. Maximum pressure 3400 psi, minimum pressure 1800 psi, average rate 31.4 bbl./min.
5-3			Cleaned out frac sand from 4960 to 4990. Landing tubing at 4852'.
5-4			Swabbed 110 bbls, well began to flow.
5-5			Well died, swabbed well in.
5-6			Well died, swabbed to flowing.
5-7			Well died, reswabbed to flowing.
5-8 to 5-14			Flowed and recovered all load and frac oil, 1640 bbls.
5-15			<u>INITIAL PRODUCTION</u> Flowing, 870 B/D gross, 869 B/D clean, cut 0.1%, 64/64" bean, 387 MCF/D, GOR 442, TP 450. Completed 5-15-58

## CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	115	8-5/8"	103'
7-7/8"	115	5010	4-1/2"	5007'
DRILL PIPE SIZES 4-1/2"				

E. B. Johnstone