



OILFIELD RESEARCH LABORATORIES

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

September 10, 1981

Wells-Battelstein Oil & Gas, Inc.
7700 San Felipe Blvd.
Houston, Texas 77002

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary cores taken from the Pearce Lease, Well No. 39, located in Chautauqua County, Kansas and submitted to our laboratory on August 28, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES



Sanford A. Michel

SAM/mkf

5 c to Houston, Tx.
1 c to Chanute, Ks.

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company Wells-Battelstein Oil & Gas, Inc. Pearce Well No. 39

Location _____

Section 19 Twp. 33S Rge. 13E County Chautauqua State Kansas

Elevation, Feet - - - - -

Name of Sand	- - - - -	REDD	WISER
Top of Core	- - - - -	806.0	1084.0
Bottom of Core	- - - - -	879.3	1125.0
Top of Sand	- - - - -	806.0	1084.0
Bottom of Sand	- - - - - (Tested)	878.6	1121.7
Total Feet of Permeable Sand	- - - - -	62.7	33.0
Total Feet of Floodable Sand	- - - - -	5.0	0.0

Distribution of Permeable Sand:
Permeability Range
Millidarcys

Feet

Cum. Ft.

REDD SAND

0 - 20	6.5	6.5
20 - 40	9.3	15.8
40 - 60	10.3	26.1
60 - 80	11.0	37.1
80 - 120	15.6	52.7
120 - 170	8.0	60.7
170 - 205	2.0	62.7

WISER SAND

0 - 5	20.8	20.8
5 - 10	7.0	27.8
10 - 28	5.2	33.0

Average Permeability Millidarcys	- - - - -	73.1	5.4
Average Percent Porosity	- - - - -	20.3	14.9
Average Percent Oil Saturation	- - - - -	18.1	13.8
Average Percent Water Saturation	- - - - -	62.2	67.8
Average Oil Content, Bbls./A. Ft.	- - - - -	295.	162.
Total Oil Content, Bbls./Acre	- - - - -	19,070.	6,106.
Average Percent Oil Recovery by Laboratory Flooding Tests	- - - - -	3.4	0.
Average Oil Recovery by Laboratory Flooding Tests, Bbls./A. Ft.	- - - - -	57.	0.
Total Oil Recovery by Laboratory Flooding Tests, Bbls./Acre	- - - - -	283.	0.
Total Calculated Oil Recovery, Bbls./Acre	- - - - -	See "Calculated Recovery" Section	0.

The core was sampled by a representative of Oilfield Research Laboratories. Salt water mud was used as a drilling fluid.

FORMATION CORED

The detailed log of the formation cored is as follows:

<u>Depth Interval,</u> <u>Feet</u>	<u>Description</u>
	REDD SAND
806.0 - 811.0	Gray and brown laminated shale and sandstone.
811.0 - 821.0	Brown sandstone.
824.0 - 830.3	Brown sandstone.
830.3 - 831.8	Grayish brown slightly calcareous shaly sandstone.
831.8 - 840.1	Grayish brown sandstone.
840.7 - 846.0	Brown sandstone.
846.0 - 849.7	Brown sandstone with shale partings.
849.7 - 850.0	Dark brown sandstone.
850.0 - 860.0	Gray and brown laminated shale and sandstone (858.0 - 860.0 core ground up).
863.0 - 876.3	Gray sandstone with fine shale partings.
876.3 - 877.3	Gray calcareous sandstone.
877.3 - 878.6	Gray sandstone with fine shale partings.
878.6 - 879.3	Grayish brown sandstone.
	WISER SAND
1084.0 - 1087.2	Grayish light brown sandstone.
1087.2 - 1103.0	Grayish light brown shaly sandstone.
1103.0 - 1105.0	Grayish light brown sandstone.
1105.0 - 1117.0	Grayish brown shaly sandstone.
1117.0 - 1125.0	Grayish light brown very shaly sandstone containing a vertical fracture. (1121.7 to 1125.0 core ground up).

LABORATORY FLOODING TESTS

A portion of the Redd Sand (811.0 - 816.0), in this core responded to laboratory flooding tests, as a total recovery of 283 barrels of oil per acre was obtained from 5.0 feet of sand. The weighted average percent oil saturation was reduced from 29.8 to 26.4, or represents an average recovery 3.4 percent. The weighted average effective permeability of the samples is 0.89 millidarcys, while the average initial fluid production pressure is 34.0 pounds per square inch (See Table V).

CALCULATED RECOVERY

REDD SAND

It would appear from a study of the core data, that efficient waterflood operations in the vicinity of this well (interval 811.0 - 816.0) should recover approximately 1240 barrels of oil per acre. This is an average recovery of 248 barrels per acre foot from 5.0 feet of floodable sand analyzed in this core.

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

Original formation volume factor, estimated	1.06
Reservoir water saturation, percent, estimated	40.0
Average porosity, percent	21.2
Oil saturation after flooding, percent	26.4
Performance factor, percent, estimated	50.0
Net floodable sand, feet	5.0

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Wells-Battellestein Oil & Gas, Inc.			Lease			Pearce			Well No. 39			
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.	Vert. Perm.
			Oil	Water	Total			Ft.	Cum. Ft.			
						REDD SAND						
1	806.4	15.6	14	53	67	169	2.1	1.0	169	2.10	*	
2	807.7	16.8	13	70	83	169	3.9	1.0	169	3.90	*	
3	808.6	20.3	11	62	73	173	21.	1.0	173	21.00	*	
4	809.5	16.7	16	67	83	207	2.0	1.0	207	2.00	*	
5	810.4	15.3	15	76	91	178	6.8	1.0	178	6.80	*	
6	811.4	21.2	29	53	82	477	35.	1.0	477	35.00	Imp.	
7	812.6	21.8	38	44	82	643	30.	1.0	643	30.00	8.5	
8	813.5	19.6	29	54	83	441	42.	1.0	441	42.00	15.	
9	814.6	22.9	27	45	72	480	60.	1.0	480	60.00	3.9	
10	815.6	20.2	27	56	83	423	31.	1.0	423	31.00	0.87	
11	816.5	21.7	24	44	68	404	64.	1.0	404	64.00	14.	
12	817.4	22.0	20	45	65	341	37.	1.0	341	37.00	9.4	
13	818.4	23.3	24	47	71	434	92.	1.0	434	92.00	1.4	
14	819.6	21.9	23	54	77	391	42.	1.0	391	42.00	Imp.	
15	820.5	23.0	27	42	69	482	61.	1.0	482	61.00	44.	
16	824.4	23.9	23	52	75	427	60.	1.0	427	60.00	52.	
17	825.5	23.5	10	62	72	182	110.	1.0	182	110.00	99.	
18	826.5	21.5	17	59	76	284	96.	1.0	284	96.00	2.8	
19	827.6	20.2	16	61	77	251	31.	1.0	251	31.00	29.	
20	828.7	25.8	22	58	80	440	90.	1.0	440	90.00	13.	
21	829.5	18.1	18	45	73	253	121.	1.3	329	157.30	3.9	
22	830.5	13.0	12	72	84	121	1.6	0.5	61	0.80	Imp.	
23	831.6	12.5	6	70	76	58	Imp.	1.0	58	0.00	Imp.	
24	832.5	20.8	22	66	88	355	31.	1.3	462	40.30	21.	
25	833.5	20.2	21	64	85	329	15.	1.0	329	15.00	12.	
26	834.6	24.0	20	49	69	372	113.	1.0	372	113.00	43.	
27	835.6	24.3	28	49	77	528	163.	1.0	528	163.00	20.	
28	836.6	22.1	29	56	85	497	54.	1.0	497	54.00	22.	
29	837.4	22.6	26	50	76	456	62.	1.0	456	62.00	11.	
30	838.5	21.7	20	49	69	337	83.	1.0	337	83.00	22.	

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Wells-Battelstein Oil & Gas, Inc. Lease Pearce Well No. 39

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.	Vert. Perm.
			Oil	Water	Total			Ft.	Cum. Ft.			
31	839.6	20.9	28	55	83	454	56.	1.0	31.1	454	56.00	38.
32	841.4	20.5	27	41	68	429	52.	1.3	32.4	558	67.60	35.
33	842.5	20.2	26	44	70	408	99.	1.0	33.4	408	99.00	105.
34	843.6	22.0	23	61	84	393	68.	1.0	34.4	393	68.00	39.
35	844.6	19.8	33	61	94	507	82.	1.0	35.4	507	82.00	19.
36	845.4	21.2	24	57	81	395	62.	1.0	36.4	395	62.00	12.
37	846.4	22.0	21	50	71	358	62.	1.0	37.4	358	62.00	38.
38	847.5	19.8	24	57	81	369	84.	1.0	38.4	369	84.00	28.
39	848.4	21.8	25	49	74	423	121.	1.0	39.4	423	121.00	49.
40	849.4	20.6	12	73	85	192	62.	0.7	40.1	134	43.40	69.
41	850.4	21.5	18	57	75	300	52.	1.0	41.1	300	52.00	39.
42	851.5	23.0	13	73	86	232	127.	1.0	42.1	232	127.00	31.
43	852.5	20.7	14	69	83	225	113.	1.0	43.1	225	113.00	78.
44	853.5	21.2	13	72	85	214	97.	1.0	44.1	214	97.00	31.
45	854.5	21.0	30	51	81	489	158.	1.0	45.1	489	158.00	* 50.
46	855.4	23.0	18	64	82	321	195.	1.0	46.1	321	195.00	22.
47	856.5	20.2	15	69	84	235	83.	1.0	47.1	235	83.00	1.3
48	857.5	20.2	13	78	91	204	43.	1.0	48.1	204	43.00	2.8
49	858.4	24.9	24	55	79	464	203.	1.0	49.1	464	203.00	* 3.1
50	863.4	18.8	10	75	85	146	68.	1.3	50.4	190	88.40	14.
51	864.4	20.0	19	75	94	295	42.	1.0	51.4	295	42.00	14.
52	865.5	15.5	6	82	88	72	34.	1.0	52.4	72	34.00	3.6
53	866.6	16.4	6	85	91	76	42.	1.0	53.4	76	42.00	1.6
54	867.5	16.0	16	77	93	199	62.	1.0	54.4	199	62.00	44.
55	868.6	15.4	7	75	82	84	14.	1.0	55.4	84	14.00	22.
56	869.4	18.7	11	64	75	160	56.	1.0	56.4	160	56.00	92.
57	870.5	22.2	7	80	87	121	92.	1.0	57.4	121	92.00	97.
58	871.5	22.9	5	82	87	89	141.	1.0	58.4	89	141.00	8.0
59	872.6	22.0	13	82	95	222	113.	1.0	59.4	222	113.00	61.
60	873.5	23.1	15	68	83	269	115.	1.0	60.4	269	115.00	
61	874.5	19.5	5	85	90	76	35.	1.0	61.4	76	35.00	

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE I-B

Company Wells-Battellestein Oil & Gas, Inc. Lease Pearce Well No. 39

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.	Vert. Perm.
			Oil	Water			Ft.	Cum. Ft.			
62	875.6	18.3	3	90	43	169.	1.0	62.4	43	169.00	49.
63	876.5	3.9	5	87	15	Imp.	1.0	63.4	15	0.00	0.17
64	877.4	19.7	2	74	31	137.	0.7	64.1	22	95.90	14.
65	878.4	21.1	3	79	49	101.	0.6	64.7	29	60.60	84.
WISER SAND											
66	1084.5	16.7	10	61	130	24.	1.0	1.0	130	24.00	39.
67	1085.4	15.4	10	62	119	13.	1.0	2.0	119	13.00	52.
68	1086.4	15.1	12	59	141	17.	1.2	3.2	169	20.40	7.5
69	1087.5	17.3	12	55	161	8.7	1.0	4.2	161	8.70	3.2
70	1088.4	14.8	13	67	149	0.91	1.0	5.2	149	0.91	3.9
71	1089.6	15.0	14	67	163	3.5	1.0	6.2	163	3.50	6.8
72	1090.3	14.8	12	76	138	5.2	1.0	7.2	138	5.20	2.4
73	1091.4	17.4	14	59	189	7.2	1.0	8.2	189	7.20	2.3
74	1092.4	16.2	18	61	226	1.8	1.0	9.2	226	1.80	0.65
75	1093.4	14.9	17	60	197	0.24	1.0	10.2	197	0.24	0.41
76	1094.6	14.7	6	79	68	0.82	1.0	11.2	68	0.82	0.30
77	1095.6	16.0	13	62	161	1.4	0.8	12.0	129	1.12	0.78
78	1096.5	16.3	13	68	164	1.7	1.0	13.0	164	1.70	3.5
79	1097.4	15.9	12	76	148	9.9	1.0	14.0	148	9.90	Imp.
80	1098.7	15.2	22	66	259	0.73	1.0	15.0	259	0.73	0.76
81	1099.6	16.6	14	69	180	0.68	1.0	16.0	180	0.68	Imp.
82	1100.6	17.0	6	63	79	6.3	1.0	17.0	79	6.30	Imp.
83	1101.6	15.2	19	60	224	1.6	1.0	18.0	224	1.60	3.1
84	1102.4	15.7	8	70	97	5.2	1.0	19.0	97	5.20	8.7
85	1103.5	17.2	10	56	133	27.	1.0	20.0	133	27.00	19.
86	1104.6	16.8	15	56	196	18.	1.0	21.0	196	18.00	16.
87	1105.6	15.1	12	77	141	1.2	1.0	22.0	141	1.20	0.89
88	1106.4	14.9	13	72	150	0.89	1.0	23.0	150	0.89	Imp.
89	1107.5	15.1	13	68	152	0.92	1.0	24.0	152	0.92	Imp.
90	1108.4	15.4	25	52	299	0.89	1.0	25.0	299	0.89	1.5

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Wells-Battelstein Oil & Gas, Inc. Lease Pearce Well No. 39												
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.	Vert. Perm.
			Oil	Water	Total			Ft.	Cum. Ft.			
91	1109.4	14.9	14	62	76	162	1.3	1.0	26.0	162	1.30	0.73
92	1110.4	14.7	18	67	85	205	2.2	1.0	27.0	205	2.20	1.0
93	1111.6	17.1	24	56	80	318	2.8	1.0	28.0	318	2.80	Imp.
94	1112.5	15.5	17	73	90	204	1.6	1.0	29.0	204	1.60	Imp.
95	1113.6	13.4	19	61	80	198	0.20	1.0	30.0	198	0.20	1.0
96	1114.7	11.6	24	67	91	216	0.39	1.0	31.0	216	0.39	Imp.
97	1115.4	15.8	25	62	87	306	6.3	1.0	32.0	306	6.30	2.6
98	1116.4	13.7	20	74	94	213	0.71	1.0	33.0	213	0.71	Imp.
99	1117.4	10.2	12	80	92	95	Imp.	1.0	34.0	95	0.00	Imp.
100	1118.5	9.5	6	90	96	44	Imp.	1.0	35.0	44	0.00	Imp.
101	1119.4	12.4	5	90	95	48	Imp.	1.0	36.0	48	0.00	Imp.
102	1120.4	11.4	2	91	93	18	Imp.	1.0	37.0	18	0.00	Imp.
103	1121.6	11.5	3	92	95	27	Imp.	0.7	37.7	19	0.00	Imp.
NOTE: * Vertical Permeability sample unobtainable.												

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company	Wells-Battelstein Oil & Gas, Inc.			Lease	Pearce	Well No.	39
	Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.			

Oilfield Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company			Wells-Battelstein Oil & Gas, Inc.			Lease			Pearce			Well No. 39		
Sample No.	Depth, Feet	Effective Porosity Percent	Original Oil Saturation		Oil Recovery		Residual Saturation		Volume of Water Recovered cc ^a	Effective Permeability Millidarcys ^{b,c}	Initial Fluid Production Pressure Lbs./Sq./In.			
			%	Bbbls./A. Ft.	%	Bbbls./A. Ft.	%	Bbbls./A. Ft.				%	Bbbls./A. Ft.	
					REDD SAND									
1	806.4	15.7	14	171	0	0	14	55	171	Imp.	-			
2	807.7	16.9	13	170	0	0	13	72	170	Imp.	-			
3	808.6	20.2	11	172	0	0	11	63	172	Imp.	-			
4	809.5	16.8	16	209	0	0	16	68	209	0.37	35			
5	810.4	15.4	15	179	0	0	15	77	179	0.22	45			
6	811.4	21.3	29	479	3	50	26	60	429	0.82	30			
7	812.6	22.3	37	640	7	121	30	65	519	1.95	25			
8	813.5	19.7	29	443	3	46	26	58	397	0.50	45			
9	814.6	22.8	27	478	2	35	25	57	443	0.60	35			
10	815.6	20.1	27	421	2	31	25	67	390	0.60	35			
11	816.5	21.8	24	406	0	0	24	71	406	2.40	25			
12	817.4	22.1	20	343	0	0	20	52	343	1.50	25			
13	818.4	23.4	24	436	0	0	24	55	436	0.82	35			
14	819.6	22.0	23	393	0	0	23	56	393	2.77	25			
15	820.5	23.0	27	482	0	0	27	62	482	5.10	20			
16	824.4	24.0	23	428	0	0	23	63	428	5.32	20			
17	825.5	23.6	10	183	0	0	10	77	183	10.49	10			
18	826.5	21.6	17	285	0	0	17	69	285	1.87	25			
19	827.6	20.4	16	253	0	0	16	73	253	1.05	25			
20	828.7	25.7	22	439	0	0	22	67	439	3.60	15			
21	829.5	18.2	18	254	0	0	18	71	254	3.45	15			
22	830.5	13.1	12	122	0	0	12	73	122	Imp.	-			
23	831.6	12.6	6	59	0	0	6	72	59	Imp.	-			
24	832.5	20.9	22	357	0	0	22	73	357	3.82	20			
25	833.5	20.3	21	331	0	0	21	66	331	3.07	20			
26	834.6	23.9	20	371	0	0	20	60	371	4.20	20			
27	835.6	24.2	28	526	0	0	28	68	526	8.83	15			
28	836.6	22.2	29	499	0	0	29	57	499	14.99	15			

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.

Oilfield Research Laboratories
RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Wells-Battellestein Oil & Gas, Inc.			Lease Pearce			Well No. 39					
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.
			%	Bbbs./A. Ft.	%	Bbbs./A. Ft.	% Oil	% Water			
29	837.4	22.7	26	458	0	0	26	60	458	7.42	15
30	838.5	21.8	20	338	0	0	20	53	338	3.75	20
31	839.6	21.0	28	456	0	0	28	62	456	9.16	15
32	841.4	20.6	27	431	0	0	27	58	431	5.47	15
33	842.5	20.3	26	409	0	0	26	61	409	1.50	20
34	843.6	22.1	23	394	0	0	23	62	394	2.77	20
35	844.6	20.3	32	504	0	0	32	63	504	12.49	15
36	845.4	21.3	24	397	0	0	24	59	397	9.16	15
37	846.4	22.1	21	360	0	0	21	68	360	9.16	15
38	847.5	19.9	24	371	0	0	24	67	371	4.20	15
39	848.4	21.9	25	425	0	0	25	63	425	3.15	20
40	849.4	20.7	12	193	0	0	12	74	193	7.65	20
41	850.4	21.6	18	302	0	0	18	65	302	3.90	15
42	851.5	23.1	13	233	0	0	13	77	233	4.80	15
43	852.5	20.8	14	226	0	0	14	76	226	8.00	15
44	853.5	21.3	13	215	0	0	13	77	215	7.50	15
45	854.5	21.1	30	491	0	0	30	58	491	19.49	10
46	855.4	22.9	18	320	0	0	18	77	320	9.83	15
47	856.5	20.3	15	236	0	0	15	71	236	10.66	10
48	857.5	20.3	13	205	0	0	13	79	205	12.49	15
49	858.4	25.0	24	465	0	0	24	60	465	20.61	10
50	863.4	18.7	10	145	0	0	10	81	145	21.74	10
51	864.4	20.1	19	296	0	0	19	76	296	19.49	10
52	865.5	15.6	6	73	0	0	6	81	73	9.16	10
53	866.6	16.5	6	77	0	0	6	86	77	20.24	10
54	867.5	16.1	16	200	0	0	16	78	200	15.59	10
55	868.6	15.3	7	83	0	0	7	82	83	0.30	40
56	869.4	18.8	11	160	0	0	11	76	160	7.95	10
57	870.5	22.3	7	121	0	0	7	81	121	21.37	10
58	871.5	23.0	5	89	0	0	5	85	89	30.36	10

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.

Well No. 39

Lease Pearce

Company Wells-Battelstein Oil & Gas, Inc.

Oilfield Research Laboratories
RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company			Wells-Battelstein Oil & Gas, Inc.				Lease		Pearce		Well No.		39	
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.		
59	872.6	22.1	13	223	0	0	13	83	223	20.62	10			
60	873.5	22.9	15	266	0	0	15	72	266	32.61	10			
61	874.5	19.4	5	75	0	0	5	86	75	23.62	10			
62	875.6	18.2	3	42	0	0	3	91	42	16.49	10			
63	876.5	4.0	5	16	0	0	5	88	16	Imp.	-			
64	877.4	19.6	2	30	0	0	2	76	30	Imp.	-			
65	878.4	21.2	3	49	0	0	3	88	49	14.84	10			
WISER SAND														
66	1084.5	16.8	10	130	0	0	10	84	130	6.07	20			
67	1085.4	15.5	10	120	0	0	10	70	120	11.57	15			
68	1086.4	15.2	12	142	0	0	12	76	142	3.30	30			
69	1087.5	17.2	12	160	0	0	12	71	160	0.50	35			
70	1088.4	14.7	13	148	0	0	13	68	148	Imp.	-			
71	1089.6	14.9	14	162	0	0	14	68	162	Imp.	-			
72	1090.3	14.9	12	139	0	0	12	77	139	1.27	35			
73	1091.4	17.3	14	188	0	0	14	60	188	Imp.	-			
74	1092.4	15.7	19	231	0	0	19	61	231	Imp.	-			
75	1093.4	14.8	17	195	0	0	17	61	195	Imp.	-			
76	1094.6	14.6	6	68	0	0	6	80	68	Imp.	-			
77	1095.6	16.1	13	162	0	0	13	63	162	Imp.	-			
78	1096.5	16.4	13	165	0	0	13	69	165	0.86	35			
79	1097.4	15.8	12	147	0	0	12	77	147	Imp.	-			
80	1098.7	15.7	21	256	0	0	21	68	256	Imp.	-			
81	1099.6	16.5	14	179	0	0	14	70	179	Imp.	-			
82	1100.6	17.1	6	80	0	0	6	64	80	Imp.	-			
83	1101.6	15.3	19	226	0	0	19	61	226	1.07	35			
84	1102.4	15.8	8	98	0	0	8	78	98	0.56	40			
85	1103.5	17.3	10	134	0	0	10	77	134	4.27	20			
86	1104.6	16.9	15	197	0	0	15	71	197	0.30	40			

Company Wells-Battelstein Oil & Gas, Inc. Lease Pearce Well No. 39

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.

Oilfield Research Laboratories
RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company Wells-Battelstein Oil & Gas, Inc. Lease Pearce Well No. 39												
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.			
87	1105.4	15.2	12	142	0	0	12	78	142	32	0.45	35
88	1106.4	14.8	13	149	0	0	13	73	149	0	Imp.	-
89	1107.5	15.0	13	151	0	0	13	70	151	0	Imp.	-
90	1108.4	14.9	26	301	0	0	26	53	301	0	Imp.	-
91	1109.4	15.0	14	163	0	0	14	63	163	0	Imp.	-
92	1110.4	15.2	17	200	0	0	17	69	200	0	Imp.	-
93	1111.6	16.6	25	322	0	0	25	57	322	0	Imp.	-
94	1112.5	15.4	17	203	0	0	17	74	203	0	Imp.	-
95	1113.6	13.9	18	194	0	0	18	63	194	0	Imp.	-
96	1114.7	11.7	24	218	0	0	24	68	218	0	Imp.	-
97	1115.4	15.3	26	309	0	0	26	62	309	0	Imp.	-
98	1116.4	13.6	20	211	0	0	20	75	211	0	Imp.	-
99	1117.4	10.1	12	94	0	0	12	81	94	0	Imp.	-
100	1118.5	9.6	6	45	0	0	6	91	45	0	Imp.	-
101	1119.4	12.3	5	48	0	0	5	91	48	0	Imp.	-
102	1120.4	11.3	2	18	0	0	2	92	18	0	Imp.	-
103	1121.6	11.4	3	27	0	0	3	93	27	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.

Oilfield Research Laboratories

SUMMARY OF LABORATORY FLOODING TESTS

TABLE V

Company	Wells-Battelstein Oil & Gas, Inc.	Lease	Pearce	Well No.	39
Depth Interval, Feet	REDD SAND 811.0 - 849.0				
Feet of Core Analyzed	5.0				
Average Percent Porosity	21.2				
Average Percent Original Oil Saturation	29.8				
Average Percent Oil Recovery	3.4				
Average Percent Residual Oil Saturation	26.4				
Average Percent Residual Water Saturation	61.4				
Average Percent Total Residual Fluid Saturation	87.8				
Average Original Oil Content, Bbls./A. Ft.	493.				
Average Oil Recovery, Bbls./A. Ft.	57.				
Average Residual Oil Content, Bbls./A. Ft.	436.				
Total Original Oil Content, Bbls./Acre	2,461.				
Total Oil Recovery, Bbls./Acre	283.				
Total Residual Oil Content, Bbls./Acre	2,178.				
Average Effective Permeability, Millidarcys	0.89				
Average Initial Fluid Production Pressure, p.s.i.	34.0				

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