Richfield Oil Corporation - U. S. Coll No. 1 - Driller's Log

From	To	Thickness	Formation
0	71	71	Lime & red bed
71	129	58	Red bed & shells
129	287	158	Shale & red bed
287	515	228	Red Bed & shells
515	550	35	Shells & shale
550	670	220	Anhydrite & salt stringers
670	905	235	Shale, red bed & anhydrite
905	1065	160	Anhydrite & shale
1065	1100	35	Anhydrite and lime
1100	1140	40	Lime
1140	1175	35	Anhydrite
1175	1335	160	Lime
1335	1355	20	Blue shale & anhydrite
1355	2340	985	Lime
2340	2395	55	Red bed
2395	2415	20	Red shale and sand
2415	2535	120	Anhydrite & broken red shale
2535	2578	43	Lime and shale
2578	2615	38	Broken lime
2615	2695	80	Shale and shells
2695	2815	120	Lime and shale
2815	2864	49	Anhydrite and shale
2864	2935	71	Shale and shells
2935	2969	34	Anhydrite and shale
2969	3010	41	Lime, shale and shells
3010	3067	57	Lime and shells
3067	3199	132	Lime
3199	3432	233	Anhydrite and lime
3432	3464	32	Anhydrite
3464	3501	37	Anhydrite and lime
3501	3522	21	Lime
3522	3545	23	Lime and shale
3545	3673	128	Lime and anhydrite
3673	3681	8	Lime and shale
3681	3704	23	Anhydrite and lime
3704	3750	46	Lime and shale
3750	3785	35	Lime and anhydrite
3785	3966	181	Lime and shale
3966	3994	28	Lime and anhydrite
3994	4133	139	Lime and shale
4133	4213	80	Anhydrite and shale
4213	4245	32	Anhydrite
4245	4257	12	Anhydrite and lime
4257	4285	28	Anhydrite
4285	4312	27	Anhydrite and lime
4312	4378	66	Anhydrite
4378	4442	64	Anhydrite and lime
4442	4506	54	Anhydrite and gypsum
4506	4552	46	Anhydrite and red shale
4552	4594	42	Shale and shells

GEOLOGICAL SURVEY
JAN 28 1946
ROSWELL, NEW MEXICO

RECEIVED
FEB 4 1946
U. S. GEOLOGICAL SURVEY
Denver, Colorado

JAN 25 1946
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Richfield Oil Corporation - U. S. Coll No. 1 - Driller's Log

From	To	Thickness	Formation
4594	4616	22	Red shale and anhydrite
4616	4710	94	Red shale
4710	4736	26	Red shale and sand
4736	4771	35	Red shale and shells
4771	4871	100	Red shale and sand
4871	4886	15	Red shale
4886	4894	18	Red shale and gypsum
4894	4925	31	Red shale
4925	4943	18	Red shale and gypsum
4943	4990	47	Red shale
4990	5008	18	Red shale and sand
5008	5026	18	Lime
5026	5040	14	Shale
5040	5054	14	Shale and lime
5054	5080	26	Shale and shells
5080	5105	25	Shale and lime
5105	5115	10	Shale
5115	5142	27	Lime
5142	5299	157	Lime and shale
5299	5372	73	Lime
5372	5395	23	Lime and shale
5395	5410	15	Shale
5410	5453	43	Lime and shale
5453	5480	27	Shale
5480	5510	30	Lime and shale
5510	5518	8	Shale
5518	5526	8	Lime
5526	5538	12	Lime and shale
5538	5560	22	Lime
5560	5910	350	Lime and shale
5910	5956	46	Lime
5956	5975	19	Lime and shale
5975	5982	7	Lime
5982	6031	50	Lime and shale
6031	6046	15	Lime
6046	6187	141	Lime and shale
6187	6202	17	Shale
6202	6204	2	Lime and chert
6204	6210	6	Lime and shale
6210	6216	6	Core No. 1
6216	6222	6	Lime and shale
6222	6232	10	Core No. 2
6232	6237	5	Lime and shale
6237	6238	1	Lime and chert
6238	6240	2	Lime
6240	6241	1	Chert
6241	6245	4	Chert and lime
6245	6250	5	Chert and sand
6250	6278	28	Chert and lime
6278	6336	55	Shale and lime
6336	6339	3	Lime and chert
6339	6344	5	Lime and shale
6344	6345	1	Core No. 3
6345	6354	9	Lime and chert
6354	6357	3	Core No. 4
6357	6545	188	Lime and shale
6545	6605	60	Lime
6605	6610	5	Lime and sand
6610	6613	3	Sand
6613	6617	4	Hard sandy lime
6617	6618	1	Core No. 5
6618	6625	7	Overhole
6625	6629	4	Dacite Porphyry
6629	6630	1	Core No. 6 (no recovery)
			Total depth

[illegible]

WELL HISTORY

RICHFIELD-COLL U. S. #1

The well was spudded 8/19/45 and a 17 1/4" hole was drilled to 129'.

13 3/8" casing was cemented at 118' with 75 sax of cement which returned to the surface. After standing 72 hours a 12 1/4" hole was drilled to 1190' and 9 5/8" casing was cemented at 1187' with 500 sax of cement; a temperature survey showed that this cement came to 400' behind the casing.

An 8 3/4" hole was drilled to 5513' and 7" casing was cemented at 5499' with 1250 sax. When this amount had been mixed, the hole lost circulation and the plug could only be pumped down to 1957'. The cement in the 7" casing was drilled out to 4499', the 7" was shot with 3-1/2" holes at 3900', circulation broke freely, and 500 sax of cement were pumped behind the 7", a temperature survey showing the top at 2880'.

A 6 1/4" hole was drilled and cored to 6630' where the well was plugged back to 6373'. A 4 1/2" liner was hung 5420' and cemented at 6371' with 150 sax. The cement inside the liner was drilled out to 6350' and the 4 1/2" was gun perforated 6315-6325' with 45-1/2" shots. These perforations were acidized with 2000 gallons of 15% HCl under 1500# pressure and the well flowed salt water with a trace of oil and some gas for 2 hours. After swabbing it still showed the same.

The perforations 6315-6325' were squeezed with cement under 2500# pressure and the excess cement inside the 4 1/2" liner was cleaned out to 6303'. The 4 1/2" liner was gun perforated 6285-6295' with 3-3/8" and 1/2" holes per foot. The tubing was run on a packer and the hole was swabbed dry in 3 hours. After standing 4 hours and 10 hours the swab failed to bring up any fluid. The well was then acidized with 2000 gallons of 15% HCl and the well flowed by heads for 23 1/2 hours, the fluid being salt water with gas and a trace of oil.

30 sax of cement were squeezed through 2" tubing at 6300' under 1000# pressure and 10 sax were put away, the cement inside the 4 1/2" liner filling to 6000'. The casing was filled with 10.4# mud and 4 sax of cement were dumped as a surface plug, starting 20' below the surface. A 4 1/2" drill pipe marker was imbedded in the cement and extended 4' above the surface. Abandonment operations were concluded at 10:00 A.M., January 16, 1946, no casing having been pulled from the hole.

GEOLOGICAL SURVEY
JAN 23 1946
ROSWELL, NEW MEXICO

FINAL CASING RECORD

Total Depth: 6630'.
Plugged with cement: 6630-6371'; inside casing 6371-6350',
6337-6000', 20'-surface.

13 3/8" cemented 118'.
9 5/8" " 1184'.
7" " 5499', gun perforated w/3-1/2" holes at 3900',
4 1/2" liner cemented 5420-6371', gun perforated 6325-6315',
6285-6295'.

Drill Stem Tests

6107-6241' reported on Form 9-331a dated 12/13/45
6276-6350' " " " " " "
6350-6385' " " " " " "

Production Tests

6315-6325' reported on Form 9-331a dated 1/8/46
6285-6295' " " " " " "