

DATE November, 1956

THE OHIO OIL CO

HISTORY OF OIL OR GAS WELL

 La Plancha
 Blanco 11-1-53
 FIELD

WELL NO. 1 LEASE Government Lic 8 BLOCK SEC. 8 TWP. 31 N R. 18 W
 STATE New Mexico PARISH San Juan COUNTY San Juan
 990' from south line
 1650' from west line

MEASUREMENTS
 TAKEN FROM
 TOP OF OIL STRING Mat ELEV. 5997'
 TOP OF ROYALTY TABLE ELEV. 5945'
 GROUND OR MAY ELEV. _____

HISTORY PREPARED BY George Smith

TITLE _____

IT IS OF THE GREATEST IMPORTANCE TO HAVE A COMPLETE HISTORY OF THE WELL. USE THIS FORM IN REPORTING THE HISTORY OF ALL IMPORTANT OPERATIONS AT THE WELL, TOGETHER WITH THE DATES THEREOF, INCLUDING SIZE OF HOLES, SIZE AND NUMBER OF BITS, COMPLETE DESCRIPTION OF CASING, CEMENTING, FIRING OR DRILLING DIFFICULTIES, SURVEYS, ALL TESTS, ALL COMPLETION OPERATIONS AND PROCEDURE, ETC.

DATE	1956	
		Fleeeger-Riley Contractor, Unit 15 Rig w/1,7-1/2 x 16 Pump
9/31/56		MIRT
10/1/56		MIRT
10/2		MIRT
10/3		RUT, raised mast.
10/4		Rigging up drilled rat hole and mouse hole, broke tour.
10/5		T.D. 212' Started drilling 15" surface hole, slope test at 176', 3/4". 15" hole to 212'. Dropped Kelly bushing "hairpin" in hole. (212' - 212')
10/6		T.D. 212' Rigged up to run surface casing: Ran 6 jts 10-3/4" E-40 32.75' 8 Rd casing 193.65' Net Landed 12.30 below KB Landed bottom of string 205.95' KB. Did not run a dip. (212' - 212') Cemented with 135 sks (Bulk Cement) by HOWCO. Displaced casing 21-1/2 bbls, H ₂ O. Plug down at 1:15 a.m. No cement returns. 12:00 PSTD 194' WCC. WCC 11 hours. Recemented annulus thru 2" pipe w/75 sks cement. Found top of cement in annulus at 40' KB. Job completed at 1:00 p.m. Good returns on cement. WCC.
10/7		T.D. 510' Started drilling out plug at 9:00 am. Found top of plug at 143'. Pressured casing w/850' for 1/2 hr. casing OK. Drilled cement from 193' - 206', 206' - 212', open hole. Drilling ahead w/bit #2 Retip HTC 8-3/4". Ran Globe junk basket, retrieved 4' of hairpin locked in bit cone. (Ditto above once more)
10/8		T.D. 1077' Drilling ahead, made trip for bit #3, retip HTC 8-3/4".
10/9		T.D. 1608' Drilling ahead, made trip for bit #4, retip HTC 8-3/4".
10/10		T.D. 2129' Drilling ahead, made trip for bit #5 CP B32 8-3/4". Thick pipe 2129', working pipe free. Worked pipe free.

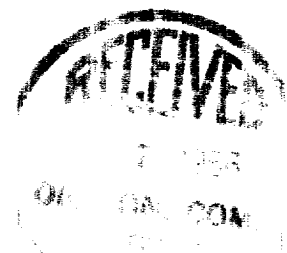


Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the control group. The experimental group was divided into two subgroups: the experimental group and the experimental group.

Phosphorus	1.07%	(+0.03%)
Phosphorus, total	0.05%	(+0.00%)
Phosphorus, free	0.04%	(+0.00%)
Phosphorus, bound	0.01%	(+0.00%)

1956

10/25

T.D. 4629' WOC. Rigging up to drill out w/gas - installed head of Xmas tree below blow out preventer - laid down 4-1/2" drill pipe, picked up string of 3-1/2" flush drill pipe. Pressured casing w/600# for 1/2 hr. Casing OK. Started to blow water out of casing.

10/26

T.D. 4848' Finished drying up casing started to drill out cement plug. Top of plug at 4565', 4565' - 4573' cement, 4573' - 4575' float collar, 4575' - 4619' cement, 4619' - 4620' shoe, 4620' - 4623' cement, 4623' - 4629' open hole, drilling ahead w/bit #17 w/400# gas pressure

10/27

T.D. 5050' Drilling ahead in Point Lookout. Made trip for bit #18, drilled to 5050', dev at 5034' (2-1/4°). Came out of hole for Schlumberger. Ran Schlumberger. Top of Point Lookout 4720' (+1277)

Gamma Ray	2000' - 5060
Induction Log	4620' - 5060
Temp Log	3800' - 5060
Section gauge	4620' - 5060

Started in hole w/5" liner.

10/28

T.D. 5060' Gauged well before running liner. Well gauged 324,548 cfd through 2" orifice well tester out of 7" casing. Ran 21 jts 5" - 15# J-55 8R casing (grade #2) liner

	649.06 Net
Baker whirler float shoe (spring type)	1.50
Burns (spring type) float collar	1.26
	651.82
Burns Delayed Action (lead seal) hanger	5.25
	657.07 Total

Hung liner at 4397.93 KB w/shoe at 5055' and collar at 4992 KB. Pumped 20 bbls gel water ahead of cement (1 sk per 5 bbls. H₂O). Mixed 190 sks reg cement, (bulk) w/4% gel by HOWCO. Pumped in with one T-10 truck, displaced w/44 bbls H₂O. Bumped plug w/1200#. Back washed 20 bbls good cement. Plug down at 10:00 a.m. Used 250% excess cement mixed at (14#/gal). PBTD 4991 - WOC.

10/29

T.D. 5060' WOC

10/30

T.D. 5060' Went in hole w/drill pipe, found obstruction at 4885' pushed same to 4940', drilled to top of float collar, dusted and dried up well. Came out of hole to perforate. Perforated casing from 4950' - 4965' w/60 super casing jets (4/ft) (15 ft). Checked Ohio collars OK. Shot from Ohio measurements. Lost 18" x 3" lead weight off jet strip in hole and one tong die PBTD 4976' by McCullough. Top of liner at 4394'

10/31

T.D. 5060' Rigged up to sand frac, attempted to break down perf w/4000#, could not break down formation. Came out of hole to reperforate, could not get below 4947' w/gun. Went in hole w/bit and drill pipe, found hard caving at 4965', washed out cement cuttings from 4940' - 4965'. Circulated one hr., came out of hole. Attempted to break down

1956
10/31 Cont. perforations w/4000#, could not break down formation. Went in hole w/McCullough bullet gun, reperforated from 4950' - 4965' w/ 60 - 1/2" bullets (4 ft.). Checked Ohio collars 1' high, corrected to Ohio measurements and shot by same, PBTD 4984'. Attempted to break down formation w/4000#, could not break down perforations. Went in hole with drill pipe, spotted 500 gals (15% HCl) on bottom. Displaced w/38 bbls H₂O. Let set on bottom 1 hr. Moved acid at 2 bbl intervals at 30 min each. Attempted to squeeze acid into perf., could not shut in BOP. Reversed out acid, came out of hole, to work on BOP.

11/1/56 T.D. 5060' Working on BOP. Repaired BOP, went in hole w/drill pipe. Respotted 500 gals (15% acid) on bottom. Displaced acid w/27 bbls H₂O. Closed BOP. Squeezed acid w/3500#, staged acid at 5 min. Broke down to 0 psi. Displaced w/40 bbls at 800# total. Came out of hole.

11/2 Sand frac from 4950' - 4965' w/6T-10 and 30,000# (20-40) sand. Used 44,636 gals of H₂O and 1380 gals sand. Total 46,016 gals. Broke down formation w/1400#. Pumped 30 bbls water during break down. Started sand at 1#/gal for 3 min. Increased same to 1-1/2#/gal. Used 33,594 gals H₂O mixed w/30,000 sand (.89#/gal). Average injection rate 68.4 bbls/min. Flushed casing w/216 bbls H₂O. Treatment pressure 1900#, final pressure 0, hole on vacuum. Max pressure 2200#. Used 1062 bbls H₂O. Went in hole w/Baker Model N (Mag) bridge plug. Checked Ohio collars 1' low. Corrected to Ohio measurements and set retainer at 4870'. Went in hole to perforate casing from 4835' - 4850' w/60 super casing jets (4/ft) 15 ft by McCullough. Checked Ohio collars OK, and shot off same. Checked top of Model N retainer 4870'. Perforated casing from 4800' - 4825' w/100 super casing jets (4/ft) 25'. Checked Ohio collars OK, and shot off same. Attempted to break down perf w/4000#. Could not break down formation. Spotted 500 gals (15% HCl) acid on bottom. Displaced tubing w/27 bbls H₂O. When acid hit perforations hole went on vacuum. Came out of hole to sand frac from 4800' - 4825' and 4835' - 4850' w/50,000# (20-40) sand and 44,500 gals H₂O (1.12#/gal). Perforations broke down at 800#, pumped 1700 gals ahead of sand, at 800#. Pumped total of 54,600 gals H₂O and 2300 gal sand in 18 min. Flushed w/8400 gals H₂O. Average injection rate 75.3 bbl/min. Treatment pressure 1200# final pressure 0, hole on vacuum. Max pressure 1400#, used 1300 bbls H₂O. Went in hole w/Baker Model "K" (mag) bridge plug. McCullough checked Ohio collars. OK. Used Ohio measurements and set retainer at 4795 KB. Came out of hole to perforate, perforated casing from 4760' - 4790' (30' - 4/ft) w/120-1/2" bullets by McCullough. Checked Ohio collars 1' low, corrected measurements to Ohio collars and shot off same. Checked retainer at 4793. Attempted to break down formation.

11/3 T.D. 5060' Could not break down hole on vacuum. Set check retainer at 4792'. Broke down formation w/6 trucks at 500# sand frac from 4760' - 4790' w/50,000# sand and 1450 bbl H₂O. Pumped 52,500 gals H₂O w/50,000# sand (.95#/gal). Flushed sand w/8400 gal. Average injection rate (79.2 bbls/min). Treatment pressure 1200# final pressure 0, hole on vacuum. Max pressure 1500. Went in hole w/Baker Model N (mag) bridge plug set same at 4753' checked Ohio collars 1' low. Corrected to Ohio collars and shot by same by McCullough. Went in hole to perforate casing from 4720' - 4745' (25' - 4/ft) with 100 - 1/2" bullets. Checked Ohio collars OK. And shot off same, checked top of retainer at 4752'. Sand

1956
10/3 Cont. frac from 4720' - 4745' w/50,000# sand (20 - 40) and 25,141 gals (1.42#/gal). Broke down formation w/1200#. Pumped total 1119 bbl water including 55 bbl sand. Average injection rate 54.5 bbls/min. Treatment pressure 1800, max pressure 2400#. Final pressure 0. Flushed sand w/200 bbl and purged 30 bbls ahead of sand. Rigged up to drill out with gas.

10/4 T.D. 5060' Drilled out retainer at 4703', well making gas and water, continued drilling out retainers. Drilled out retainers at 4702' and 4701'. More gas and water entry, some sand.

10/5 PBTD 4988' Finished drilling out retainer at 4070', cleaned out to 4988', blew well overnight, came out of hole laying down drill pipe.

10/6 PBTD 4988' Finished laying down drill pipe, rigged up to run tubing. Ran tubing disc on top of anchor. Ran 152 jts (include AD). 2-3/8" EUE 4.27 8R H40 Tubing.

4939.49 Met
31.08
4970.57
11.00 Landed below KB
4981.57 Landed KB
6.43 Off PBTD
4988.00 PBTD

Gauged well after well blowing through casing for 3 days, well making 2,450,000 MCFD through 1" side static nipple w/400# on casing. Released rig at 5:00 p.m. 11/6/56. Well shut in 4 days, absolute open flow potential 15,792 MCFD, 3 hr. blow through 3/4" orifice.

A C T U A L C A S I N G R E C O R D

WELL Government #1 FIELD Elanco Field
LaPlata Area ELEV. KB 5997

This form is to be filled out after each casing job. Its purpose is to give an accurate record of the sequence in which the joints were run so that at any later date, the collars can be accurately located.

Date <u>November, 1956</u> Csg. Size <u>7"</u> Wt. <u>23#</u> Landed at <u>4620</u> Hole T.D. <u>4629</u>			
Distance from KB to Grd <u>11.80</u> All measurements from KB			
Jt. No.	Length	Collar Depth	Remarks
1	40.36		
2	41.97	37.32	
3	42.73	79.29	
4	42.92	122.02	
5	41.89	164.94	
6	42.67	206.83	
7	41.93	249.50	
8	42.57	291.43	
9	42.16	334.00	
10	42.53	376.16	
11	37.96	418.69	
12	37.82	456.65	
13	41.33	494.47	
14	42.41	535.80	
15	43.30	578.21	
16	42.74	621.51	
17	42.71	664.25	
18	41.04	706.96	
19	42.10	748.00	
20	42.19	790.10	
21	43.18	832.29	
22	43.02	875.47	
23	43.55	918.49	
24	44.24	962.04	
25	41.34	1006.28	
26	41.38	1047.62	
27	42.87	1089.00	
28	43.55	1131.87	
29	42.80	1175.42	
30	44.02	1218.22	
31	44.17	1262.24	
32	43.15	1306.41	
33	42.71	1349.56	
34	37.34	1392.27	
35	43.87	1429.61	
36	43.46	1473.48	
37	43.95	1516.94	
38	42.75	1560.89	

ACTUAL CASING RECORD

WELL Government #1 Source of Oil FIELD LaPlata Area ELEV. KB 5907

This form is to be filled out after each casing job. Its purpose is to give an accurate record of the sequence in which the joints were run so that at any later date, the collars can be accurately located.

Date Nov. 1956 Csg. Size 2 7/8" Landed at 1628 Hole 15" 1628
Distance from KB to Grd 15.85 All measurements from KB

Jt. No.	Length	Collar Depth	Remarks	Jt. No.	Length	Collar Depth	Remarks
39	43.01	1603.64		58	42.97	2407.40	
40	36.22	1646.65		59	43.04	2449.51	
41	42.82	1682.87		60	43.52	2492.53	
42	43.30	1725.69		61	39.95	2535.93	
43	42.08	1768.99		62	42.30	2575.86	
44	43.43	1811.07		63	42.72	2618.18	
45	43.17	1854.50		64	42.71	2660.90	
46	43.38	1897.67		65	42.93	2703.51	
47	41.19	1941.05		66	42.81	2746.54	
48	41.93	1982.24		67	42.47	2788.85	
49	42.13	2024.22		68	42.13	2831.37	
50	42.72	2066.12		69	42.40	2872.90	
51	42.73	2108.12		70	42.40	2915.50	
52	42.73	2150.12		71	42.72	2957.51	
53	42.87	2191.69		72	42.46	2999.30	
54	42.52	2237.56		73	42.91	3042.59	
55	42.08	2279.81		74	42.73	3085.40	
56	41.96	2321.22		75	42.74	3127.16	
57	43.27	2364.17		76	42.56	3169.72	

1544122 RECORD

1947, Government of Canada, Fisheries and Marine Service, Ottawa, Ontario, Canada

This form is to be filled out after each trawl haul. Its purpose is to make an accurate record of the species, size and sex of the fish taken so that, at a later date, the catches can be analyzed by species.

Date: May 1948, Loc. Size: 100, No. of fish: 100, Trawl in: 100, Trawl out: 100, Distance from shore: 100, Direction of wind: 100

No.	Length	Weight	Sex	No.	Length	Weight	Sex
1	40.41	3212.61		56	42.13	4102.1	
2	41.34	3381.01		57	41.43	4051.21	
3	43.25	4254.97		58	41.97	4197.1	
4	42.71	3335.22		59	41.35	4119.35	
5	43.59	3500.97		60	44.66	4191.34	
6	45.32	4420.35		61	42.25	4355.02	
7	42.37	3485.93		62	42.15	4274.20	
8	42.45	3808.04		63	42.11	4320.36	
9	43.44	4386.41		64	41.97	4353.47	
10	42.45	3914.21		65	42.21	4401.10	
11	42.4	3911.41		66	42.13	4430.21	
12	42.45	3711.11		67	41.71	4413.1	
13	40.41	3254.01		68	42.07	4521.1	
14	42.09	3711.41		69	41.32	4574.13	
15	42.6	3802.04		70	42.79	4575.21	
16	43.42	4010.75		71	41.52	4619.32	
17	41.42	3711.41		72	41.41	4619.32	
18	43.41	3937.01					
19	43.4	4091.03					

ACTUAL CASING RECORD

WELL Government #1 Blanco Field FIELD LaPlata Area ELEV. KB 5057

This form is to be filled out after each casing job. Its purpose is to give an accurate record of the sequence in which the joints were run so that at any later date, the collars can be accurately located.

5" Liner

Date Nov. 1956 Csg. Size 5" Wt. 15" landed at 5051 Hole T.D. 5200

Distance from KB to Grd 11.80 All measurements from KB

Jt. No.	Length	Collar Depth	Remarks	Jt. No.	Length	Collar Depth	Remarks
	4393.93		Top of liner	18	30.55	4925.35	
	5.25		liner	19	31.97	4555.94	
1	31.17	4399.18		20	1.26	4987.91	
2	30.38	4430.35		21	31.61	3989.17	
3	31.06	4460.73		22	28.72	5020.73	
4	29.62	4491.79			1.50	5049.50	
5	31.15	4521.41		Landed		5051.00	KB
6	31.77	4552.56					
7	29.73	4584.33					
8	31.30	4514.06		*Note - These measurements have been			
9	31.40	4645.35		corrected 4' after finding top of liner			
10	30.58	4676.76		McCullough perforating gun. See history			
11	31.74	4707.34					
12	31.58	4739.06					
13	30.70	4770.66					
14	31.69	4801.46					
15	42.55	4833.15					
16	43.59	4864.70					
17	31.30	4894.29					

MUD RECORD

<u>Date</u>	<u>From</u>	<u>To</u>	<u>Gel</u>	<u>Soda Ash</u>	<u>Alkalan</u>
10/18/53	0	212	2000#		
7	212	244	2000#		
8	1246	1453		50#	50#
9	1730	1933	1400#	250#	100#
10	2346	2467	1700#		
11	2578	2802	3400#	50#	150#
12	3320	3524	2400#		150#
13	3575	3609			50#
14	3959	3990	500#		50#
15	4070	4145			100#
16	4258	4306	1500#		100#
17	4315	4440	1900#		150#
18	4536	4625		100#	100#

BIT RECORD

WELL NAME & NO. Government #1 Section 8

FIELD La Plata

BY George Disich

Date	Run No.	Name of Bit	Size	Bit No.	Serial No. of Bit	Depth		Footage	Hours Run	Remarks
						From	To			
10/5/56	RR	Reed	15"	RR	----	0	212	212	13	Retipped
10/8/56	RR	HTC OJC	8-3/4	RR		212	729	517	20	Retip
10/8/56	RR	HTC OJC	8-3/4	RR		729	1229	500	16-1/2	Retip
10/10/56	RR	HTC OJC	8-3/4	RR		1229	1616	387	16	Retip
10/11/56	1	SD BBI	8-3/4	1	100023	1616	3157	541	10	Good condition
10/11/56	1	Smith SD	8-3/4	2	16222	2157	2592	435	24-1/2	Dull and CG
10/12/56	1	HTC OCCI-G	8-3/4	3	70347	2592	3000	419	18	Dull
10/13/56	1	HTC OCCI-G	8-3/4	4	70346	3000	3575	575	23	Dull
10/15/56	1	HTC OCCI-G	8-3/4	5	70341	3575	3771	196	21-1/2	worn out
10/16/56	1	HTC OJ	8-3/4	6	39285	3771	3924	153	15	Dull and CG
10/17/56	1	HTC OJ	8-3/4	7	39258	3924	3990	66	7-1/4	Dull
10/18/56	1	HTC WJR	8-3/4	8	48794	3990	4039	49	12	Dull
10/19/56	1	HTC WJR	8-3/4	9	32744	4039	4176	137	10	Dull
10/20/56	1	HTC WJR	8-3/4	10	48793	4176	4306	130	11	Dull
10/20/56	1	HTC WJ	8-3/4	11	49643	4306	4440	134	15	Dull
10/21/56	1	HTC OJC	8-3/4	12	55729	4440	4623	183	10	Dull
10/26/56	1	HTC WJR	8-1/4	13	56537	4623	4688	65	14	Good
10/27/56	1	HTC WJR	6-1/4	14	38173	4833	5060	227	8-1/2	Good