



# OILFIELD RESEARCH LABORATORIES

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

October 9, 1981

Osage Drilling, Inc.  
916 South Steuben  
Chanute, Kansas 66720

Gentlemen:

Attached hereto are the results of tests run on the rotary core taken from the Rig #3 Ballard "D" Lease, Well No. W-11, located 660' from the South Line and 660' from the West Line of the Southwest  $\frac{1}{4}$  in Section 20, T-33S, R-13E, in Chautauqua County, Kansas.

The core was sampled and sealed in plastic bags by a representative of the client and was submitted to our laboratory on October 3, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas

5 c to Chanute, Kansas

- REGISTERED ENGINEERS -

CORE ANALYSIS - WATER ANALYSIS - REPRESSURING ENGINEERING - SURVEYING & MAPPING - PROPERTY EVALUATION & OPERATION

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LOG

Name Osage Drilling, Inc. Lease Rig #3 Ballard "D" Well No. W-11

<u>Depth Interval, Feet</u>	<u>Description</u>
	<u>WEISER SAND</u>
1062.0 - 1070.0	Gray shaly sandstone.
1070.0 - 1071.0	Gray sandstone.
1071.0 - 1077.9	Gray shaly sandstone.
1077.9 - 1092.0	Gray sandstone containing a vertical fracture.
1092.0 - 1094.0	No core.
1094.0 - 1095.0	Grayish brown sandstone.
1095.0 - 1101.8	Grayish brown shaly sandstone.
1101.8 - 1120.7	Gray very shaly sandstone.

# Oilfield Research Laboratories

## RESULTS OF SATURATION & PERMEABILITY TESTS

### TABLE 1

Company Osage Drilling, Inc. Lease Rig #3 Ballard "D" Well No. W-11

Sample No.	Depth, Feet	Porosity Percent	Percent Saturation			Oil Content Bbla. / A Ft.	Perm., Mill.
			Oil	Water	Total		
1	1062.5	11.3	15	71	86	131	Imp.
2	1063.6	11.8	25	71	96	229	Imp.
3	1064.6	11.2	12	69	81	104	Imp.
4	1065.5	13.7	18	72	90	191	Imp.
5	1066.6	13.5	14	71	85	147	Imp.
6	1067.6	14.0	11	62	73	120	1.7
7	1068.6	10.3	5	90	95	40	Imp.
8	1069.7	17.6	4	64	68	55	3.3
9	1070.6	19.1	5	53	58	74	10.
10	1071.6	19.0	5	52	57	74	6.9
11	1072.7	5.3	24	66	90	99	4.2
12	1073.5	11.8	8	88	96	73	Imp.
13	1075.7	15.9	18	56	74	222	3.5
14	1078.6	21.1	6	53	59	98	37.
15	1081.6	19.1	3	57	60	45	28.
16	1084.6	16.5	10	51	61	128	20.
17	1087.5	16.3	11	57	68	139	19.
18	1094.4	19.8	13	52	65	200	71.
19	1095.2	15.0	21	68	89	244	4.2
20	1096.3	11.4	16	76	92	142	Imp.
21	1097.6	15.3	28	52	80	332	1.5
22	1098.4	11.2	13	80	93	113	0.20
23	1099.5	14.0	21	63	84	228	0.89
24	1100.4	14.2	25	61	86	275	0.69
25	1101.4	14.2	10	66	76	110	0.59
26	1102.5	11.5	24	70	94	214	Imp.
27	1103.5	10.9	32	66	98	217	Imp.
28	1104.3	14.6	30	58	88	340	Imp.
29	1105.4	12.7	22	62	84	217	Imp.
30	1106.6	10.5	12	83	95	98	Imp.
31	1107.4	10.4	20	72	92	161	Imp.
32	1108.4	11.0	17	75	92	145	Imp.
33	1109.5	10.1	5	87	92	39	Imp.
34	1110.6	10.0	11	86	97	85	Imp.
35	1111.6	9.9	3	95	98	23	Imp.
36	1112.3	9.9	17	74	91	131	Imp.
37	1113.4	9.9	1	93	94	8	Imp.
38	1114.3	10.0	3	82	85	23	Imp.
39	1115.6	9.8	5	91	96	38	Imp.
40	1116.4	9.4	12	82	94	88	Imp.
41	1117.3	10.1	5	82	87	39	Imp.
42	1118.5	9.3	8	83	91	58	Imp.
43	1119.4	9.6	7	87	94	52	Imp.