

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

ON

S C H I N D L E R N O. 1

S E S E N E

SECTION 3 - 20S - 4W

by

HARLAN B. DIXON

WHITE & ELLIS DRILLING, INC.
Box 448
El Dorado, Kansas

Re: White & Ellis & Pack Oil Company
No. 1 Schindler
SE SE NE Sec. 3-20S-4W
McPherson County, Kansas

Pack Oil Company
514 W-K-H Bldg.
Wichita, Kansas

Gentlemen:

Herein is a geological report of the above captioned well. Samples and drilling time were kept from 2200 feet to a rotary total depth of 3860 feet.

I was present at the location during the drilling of all porous zones from 2500 feet to rotary total depth.

After total depth was reached a Schlumberger electrical survey was run and formation tops have been correlated with those shown on this log.

All measurements were taken from rotary bushing as they are listed below.

ELEVATION: 1481 D.F. (Laughlin-Simmons & Co.)
1483 R.B.

<u>FORMATION</u>	<u>SAMPLES</u>	<u>SCHLUMBERGER</u>
Heebner	2293 (-810)	2300 (-817)
Toronto	2315 (-832)	2317 (-834)
Douglas Sand	2339 (-856)	2338 (-855)
Brown Lime		2490 (-1007)
Lansing - Kansas City	2552 (-1069)	2546 (-1063)
Mississippi	3186 (-1703)	3188 (-1705)
Kinderhook	3461 or 3485 (-1978 or -2002)	3487 (-2004)
Maquoketa	3718 (-2235)	3717 (-2234)
Viola	3739 (-2256)	3736 (-2253)
Simpson	3768 (-2285)	3768 (-2285)
Arbuckle	3840 (-2357)	3836 (-2353)
Total depth	3860 (-2377)	3863 (-2380)

DETAILED LITHOLOGIC DESCRIPTION OF POROUS ZONES

DOUGLAS SAND 2338 - 2353:

Clear to light gray clusters of sand, also friable sand zones, fine grain sand, partly micaceous, porous, no oil shows.

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LANSING - KANSAS CITY LIME

- 2546 - 2562: Cream to light tan fine crystalline to dense lime, traces of vugular porosity. No show.
- 2572 - 2584: White to buff fine crystalline lime. Chalky in part, traces of oocastic porosity. No show.
- 2598 - 2603: Buff fine crystalline lime, chalky like in part.
- 2659 - 2672: Light tan fine crystalline lime, very good oolitic and oocastic porosity. No show.
- 2774 - 2780: Buff to gray fine crystalline lime, traces of oolitic and oocastic porosity. No show.
- 2806 - 2812: Buff to gray fine crystalline lime, scattered vugular porosity. No show.
- 2831 - 2838: Tan fine crystalline mottled lime, scattered vugular porosity. No show.
- 2880 - 2896: Light gray fine crystalline lime, traces of sucrosic and vugular porosity, partly chalk like. No show.

MISSISSIPPIAN

- 3188 - 3201: White to light gray, medium to coarse crystalline dolomitic lime, scattered vugular porosity. No show.
- 3201 - 3210: Light tan to gray fine crystalline and sucrosic lime.
- 3210 - 3230: Light gray, medium to coarse crystalline fossiliferous dolomitic lime, traces of white to smoky gray opaque chert.
- 3230 - 3234: White dolomitic lime, sucrosic.
- 3234 - 3257: White to light gray, coarse crystalline dolomitic lime, white to blue-gray chert, tan sucrosic dolomitic lime.
- 3257 - 3273: White to blue-gray dense cherty lime and mottled chat. White medium to coarse crystalline dolomitic lime. Partly cherty.
- 3273 - 3289: Light tan to gray sucrosic dolomitic lime. Streaks of blue-gray sharp chert.
- 3279 - 3295: White to light gray sucrosic dolomitic lime.
- 3295 - 3340: Light tan sucrosic and partly chalk like dolomitic lime.
- 3340 - 3360: White to blue-gray sharp chert. White to light tan, coarse crystalline to dense and cherty dolomitic lime.

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3360 - 3412: Light tan sucrosic dolomitic lime, partly cherty, some blue-gray to white sharp chert.

3412 - 3466: White to blue-gray sharp chert, and tripolitic chert, and white cherty dolomitic lime.

3466 - 3487: Tan fine crystalline dolomitic lime, traces of vugular porosity.

KINDERHOOK

3697 - 3705: Light gray to tan medium to coarse crystalline lime, trace of blue gray chat and light gray to white sucrosic lime.

3715 - 3717: Clusters of medium to fine grain sand, sub-angular, sub-rounded, with black shale inclusions.

VIOLA

3736 - 3748: Gray coarse crystalline dolomite, inter-crystalline and vugular porosity, slight odor, show of free oil. Traces of light tan dolomite.

D.S.T. # 1

3737 - 43: Initial shut in 20 minutes, tool open 1 hour.
Closed 20 minutes.

I.F. - 15#

F.P. 260#

I.B.H.P. - 1230#

F.B.H.P. - 1175#

Weak blow throughout test. Recovered 420' muddy salt water.

3748 - 3768: Light gray to light tan coarse crystalline dolomite, partly rhombic crystalline, scattered vugular porosity.

SIMPSON

3775 - 3782: Brown medium crystalline sandy dolomite, possible dead stain in upper few feet. No odor, no free oil.

3782 - 3793: Gray fine to medium crystalline dolomite, partly sandy. Traces of blue-gray chert with brown specks in upper few feet.

3793 - 3818: Mostly clear, sub-rounded sand. Medium to coarse grain, good porosity, no show.

3815 - 3836: Clusters of above sand. Streaks of green waxy shale. No show.

ARBUCKLE

3836 - 3863: Light gray coarse crystalline dolomite lime, inter-crystalline porosity. No show.

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CONCLUSION:

On the Viola, the producing formation for the area, this well is twelve (12) feet lower than the Ferguson # 1, (a dry hole) located approximately one half mile to the east of this location.

Since this well was tested in the Viola, where a poor show of oil was found, and only water recovered, it is my recommendation that this well be plugged and declared dry and abandoned.

Respectfully submitted,

WHITE & ELLIS DRILLING, INC.

Harlan B. Dixon

Harlan B. Dixon, Geologist.

HBD:jc

Casing Record

8 5/8" 563' cemented
w/ 470 sacks

T. D. 3863'

Location: SE SE NE
Sec. 3-20S-4W
McPherson County, Kansas

Farm: Schindler #1
Well Owner: White & Ellis, et al
Contractor: White & Ellis Drilling, Inc.,
Started: 5-5-57
Completed: 5-20-57

Kelly bushing measurements 5' above ground level.

Formation	Depth	- Figures indicate bottom of formation.	
Soil	0-9	Top of Simpson	
Sand	165	Sand	3836
Shale	420		
Sand	500	Top of Arbuckle	
Shale & gravel	516	Lime	3863
Salt	532		
Shale & salt	556	Dry hole, plug and abandon	
Shale & lime	562		
Lime	563		
Lime & sand strks.	650		
Red rock	660	SCHUMBERGER TOPS:	
Lime	740		
Shale & lime	810	Heebner	2300
Shale	830	Toronto	2317
Lime w/ shale strks.	990	Douglas sand	2338
Shale	1020	Brown lime	2490
Lime	1060	Lansing-Kansas City	2546
Shale & lime	1260	Mississippi	3188
Lime w/ shale strks.	1385	Kinderhook	3487
Shale	1630	Waukegan	3717
Shale & shells	1710	Viola	3736
Shale w/ lime strks.	1940	Simpson	3768
Shale & lime	2000	Arbuckle	3836
Shale (sticky)	2145		
Lime	2294	T. D.	3863
Shale & lime strks.	2335		
Sandy shale	2369		
Sand	2453		
Shale	2546		
Top of Lansing			
Lime	2660		
Shale	2672		
Lime & shale	2801		
Lime	2920		
Shale & lime	3137		
Shale & shells	3188		
Top of Mississippi			
Lime	3447		
Shale	3739		
Lime	3768		
Dolomite	3774		

TIME LOG

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1 Foot Drilling time 2000' to total depth 3860 ft.

<u>FROM - TO</u>	<u>MINUTES</u>	<u>REMARKS</u>
2200 - 2210	1-2-2-2-1-2-2-2-2-2	
2210 - 2220	2-3-2-1-1-1-2-2-2-2	Conn. @ 2216
2220 - 2230	2-2-3-2-2-2-3-2-2-2	
2230 - 2240	2-2-2-1-1-2-2-2-2-3	
2240 - 2250	3-2-2-2-2-2-3-3-1-1	Conn. @ 2246
2250 - 2260	2-2-2-3-3-2-3-3-3-2	
2260 - 2270	2-3-2-3-3-3-2-3-3-2	
2270 - 2280	3-3-3-3-3-3-3-3-3-3	Conn. @ 2275
2280 - 2290	3-3-3-2-3-3-3-3-3-3	
2290 - 2300	3-3-3-1-1-1-1-1-3-4	
2300 - 2310	2-2-2-1-2-1-2-1-2-1	Conn. @ 2305
2310 - 2320	2-2-2-2-2-3-3-2-3-2	
2320 - 2330	2-2-1-1-1-1-1-1-1-2	
2330 - 2340	2-2-2-2-1-1-2-2-1-1	Conn. @ 2334
2340 - 2350	1-1-1-1-1-1-1-1-1-1	
2350 - 2360	1-1-1-1-1-1-1-1-1-1	
2360 - 2370	1-1-1-1-1-2-1-1-1-1	Conn. @ 2363
2370 - 2380	1-1-1-1-1-1-1-1-1-1	
2380 - 2390	1-1-1-1-1-1-1-1-1-1	
2390 - 2400	1-1-1-1-1-1-1-1-1-1	Conn. @ 2393
2400 - 2410	1-1-1-1-1-1-1-1-1-1	
2410 - 2420	1-1-1-1-1-1-1-1-1-1	
2420 - 2430	1-1-1-1-1-1-1-1-1-1	Conn. @ 2423
2430 - 2440	1-1-1-1-1-1-1-1-1-1	
2440 - 2450	1-1-1-1-1-1-1-1-1-1	
2450 - 2460	1-1-1-2-3-3-2-3-2-3	Conn. @ 2453
2460 - 2470	2-2-3-2-3-3-3-2-2-3	
2470 - 2480	2-3-2-2-3-2-3-2-3-2	
2480 - 2490	3-2-3-2-1-1-1-2-1-1	
2490 - 2500	1-2-2-3-1-2-1-2-1-2	
2500 - 2510	2-1-2-2-2-2-1-2-2-2	
2510 - 2520	2-2-3-2-4-2-2-2-2-2	Conn. @ 2512
2520 - 2530	2-2-2-2-3-2-2-2-2-2	
2530 - 2540	3-2-2-2-2-2-2-2-3-2	
2540 - 2550	2-2-1-2-2-2-1-2-2-2	Conn. @ 2543
2550 - 2560	2-2-3-2-2-2-2-2-3-2	
2560 - 2570	3-2-3-3-3-2-2-2-3-2	
2570 - 2580	2-3-3-3-4-4-3-2-2-3	Conn. @ 2574
2580 - 2590	3-4-4-5-4-5-4-4-4-3	
2590 - 2600	3-2-2-3-2-3-2-4-4-6	
2600 - 2610	5-5-5-3-6-5-6-5-3-3	Conn. @ 2604
2610 - 2620	5-4-5-4-3-3-4-6-5-4	
2620 - 2630	5-5-5-5-5-3-2-2-2-2	

T I M E L O G

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<u>FROM - TO</u>	<u>MINUTES</u>	<u>REMARKS</u>
2630 - 2640	2-3-4-3-4-4-3-2-3-2	Conn. @ 2634
2640 - 2650	2-3-4-3-2-2-2-2-2-3	
2650 - 2660	4-3-3-3-3-4-4-5-4-1	
2660 - 2670	1-2-2-2-2-2-2-2-2-2	Conn. @ 2663
2670 - 2680	1-3-3-3-2-2-2-1-1-3	
2680 - 2690	3-2-2-3-3-3-4-4-4-4	
2690 - 2700	4-4-6-2-3-3-3-3-3-3	
2700 - 2710	4-3-3-3-3-3-3-3-4-3	
2710 - 2720	4-3-3-3-3-4-3-3-3-3	
2720 - 2730	3-3-3-1-1-2-2-2-2-3	Conn. @ 2726
2730 - 2740	2-2-3-2-2-3-3-2-3-3	
2740 - 2750	2-3-3-3-3-3-3-4-2-2	
2750 - 2760	2-1-2-2-4-3-3-3-3-4	Conn. @ 2755
2760 - 2770	3-4-3-4-4-4-4-4-5-5	
2770 - 2780	4-4-4-5-4-4-5-5-4-5	
2780 - 2790	4-4-4-4-4-4-4-6-6-5	Conn. @ 2785
2790 - 2800	4-6-6-5-5-8-9-5-8-7	
2800 - 2810	6-5-4-4-6-9-5-6-5-5	
2810 - 2820	5-6-4-4-5-4-3-2-2-4	Conn. @ 2817
2820 - 2830	5-4-4-4-4-2-1-1-1-3	
2830 - 2840	3-2-2-3-3-3-3-4-3-2	
2840 - 2850	3-2-3-2-2-2-2-1-2-3	Conn. @ 2847
2850 - 2860	2-2-2-2-2-2-2-3-2-3	
2860 - 2870	2-2-2-2-2-3-2-3-4-3	
2870 - 2880	4-4-3-2-3-3-2-2-2-2	Conn. @ 2876
2880 - 2890	4-5-5-5-4-4-4-4-5-5	
2890 - 2900	3-4-4-3-3-3-3-4-3-4	Conn. @ 2905
2900 - 2910	4-4-5-5-3-2-4-4-3-5	
2910 - 2920	4-3-4-4-4-4-3-3-2-4	
2920 - 2930	4-4-5-5-4-4-4-4-6-5	
2930 - 2940	5-5-4-5-3-3-1-2-1-1	
2940 - 2950	1-1-1-2-2-1-2-2-2-3	
2950 - 2960	2-2-2-3-3-1-1-1-3-3	Conn. @ 2959
2960 - 2970	3-3-4-3-3-3-2-4-3-3	
2970 - 2980	3-3-2-2-2-2-2-3-3-3	
2980 - 2990	4-1-1-2-2-2-2-2-3-3	Conn. @ 2989
2990 - 3000	2-3-4-3-3-3-3-3-4-4	
3000 - 3010	3-3-3-4-3-4-2-3-5-3	
3010 - 3020	4-3-3-3-3-2-2-2-1-2	Conn. @ 3019
3020 - 3030	1-2-4-4-3-3-2-2-3-4	
3030 - 3040	4-5-2-3-3-3-3-4-4-3	
3040 - 3050	2-1-2-3-4-2-1-1-2-2	Conn. @ 3050
3050 - 3060	1-2-2-7-4-3-3-5-4-3	
3060 - 3070	2-2-3-2-3-2-2-2-2-1	
3070 - 3080	3-4-3-3-2-3-2-3-4-5	Conn. @ 3079

TIME LOG

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FROM - TO	MINUTES	REMARKS
#		
3080 - 3090	1-2-2-2-2-2-2-3-4	
3090 - 3100	3-3-3-3-2-2-2-2-2	
3100 - 3110	1-1-3-3-3-3-2-3-2	Conn. @ 3109
3110 - 3120	2-2-2-4-4-2-2-2-2	
3120 - 3130	3-3-3-3-2-2-3-3-4-3	
3130 - 3140	2-4-2-3-2-2-8-14-12	Conn. @ 3138
3140 - 3150	3-2-1-1-1-1-2-2-4-4	
3150 - 3160	3-4-3-5-4-3-4-3-3-3	
3160 - 3170	2-2-3-2-2-2-3-18-2-3	Conn. @ 3168
3170 - 3180	2-3-3-3-2-2-2-2-2-2	
3180 - 3190	3-2-2-3-2-3-5-4-4-5	
3190 - 3200	3-4-4-5-4-3-2-3-4-4-4	Conn. @ 3197
3200 - 3210	5-2-1-1-1-1-2-3-4-4	
3210 - 3220	4-5-8-7-8-8-8-6-7-7	
3220 - 3230	7-7-8-6-7-6-5-5-7-4	Conn. @ 3227
3230 - 3240	2-2-2-6-6-7-6-5-2-3	
3240 - 3250	3-5-5-5-2-2-3-5-2-2-4	
3250 - 3260	4-3-6-8-5-1-2-9-6-7	Conn. @ 3255
3260 - 3270	8-4-6-4-6-6-7-5-6-6	
3270 - 3280	5-5-6-5-2-4-7-9-10-4	
3280 - 3290	2-2-2-2-2-1-1-1-1-3-9	Conn. @ 3285
3290 - 3300	10-18-16-6-8-5-3-1-1-1	
3300 - 3310	4-3-3-3-3-3-4-3-4-3	
3310 - 3320	3-3-3-3-3-2-1-2-2-2	Conn. @ 3315
3320 - 3330	1-1-1-1-2-1-1-1-2-2	
3330 - 3340	1-1-1-2-2-2-2-2-3-8	
3340 - 3350	4-2-8-8-4-6-10-13-11-7	
3350 - 3360	5-9-8-9-8-4-8-8-7-5	
3360 - 3370	3-3-3-2-3-4-4-3-2-3	
3370 - 3380	4-3-2-3-3-2-3-4-2-3	Conn. @ 3374
3380 - 3390	4-3-3-2-3-2-2-3-2-3	
3390 - 3400	3-3-2-2-2-3-3-3-3-2	
3400 - 3410	3-6-8-9-6-4-4-4-5-4	Conn. @ 3404
3410 - 3420	5-5-9-10-14-12-12-13-10-14	
3420 - 3430	12-11-11-11-11-10-11-12-11-13	
3430 - 3440	12-7-21-12-14-11-8-9-19-11	Conn. @ 3432
3440 - 3450	27-24-27-10-9-13-12-9-10-10	
3450 - 3460	10-8-8-9-7-8-9-9-9-7	
3460 - 3470	8-6-6-6-6-12-8-10-9-8	Conn. @ 3462
3470 - 3480	9-6-8-8-7-7-7-7-7-7	
3480 - 3490	8-6-7-8-6-2-3-3-6-5	
3490 - 3500	6-6-2-4-4-5-5-6-5-7	Conn. @ 3493
3500 - 3510	4-6-5-8-5-5-7-10-4-4	
3510 - 3520	5-6-6-4-6-5-5-6-6-5	
3520 - 3530	6-3-3-6-6-5-4-4-4-5	Conn. @ 3523

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<u>FROM - TO</u>	<u>MINUTES</u>	<u>REMARKS</u>
3530 - 3540	4-4-4-5-4-3-4-3-4-5	
3540 - 3550	4-4-5-5-5-5-6-6-5-5	
3550 - 3560	5-5-3-5-4-4-4-5-5-5	Conn. @ 3551
3560 - 3570	5-5-4-4-4-4-4-3-3-3	
3570 - 3580	3-3-4-4-3-4-4-4-3-3	
3580 - 3590	3-3-2-3-4-3-4-5-4-4	Conn. @ 3581
3590 - 3600	3-4-3-4-3-4-3-4-4-3	
3600 - 3610	4-3-4-3-4-3-4-3-5-4	
3610 - 3620	3-3-4-3-6-4-4-4-5-4	Conn. @ 3611
3620 - 3630	5-4-4-5-4-4-4-4-4-4	
3630 - 3640	4-4-5-5-6-7-6-7-3-4	Conn. @ 3639
3640 - 3650	4-3-3-4-4-4-3-4-5-4	
3650 - 3660	3-4-4-4-4-4-3-4-4-4	
3660 - 3670	4-4-3-5-4-4-5-5-4-8	Conn. @ 3668
3670 - 3680	7-7-6-6-6-6-6-9-8-5	
3680 - 3690	7-6-7-7-6-5-6-7-7-5	
3690 - 3700	6-7-7-5-4-7-10-8-8-4	Conn. @ 3700
3700 - 3710	4-4-4-5-5-4-5-5-6-5	
3710 - 3720	4-4-4-4-4-5-4-5-6-5½	
3720 - 3730	5½-5-4½-4½-7-7½-7½-9½-6½-11½	Conn. @ 3729
3730 - 3740	12-9½-10-5-5-6-7-4-4-3½	
3740 - 3750	4-5½-5-5½-6-6-6-7-7-7	
3750 - 3760	6-7-7-6-6-6-6-6-5-6	Conn. @ 3759
3760 - 3770	6-5-5-6-7-7-6-7-8-9	
3770 - 3780	8-7-5-6-3-2½-2½-2½-3-2½	
3780 - 3790	3-3-4-3-3-4-4-3-5-6	Conn. @ 3787
3790 - 3800	5-6-6-5-5-4-4-4-4-5	
3800 - 3810	7-10-6-7-6-6-8-8-15-10-17	
3810 - 3820	16-18-24-15-6-9-4-5-7-8	
3820 - 3830	5-5-8-6-6-6-11-11-9-7	
3830 - 3840	11-10-9-6-6-12-8-8½-9½-9	
3840 - 3850	10-9-12-14-7-6-12-9-8-15	
3850 - 3860	10-7-12-6-11-12-10-7-11-15	