OILFIELD RESEARCH LABORATORIES
P. O. BOX 647 - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

January 23, 1986

Shiloh Resources, Inc.
P. O. Box 3874
Casper, Wyoming 82602

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the McGee Lease, Well No. 4-86, located in Anderson County, Kansas and submitted to our laboratory on January 15, 1986.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Alan M. Dunning

AMD:bl

4 c to Casper, Wyoming

1 c to Midwest Surveys
Attn: Ernie Pratt
P. O. Box 328
Paola, Kansas 66071

235-715-C

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Shiloh Resources, Inc. Lease McGee Well No. 4-86

Location

Section 3 Twp. 23S Rge. 21E County Anderson State Kansas

Elevation, Feet	
Name of Sand	Burgess
Top of Core	894.0
Bottom of Core	907.1
Top of Sand	896.1
Bottom of Sand (Tested)	906.5
Total Feet of Permeable Sand	9.6
Total Feet of Floodable Sand	1.1

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	0.7	0.7
1 - 2	1.1	1.8
8 - 20	2.1	3.9
25 - 40	3.8	7.7
85 - 134	1.9	9.6

Average Permeability Millidarcys	37.5
Average Percent Porosity	19.6
Average Percent Oil Saturation	46.1
Average Percent Water Saturation	30.5
Average Oil Content, Bbls./A. Ft.	714.
Total Oil Content, Bbls./Acre	6,856.
Average Percent Oil Recovery by Laboratory Flooding Tests	11.0
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	162.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	178.
Total Calculated Oil Recovery, Bbls./Acre	See "Calculated Recovery" Section

The core was sampled by a representative of Oilfield Research Laboratories.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
894.0 - 896.1	Shale, gray.
896.1 - 896.6	Sandstone, blackish brown, slightly carbonaceous.
896.6 - 897.4	Sandstone and shale, blackish brown and gray, slightly carbonaceous, alternate layers.
897.4 - 901.0	Sandstone, blackish brown, slightly carbonaceous with scattered shale inclusions.
901.0 - 902.0	Sandstone and shale, blackish brown and gray, slightly carbonaceous, laminated.
902.0 - 902.9	Sandstone, blackish brown, slightly carbonaceous.
902.9 - 904.0	Sandstone, blackish brown, slightly carbonaceous with shale nodules and inclusions.
904.0 - 904.7	Sandstone and shale, dark brown and gray, laminated.
904.7 - 906.5	Sandstone and shale, brown and gray, laminated.
906.5 - 907.1	Sandstone and shale, gray, laminated.

LABORATORY FLOODING TESTS

The sand in this core responded to laboratory flooding tests, as a total recovery of 178 barrels of oil per acre was obtained from 1.1 feet of sand. The weighted average percent oil saturation

was reduced from 56.0 to 45.0, or represents an average recovery of 11.0 percent. The weighted average effective permeability of the samples is 0.15 millidarcys, while the average initial fluid production pressure is 50.0 pounds per square inch (See Table V).

By observing the data given in Table IV, you will note that of the 11 samples tested, 1 produced water and oil and 2 produced water only. This indicates that approximately 9 percent of the sand represented by these samples is floodable pay sand.

CALCULATED RECOVERY

It would appear from a study of the core data, that efficient primary and waterflood operations in the vicinity of this well should recover approximately 250 barrels of oil per acre. This is an average recovery of 230 barrels per acre foot from 1.1 feet of floodable sand analyzed in this core.

These recovery values were calculated using the following data and assumptions:

Original formation volume factor, estimated	1.05
Reservoir water saturation, percent, estimated	20.0
Average porosity, percent	19.0
Oil saturation after flooding, percent	45.0
Performance factor, percent, estimated	50.0
Net floodable sand, feet	1.1

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Shiloh Resources, Inc. Lease McGee Well No. 4-86

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	896.5	19.1	51	16	67	756	17.	0.5	0.5	378	8.50
2	897.5	22.2	48	23	71	827	27.	0.8	1.3	662	21.60
3	898.5	20.8	62	25	87	1001	19.	0.9	2.2	901	17.10
4	899.4	21.9	59	18	77	1002	31.	0.9	3.1	902	27.90
5	900.5	22.7	55	24	79	969	28.	1.0	4.1	969	28.00
6	901.5	21.3	24	48	72	397	87.	1.0	5.1	397	87.00
7	902.5	19.8	51	26	77	783	133.	0.9	6.0	705	119.70
8	903.5	18.9	56	23	79	821	39.	1.1	7.1	903	42.90
9	904.5	17.5	52	28	80	706	8.2	0.7	7.8	494	5.74
10	905.7	16.4	25	44	69	318	1.6	1.1	8.9	350	1.76
11	906.4	13.3	27	56	83	279	0.17	0.7	9.6	195	0.12

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company Shiloh Resources, Inc. Lease McGee Well No. 4-86

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
896.1 - 906.5	9.6	37.5	360.32

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
896.1 - 906.5	9.6	19.6	46.1	30.5	714	6,856

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Shiloh Resources, Inc. Lease McGee Well No. 4-86

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	896.5	19.4	51	768	0	0	51	17	768	0	Imp.	-
2	897.5	22.5	48	838	0	0	48	34	838	10	0.33	45
3	898.5	20.6	61	975	0	0	61	26	975	0	Imp.	-
4	899.4	21.9	59	1002	0	0	59	18	1002	0	Imp.	-
5	900.5	22.6	55	964	0	0	55	25	964	0	Imp.	-
6	901.5	21.4	25	415	0	0	25	51	415	34	0.56	30
7	902.5	19.5	51	772	0	0	51	26	772	0	Imp.	-
8	903.5	19.0	56	825	11	162	45	39	663	4	0.15	50
9	904.5	17.2	52	694	0	0	52	29	694	0	Imp.	-
10	905.7	16.7	24	311	0	0	24	45	311	0	Imp.	-
11	906.4	13.4	27	281	0	0	27	56	281	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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SUMMARY OF LABORATORY FLOODING TESTS

TABLE V

Company Shiloh Resources, Inc. Lease McGee Well No. 4-86

Depth Interval, Feet	896.1 - 906.5
Feet of Core Analyzed	1.1
Average Percent Porosity	19.0
Average Percent Original Oil Saturation	56.0
Average Percent Oil Recovery	11.0
Average Percent Residual Oil Saturation	45.0
Average Percent Residual Water Saturation	39.0
Average Percent Total Residual Fluid Saturation	84.0
Average Original Oil Content, Bbls./A. Ft.	825.
Average Oil Recovery, Bbls./A. Ft.	162.
Average Residual Oil Content, Bbls./A. Ft.	663.
Total Original Oil Content, Bbls./Acre	907.
Total Oil Recovery, Bbls./Acre	178.
Total Residual Oil Content, Bbls./Acre	729.
Average Effective Permeability, Millidarcys	0.15
Average Initial Fluid Production Pressure, p.s.i.	50.0

NOTE: Only those samples which recovered oil were used in calculating the above averages.

— COREGRAPH —

OILFIELD RESEARCH LABORATORIES

SHILOH RESOURCES, INC.

LEASE McGee WELL NO. 4-86

FIELD

COUNTY Anderson STATE Kansas

LOCATION Sec. 3, T-23S, R-21E

INTERVAL CORED 894.0' - 907.1'

DATE RECEIVED January 15, 1986

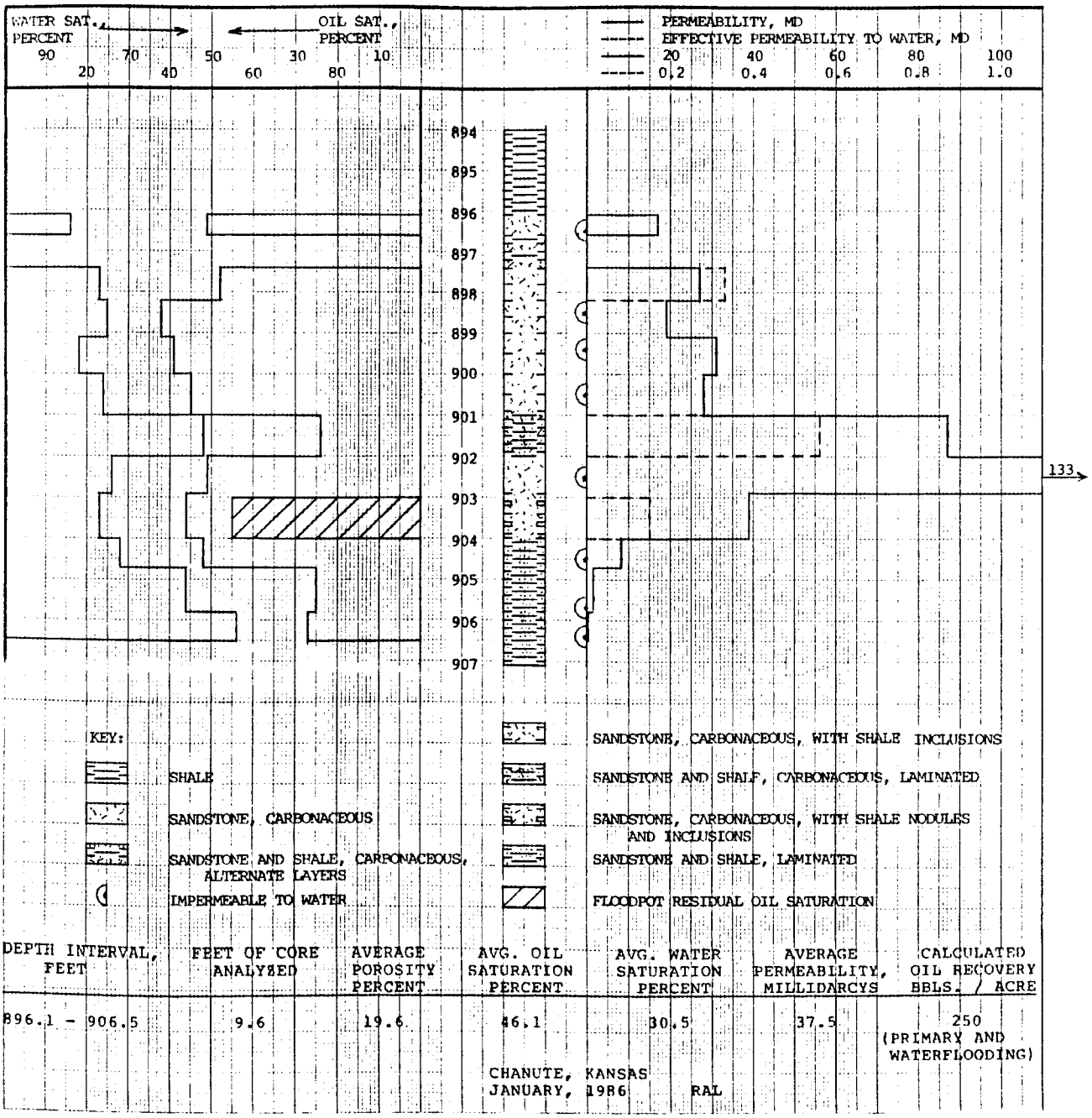
ELEVATION

FORMATION Burgess

DRILLING FLUID

TYPE OF CORE Rotary

INTERVAL RECEIVED 894.0' - 907.1'



DEPTH INTERVAL, FEET	FEET OF CORE ANALYZED	AVERAGE POROSITY PERCENT	AVG. OIL SATURATION PERCENT	AVG. WATER SATURATION PERCENT	AVERAGE PERMEABILITY, MILLIDARCYS	CALCULATED OIL RECOVERY BBLS. / ACRE
896.1 - 906.5	9.6	19.6	46.1	30.5	37.5	250 (PRIMARY AND WATERFLOODING)

CHANUTE, KANSAS
JANUARY, 1986 RAL