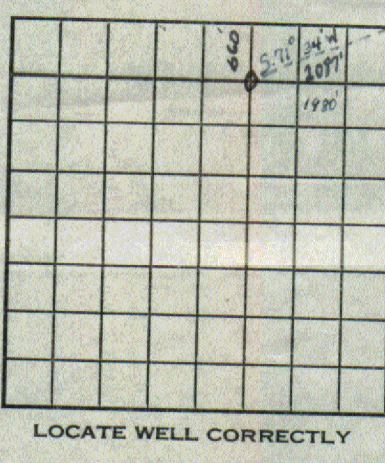


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company Magnolia Petroleum Company Address Box 727, Kermit, Texas
 Lessor or Tract (Black Hills Unit) Headley 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 North Line and 1980 ft. (E.) of East Line of 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.

Date November 12, 1946 Signed L. J. Hannon 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 None No. 4, from None to None
 No. 2, from None to None No. 5, from None to None
 No. 3, from None to None No. 6, from None to None

IMPORTANT WATER SANDS

No. 1, from None to None No. 3, from None to None
 No. 2, from None to None No. 4, from None to None

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated	Purpose
13 3/8	145	8	145	145	145	145	145	145
9 5/8	140	8	140	140	140	140	140	140

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 sack	Halliburton	38	Completely filled hole.
9 5/8	4439'	2000 sack	Halliburton	38	Completely filled hole.

PLUGS AND ADAPTERS

* Please see attached sheet. Heavy plug material Depth set

* PLUGS & ADAPTERS

Depth set	Depth cleaned out
6085' to 4930'	
Cement from 4930' to 4900'	
Hard Column from 4900' to 4439'	
Cement from 4439' to 4380'	
Cement to surface with 25 sack cement	
Hard from 4380' to surface	
Cement at Surface with 25 sack cement	

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

DATES

Put to producing Dry, 1946
 The production for the first 24 hours was None barrels of fluid of which None % was oil; None % emulsion; None % water; and None % sediment.
 Gravity, °Bé. None
 If gas well, cu. ft. per 24 hours None Gallons gasoline per 1,000 cu. ft. of gas None
 Rock pressure, lbs. per sq. in. None

EMPLOYEES

Sidney Wooten, Driller Raymond S. Fletcher, Driller
Isreal E. Stallons, Driller Elsworth A. Copeland, Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
0	14"	14"	From Rotary Drive Bushing to Derrick Floor.
14"	16'	14.8"	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 sack calseal @ 236' to regain circulation. 1" off @ 238', 50 sack calseal @ 240'.
246	452	206	Hard rock - Lost circulation @ 270', 338', 357', 415', 450', 455', 1" off @ 260', 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 @ 555' while reaming, 50 sack calseal @ 335'.
580	625	45	Rock - 1" off @ 665'.
625	692	67	Lime - Lost circulation @ 405' while reaming; lost circulation @ 620' while reaming; 1" off @ 716'. Set 13 3/8" OD casing @ 716' w/550 sack. Cement circulated.
692	716	24	Hard Lime -
716	815	94	Sandy Lime -
815	830	15	No Return.
830	871	61	Sand.
871	901	30	Sand & broken Lime - 1" off @ 765', 1" off @ 855'.
901	1075	174	Sand - 1" off @ 940', 1025', 15 sack cement @ 1075', 85 sack @ 975', 100 sack @ 980' to 985', 120 sack from 885' to 890', 24 sack aqueous 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" 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. Halliburton Calipers showed hole all right, 1630' to 1690', too large for packer above 1630'.
1690	1690	60	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	1700	60	Drill Stem Test - With double packer 1630-1637 1/2, would not seat, no test.
1700	1790	90	Cored - Recovered 10' of brown dolomite, slight sulphur odor, last 8' of core, corous, no staining; 7 1/2" core hole.
1790	1832	42	Lime - 3/4" off @ 1750', 1" off @ 1760'.
1832	1863	31	Lime & Anhydrite.
1863	1948	85	Lime.
1948	1979	31	Lime & Anhydrite - 1" off @ 1910'.
1979	2061	82	Lime - Straight @ 1965'.
2061	2087	26	Lime & Anhydrite.
2087	2134	47	Lime.
2134	2131	27	Lime & Anhydrite.
2131	2200	19	Gyp, Anhydrite & Dolomite.
2200	2288	88	Anhydrite, Lime & Gyp.
2288	2308	20	Anhydrite & Lime - Straight @ 2180'.
2308	2334	26	Lime, Anhydrite & Gyp.
2334	2365	31	Lime and Anhydrite
2365	2373	8	Lime.
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 - 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	3636	19	Red Bed & Shale.
3636	3698	62	Red Bed & Sandy Shale.
3698	3712	14	Red Bed & Dolomite.
3712	3774	62	Red Bed & Sandy Shale.
3774	3776	2	Red Bed.
3776	3892	116	Red Bed & Sandy Shale.
3892	3945	53	Red Bed & Sandy Lime.
3945	3979	34	Dolomite & Red Rock.
3979	3980	1	Sandstone & Broken Chert - 1" off @ 3870'.
3980	3988	8	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 sack. Top of Cement - 3000'; Ran Halliburton Temp. Survey. McCullough Tools Perforated 9-5/8" OD casing w/2 shots, mud circulated; 1000 sack cement thru perforations @ 3000'. No cement returns, did not lose circulation. Plugged 30' above perforations.
4439	4461	22	Sandy Lime - Oil & Gas odor, 4448-4461, drilling time 4445-4550, 40 min., remainder to 4461, 60 min. per 5'.
4461	4461	22	Drill Stem Test - Tool open 1 1/2 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	4925	20	Lime & Chert.
4925	4935	10	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.
5167	5244	77	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, 630' sulphur water.
5244	5248	4	Lime - Slight stain & odor from 5282 to 5308', 16 min. drilling time.
5248	5308	60	Cored - Recovered 2 1/2' dolomite w/sulphur odor, no oil, gas or water showing, formation not identified by Geologist.
5308	5324	16	Lime - Circulated @ 5278' 1 hr. & 33 min., a slight show of gas.
5324	5338	14	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.
5338	5409	159	Lime.
5409	5505	2	Cored - Recovered 6" of hard dolomite.
5505	5519	14	Lime.
5519	5553	34	Lime, Chert & Dolomite.
5553	5600	47	Lime.
5600	5646	21	Lime & Dolomite.
5646	5851	225	Lime. - 1" off @ 5625', 2" off @ 5700'.
5851	5852	1	Hard Sand.
5852	5858	6	Lost Circulation.
5858	5864	6	Lime.
5864	5892	28	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.
5892	5914	22	Lime.
5914	5925	11	Sand & Dolomite.
5925	5950	25	Lime & Hard Sand.
5950	5975	25	Hard Sand.
5975	5991	16	Hard Sand & Lime.
5991	6015	24	Lime & Sand.
6015	6066	51	Gray & Red Shale.
6066	6077	11	Gray & Black Shale.
6077	6085	8	Shale - 3/4" off @ 6040'.
6085	6085	0	Shale, Chert & Dolomite.
6085	6085	0	Dolomite.
6085	6085	0	Chert.
6085	6085	0	Recovered 3' of dense quartzitic sandstone.
6085	6085	0	Ran Lane Wells Gamma Ray Neutron Log.
6085	6085	0	TOTAL DEPTH.