

ROBERT W. FRENSLEY

PETROLEUM GEOLOGIST

102 G INSURANCE BUILDING

WICHITA, KANSAS

June 26, 1963

Messman-Rinehart Oil Company

R. Staab No. 1 SE NE SW

Section 31 - T 12S - R 17W

Ellis County, Kansas

Elevation: 2088 feet, Kelly bushing (depth datum)
2086 feet, Derrick floor.

Commenced: June 11, 1963.

Completed: June 22, 1963, as a dry hole.

Contractor: Messman-Rinehart Oil Co.; Rig No. 1.

8 5/8 inch surface casing cemented at 247 feet with 185 sacks.

G E O L O G I C A L R E P O R T

The following are the important geological markers, zones of porosity, shows of oil and other pertinent data as determined by the appearance of the drill cuttings, changes in the drilling rate and the results of the 3 Western drill stem tests. No open hole electric log was run. All formation tops are sample picks. These formation tops and their corresponding subsea data are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Top Cimarron Anhydrite		() Driller's pick
Top Heebner	3310	(-1222)
Top Toronto	3330	(-1242)
Top Lansing	3379	(-1291)
Base Kansas City	3596	(-1508)
Top Shaly Conglomerate	3603	(-1515)
Top Cherty Conglomerate	3635	(-1547)
Total Depth	3674	(-1586)

Lithology with porosity and oil shows (*) are as follows:

3121 - 3126 Cream - buff, medium crystalline - chalky limestone with poor porosity. No oil shows.
3166 - 3176 Limestone as above.

Top Heebner Shale 3310 (-1222)Top Toronto 3330 (-1242)Top Lansing 3379 (-1291)

- * 3383 - 3384 Cream, medium crystalline, slightly oolitic limestone with poor oolitic and pinhole porosity. Some faint oil staining. This zone covered by Drill Stem Test No. 1.
- * 3400 - 3407 Cream - gray, medium crystalline oolitic and oocastic limestone with fair, broken porosity. Some fair oil staining and saturation. Some pinhole porosity. This zone covered by Drill Stem Test No. 1.

Drill Stem Test No. 1: 3372-3420 (Western).

Open one hour. Weak blow through test.

Recovered: 90 feet of muddy saltwater with few oil specks.

Initial bottom hole pressure in 30 mins. - - - - 974 psi

Initial flow pressure - - - - - 54 "

Final flow pressure - - - - - 86 "

Final bottom hole pressure in 30 mins. - - - - 879 "

Initial hydrostatic pressure - - - - - 1837 "

Maximum bottom hole temperature - - - - - 104°F.

- * 3437 - 3440 Cream, medium crystalline, oolitic limestone with fair porosity. Poor - fair oil staining, free oil and odor. This zone covered by Drill Stem Test No. 2.
- * 3450 - 3456 Cream - gray, medium crystalline, oolitic limestone with poor porosity. Some fair oil staining and saturation, free oil and odor. This zone covered by Drill Stem Test No. 2.

Drill Stem Test No. 2: 3424-3460 (Western).

Open one hour. Weak blow through test.

Recovered: 95 feet of muddy water.

Initial bottom hole pressure in 30 mins. - - - - 958 psi

Initial flow pressure - - - - - 31 "

Final flow pressure - - - - - 62 "

Final bottom hole pressure in 30 mins. - - - - 809 "

Initial hydrostatic pressure - - - - - 1837 "

No bottom hole temperature recorded due to broken thermometer.

- * 3484 - 3486 Cream - buff, medium crystalline - chalky limestone with faint, spotted oil staining. No free oil or odor.
- * 3492 - 3494) Cream, fine crystalline limestone with poor
- * 3497 - 3499) solution porosity. Trace oil staining. No free oil or odor. This zone covered by Drill Stem Test No. 3.
- * 3518 - 3522 Cream, medium crystalline, slightly oolitic limestone with poor porosity. Some light oil staining with free oil. This zone covered by Drill Stem No. 3.
- * 3526 - 3531 Cream - buff, medium crystalline limestone with pinhole porosity. Fair oil staining, free oil and odor. This zone covered by Drill Stem No. 3.
- 3132 - 3136 Cream, medium crystalline, oocastic limestone with fair porosity and oil staining. Free oil and odor. This zone covered by Drill Stem Test No. 3.

Drill Stem Test No. 3: 3490-3540 (Western).

Open one hour. Very weak blow for 5 minutes.

Recovered: 35 feet of mud with oil specks.

Initial bottom hole pressure in 30 mins. - - - - - 1109 psi

Initial flow pressure - - - - - 31 "

Final flow pressure - - - - - 39 "

Final bottom hole pressure in 30 mins. - - - - - 856 "

Initial hydrostatic pressure - - - - - 1877 "

Maximum bottom hole temperature - - - - - 107°F.

- * 3563 - 3566 Cream, fine crystalline, slightly oolitic limestone with trace oil stain, no free oil or odor.

Base Kansas City 3596 (-1508)Top Shaly Conglomerate 3603 (-1515)Top Cherty Conglomerate 3635 (-1547)

3635 - 3660 Varigated shales with thin streaks of varicolored fresh and weathered cherts.

3660 - 3674 Cream - white very tripolitic, porous chert. No oil shows, odor or fluorescence.

Total Depth 3674 (-1586)Remarks:

Drill cuttings were examined and described on location from

3100 feet to 3674 feet, total depth. Mr. George Klein did the geological work to a depth of 3457 feet. The writer completed the remainder of the hole.

The relative structural position of the subject dry hole as compared to the offsetting oil well is as follows:

<u>Formation</u>	M & R Oil Co. R. Staab No. 1 SE NE SW Sec. 31-12S-17W <u>D & A</u>	M & R Oil Co. Karlin No. 2 SW NW SE Sec. 31-12S-17W <u>Oil</u>
Heebner	-1222	-1207
Toronto	-1242	-1227
Lansing	-1291	-1275
B/ KC	-1508	-1489
Shaly Conglomerate	-1515	-1495
Arbuckle	----	-1510

Due to the complete absence of commercial oil shows it was recommended that the hole be plugged and abandoned as dry.

Respectfully submitted,

Robert W. Frensley
Robert W. Frensley,
Petroleum Geologist.

RWF/mlb
encl.

Messman-Rinehart Oil Company - R. Staab No. 1

2900 - 2910	2-1-1-1-1	1-1-1-1-1	
2920	1-2-2-3-2	3-3-3-2-2	
2930	2-2-3-6-4	4-3-4-6-5	
2940	8-6-6-7-6	6-6-6-5-5	
2950	4-4-4-4-8	7-6-7-4-6	
2960	4-4-3-3-8	7-7-6-3-3	
2970	2-4-3-3-6	6-6-5-5-5	
2980	6-7-8-5-4	5-7-5-3-2	
2990	3-5-5-4-3	4-4-3-3-3	
3000	2-2-3-7-13	6-4-5-5-5	Trip @ 2995'
3000 - 3010	2-3-4-3-3	2-2-2-3-2	
3020	2-2-1-2-2	2-2-3-3-3	
3030	3-3-2-2-2	1-2-1-2-2	
3040	1-2-2-2-2	1-1-2-2-2	
3050	2-1-2-1-2	2-1-2-2-2	
3060	2-1-2-2-3	2-3-2-2-3	
3070	3-4-3-4-4	4-4-4-5-4	
3080	2-3-3-4-4	5-5-4-3-4	
3090	3-4-5-5-4	4-5-4-4-4	
3100	3-3-4-2-4	2-3-4-4-4	
3100 - 3110	4-4-4-6-4	2-2-2-5-6	
3120	7-9-6-6-6	6-4-5-6-7	
3130	6-3-4-3-3	4-6-5-5-5	
3140	6-6-9-8-6	7-5-2-3-5	
3150	2-4-5-7-9	7-10-7-8-11	
3160	9-7-7-3-5	7-9-5-8-11	
3170	7-7-9-7-6	4-3-4-3-4	
3180	3-5-4-3-4	3-4-6-5-4	
3190	5-6-8-7-5	5-6-6-5-5	
3200	4-4-3-5-9	11-10-9-7-7	
3200 - 3210	7-7-7-8-8	9-9-7-10-7	
3220	10-8-9-11-12	13-14-14-9-9	Trip @ 3218'
3230	6-6-4-5-5	4-5-4-5-4	
3240	5-4-4-4-5	4-3-2-6-5	
3250	7-6-7-6-5	3-3-5-5-6	
3260	4-3-4-4-6	6-5-5-5-4	
3270	6-7-6-7-7	7-4-3-4-4	
3280	4-4-4-5-6	5-5-5-7-8	
3290	4-5-5-6-7	7-7-6-6-8	
3300	8-6-9-9-7	9-9-5-6-7	

3300 - 3310	8-9-8-6-7	8-8-9-7-8	
3320	4-2-2-7-10	10-10-5-5-7	
3330	6-5-6-8-6	6-5-7-5-6	
3340	7-8-9-9-5	6-6-7-6-6	
3350	7-8-5-6-8	10-11-10-7-8	
3360	9-6-5-4-5	7-7-6-6-9	
3370	8-8-9-5-3	2-4-4-4-6	
3380	10-9-7-6-7	6-5-5-5-6	
3890	6-6-6-5-7	6-6-7-8-6	Circ. 1½ hrs. @ 3385'
3400	5-4-4-4-4	6-8-8-8-9	Circ. 1 hr. @ 3400'
3400 - 3410	5-5-5-7-8	7-5-7-10-9	Circ. @ 3410'
3420	8-9-7-9-8	9-10-9-9-10	Circ. @ 3420'
3430	5-4-5-6-5	3-4-5-3-4	
3440	3-3-4-5-5	6-5-4-3-5	
3450	5-4-6-9-6	5-8-8-8-7	
3460	3-4-5-5-4	2-9-9-7-8	
3470	7-8-9-8-7	7-7-6-7-7	
3480	7-8-8-8-7	8-8-6-4-8	
3490	9-6-5-2-3	3-5-4-6-8	
3500	7-7-4-7-7	8-7-4-6-8	
3500 - 3510	9-10-9-10-7	8-10-12-7-5	
3520	5-4-7-9-8	10-12-9-6-6	
3530	8-7-10-9-8	10-5-6-7-8	
3540	6-10-5-4-5	10-10-8-8-10	
3550	6-6-6-7-5	5-7-5-5-4	
3560	5-4-5-4-4	6-5-6-6-7	
3570	5-7-5-5-5	5-6-7-6-5	
3580	6-7-6-7-5	5-5-5-5-4	
3590	5-4-5-5-5	6-4-3-5-5	
3600	5-5-9-9-6	7-5-3-3-4	
3600 - 3610	6-6-5-3-3	3-4-3-3-3	Circ. @ 3610'
3620	2-2-5-3-3	3-2-4-3-3	Circ. @ 3618'
3630	4-4-3-3-3	4-4-4-5-5	Circ. @ 3628'
3640	5-6-5-5-5	4-1-2-5-3	Circ. @ 3635'
3650	6-5-4-5-5	5-3-5-5-6	Circ. @ 3642'
3660	2-6-6-5-5	4-5-4-4-4	
3670	2-1-1-1-1	2-2-1-2-2	
3670 - 3674	1-3-3-3		

RTD