

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Magnolia Petroleum Company Address Box 727, Kermit, Texas
 Lessor or Tract (Black Hills Unit) Field Wildcat State New Mexico
 Well No. 1 Sec. 31 T. 17S R. 20E Meridian N.M.P.M. County Chaves
 Location 660 ft. [N.] of [S.] Line and 1980 ft. [E.] of [W.] Line of East Section. Elevation 4905'

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 L. J. Hauer
 Date November 12, 1946 Title District Superintendent

The summary on this page is for the condition of the well at above date.
 Commenced drilling June 28, 1946 Finished drilling November 5, 1946

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

No. 1, from None 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 None 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	
13 3/8	48.5	8	Halliburton	3000			3000	3000	extra cement w/2 shots.
9 5/8	40	8	Halliburton	1476					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13 3/8	705'	550 sax	Halliburton	38	Completely filled hole.
9 5/8	4439'	2000 sax	Halliburton	38	

* Please see attached sheet.
 Heavy-duty material

PLUGS AND ADAPTERS

Depth set
 * PLUGS & ADAPTERS

Kind	From	To	Depth shot	Depth cleaned out
Hard Column	6085'	4930'		
Cement	4930'	4900'		
Hard Column	4900'	4439'		
Cement	4439'	4380'		
Cement	4380'	surface		
Hard Column	4380'	surface		
Cement	surface	surface		

Cable tools were used from None feet to feet, and from feet to feet

DATES

Put to producing Dry, 1946
 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

Sidney Wooten Driller Raymond S. Fletcher Driller
Israel E. Stallons Driller Elisworth A. Copeland Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
0	14"	14"	From Rotary Drive Bushing to Derrick Floor.
14"	16'	14.9"	From Derrick Floor to top of 13 3/8" casing.
16	49	33	Rock
49	170	121	Rock and sand - 3/4" off @ 85', 1" off @ 185, 190'.
170	195	25	Hard rock and sand.
195	246	51	Hard rock - 1' cavity from 211-212; lost circulation @ 237', 50 sax calseal @ 236' to regain circulation. 1" off @ 238', 50 sax calseal @ 240'.
246	452	206	Hard rock - Lost circulation @ 270', 338', 357', 415', 450', 455', 1" off @ 238', 295', 1" off @ 365', 1" off @ 430', 1" off @ 460', 1" off @ 483', 515'.
452	540	88	Rock - Lost circulation @ 583'.
540	580	40	Rock & Sand - Lost circulation @ 625', lost circulation @ 355' while reaming, 50 sax calseal @ 335'.
580	625	45	Rock - Lost circulation @ 665'.
625	692	67	Lime - Lost circulation @ 405' while reaming; lost circulation @ 620' while reaming; 1 1/2" off @ 716'. Set 13 3/8" OD casing @ 716' w/550 sax. Cement circulated.
692	716	24	Hard Lime
716	810	94	Sandy Lime - No Return.
810	830	15	Sand.
830	871	61	Sand.
871	901	30	Sand & broken Lime - 1" off @ 765', 1 1/2" off @ 855'.
901	1075	174	Sand - 1 1/2" off @ 940', 1025', 100 sax cement @ 1075', 85 sax @ 975', 100 sax @ 980' to 985', 120 sax from 885' to 890', 24 sax squeezed under 375'; top of cement is 755', was losing circulation @ 820'.
1075	1143	68	No return, no formation log.
1143	1205	62	Hard lime and sand.
1205	1225	20	Lime and Sand.
1225	1639	414	Lime & Anhydrite - 1" off @ 1115', 1 1/2" off @ 1215', 1" off @ 1300', 1" off @ 1435', 1530'.
1639	1685	46	Lime
1685	1690	5	Brown Lime
1690	1690	70	Drill Stem Test - Failed, no test. Callipers showed hole all right, 1630' to 1690', too large for packer above 1630'.
1690	1690	60	Drill Stem Test - Failed, no test.
1690	1690	54	Drill Stem Test - Failed, no test.
1690	1690	50	Drill Stem Test - Failed, no test.
1690	1690	47	Drill Stem Test - Failed, no test.
1690	1690	60	Drill Stem Test - With double packer 1630-1637 1/2, recovered not set, no test.
1700	1700	10	Cored - Recovered 10' of brown dolomite, slight sulphur odor, last 8' of core, corous, no staining; 7 1/2" core hole.
1700	1790	90	Lime - 3/4" off @ 1750'; Set 1790 = 1760.
1790	1832	42	Lime & Anhydrite.
1832	1863	31	Lime.
1863	1948	85	Lime & Anhydrite - 1" off @ 1910'.
1948	1979	31	Lime - Straight @ 1965'.
1979	2061	82	Lime & Anhydrite.
2061	2087	26	Lime.
2087	2154	67	Lime & Anhydrite.
2154	2181	27	Gyp, Anhydrite & Dolomite.
2181	2200	19	Anhydrite, Lime & Gyp.
2200	2288	88	Anhydrite & Lime - Straight @ 2180'.
2288	2308	20	Lime, Anhydrite & Gyp.
2308	2334	26	Lime and Anhydrite.
2334	2365	31	Lime.
2365	2373	8	Lime and Anhydrite.
2373	2396	23	Sandy Shale.
2396	2426	30	Sandy Lime.
2426	2431	5	Red Bed and Sand.
2431	2458	27	Sandy Shale.
2458	2474	16	Red Bed.
2474	2490	16	Red Bed & Gyp.
2490	2493	3	Red Bed & Anhydrite.
2493	2506	13	Red Bed and Gyp.
2506	2517	11	Anhydrite & Red Bed - Straight @ 2500'.
2517	2512	-5	Steel Line Correction.
2512	2547	35	Anhydrite, Sand & Gyp.
2547	2570	23	Anhydrite & Lime.
2570	2625	55	Lime, Anhydrite & Gyp.
2625	2789	164	Lime & Anhydrite - 1 1/2" off @ 2700'.
2789	2821	32	Lime, Anhydrite & Gyp.
2821	2830	9	Lime & Anhydrite.
2830	2852	22	Anhydrite, Shale, & Dolomite.
2852	2877	25	Lime, Anhydrite & Gyp.
2877	2892	15	Lime & Anhydrite.
2892	2941	49	Lime, Anhydrite & Gyp.
2941	2963	22	Lime & Anhydrite.
2963	2970	7	Blue Shale, Anhydrite & Red Shale - Straight @ 2970'.
2970	3006	36	Red Shale & Dolomite.
3006	3086	80	Red Shale.
3086	3110	24	Dolomite & Red Shale.
3110	3149	39	Lime, Gyp & Red Bed.
3149	3155	6	Red Shale & Dolomite.
3155	3183	28	Lime, Gyp, Shale, & Red Bed.
3183	3205	22	Lime, Shale, & Red Bed.
3205	3213	8	Lime, Gyp & Red Bed.
3213	3217	4	Lime & Red Bed.
3217	3237	20	Red Bed & Dolomite.
3237	3252	15	Lime.
3252	3270	18	Lime & Anhydrite.
3270	3280	10	Red Shale & Dolomite.
3280	3380	100	Red Shale, Dolomite & Gyp.
3380	3406	26	Dolomite, Gray Lime & Gyp - 1" off @ 3390'.
3406	3433	27	Shale & Dolomite.
3433	3476	43	Red Rock & Shale.
3476	3500	24	Red Bed.
3500	3590	90	Red Bed & Shale.
3590	3617	27	Red Bed, Shale, & Sand - 1" off @ 3600'.
3617	3637	19	Red Bed & Shale.
3637	3698	62	Red Bed & Sandy Shale.
3698	3712	14	Red Bed & Dolomite.
3712	3754	42	Red Bed & Sandy Shale.
3754	3776	22	Red Bed.
3776	3892	56	Red Bed & Sandy Shale.
3892	3845	13	Red Bed & Sandy Lime.
3845	3879	34	Dolomite & Red Rock.
3879	3920	41	Sandstone & Broken Chert - 1" off @ 3870'.
3920	3988	68	Red Bed & Dolomite.
3988	4006	18	Red Bed, Sand & Dolomite.
4006	4027	21	Red Bed & Dolomite - 1" off @ 4010'.
4027	4070	43	Red Shale & Dolomite.
4070	4218	148	Red Bed & Dolomite.
4218	4228	10	Red Bed & Sandy Shale.
4228	4274	46	Red Shale.
4274	4287	13	Red Shale & Sand.
4287	4309	22	Red Shale.
4309	4324	15	Red Shale & Dolomite.
4324	4353	29	Red Shale - Straight @ 4326'.
4353	4380	27	Red Shale & Sand.
4380	4385	5	Blue Shale.
4385	4387	2	Blue Shale & Dolomite.
4387	4397	10	Gray Shale & Light Brown Lime.
4397	4417	20	Gray Shale & Lime.
4417	4439	22	Lime - Set 9-5/8" OD casing @ 4439' w/1500 sax. Top of Cement = 3000'; Ran Halliburton Temp. Survey. McCallough Tools Perforated 9-5/8" OD casing w/2 shots, mud circulated; 1000 sax cement thru perforations @ 3000'. No cement returns, did not lose circulation. Flugged 30' above perforations. Oil & Gas odor, 4448-4451, drilling time 4445-4550, 40 min., remainder to 4461, 60 min. per 5'.
4439	4461	22	Sandy Lime - 15' drilling mud, no stain, no odor, no shows.
4461	4461	0	Drill Stem Test - Tool open 2 hrs. thru 5/8" BHC, slight blubber while tool open; Rec. 15' drilling mud, no stain, no odor, no shows.
4461	4542	81	Lime
4542	4558	16	Lime & Chert.
4558	4573	15	Lime, Chert & Shale.
4573	4586	13	Lime & Black Shale.
4586	4591	5	Gray Lime.
4591	4634	43	Lime & Shale.
4634	4651	17	Lime, Shale, & Chert.
4651	4662	11	Lime & Chert - slight stains once in a while.
4662	4725	63	Lime & Shale.
4725	4742	17	Lime & Chert.
4742	4762	20	Lime & Sandy Lime, & Chert.
4762	4828	66	Lime.
4828	4849	21	Lime & Shale.
4849	4888	39	Gray Lime & Shale - Straight @ 4880'.
4888	4905	17	Gray Lime, Shale & Chert.
4905	4929	24	Lime & Chert.
4929	4935	6	Lime & Shale.
4935	4956	21	Sandy Lime.
4956	4989	33	Lime.
4989	5115	126	Lime & Shale.
5115	5151	36	Lime & Broken Chert.
5151	5167	16	Lime & Chert - Straight @ 5167', slight odor, 5112' to 5114', spotted odor to total depth. Drill Stem Test - Tool open 1 1/2 hrs. thru 5/8" BHC and surface choke, slight blow thruout test, recovered 450' of slightly gas cut mud w/little fluorescence of oil, 650' sulphur water.
5167	5244	77	Lime - Slight stain & odor from 5282 to 5308', 16 min. drilling time.
5244	5248	4	Cored - Recovered 2 1/2' dolomite w/sulphur odor, no oil, gas or water showing, formation not identified by Geologist.
5248	5308	60	Lime - Circulated @ 5278' 1 hr. & 33 min., a slight show of gas.
5308	5308	26	Drill Stem Test - Tool open 1 1/2 hrs. thru 5/8" top and bottom chokes; Rec. 150' of drilling mud and 1170' of sulphur water.
5308	5324	16	Lime.
5324	5338	14	Lime, Chert & Dolomite.
5338	5497	159	Lime.
5497	5499	2	Cored - Recovered 6" of hard dolomite.
5499	5505	6	Lime.
5505	5519	14	Lime, Chert & Dolomite.
5519	5553	34	Lime & Dolomite.
5553	5600	47	Lime.
5600	5621	21	Lime & Dolomite.
5621	5646	25	Lime. - 1" off @ 5625', 2" off @ 5700'.
5646	5846	200	Hard Sand.
5846	5851	5	Lost Circulation.
5851	5852	1	Lime.
5852	5858	6	Cored - Recovered 4 1/2" dolomitic sand, no odor, no stain, no show. Drilling time of core - 80,76,60,47,37,44 min. per foot.
5858	5864	6	Lime.
5864	5892	28	Lime.
5892	5896	4	Sand & Dolomite.
5896	5914	18	Lime & Hard Sand.
5914			