

U. S. LAND OFFICE Jicarilla
 SERIAL NUMBER Apache Contract
 LEASE OR PERMIT TO PROSPECT #87

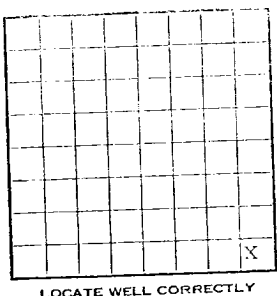
UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY

RECEIVED

JUL 29 1959

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. MEXICO

LOG OF OIL OR GAS WELL



LOCATE WELL CORRECTLY

Company Consolidated Oil & Gas, Inc. Address Rm. 312, 1740 Broadway, Denver, 2, Col.
 Lessor or Tract Jicarilla Field Wildcat State New Mexico
 Well No. 1 Sec. 15 T. 27N R. 2W Meridian NMPM County Rio Arriba
 Location 820 ft. [N] of N. Line and 792 ft. [W] of E. Line of Sec. 15 Elevation 7357 KB

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 Harry A. Trueblood, Jr.
 Title President

Date July 24, 1959

The summary on this page is for the condition of the well at above date.
 Commenced drilling (under surface) 4-14-1959. Finished drilling 6-20, 1959.
 7-24-59 P&A

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	Male	Set at	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From	To	
10 3/4	32.75	8	H-40	281	Guide	-	-	-	Surface
7 5/8	26.4	8	J-55	3758	Float	980	-	-	Intermediate
6 5/8	24	8	X-line	3979	Guide (Top @ 3668')	-	-	-	Liner
4 1/2	11.6	9	J-55	8382	Float	5592	7422	7940	Liner

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4	281	200 - Circ. to Surface	with water		
7 5/8	3758	150 W/6% gel.	2 plug water		
6 5/8	3758	Top & Bottom squeezed with 250 sacks			
4 1/2	8382	150 W/6% gel.	Liner water (Top @ 3518)		

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 3445 feet, and from feet to feet
 Cable tools were used from feet to feet, and from feet to feet

DATES

P & A July 24, 1959
 P&A producing

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 Gallons gasoline per 1,000 cu. ft. of gas

Rock pressure, lbs. per sq. in.

EMPLOYEES

Huron Drilling Company, Driller
 , Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
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See Welex Radioactivity Log of 7-4-59 & Schlumberger Induction-Electrical Log of
 5-7-59:

Tops:				
	Pictured Cliffs	3791'	Mancos	6098'
	Mesa Verde	5406'	Gallup	7285' (Perhaps as high as 7132'?)
	Menefee	5650'		
	Pt. Lookout	5948'	Greenhorn	8244'
			Dakota	8338'

Plugged & Abandoned as follows:

- (1) Placed cast iron bridge plug at 6000 feet with 25 feet cement on top.
- (2) Cut and pulled 4 1/2" liner from 5592 feet.
- (3) Cut and pulled 7 5/8" casing from 980 feet.
- (4) Placed 65 sack cement plug 1100-900 feet and 10 sack plug at surface with regulation marker.
- (5) Filled between plugs with mud. P&A 7-24-59.

DRILLING & COMPLETION SUMMARY

- (1) Set 10 3/4" surface casing @ 281'. Circulated cement to surface.
- (2) Drilled to 3784' where encountered very serious lost circulation in basal Fruitland. Cavernous zone @ 3780'.
- (3) After extensive lost circulation and fishing job ran and set 7 5/8" casing at 3758' and cemented with 150 sacks W/6% gel. Used hole bridge below at 3770'.
- (4) Drilled ahead to 3979' through Pictured Cliffs and set 6 5/8" F. J. Liner 3668'-3979'. Squeezed Liner top and shoe several times before getting effective shut off. Pictured Cliffs established as wet via gas and mist drilling attempts below 7 5/8" shoe.
- (5) Gas drilled to 7600 feet with nothing but minor unmeasurable gas show in Mesa Verde at about 6000'.
- (6) In the interval 7580'-7620' picked up 140 MCFD natural gas flow which sustained throughout remaining operation.
- (7) In the interval 7900' - 7920' a 46° API - 60° F Pourpoint oil seep was encountered. This prevailed to T.D. and provided extensive trouble in that were never able to dust again.
- (8) Drilled without returns of cuttings to 8410'. However, the hole remained essentially dry of fluids---merely plastering the drill pipe with oil wet cuttings. Pulled drill pipe every 30'-60' to clean.
- (9) Because of repeatedly becoming stuck, ran 4 1/2" liner 3518'-8382' and cemented with 100 sacks W/6% gel. Total depth then 8410'.
- (10) Gas flow shut off by liner but ineffective cement job did not shut off oil entry.
- (11) Drilled with gas without returns to 8445' - Final T.D.
- (12) Mudded up - got stuck in 3 3/4" hole below 4 1/2" liner and after extensive fishing had to cut off @ 8381'. Left bit-sub-10' of 2 3/8" drill pipe(tubing)-30' of 3" wash pipe W/cluster to shoe - Bumper sub-jars in that order.
- (13) Set C. I. retainer @ 8129' and squeezed Dakota open hole and liner shoe with 60 sacks regular cement. Squeezed to 3000 psig while displacing to retainer depth.
- (14) Perforated Gallup as follows:

7422-26	(4')	7589-7610	(21')
7428-38	(10')	7683-89	(6')
7469-76	(7')	7773-85	(12')
7483-87	(4')	7789-94	(5')
7490-96	(6')	7811-15	(4')
7508-14	(6')	7822-27	(5')
7523-26	(3')	7832-36	(4')
7538-42	(4')	7865-7940	(75')
7556-79	(23')	Total	(199')
- (15) Sand-water Frac Summary: Ran 3 1/2" tubing with squeeze packer and set in top of 4 1/2" liner at 3,520' - tested tubing to 4 000 psig. - OK. Pumped into formation at 10.5 BPM at 3,700 psig - no distinct breakdown -- pumped in 2,100 gallons. Started sand at 1/4#/gallon for 11,000 gallons - pressure ranging from 3,000 to 3,500 psig - increased to 1/2 pound per gallon for 15,600 gallons with pressure dropping to 2,500 psig at 25-30 BPM. Increased sand concentration slowly to 1#/gallon and pumped about 12,600 gallons at that concentration. Dropped 25 balls but before they were in place pressure jumped to 4000 psig - slowly flushed with water at 3,900 psig, but could only get 2,940 gallons away. Ran wire line and found sand fillup to 7,485'.

Job Summary

50,000 gallons water
20,000# sand
15 BPM average rate
2500-4000psig injection pressure.

- (16) Cleaned well of sand and frac water to 7975' - tested 246 MCFD with negligible oil show.
- (17) Plugged & Abandoned:
 - (1) Placed cast iron bridge plug at 6000 feet with 25 feet cement on top.
 - (2) Cut and pulled 4 1/2" liner from 5592 feet.
 - (3) Cut and pulled 7 5/8" casing from 980 feet.
 - (4) Placed 65 sacks cement plug 1100-900 feet and 10 sack plug at surface with regulation marker
 - (5) Filled between plugs with mud. P & A 7-24-59.