

Pat. Land

LOG OF "REED WELL

Located: NW $\frac{1}{4}$ of SW $\frac{1}{4}$ Sec. 5, T $\frac{5}{2}$ S., R. 21 E., S.L.M.

DATE	FROM	TO	NO. FEET	PROMOTION
April 27th, 1911	0	5		Spudded in
" 28th	5	25	20	Surface Rock
" 29th	25	40	15	Red and Blue Clay
" 30th	40	65	25	Mixed Clay
May 1st	65	80	15	Mixed Clay
" 2nd	80	85	5	Yellow Sand
" 3rd	85	90	5	Fine Cong.
" 4th	90	98	8	" "
" 5th	98	113	15	" "
" 6th	113	128	15	" "
" 7th	128	134	6	" "
" 7th	134	140	16	Red Shale
" 7th	140	144	4	Lime
" 8th	144	149	5	"
" 8th	149	162	13	Cong.
" 9th	162	178	16	"
" 10th	178	200	22	Mixed Clays and Cong.
" 11th	200	225	25	do
" 12th	225	245	20	do
" 13th	245	270	25	do
" 14th	270	295	25	do
" 15th	295	310	15	do
" 15th	310	315	5	Lime
" 16th	315	320	5	Hard Lime
" 16th	320	345	25	Mixed Clays Caves
" 17th	345	360	15	Blue Clays, Caves
" 18th				Put in 3 joints of casing
" 19th	360	375	15	Red shale, 360'-10" casing
" 20th	375	385	10	Red shale oil showing
" 20th	385	400	15	White shale
" 20th	400	410	10	White sand, showing
" 21st	410	425	15	Gilsonite Particles & Tar
" 21st	425	455	25	White sand washed out sand and Asphaltum.
" 22nd	455	485	30	Cong. (Flinty)
" 23rd	485	510	25	Cong.
" 23rd	510	520	10	Light Blue Clay
" 24th	520	535	15	Light Blue Clay, Pulled casing
" 25th				Put in 392' - 10"
" 26th				Pulled 392' casing
" 27th				Put in 19 Joints casing
" 28th				Broke Crown Pulley
" 29th	535	570	35	Light Blue Sandy shale, Caves
" 30th	570	605	35	Light Blue Sandy Shale
" 31st	605	610	5	Water 572 Ft. Gas 575 ft. Oil 575' Good
				White Sand (showing some Asphalt Oil and Gas 60 ft. of cavings.

June 1st					Put in 526' 8/4" casing
" 2nd					Put in 18' - 8-1/4" casing Strong gas pressure forced 60' mud in hole
" 3rd					Put in 55' 8-1/4" casing Gas blows water out of hole at time
" 4th	610	615	5		Grey sand, good oil showing parafine
" 5th	615	630	15		Grey sand, good oil showing & gas
" 6th					Casing in 639' oil and gas forcing mud in casing, oil showing improving.
" 7th	630	635	5		Blue Clay
" 7th	635	645	10		Sand, cased off gas, oil show- ing continues good
" 8th	645	655	10		Yellow gritty clay, water rose to 570'
" 8th	655	660	5		White sand gas 670'
" 8th	660	690	30		Grey sand, best showing of oil seen
" 9th	690	695	5		Grey sand oil & gas showing good Water rose to 490' started to pull pipe to put on new shoe
" 10th					Put on new shoe, put pipe back
" 11th					Casing in 690' - 8-1/4" filled hole with water to hold back mud and gas
" 12th					Reaming casing in 629' - 6"
" 13th					" " " 650' - 1"
" 13th					" " " 690' - 3"
" 14th AM	695	703	8		Grey sand
" 14th "	703	713	10		Red Clay good showing of oil
" 14th PM					Reaming casing in 629' - 11"
" 15th AM	713	717	4		Red Clay
" 15th "	717	720	3		Fine grey sand, gassy
" 15th PM	720	730	10		Red clay
" 15th PM					Reaming casing in 710' - 7"
" 16th AM	730	737	7		Red clay
" 16th PM	737	742	5		Red clay reaming casing in 730' - 9"
" 17th AM	742	750	8		Red clay
" 17th AM	750	755	5		Fine sand, good showing oil 755'
" 17th PM	755	761	6		Fine asphalt sand reaming casing in 751'
" 18th AM	761	770	9		Red clay
" 18th "	770	780	10		Sand (same as last)
" 18th PM					Reaming casing in 770' - 11"
" 19th AM	780				Hole got crooked in hard shale Straightened it
" 19th PM	780	788	8		Oil sand, big oil showing, gas burns steadily (Walsh says a similar showing in Rangley cr.

June 20th AM	788	803	15	Florence field, Colo. would mean a 300 or 400 bbl. well Oil sand (Trachta says a similar showing in Coalinga would make 200 bbl. well or better, 100 ft. water in hole hard to estimate yield)
" 20th PM	803	811	8	Oil sand, oil showing same, more gas
" 21st AM				Gas forcing sand into hole
" 21st PM				Reaming casing in 791' - 9" #12 sample blown in by gas pressure
" 22nd AM				Reaming casing in 811' - 10"
" 22nd PM	811	821	10	Red Clay very sticky, must carry some sand in very thin streaks (W.E.R.)
" 23rd AM	821	835	14	Red Clay, oil very fine colors good oil showing
" 23rd PM				Reaming casing in 83' - 11" had to raise casing 79' to free it
" 24th AM	835	850	15	Red Clay tools sticking
" 24th PM	850	857	7	Red Clay
" 25th AM	857	865	8	Red clay, sand broke in from behind, good deal of oil came in
" 25th PM				Under-reamed and put in joint of pipe. Oil showing good
" 26th AM				Under-reamed to bottom put in 14 ft. nipple, everything shut off
" 26th PM				Took out 4 joints of pipe to work casing free
" 27th AM				Cleaned out hole. Put in 4 joint casing
" 27th PM	865	868	3	Grey sand shale made 3 ft. hole, put in 14 ft. nipple
" 28th AM	868	890	22	From 868 to 870 ft. sand shale
" 28th PM	890	915	25	From 870 to 890 ft. yellow clay, hole in good condition
" 29th AM				From 890 to 910 ft. yellow clay from 910 to 915 ft. mixed clay
" 29th PM				Put on wire line. Raised casing under-reamed 5 ft. in hard shale
" 30th AM				Cleaned out hole 25 ft. and under-reamed in shale
" 30th PM				Under-reamed in shale
July 1st AM				Under-reamed in hard shale and put in joint of pipe
" 1st PM				Tried to under-ream, but mud ran in and prevented it.

July 2nd	AM				Under-reamed, put in joint of pipe	
"	2nd	PM			Cleaned out hole, put in " " "	
"	3rd	AM	915	929	14	Mixed clay, very sticky
"	3rd	PM	929	932	3	Mixed clay, put in joint pipe. Shoe damaged, may have to pull casing
"	5th	AM				Had to pull casing
"	5th	PM				Pulled 730' - 10" 8-1/4" casing
"	6th	AM				Put in false mast to handle casing
"	7th					Put in casing poles
"	8th					Working on rig
"	9th					Repairing rig
"	10th					Repaired building, at camp
"	11th					Helped move house, a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it.
"	12th					Hauled pipe and tools from No. 3
"	13th					Working on buildings, waiting for casing shoe
"	14th	AM				Put on shoe, put in 14 joints of casing
"	14th	PM				Put in 603' - 1" of 8-1/4" casing
"	15th	AM				Cleaned out 35 ft. of mud. Under-reamed through shale, put in joint of pipe
"	15th	PM				Cleaned out 30 ft. of mud and put in joint of pipe. Keeping 600 ft. water in hole
"	16th	AM				Cut drilling line and spliced it cleaned out cavings. Cavings coming in fast
"	16th	PM				Cleaned out 15 ft. sticky clay cavings very hard to mix. Put in joint casing
"	17th	AM	932	940	8	Mixed clay. Struck small pocket of gas and showing of oil
"	17th	PM	940	950	10	Mixed clay, very sticky, hard to mix
"	18th	AM	950	960	10	Mixed clay, oil commencing to show again (possibly from thin sand streaks) as everything from above
"	20th	PM	991	1008	17	Grey sand, white clay, oil showing improving
"	27th	PM	1112	1117	5	Grey oil sand. Good oil showing in bailings.

July	28th	PM	1117	to	1127	10	Hard shale, water sand 1122'
"	29th	AM	1127	to	1142	15	Water sand
"	29th	PM	1142	to	1157	15	Grey sand and white clay
"	30th	AM	1157	to	1169	12	Oil sand, fine conglomerates
"	30th	PM	1169	to	1174	5	Sand and clay
"	31st	AM	1174	to	1189	15	Water sand and hard grey sand
"	31st	PM	1189	to	1204	15	Sand and clay. Thin streaks of water sand with clay between
August	1st	AM	1204	to	1219	15	Water sand. Water within 300' top
"	1st	PM					Put in 21 joints of casing
"	1st	PM	1219	to	1224	5	Sand. Sand running in, have to put in 6 5/8" casing
"	2nd	AM					Put in 24 joints of casing
"	3rd	AM	1224	to	1244	20	From 1224 to 1234 hard black shale
"							do 1234 to 1244
"	4th	AM	1244	to	1264	20	From 1244 to 1248 black shale
"							do 1248 to 1264 water sand
"	4th	PM	1264	to	1286	22	Dark sand
"	5th	AM	1286	to	1296	10	do
"	5th	PM	1296	to	1304	8	Sand and clay; having some cavings now and will have to carry pipe down
"	6th	AM					Cleaned out Boiler
"	6th	PM					Changed tools
"	7th	AM					Under-reamed 10' sand very hard and reaming slow
"	7th	PM					Under-reamed and put in joint casing
"	8th	AM					Cleaned out 20' cavings and underreamed 15'
"	8th	PM					Under-reamed and put in joint casing
"	9th	AM	1304	to	1307	3	Mixed clay
"	10th	AM	1307	to	1324	17	Water sand
"	10th	PM	1324	to	1340	16	Sand and clay (White) last 4' clay very soft
"	11th	AM	1340	to	1345	5	Hard sand
"	11th	PM					Under-reamed
"	12th	AM					do do put in joint casing
"	12th	PM					do
"	13th	AM	1345	to	1360	15	1345 to 1350 mixed shale
"							1350 to 1360 Water sand
"	13th	PM	1360	to	1368	8	Water sand
"	14th	AM	1368	to	1372	4	Dark shale, under-reamed, put in joint casing
"	14th	PM	1372	to	1392	20	Dark shale and water sand
"	15th	AM	1392	to	1405	13	Dark shale
"	16th	AM	1405	to	1430	25	Water sand
							Closed down.

LOG OF REED WELL

Loc. - NW4 SW/4 Sec. 5, T5S, R21E
El. 5800' I, Spud 5-1-1911

<u>Fact</u>	<u>Kind of Material</u>	<u>Remarks</u>
0-5	Spudded in	
5-25	Surface Rock	
25-40	Red & Blue Clay	
40-65	Mixed Clay	
65-80	Mixed Clay	
80-85	Yellow Sand	
85-90	Fine Conglomerate	
90-98	" "	
98-113	" "	
113-128	" "	
128-134	" "	
134-140	Red Shale	
140-144	Lime	
144-149	"	
149-162	Conglomerate	
162-178	"	
178-200	Mixed Clays and Congl.	
200-225	" " "	
225-245	" " "	
245-270	" " "	
270-295	" " "	
295-310	" " "	
310-315	Lime	
315-320	Hard Lime	
320-345	Mixed Clays Caves	
345-360	Blue Clays, Caves	Put in 3 joints of casing.
360-375	Red Shale	360'10" Casing
375-385	Red Shale	Oil Showing
385-400	White Shale	
400-410	White sand,	Showing Gilsonite particles & tar.
410-425	White sand	Washed out sand and Asphaltus
425-455	Congomerate (Flinty)	
455-485	Conglomerate	
485-510	Conglomerate	
510-520	Light Blue Clay	
520-535	Light Blue Clay	Pulled casing. Put in 392.10' Pulled 392' casing. Put in 19 joints casing. Broke Crown Pulley.
535-570	Light Blue Sandy Shale Caves	
570-605	Light Blue Sandy Shale	Water 572' Gas 575' Oil 575' Good

Log of Reed Well

Page 2.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
605-610	White Sand	Showing some Asphalt Oil and Gas 60' of cavings. Put in 526' 8/4" casing. Put in 18' 8 1/4" casing, Strong gas pressure forced 60' mud in hole. Put in 55' 8 1/4" casing, gas blows water out of hole at times.
610-615	Grey sand	Good oil showing parafine.
615-630	Grey sand	Good oil showing & gas forcing mud in casing oil showing improving.
630-635	Blue Clay	
635-645	Sand	Cased off gas, oil showing continues good.
645-655	Yellow gritty clay	Water rose to 570'
655-660	White sand	Gas 670'
660-690	Grey sand	Best showing of oil seen
690-695	Grey Sand	Oil & Gas showing good. Water rose to 4901 started to pull pipe to put on new shoe, put on new shoe, put pipe back. Casing in 690' 8 1/4" filled hole with water to hold back mud and gas Reaming casing in 629' 6" " " " 690' 8"
695-703	Grey Sand	
703-713	Red Clay	Good showing of oil, Reaming casing in 689'-11"
713-717	Red Clay	
717-720	Fine grey sand, gassy	
720-730	Red clay	Reaming casing in 710'-7"
730-737	Red Clay	
737-742	Red Clay	Reaming casing in 730'-9"
742-750	Red Clay	
750-755	Fine Sand	Good showing oil 755'
755-761	Fine Asphalt Sand	Reaming casing in 751'
761-770	Red Clay	
770-780	Sand (Same as last)	Reaming casing in 770'-11", Hole got crooked in hard shale, straightened it.

Log of Reed Well
Page 3.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
780-788	Oil Sand	Big oil showing, gas burns steadily (Walsh says a similar showing in Rangely or Florence field, Colo. would mean a 300 or 400 bbls. well.
788-803	Oil Sand	Trachta says a similar showing in Coalings would make 200 bbl. well or better 100' water in hole hard estimate yield.
803-811	Oil Sand	Oil showing same, more gas, gas forcing sand into hole, reaming casing in 791'-9", #12 sample blown in by gas pressure, reaming casing in 811'-10".
811- 821 ¹	Red Clay	Very sticky, must carry some sand in very thin streaks (W.E.R.)
821-835	Red Clay	Oil very fine color, good oil showing, reaming casing in 83'-11", had to raise casing 79' to free.
835-850	Red Clay	Tools sticking.
850-857	Red Clay	
857-865	Red Clay	Sand broke in from behind, good deal of oil came in, under-reamed & put in joint of pipe. Oil showing good. Under-reamed to bottom put in 14' nipple, everything shut off, took out 4 joints of pipe to work casing free, cleaned out hole, put in 4 joint casings.
865-868	Grey Sand Shale	Made 3' hole, put in 14' nipple.
868-870	Sand Shale	
870-890	Yellow Clay	
890-910 Y	Yellow Clay	
910-915	Mixed Clay	Put on wire line, raised casing under-reamed 5' in hard casing shale, cleaned out hole 25' and under-reamed in shale, under-reamed in hard shale and put in joint of pipe, tried to under-ream, but ran in and prevented it.
915-929	Mixed Clay	Very sticky.

Log of Reed Well
Page 4.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
929-932	Mixed Clay	Put in joint of pipe, shoe damaged, may have to pull casing. Had to pull casing, pulled 730'-10" 8 $\frac{1}{4}$ " casing, put in false mast to handle casing, put in casing poles. Working on rig, repairing rig, repairing building, at camp helped move house. a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it, hauled pipe & tools from #3, working on buildings, waiting for casing shoe, put on shoe, put in 14 joints of casing, put in 603'-1" of 8 $\frac{1}{4}$ " casing, cleaned out 35' of mud, under-reamed through shale, put in joint of pipe, cleaned out 30' of mud and put in joint of pipe, keeping 600' water in hole, cut drilling line and spliced it, cleaned out cavings, cavings coming in fast, cleaned out 15' sticky clay cavings very hard to mix, put in joint casing.
932-940	Mixed Clay	Struck small pocket of gas and showing of oil.
940-950	Mixed Clay	Very sticky, hard to mix.
950-960	Mixed Clay	Oil commencing to show again (possibly from thin sand streaks) as everything from above.
991-1008	Grey Sand, White Clay	Oil showing improving.
1112-1117	Grey Oil Sand	Good Oil showing in bailings.
1117-1127	Hard Shale	Water sand 1122'
1127-1142	Water Sand	
1142-1157	Grey sand & White Clay	
1157-1169	Oil Sand, Fine Conglomerates	
1169-1174	Sand & Clay	
1174-1189	Water Sand & Hard Grey Sand	
1189-1204	Sand & Clay	Thin streaks of water sand with clay between.

Log of Reed Well

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<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
1204-1219	Water Sand	Water within 300' top, put in 21 joints of casing.
1219-1224	Sand	Sand running in, have to put in 6-5/8" casing, put in 24 joints of casing.
1224-1244	From 1224 to 1234 hard black shale do 1234-1244	
1244-1264	Black Shale & Water Sand	
1264-1286	Dark Sand	
1286-1296	" "	
1296-1304	Sand & Clay	Having some cavings now and will have to carry pipe down, cleaned out boiler, changed tools, under-reamed 10' sand very hard and reaming slow, under-reamed and put in joint casing, cleaned out 20' cavings and under-reamed 15', under-reamed and put in joint casing.
1304-1307	Mixed Clay	
1307-1324	Water Sand	
1324-1340	Sand & Clay (White)	Last 41 clay very soft.
1340-1345	Hard Sand	Under-reamed and put in joint casing.
1345-1360	From 1345 to 1350 Mixed Shale From 1350 to 1360 Water Sand	
1360-1368	Water Sand	
1368-1372	Dark shale	Under-reamed and put in joint casing.
1372-1392	Dark Shale & Water Sand	
1392-1405	Dark Shale	
1405-1430	Water Sand Closed down	

LOG OF REED WELL #1 Reed

Loc. - NW4 SW/4 Sec. 5, T5S, R21E
El. 5800' I, Spud 5-1-1911

43-049-1092.2

<u>Fact</u>	<u>Kind of Material</u>	<u>Remarks</u>
0-5	Spudded in	
5-25	Surface Rock	
25-40	Red & Blue Clay	
40-65	Mixed Clay	
65-80	Mixed Clay	
80-85	Yellow Sand	
85-90	Fine Conglomerate	
90-98	" "	
98-113	" "	
113-128	" "	
128-134	" "	
134-140	Red Shale	
140-144	Lime	
144-149	"	
149-162	Conglomerate	
162-178	"	
178-200	Mixed Clays and Congl.	
200-225	" " "	
225-245	" " "	
245-270	" " "	
270-295	" " "	
295-310	" " "	
310-315	Lime	
315-320	Hard Lime	
320-345	Mixed Clays Caves	
345-360	Blue Clays, Caves	Put in 3 joints of casing.
360-375	Red Shale	360'10" Casing
375-385	Red Shale	Oil Showing
385-400	White Shale	
400-410	White sand.	Showing Gilsonite particles & tar.
410-425	White sand	Washed out sand and Asphaltus
425-455	Congomerate (Flinty)	
455-485	Conglomerate	
485-510	Conglomerate	
510-520	Light Blue Clay	
520-535	Light Blue Clay	Pulled casing. Put in 392.10' Pulled 392' casing. Put in 19 joints casing. Broke Crown Pulley.
535-570	Light Blue Sandy Shale Caves	
570-605	Light Blue Sandy Shale	Water 572' Gas 575' Oil 575' Good

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<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
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610-615	Grey sand	Good oil showing parafine.
615-630	Grey sand	Good oil showing & gas forcing mud in casing oil showing improving.
630-635	Blue Clay	
635-645	Sand	Cased off gas, oil showing continues good.
645-655	Yellow gritty clay	Water rose to 570'
655-660	White sand	Gas 670'
660-690	Grey sand	Best showing of oil seen
690-695	Grey Sand	Oil & Gas showing good. Water rose to 490' started to pull pipe to put on new shoe, put on new shoe, put pipe back. Casing in 690' 8 1/4" filled hole with water to hold back mud and gas Reaming casing in 629' 6" " " " 690' 8"
695-703	Grey Sand	
703-713	Red Clay	Good showing of oil, Reaming casing in 689'-11"
713-717	Red Clay	
717-720	Fine grey sand, gassy	
720-730	Red clay	Reaming casing in 710'-7"
730-737	Red Clay	
737-742	Red Clay	Reaming casing in 730'-9"
742-750	Red Clay	
750-755	Fine Sand	Good showing oil 755'
755-761	Fine Asphalt Sand	Reaming casing in 751'
761-770	Red Clay	
770-780	Sand (Same as last)	Reaming casing in 770'-11", Hole got crooked in hard shale, straightened it.

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<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
780-788	Oil Sand	Big oil showing, gas burns steadily (Walsh says a similar showing in Rangely or Florence field, Colo. would mean a 300 or 400 bbls. well.
788-803	Oil Sand	Trachta says a similar showing in Coalings would make 200 bbl. well or better 100' water in hole hard estimate yield.
803-811	Oil Sand	Oil showing same, more gas, gas forcing sand into hole, reaming casing in 791'-9", #12 sample blown in by gas pressure, reaming casing in 811'-10".
811- 821 ¹	Red Clay	Very sticky, must carry some sand in very thin streaks (W.E.R.)
821-835	Red Clay	Oil very fine color, good oil showing, reaming casing in 83'-11", had to raise casing 79' to free.
835-850	Red Clay	Tools sticking.
850-857	Red Clay	
857-865	Red Clay	Sand broke in from behing, good deal of oil came in, under-reamed & put in joint of pipe. Oil showing good. Under-reamed to bottom put in 14' nipple, everything shut off, took out 4 joints of pipe to work casing free, cleaned out hole, put in 4 joint casings.
865-868	Grey Sand Shale	Made 3' hole, put in 14' nipple.
868-870	Sand Shale	
870-890	Yellow Clay	
890-910 Y	Yellow Clay	
910-915	Mixed Clay	Put on wire line, raised casing under-reamed 5' in hard casing shale, cleaned out hole 25' and under-reamed in shale, under-reamed in hard shale and put in joint of pipe, tried to under-ream, but ran in and prevented it.
915-929	Mixed Clay	Very sticky.

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929-932	Mixed Clay	Put in joint of pipe, shoe damaged, may have to pull casing. Had to pull casing, pulled 730'-10" 8 $\frac{1}{4}$ " casing, put in false mast to handle casing, put in casing poles. Working on rig, repairing rig, repairing building, at camp helped move house a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it, hauled pipe & tools from #3, working on buildings, waiting for casing shoe, put on shoe, put in 14 joints of casing, put in 603'-1" of 8 $\frac{1}{4}$ " casing, cleaned out 35' of mud, under-reamed through shale, put in joint of pipe, cleaned out 30' of mud and put in joint of pipe, keeping 600' water in hole, cut drilling line and spliced it, cleaned out cavings, cavings coming in fast, cleaned out 15' sticky clay cavings very hard to mix, put in joint casing.
932-940	Mixed Clay	Struck small pocket of gas and showing of oil.
940-950	Mixed Clay	Very sticky, hard to mix.
950-960	Mixed Clay	Oil commencing to show again (possibly from thin sand streaks) as everything from above.
991-1008	Grey Sand, White Clay	Oil showing improving.
1112-1117	Grey Oil Sand	Good Oil showing in bailings.
1117-1127	Hard Shale	Water sand 1122'
1127-1142	Water Sand	
1142-1157	Grey sand & White Clay	
1157-1169	Oil Sand, Fine Conglomerates	
1169-1174	Sand & Clay	
1174-1189	Water Sand & Hard Grey Sand	
1189-1204	Sand & Clay	Thin streaks of water sand with clay between.

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<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
1204-1219	Water Sand	Water within 300' top, put in 21 joints of casing.
1219-1224	Sand	Sand running in, have to put in 6-5/8" casing, put in 24 joints of casing.
1224-1244	From 1224 to 1234 hard black shale do 1234-1244	
1244-1264	Black Shale & Water Sand	
1264-1286	Dark Sand	
1286-1296	" "	
1296-1304	Sand & Clay	Having some cavings now and will have to carry pipe down, cleaned out boiler, changed tools, under-reamed 10' sand very hard and reaming slow, under-reamed and put in joint casing, cleaned out 20' cavings and under-reamed 15', under-reamed and put in joint casing.
1304-1307	Mixed Clay	
1307-1324	Water Sand	
1324-1340	Sand & Clay (White)	Last 41 clay very soft.
1340-1345	Hard Sand	Under-reamed and put in joint casing.
1345-1360	From 1345 to 1350 Mixed Shale From 1350 to 1360 Water Sand	
1360-1368	Water Sand	
1368-1372	Dark shale	Under-reamed and put in joint casing.
1372-1392	Dark Shale & Water Sand	
1392-1405	Dark Shale	
1405-1430	Water Sand Closed down	

43-047-10962

LOG OF REED WELLLoc. - NW4 SW/4 Sec. 5, T5S, R21EEl. 5800' I, Spud 5-1-1911

<u>Fact</u>	<u>Kind of Material</u>	<u>Remarks</u>
0-5	Spudded in	
5-25	Surface Rock	
25-40	Red & Blue Clay	
40-65	Mixed Clay	
65-80	Mixed Clay	
80-85	Yellow Sand	
85-90	Fine Conglomerate	
90-98	" "	
98-113	" "	
113-128	" "	
128-134	" "	
134-140	Red Shale	
140-144	Lime	
144-149	"	
149-162	Conglomerate	
162-178	"	
178-200	Mixed Clays and Congl.	
200-225	" " "	
225-245	" " "	
245-270	" " "	
270-295	" " "	
295-310	" " "	
310-315	Lime	
315-320	Hard Lime	
320-345	Mixed Clays Caves	
345-360	Blue Clays, Caves	Put in 3 joints of casing.
360-375	Red Shale	360' 10" Casing
375-385	Red Shale	Oil Showing
385-400	White Shale	
400-410	White sand	Showing Gilsonite particles & tar.
410-425	White sand	Washed out sand and Asphaltus
425-455	Conglomerate (Flinty)	
455-485	Conglomerate	
485-510	Conglomerate	
510-520	Light Blue Clay	
520-535	Light Blue Clay	Pulled casing. Put in 392.10' Pulled 392' casing. Put in 19 joints casing. Broke Crown Pulley.
535-570	Light Blue Sandy Shale Caves	
570-605	Light Blue Sandy Shale	Water 572' Gas 575' Oil 575' Good

Log of Reed Well

Page 2.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
605-610	White Sand	Showing some Asphalt Oil and Gas 60' of cavings. Put in 526' 8/4" casing. Put in 18' 8 1/4" casing, Strong gas pressure forced 60' mud in hole. Put in 55' 8 1/4" casing, gas blows water out of hole at times.
610-615	Grey sand	Good oil showing parafine.
615-630	Grey sand	Good oil showing & gas forcing mud in casing oil showing improving.
630-635	Blue Clay	
635-645	Sand	Cased off gas, oil showing continues good.
645-655	Yellow gritty clay	Water rose to 570'
655-660	White sand	Gas 670'
660-690	Grey sand	Best showing of oil seen
690-695	Grey Sand	Oil & Gas showing good. Water rose to 4901 started to pull pipe to put on new shoe, put on new shoe, put pipe back. Casing in 690' 8 1/4" filled hole with water to hold back mud and gas Reaming casing in 629' 6" " " " 690' 8"
695-703	Grey Sand	
703-713	Red Clay	Good showing of oil, Reaming casing in 689'-11"
713-717	Red Clay	
717-720	Fine grey sand, gassy	
720-730	Red clay	Reaming casing in 710'-7"
730-737	Red Clay	
737-742	Red Clay	Reaming casing in 730'-9"
742-750	Red Clay	
750-755	Fine Sand	Good showing oil 755'
755-761	Fine Asphalt Sand	Reaming casing in 751'
761-770	Red Clay	
770-780	Sand (Same as last)	Reaming casing in 770'-11", Hole got crooked in hard shale, straightened it.

Log of Reed Well

Page 3.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
780-788	Oil Sand	Big oil showing, gas burns steadily (Walsh says a similar showing in Rangely or Florence field, Colo. would mean a 300 or 400 bbls. well.
788-803	Oil Sand	Trachta says a similar showing in Coalings would make 200 bbl. well or better 100' water in hole hard estimate yield.
803-811	Oil Sand	Oil showing same, more gas, gas forcing sand into hole, reaming casing in 791'-9", #12 sample blown in by gas pressure, reaming casing in 811'-10".
811-821	Red Clay	Very sticky, must carry some sand in very thin streaks (W.E.R.)
821-835	Red Clay	Oil very fine color, good oil showing, reaming casing in 83'-11", had to raise casing 79' to free.
835-850	Red Clay	Tools sticking.
850-857	Red Clay	
857-865	Red Clay	Sand broke in from behing, good deal of oil came in, under-reamed & put in joint of pipe. Oil showing good. Under-reamed to bottom put in 14' nipple, everything shut off, took out 4 joints of pipe to work casing free, cleaned out hole, put in 4 joint casings.
865-868	Grey Sand Shale	Made 3' hole, put in 14' nipple.
868-870	Sand Shale	
870-890	Yellow Clay	
890-910 Y	Yellow Clay	
910-915	Mixed Clay	Put on wire line, raised casing under-reamed 5' in hard casing shale, cleaned out hole 25' and under-reamed in shale, under-reamed in hard shale and put in joint of pipe, tried to under-ream, but ran in and prevented it.
915-929	Mixed Clay	Very sticky.

Log of Reed Well
Page 4.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
929-932	Mixed Clay	Put in joint of pipe, shoe damaged, may have to pull casing. Had to pull casing, pulled 730'-10" 8 $\frac{1}{4}$ " casing, put in false mast to handle casing, put in casing poles. Working on rig, repairing rig, repairing building, at camp helped move house, a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it, hauled pipe & tools from #3, working on buildings, waiting for casing shoe, put on shoe put in 14 joints of casing, put in 603'-1" of 8 $\frac{1}{4}$ " casing, cleaned out 35' of mud, under-reamed through shale, put in joint of pipe, cleaned out 30' of mud and put in joint of pipe, keeping 600' water in hole, cut drilling line and spliced it, cleaned out cavings, cavings coming in fast, cleaned out 15' sticky clay cavings very hard to mix, put in joint casing.
932-940	Mixed Clay	Struck small pocket of gas and showing of oil.
940-950	Mixed Clay	Very sticky, hard to mix.
950-960	Mixed Clay	Oil commencing to show again (possibly from thin sand streaks) as everything from above.
991-1008	Grey Sand, White Clay	Oil showing improving.
1112-1117	Grey Oil Sand	Good Oil showing in bailings.
1117-1127	Hard Shale	Water sand 1122'
1127-1142	Water Sand	
1142-1157	Grey sand & White Clay	
1157-1169	Oil Sand, Fine Conglomerates	
1169-1174	Sand & Clay	
1174-1189	Water Sand & Hard Grey Sand	
1189-1204	Sand & Clay	Thin streaks of water sand with clay between.

Log of Reed Well
Page 5.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
1204-1219	Water Sand	Water within 300' top, put in 21 joints of casing.
1219-1224	Sand	Sand running in, have to put in 6-5/8" casing, put in 24 joints of casing.
1224-1244	From 1224 to 1234 hard black shale do 1234-1244	
1244-1264	Black Shale & Water Sand	
1264-1286	Dark Sand	
1286-1296	" "	
1296-1304	Sand & Clay	Having some cavings now and will have to carry pipe down, cleaned out boiler, changed tools, under-reamed 10' sand very hard and reaming slow, under-reamed and put in joint casing, cleaned out 20' cavings and under-reamed 15', under-reamed and put in joint casing.
1304-1307	Mixed Clay	
1307-1324	Water Sand	
1324-1340	Sand & Clay (White)	Last 41 clay very soft.
1340-1345	Hard Sand	Under-reamed and put in joint casing.
1345-1360	From 1345 to 1350 Mixed Shale From 1350 to 1360 Water Sand	
1360-1368	Water Sand	
1368-1372	Dark shale	Under-reamed and put in joint casing.
1372-1392	Dark Shale & Water Sand	
1392-1405	Dark Shale	
1405-1430	Water Sand Closed down	

UTAH GEOLOGICAL SURVEY
 103 CIVIL ENGINEERING BLDG.
 UNIVERSITY OF UTAH
 SALT LAKE CITY, UTAH

4.16.24
 [Redacted]

Edge of Well Drilled Just North of Dog Valley

#1 Prod. Location, Center NW/4, SW/4, Section 5

753, 321E, Elevation 2500'

UNTAH G. Utah

20th	1911,	375 ft. to 385 ft.	Red Shale, oil showing.
30th	do	570 ft. to 605 ft.	Light blue sandy shale; oil and gas showing.
31st	do	605ft. to 610 ft.	White sand; showing some asphalt oil and gas.
June 6th	do	610 ft. to 630 ft.	Grey sand, good showing oil and gas.
do 7th	do	630 ft. to 645 ft.	Cored off gas, oil showing continues good.
do 9th	do	680 ft. to 695 ft.	Grey sand; best showing of oil and gas.
do 19th	do	780 ft. to 788 ft.	Oil sand; Big oil showing, gas burns steadily; (Walsh says a similar showing in Rangely or Florence field Colo. would mean a 300 to 400 bbl. well.
do 20th	do	788 ft. to 803 ft.	Oil sand; (Trachta says a similar showing in the Coolidge, Calif. field would be good for 200 bbls. or better) 100 feet water in hole hard to estimate yield.
do 20th	do	803 ft. to 811 ft.	Oil sand; oil showing the same, more gas.
July 11th	do	929 ft. to 932 ft.	Mixed clay.
do	do	do	Helped move house. A party of geological survey people in here to look over the coal lands. Have run off all oil insight and as far as possible covered up all evidence of it.
do 17th	do	932 ft. to 940 ft.	Mixed clay; struck small pocket of gas and showing of oil.
do 18th	do	940 ft. to 950 ft.	Mixed clay, very sticky, hard to mix.
do	do	950 ft. to 960 ft.	Mixed clay, oil commencing to show again. (Possibly from thin sand streaks, as everything from above shut off)
do 19th	do	960 ft. to 970 ft.	Mixed clay, oil showing improving.
do 20th	do	970 ft. to 982 ft.	Mixed clay, good showing of oil.
do	do	982 ft. to 1008 ft.	Grey sand, oil showing improving
do 21st	do	1008 ft. to 1015 ft.	Grey sand, struck nice grey sand and oil showing increasing.
do 27th	do	1096 ft. to 1112 ft.	Oil sand, fair showing of oil.
do	do	1112 ft. to 1117 ft.	Grey oil sand; good oil showing in bailings.
Aug. 5th	do	1286 ft. to 1296 ft.	Dark sand.
do 11th	do	1340 ft. to 1345 ft.	Hard sand.
do 13th	do	1360 ft. to 1368 ft.	Water sand.
do 15th	do	1392 ft. to 1405 ft.	Dark shale.
do 16th	do	1405 ft. to 1430 ft.	Water sand.

T.D. = 1430'

LOG OF TEST WELL

Loc. - NW4 SW/4 Sec. 5, T5S, R21E

El. 5800' ±

Spud 5-1-1911

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
0-5	Spudded in	
5-25	Surface Rock	
25-40	Red & Blue Clay	
40-65	Mixed Clay	
65-80	Mixed Clay	
80-85	Yellow Sand	
85-90	Fine Conglomerate	
90-98	" "	
98-113	" "	
113-128	" "	
128-134	" "	
134-140	Red Shale	
140-144	Lime	
144-149	"	
149-162	Conglomerate	
162-178	"	
178-200	Mixed Clays and Congl.	
200-225	" " "	
225-245	" " "	
245-270	" " "	
270-295	" " "	
295-310	" " "	
310-315	Lime	
315-320	Hard Lime	
320-345	Mixed Clays & Gaves	
345-360	Blue Clays, Gaves	Put in 3 joints of casing
360-375	Red Shale	360'10" Casing

UTAH GEOLOGICAL SURVEY
103 CIVIL ENGINEERING BLDG.
UNIVERSITY OF UTAH
SALT LAKE CITY 12, UTAH



UTAH GEOLOGICAL SURVEY
103 CIVIL ENGINEERING BLDG.
UNIVERSITY OF UTAH
SALT LAKE CITY, UTAH

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
375-385	Red Shale	Oil Showing
385-400	White Shale	
400-410	White sand,	Showing Gilsomite particles & tar
410-425	White sand	Washed out sand and Asphaltum
425-455	Conglomerate (Flinty)	
455-485	Conglomerate	
485-510	Conglomerate	
510-520	Light Blue Clay	
520-535	Light Blue Clay,	Pulled casing. Put in 392.10' Pulled 392' casing. Put in 19 joints casing, Broke Crown Pulley
535-570	Light Blue Sandy Shale Caves	
570-605	Light Blue Sandy Shale	Water 572' Gas 575' Oil 575' Good
605-610	White Sand	Showing some Asphalt Oil and Gas 60' of cavings Put in 526' 8/4" casing, Put in 18' 8 1/2" casing, Strong gas pressure forced 60' mud in hole, put in 55' 8 1/2" casing, gas blows water out of hole at times
610-615	Grey sand	Good oil Showing parafine
615-630	Grey sand	Good oil showing & gas forcing mud in casing oil showing improving
630-635	Blue Clay	
635-645	Sand	Cased off gas, oil showing continues good.
645-655	Yellow gritty clay	Water rose to 570'
655-660	White sand	Gas 670'
660-690	Grey sand	Best showing of oil seen
690-695	Grey Sand	Oil & Gas showing good. Water rose to 490I started to pull pipe to put on new shoe, put on new shoe, put pipe back. Casing in 690' 8 1/2" filled hole with water to hold back mud and gas Reaming casing in 629' 6" " " " " 690' 2"

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
695-703	Grey Sand	
703-713	Red Clay	Good showing of oil, Reaming casing in 689'-11"
713-717	Red Clay	
717-720	Fine grey sand, gassy	
720-730	Red Clay	Reaming casing in 710'-7"
730-737	Red Clay	
737-742	Red Clay	Reaming casing in 730'-9"
742-750	Red Clay	
750-755	Fine Sand	Good showing oil 755'
755-761	Fine Asphalt Sand	Reaming casing in 751'
761-770	Red Clay	
770-780	Sand (Same as last)	Reaming casing in 770'-11", Hole got crooked in hard shale, straightened it
780-788	Oil Sand	Big oil Showing, gas burns steadily (Walsh says a similar showing in Rangely or Florence field, Colo. would mean a 300 or 400 bbls. well
788-803	Oil Sand	Trachta says a similar showing in Coalings would make 200 bbl. well or better 100' water in hole hard estimate yield
803-811	Oil Sand	Oil showing same, more gas, gas forcing sand into hole, reaming casing in 791'-9", #12 sample blown in by gas pressure, reaming casing in 811'-10".
811-821	Red Clay	Very sticky, must carry some sand in very thin streaks (W.E.R.)
821-835	Red Clay	Oil very fine color, good oil showing, reaming casing in 83'-11", had to raise casing 79' to free.
835-850	Red Clay	Tools sticking
850-857	Red Clay	
857-865	Red Clay	Sand broke in from behind, good deal of oil came in, under-reamed & put in joint of pipe. Oilshowing good. Under-reamed to bottom put in 14' nipple, everything shut off, took out 4 joints of pipe to work casing free, cleaned out hole, put in 4 joint casings.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
865-868	Grey Sand Shale	Made 3' hole, put in 14' nipple.
868-870	Sand Shale	
870-890	Yellow Clay	
890-910 Y	Yellow Clay	
910-915	Mixed Clay	Put on wire line, raised casing under-reamed 5' in hard casing shale, cleaned out hole 25' and under-reamed in shale, under-reamed in hard shale and put in joint of pipe, tried to under-ream, but ran in and prevented it.
915-929	Mixed Clay	Very sticky
929-932	Mixed Clay	Put in joint of pipe, shoe damaged, may have to pull casing. Had to pull casing, pulled 730'-10" 8 1/2" casing, put in false mast to handle casing, put in casing poles. Working on rig, repairing rig, repairing building, at camp helped move house, a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it, hauled pipe & tools from #3, working on buildings, waiting for casing shoe, put on shoe, put in 14 joints of casing, put in 603'-1" of 8 1/2" casing, cleaned out 35' of mud, under-reamed through shale, put in joint of pipe, cleaned out 30' of mud and put in joint of pipe, keeping 600' water in hole, cut drilling line and spliced it, cleaned out cavings, cavings coming in fast, cleaned out 15' sticky clay cavings very hard to mix, put in joint casing.
932-940	Mixed Clay	Struck small pocket of gas and showing of oil.
940-950	Mixed Clay	Very sticky, hard to mix.
950-960	Mixed Clay	Oil commencing to show again (possibly from thin sand streaks) as everything from above.
991-1008	Grey Sand, White Clay	Oil showing improving
1112-1117	Grey Oil Sand	Good Oil showing in bailings.
1117-1127	Hard Shale	Water sand 1122'
1127-1142	Water Sand	
1142-1157	Grey sand & White Clay	
1157-1169	Oil Sand, Fine Conglomerates	

UTAH GEOLOGICAL SURVEY
103 CIVIL ENGINEERING BLDG.
UNIVERSITY OF UTAH
SALT LAKE CITY 12, UTAH

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
1169-1174	Sand & Clay	
1174-1189	Water Sand & Hard Grey Sand	
1189-1204	Sand & Clay	Thin streaks of water sand with clay between
1204-1219	Water Sand	Water within 300' top, put in 21 joints of casing
1219-1224	Sand	Sand running in, have to put in 6-5/8" casing, put in 24 joints of casing.
1224-1244	From 1224 to 1234 hard black shale do 1234-1244	
1244-1264	Black Shale & Water Sand	
1264-1286	Dark Sand	
1286-1296	" "	
1296-1304	Sand & Clay	Having some cavings now and will have to carry pipe down, cleaned out boiler, changed tools, under-reamed 10' sand very hard and reaming slow, under-reamed and put in joint casing, cleaned out 20' cavings and under-reamed 15', under-reamed and put in joint casing
1304-1307	Mixed Clay	
1307-1324	Water Sand	
1324-1340	Sand & Clay (white)	Last 4' clay very soft
1340-1345	Hard Sand	Under-reamed and put in joint casing
1345-1360	From 1345 to 1350 Mixed Shale From 1350 to 1360 Water Sand	
1360-1368	Water Sand	
1368-1372	Dark shale	Under-reamed and put in joint casing.
1372-1392	Dark Shale & Water Sand	
1392-1405	Dark Shale	
1405-1430	Water Sand	
	Closed down.	

LOG OF REED WELL

Loc. - NW4 SW/4 Sec. 5, T5S, R21E

El. 5800' I, Spud 5-1-1911

<u>Fact</u>	<u>Kind of Material</u>	<u>Remarks</u>
0-5	Spudded in	
5-25	Surface Rock	
25-40	Red & Blue Clay	
40-65	Mixed Clay	
65-80	Mixed Clay	
80-85	Yellow Sand	
85-90	Fine Conglomerate	
90-98	" "	
98-113	" "	
113-128	" "	
128-134	" "	
134-140	Red Shale	
140-144	Lime	
144-149	"	
149-162	Conglomerate	
162-178	"	
178-200	Mixed Clays and Congl.	
200-225	" " "	
225-245	" " "	
245-270	" " "	
270-295	" " "	
295-310	" " "	
310-315	Lime	
315-320	Hard Lime	
320-345	Mixed Clays Caves	
345-360	Blue Clays, Caves	Put in 3 joints of casing.
360-375	Red Shale	360' 10" Casing
375-385	Red Shale	Oil Showing
385-400	White Shale	
400-410	White sand.	Showing Gilsonite particles & tar.
410-425	White sand	Washed out sand and Asphaltus
425-455	Conglomerate (Flinty)	
455-485	Conglomerate	
485-510	Conglomerate	
510-520	Light Blue Clay	
520-535	Light Blue Clay	Pulled casing. Put in 392.10' Pulled 392' casing. Put in 19 joints casing. Broke Crown Pulley.
535-570	Light Blue Sandy Shale Caves	
570-605	Light Blue Sandy Shale	Water 572' Gas 575' Oil 575' Good

Log of Reed Well

Page 2.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
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610-615	Grey sand	Good oil showing parafine.
615-630	Grey sand	Good oil showing & gas forcing mud in casing oil showing improving.
630-635	Blue Clay	
635-645	Sand	Cased off gas, oil showing continues good.
645-655	Yellow gritty clay	Water rose to 570'
655-660	White sand	Gas 670'
660-690	Grey sand	Best showing of oil seen
690-695	Grey Sand	Oil & Gas showing good. Water rose to 4901 started to pull pipe to put on new shoe, put on new shoe, put pipe back. Casing in 690' 8 1/4" filled hole with water to hold back mud and gas Reaming casing in 629' 6" " " " 690' 8"
695-703	Grey Sand	
703-713	Red Clay	Good showing of oil, Reaming casing in 689'-11"
713-717	Red Clay	
717-720	Fine grey sand, gassy	
720-730	Red clay	Reaming casing in 710'-7"
730-737	Red Clay	
737-742	Red Clay	Reaming casing in 730'-9"
742-750	Red Clay	
750-755	Fine Sand	Good showing oil 755'
755-761	Fine Asphalt Sand	Reaming casing in 751'
761-770	Red Clay	
770-780	Sand (Same as last)	Reaming casing in 770'-11", Hole got crooked in hard shale, straightened it.

Log of Reed Well
Page 3.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
780-788	Oil Sand	Big oil showing, gas burns steadily (Walsh says a similar showing in Rangely or Florence field, Colo. would mean a 300 or 400 bbls. well.
788-803	Oil Sand	Trachta says a similar showing in Coalings would make 200 bbl. well or better 100' water in hole hard estimate yield.
803-811	Oil Sand	Oil showing same, more gas, gas forcing sand into hole, reaming casing in 791'-9", #12 sample blown in by gas pressure, reaming casing in 811'-10".
811-821	Red Clay	Very sticky, must carry some sand in very thin streaks (W.E.R.)
821-835	Red Clay	Oil very fine color, good oil showing, reaming casing in 83'-11", had to raise casing 79' to free.
835-850	Red Clay	Tools sticking.
850-857	Red Clay	
857-865	Red Clay	Sand broke in from behing, good deal of oil came in, under-reamed & put in joint of pipe. Oil showing good. Under-reamed to bottom put in 14' nipple, everything shut off, took out 4 joints of pipe to work casing free, cleaned out hole, put in 4 joint casings.
865-868	Grey Sand Shale	Made 3' hole, put in 14' nipple.
868-870	Sand Shale	
870-890	Yellow Clay	
890-910 Y	Yellow Clay	
910-915	Mixed Clay	Put on wire line, raised casing under-reamed 5' in hard casing shale, cleaned out hole 25' and under-reamed in shale, under-reamed in hard shale and put in joint of pipe, tried to under-ream, but ran in and prevented it.
915-929	Mixed Clay	Very sticky.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
929-932	Mixed Clay	Put in joint of pipe, shoe damaged, may have to pull casing. Had to pull casing, pulled 730'-10" 8 $\frac{1}{4}$ " casing, put in false mast to handle casing, put in casing poles. Working on rig, repairing rig, repairing building, at camp helped move house a party of geological survey people in here to look over the coal lands, have run off all oil in sight and as far as possible covered up all evidence of it, hauled pipe & tools from #3, working on buildings, waiting for casing shoe, put on shoe put in 14 joints of casing, put in 603'-1" of 8 $\frac{1}{4}$ " casing, cleaned out 35' of mud, under-reamed through shale, put in joint of pipe, cleaned out 30' of mud and put in joint of pipe, keeping 600' water in hole, cut drilling line and spliced it, cleaned out cavings, cavings coming in fast, cleaned out 15' sticky clay cavings very hard to mix, put in joint casing.
932-940	Mixed Clay	Struck small pocket of gas and showing of oil.
940-950	Mixed Clay	Very sticky, hard to mix.
950-960	Mixed Clay	Oil commencing to show again (possibly from thin sand streaks) as everything from above.
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1112-1117	Grey Oil Sand	Good Oil showing in bailings.
1117-1127	Hard Shale	Water sand 1122'
1127-1142	Water Sand	
1142-1157	Grey sand & White Clay	
1157-1169	Oil Sand, Fine Conglomerates	
1169-1174	Sand & Clay	
1174-1189	Water Sand & Hard Grey Sand	
1189-1204	Sand & Clay	Thin streaks of water sand with clay between.

Log of Reed Well
Page 5.

<u>Feet</u>	<u>Kind of Material</u>	<u>Remarks</u>
1204-1219	Water Sand	Water within 300' top, put in 21 joints of casing.
1219-1224	Sand	Sand running in, have to put in 6-5/8" casing, put in 24 joints of casing.
1224-1244	From 1224 to 1234 hard black shale do 1234-1244	
1244-1264	Black Shale & Water Sand	
1264-1286	Dark Sand	
1286-1296	" "	
1296-1304	Sand & Clay	Having some cavings now and will have to carry pipe down, cleaned out boiler, changed tools, under-reamed 10' sand very hard and reaming slow, under-reamed and put in joint casing, cleaned out 20' cavings and under-reamed 15', under-reamed and put in joint casing.
1304-1307	Mixed Clay	
1307-1324	Water Sand	
1324-1340	Sand & Clay (White)	Last 41 clay very soft.
1340-1345	Hard Sand	Under-reamed and put in joint casing.
1345-1360	From 1345 to 1350 Mixed Shale From 1350 to 1360 Water Sand	
1360-1368	Water Sand	
1368-1372	Dark shale	Under-reamed and put in joint casing.
1372-1392	Dark Shale & Water Sand	
1392-1405	Dark Shale	
1405-1430	Water Sand Closed down	

Log of Well Drilled Just North of Dog Valley

#1 Reed, Location, Center NW/4, SW/4, Section 5

T5S, R21E, Elevation 5800'

May 20th 1911,	375 ft. to 385 ft.	Red Shale, oil showing.
May 30th do	570 ft. to 605 ft.	Light blue sandy shale; oil and gas showing.
May 31st do	605 ft. to 610 ft.	White sand; showing some asphalt oil and gas.
June 6th do	610 ft. to 630 ft.	Grey sand, good showing oil and gas.
do 7th do	630 ft. to 645 ft.	Cased off gas, oil showing continues good.
do 9th do	690 ft. to 695 ft.	Grey sand, best showing of oil and gas.
do 10th do	780 ft. to 788 ft.	Oil sand; Big oil showing, gas burns steadily; (Walsh says a similar showing in Rangely or Florence field Colo. would mean a 300 to 400 bbl. well.
do 20th do	788 ft. to 803 ft.	Oil sand; (Trachta says a similar showing in the Coolinga, Calif. field would be good for 200 bbls. or better) 100 feet water in hole hard to estimate yield.
do 20th do	803 ft. to 811 ft.	Oil sand; oil showing the same, more gas.
July 11th do	929 ft. to 932 ft.	Mixed clay.
do do do		Helped move house. A party of geological survey people in here to look over the coal lands. Have run off all oil insight and as far as possible covered up all evidence of it.
do 17th do	932 ft. to 940 ft.	Mixed clay; struck small pocket of gas and showing of oil.
do 18th do	940 ft. to 950 ft.	Mixed clay, very sticky, hard to mix.
do do do	950 ft. to 960 ft.	Mixed clay, oil commencing to show again. (Possibly from thin sand streaks, as everything from above shut off)
do 19th do	960 ft. to 970 ft.	Mixed clay, oil showing improving
do 20th do	970 ft. to 982 ft.	Mixed clay, good showing of oil.
do do do	982 ft. to 1005 ft.	Grey sand, oil showing improving.
do Plat do	1008 ft. to 1015 ft.	Grey sand, struck nice grey sand and oil showing increasing.
do 27th do	1096 ft. to 1112 ft.	Oil sand, fair showing of oil.
do do do	1112 ft. to 1117 ft.	Grey oil sand; good oil showing in bailings.
Aug. 5th do	1286 ft. to 1296 ft.	Dark sand.
do 11th do	1340 ft. to 1345 ft.	Hard sand.
do 13th do	1360 ft. to 1368 ft.	Water sand.
do 15th do	1392 ft. to 1405 ft.	Dark shale.
do 16th do	1405 ft. to 1430 ft.	Water sand.

T.D. = 1430'