



OILFIELD RESEARCH LABORATORIES

536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

April 29, 1981

Werco (Western Well & Pump)
1100 South Range
Colby, Kansas 67701

Gentlemen:

Enclosed herewith are the results of tests run on the rotary core taken from the Watkins Lease, Well No. 7, located in Miami County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and submitted to our laboratory on April 20, 1981.

Your business is greatly appreciated.

Very truly yours,

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Sanford A. Michel

SAM/mfk

5 c to Colby, Kansas

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GENERAL INFORMATION & SUMMARY

Company Werco (Western Well & Pump) Lease Watkins Well No. 7
 Location _____
 Section 11 Twp. 16S Rge. 21E County Miami State Kansas

Elevation, Feet	
Name of Sand	Squirrel
Top of Core	698.0
Bottom of Core	712.6
Top of Sand	698.0
Bottom of Sand	712.6
Total Feet of Permeable Sand	7.6

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 12	4.2	4.2
12 - 24	1.0	5.2
24 - 53	2.4	7.6

Average Permeability Millidarcys	17.8
Average Percent Porosity	20.4
Average Percent Oil Saturation	52.4
Average Percent Water Saturation	31.7
Average Oil Content, Bbls./A. Ft.	848.
Total Oil Content, Bbls./Acre	11,367.

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LOGName Werco (Western Well & Pump) Lease Watkins Well No. 7

<u>Depth Interval, Feet</u>	<u>Description</u>
698.0 - 703.3	Brown slightly calcareous sandstone.
703.3 - 704.8	Grayish light brown slightly calcareous shaly sandstone.
704.8 - 707.2	Dark brown slightly calcareous slightly carbonaceous sandstone.
707.2 - 707.8	Light brown sandstone slightly calcareous.
707.8 - 709.4	Grayish light brown slightly calcareous shaly sandstone.
709.4 - 710.6	Grayish light brown slightly calcareous sandstone.
710.6 - 712.6	Grayish light brown slightly calcareous shaly sandstone.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Witco (Western Well & Pump) Lease Watkins Well No. 7

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	698.5	21.5	38	49	87	634	22.	1.0	1.0	634	22.0
2	699.5	20.6	39	44	83	624	*	1.0	2.0	624	-
3	700.5	21.1	42	46	88	688	*	1.0	3.0	688	-
4	701.3	21.3	43	45	88	711	*	1.0	4.0	711	-
5	702.5	21.4	46	47	93	764	*	1.3	5.3	764	-
6	703.5	16.7	57	35	92	739	Imp.	1.0	6.3	739	0.00
7	704.6	16.8	64	30	94	835	Imp.	0.5	6.8	418	0.00
8	705.9	21.8	61	27	88	1032	27.	1.2	8.0	1238	32.40
9	707.3	21.7	67	20	87	1129	10.	0.6	8.6	677	6.00
10	708.2	22.0	65	14	79	1109	5.4	1.6	10.2	1774	8.64
11	709.8	20.8	78	15	93	1259	47.	0.6	10.8	755	28.20
12	710.3	22.7	58	16	74	1021	52.	0.6	11.4	613	31.20
13	711.5	24.0	51	25	76	950	6.2	1.0	12.4	950	6.20
14	712.4	18.3	55	33	88	782	1.0	1.0	13.4	782	1.00
	Note:		* Permeability sample unobtainable.								

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Well No.	Lease	Well No.		
Werco (Western Well & Pump)		Watkins	7		
Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.		
698.0 - 704.8	1.0	22.0	22.00		
704.8 - 712.6	6.6	17.2	113.64		
698.0 - 712.6	7.6	17.8	135.64		
Depth Interval, Feet	Feet of Core Analyzed	Average Percent Oil Saturation	Average Percent Water Saturation	Average Oil Content Bbl./A. Ft.	Total Oil Content Bbls./Acre
698.0 - 704.8	6.8	19.3	43.7	673	4,578
704.8 - 712.6	6.6	21.6	61.4	1,029	6,789
698.0 - 712.6	13.4	20.4	52.4	848	11,367