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GENERAL INFORMATION & SUMMARY

Company Jackson Bros. Lease Harry Jackson Well No. 5

Location NE SW NE

Section 11 Twp. 25S Rge. 8E County Greenwood State Kansas

Name of Sand	Bartlesville
Top of Core	2289.0
Bottom of Core	2318.0
Top of Sand	2299.0
Bottom of Sand	2310.6
Total Feet of Permeable Sand	4.0
Total Feet of Floodable Sand	0.0

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 0.5	1.7	1.7
0.5 - 0.75	2.3	4.0

Average Permeability Millidarcys	0.49
Average Percent Porosity	12.4
Average Percent Oil Saturation	23.8
Average Percent Water Saturation	68.9
Average Oil Content, Bbls./A. Ft.	232.
Total Oil Content, Bbls./Acre	2,691.
Average Percent Oil Recovery by Laboratory Flooding Tests	0.
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	0.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	0.
Total Calculated Oil Recovery, Bbls./Acre	-
Packer Setting, Feet	
Viscosity, Centipoises @	
A. P. I. Gravity, degrees @ 60 °F	
Elevation, Feet	

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SUMMARY OF WATER DIFFERENTIATION TESTS

TABLE VII

Company Jackson Bros. Lease Harry Jackson Well No. 5

Depth Interval, Feet	Chloride Content of Brine in Sand, ppm	Average Percent Connate Water	Average Percent Drilling & Foreign Water
2299.0 - 2306.3	59,400		
2306.3 - 2310.6	65,400		
2299.0 - 2310.6	61,600		

Note: ppm — parts per million.

Fresh water mud was used as the coring fluid while taking this core. The core was sampled and the samples sealed in cans by a representative of Oilfield Research Laboratories. The well was drilled in non-virgin territory.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
2289.0 - 2299.0	Sandy shale.
2299.0 - 2306.3	Gray shaly sandstone.
2306.3 - 2309.6	Light brown shaly sandstone.
1309.6 - 2310.6	Gray shaly sandstone.
2310.6 - 2318.0	Shale.

Coring was started at a depth of 2289.0 feet in sandy shale and completed at 2318.0 feet in shale. This core shows a total of 11.6 feet of sandstone. For the most part, the core is made up of gray shaly sandstone.

PERMEABILITY

For the sake of distribution, the core was divided into two sections. The weighted average permeability of the upper and lower sections is 0.39 and 0.52 millidarcys respectively; the overall average being 0.49 (See Table III). The permeability of the sand varies from impermeable to a maximum of 0.71 millidarcys.

PERCENT SATURATION & OIL CONTENT

The sand in this core shows a fairly good weighted average percent oil saturation, namely, 23.8. The weighted average percent oil saturation of the upper and lower sections is 20.2 and 30.0 respectively. The weighted average percent water saturation of the upper and lower sections is 73.0 and 62.1 respectively; the overall average being 68.9 (See Table III). This gives an overall weighted average total fluid

saturation of 92.7 percent.

The weighted average oil content of the upper and lower sections is 176 and 328 barrels per acre foot respectively; the overall average being 232. The total oil content, as shown by this core, is 2,691 barrels per acre (See Table III).

LABORATORY FLOODING TESTS

The sand in this core failed to respond to laboratory flooding tests.

By observing the data given in Table IV, you will note that of the 11 samples tested, none produced water or oil.

CONCLUSION

Based on the results of the laboratory tests it appears that a water-flood in the vicinity of this well would not be a commercial success.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Jackson Bros. Lease Harry Jackson Well No. 5

Sample No.	Depth, Feet	Effective Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.	Feet of Sand		Total Oil Content	Perm. Capacity Ft. X md.
			Oil	Water	Total			Ft.	Cum. Ft.		
1	2300.1	10.1	27	68	95	212	Imp.	1.6	1.6	339	0.00
2	2301.1	8.0	21	71	92	130	Imp.	1.0	2.6	130	0.00
3	2302.1	12.9	12	74	86	120	Imp.	1.0	3.6	120	0.00
4	2303.1	12.3	21	69	90	200	Imp.	1.0	4.6	200	0.00
5	2304.1	13.4	19	77	96	197	Imp.	1.0	5.6	197	0.00
6	2305.1	11.1	16	80	96	138	Imp.	1.0	6.6	138	0.00
7	2306.1	13.1	22	75	97	224	0.39	0.7	7.3	157	0.27
8	2307.1	15.3	26	57	83	308	0.56	1.3	8.6	400	0.73
9	2308.1	12.9	41	55	96	410	0.71	1.0	9.6	410	0.71
10	2309.1	14.7	37	59	96	421	0.26	1.0	10.6	421	0.26
11	2310.1	13.6	17	79	96	179	Imp.	1.0	11.6	179	0.00
								Total		2,691	

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Jackson Bros. Lease Harry Jackson Well No. 5

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
2299.0 - 2306.3	0.7	0.39	0.27
2306.3 - 2310.6	3.3	0.52	1.70
2299.0 - 2310.6	4.0	0.49	1.97

Depth Interval, Feet	Feet of Core Analyzed	Average Percent Porosity	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
2299.0 - 2306.3	7.3	11.4	20.2	73.0	176	1,281
2306.3 - 2310.6	4.3	14.2	30.0	62.1	328	1,410
2299.0 - 2310.6	11.6	12.4	23.8	68.9	232	2,691

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RESULTS OF LABORATORY FLOODING TESTS

TABLE 17

Company Jackson Bros. Lease Harry Jackson Well No. 5

Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation			Volume of Water Recovered cc*	Effective Permeability Millidarcys**	Initial Fluid Production Pressure Lbs./Sq./In.
			%	Bbls./A. Ft.	%	Bbls./A. Ft.	% Oil	% Water	Bbls./A. Ft.			
1	2300.1	10.4	28	226	0	0	28	69		0	Imp.	-
2	2301.1	8.1	20	126	0	0	20	74		0	Imp.	-
3	2302.1	12.9	13	130	0	0	13	75		0	Imp.	-
4	2303.1	12.2	23	218	0	0	23	70		0	Imp.	-
5	2304.1	13.4	20	208	0	0	20	78		0	Imp.	-
6	2305.1	11.4	18	160	0	0	18	81		0	Imp.	-
7	2306.1	13.3	22	228	0	0	22	77		0	Imp.	-
8	2307.1	15.1	27	316	0	0	27	67		0	Imp.	-
9	2308.1	12.6	40	391	0	0	40	58		0	Imp.	-
10	2309.1	15.0	35	408	0	0	35	62		0	Imp.	-
11	2310.1	13.4	18	187	0	0	18	80		0	Imp.	-

Notes: cc—cubic centimeter.

*—Volume of water recovered at the time of maximum oil recovery.

**—Determined by passing water through sample which still contains residual oil.

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RESULTS OF WATER DIFFERENTIATION TESTS

TABLE VI

Company Jackson Bros. Lease Harry Jackson Well No. 5

Sample No.	Depth, Feet	Chloride Content of Brine in Sand ppm	Percent Water Saturation Connate	Drilling & Foreign	Total
1	2300.1	64,900	1.6	103,900	
2	2301.1	56,300	1.0	56,300	
3	2302.1	62,400	1.0	62,400	
4	2303.1	56,500	1.0	56,500	
5	2304.1	60,800	1.0	60,800	
6	2305.1	51,600	1.0	51,600	
7	2306.1	62,900	0.7	44,000	
8	2307.1	65,500	1.3	85,100	
9	2308.1	83,300	1.0	83,300	
10	2309.1	63,200	1.0	63,200	
11	2310.1	49,400	1.0	49,400	

Note: ppm — parts per million