OILFIELD RESEARCH LABORATORIES
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February 1, 1980

James E. Russell Petroleum, Incorporated
P.O. Box 2618
Abilene, Texas 79604

Gentlemen:

Enclosed herewith is the report of the analysis of the rotary core taken from the B. Bain Tract 1 Lease, Well No. 8, Anderson County, Kansas and submitted to our laboratory on January 7, 1980.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

SAM/kas
3 c to Abilene, Texas
2 c to Chanute, Kansas

Oilfield Research Laboratories

GENERAL INFORMATION & SUMMARY

Company James E. Russell Pet. Inc. Lease B. Bain Tract 1 Well No. 8

Location 1100' EWL & 1980' SNL E½ SE¼

Section 10 Twp. 23S Rge. 19E County Anderson State Kansas

Elevation, Feet Datum: Mean Sea Level (Ground Level) 1091.1

Name of Sand	Squirrel
Top of Core	748.0
Bottom of Core	788.8
Top of Sand	748.6
Bottom of Sand	781.8
Total Feet of Permeable Sand	26.5
Total Feet of Floodable Sand	-0-

Distribution of Permeable Sand: Permeability Range Millidarcys	Feet	Cum. Ft.
0 - 1	6.1	6.1
1 - 5	13.2	19.3
5 - 10	5.4	24.7
10 - 15	1.8	26.5

Average Permeability Millidarcys	3.6
Average Percent Porosity	15.4
Average Percent Oil Saturation	31.2
Average Percent Water Saturation	44.3
Average Oil Content, Bbls./A. Ft.	372.
Total Oil Content, Bbls./Acre	10,754.
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	-0-

The core was sampled by a representative of Oilfield Research Laboratories. Fresh water mud was used as a drilling fluid. The core was from a semi-virgin area.

Since the core did not respond to floodpot testing, no calculated recovery is given, however, an estimate of primary reserves is presented.

FORMATION CORED

The detailed log of the formation cored is as follows:

Depth Interval, Feet	Description
748.0 - 748.6	Shale, gray sandy.
748.6 - 749.6	First oil show, sandstone, grayish, very shaly.
749.6 - 750.4	Shale, gray sandy.
750.4 - 750.8	Shale and sandstone, gray and brown laminated.
750.8 - 751.4	Shale, gray, sandy with fine sandstone partings.
751.4 - 755.5	Shale and sandstone, brown and gray laminated.
755.5 - 756.0	Sandstone, brown slightly shaly.
756.0 - 756.5	Shale, gray sandy.
756.5 - 757.0	Sandstone, brown, shaly.
757.0 - 757.3	Shale, gray sandy.
757.3 - 758.1	Sandstone, brown shaly.
758.1 - 758.3	Shale, gray, sandy.
758.3 - 760.7	Sandstone, brown shaly.

Depth Interval, Feet	Description
760.7 - 761.3	Shale, gray, sandy.
761.3 - 761.9	Sandstone, brown slightly shaly.
761.9 - 762.5	Shale, gray sandy.
762.5 - 764.8	Sandstone, brown slightly shaly.
764.8 - 765.5	Shale, gray sandy.
765.5 - 775.0	Sandstone and shale, brown and gray laminated.
775.0 - 776.8	Sandstone, brown slightly shaly.
776.8 - 779.0	Sandstone and shale, brown and gray laminated.
779.0 - 780.0	Sandstone, brown shaly.
780.0 - 781.8	Sandstone, brown very shaly.
781.8 - 787.5	Shale, gray.
787.5 - 788.0	Coal.

PRIMARY RESERVES ESTIMATE

Average porosity for pay sand (763.0 - 781.8)	15.8
Net pay sand thickness	14.3'
Original formation volume factor, estimated	1.05
Estimated primary reserves, as a percent of porosity	4.0
Estimated primary reserves, barrels per acre foot	47.
Estimated primary reserves, barrels per acre	670.

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RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Petroleum, Inc. Lease B. Bain Tract 1 Well No. 8

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	748.7	14.1	3	74	77	33	Imp.	0.5	0.5	17	0.00
2	749.4	14.0	29	58	87	315	0.24	0.5	1.0	158	0.12
3	750.6	13.7	19	50	69	202	Imp.	0.4	1.4	81	0.00
4	751.6	14.7	27	55	82	308	0.33	0.6	2.0	185	0.20
5	752.5	13.2	16	66	82	164	1.2	1.0	3.0	164	1.20
6	753.5	14.5	28	49	77	315	7.7	1.0	4.0	315	7.70
7	754.5	17.5	20	37	57	272	Imp.	1.5	5.5	408	0.00
8	755.8	15.4	19	49	68	227	6.9	0.5	6.0	114	3.45
9	756.7	19.0	14	43	57	206	1.0	0.5	6.5	103	0.50
10	757.5	14.0	28	52	80	304	3.1	0.8	7.3	243	2.48
11	758.5	14.2	13	58	71	143	4.0	0.7	8.0	100	2.80
12	759.5	17.6	22	38	60	300	6.4	1.0	9.0	300	6.40
13	760.5	19.0	20	39	59	295	0.82	0.7	9.7	207	0.57
14	761.5	15.0	22	52	74	256	6.6	0.6	10.3	154	3.96
15	762.6	8.9	25	70	95	173	5.1	0.5	10.8	87	2.55
16	763.5	15.3	44	38	82	522	3.4	1.0	11.8	522	3.40
17	764.5	17.1	27	39	66	358	12.	0.8	12.6	286	9.60
18	765.7	15.0	42	42	84	489	3.4	0.5	13.1	245	1.70
19	766.5	16.1	28	41	69	350	0.66	1.0	14.1	350	0.66
20	767.5	14.0	36	45	81	391	0.78	1.0	15.1	391	0.78
21	768.5	12.6	31	60	91	303	1.4	1.0	16.1	303	1.40
22	769.5	15.0	37	49	86	431	2.6	1.0	17.1	431	2.60
23	770.5	13.6	33	52	85	348	3.6	1.0	18.1	348	3.60
24	771.5	15.0	50	47	97	582	5.0	1.0	19.1	582	5.00
25	772.5	16.8	38	35	73	495	6.7	1.0	19.1	495	6.70
26	773.5	14.2	10	59	69	110	0.12	1.0	20.1	110	0.12
27	774.5	16.3	40	37	77	506	2.6	1.0	21.1	506	2.60
28	775.5	17.6	43	27	70	587	12.	1.0	22.1	587	12.00

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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.		
29	776.5	17.5	33	34	67	448	8.7	0.8	22.9	358	2.72
30	777.5	17.0	41	31	72	541	3.4	1.2	24.1	649	4.08
31	778.5	17.4	44	30	74	594	1.6	1.0	25.1	594	1.60
32	779.5	16.6	35	38	73	451	2.1	1.0	26.1	451	2.10
33	780.5	14.7	53	31	84	604	2.5	1.0	27.1	604	2.50
34	781.5	12.3	40	32	72	382	0.14	0.8	28.9	306	0.11

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SUMMARY OF PERMEABILITY & SATURATION TESTS

TABLE III

Company James E. Russell Petroleum, Inc. Lease B. Bain Tract 1 Well No. 8

Depth Interval, Feet	Feet of Core Analyzed	Average Permeability, Millidarcys	Permeability Capacity Ft. x Md.
748.6 - 759.0	5.6	3.3	18.45
759.0 - 773.0	11.1	4.4	48.92
773.0 - 781.8	9.8	2.8	27.83
748.6 - 781.8	26.5	3.6	95.20

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
748.6 - 759.0	8.0	15.1	20.9	52.2	236	1,888
759.0 - 773.0	11.1	16.6	36.2	49.6	424	4,701
773.0 - 781.8	9.8	14.4	33.9	31.8	425	4,165
748.6 - 781.8	28.9	15.4	31.2	44.3	372	10,754

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RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company James E. Russell Petroleum, Inc. Lease B. Bain Tract 1 Well No. 8

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	748.7	14.0	3	33	0	0	3	76	33	0	Imp.	-
2	749.4	14.2	29	320	0	0	29	60	320	0	Imp.	-
3	750.6	14.0	19	206	0	0	19	54	206	0	Imp.	-
4	751.6	14.6	27	306	0	0	27	59	306	0	Imp.	-
5	752.5	13.4	16	166	0	0	16	64	166	0	Imp.	-
6	753.5	14.5	28	315	0	0	28	59	315	0	Imp.	-
7	754.5	17.1	20	265	0	0	20	40	265	0	Imp.	-
8	755.8	15.7	19	231	0	0	19	51	231	14	0.30	45
9	756.7	18.9	14	206	0	0	14	59	206	44	0.60	35
10	757.5	14.3	28	310	0	0	28	43	310	34	0.45	35
11	758.5	14.7	12	137	0	0	12	61	137	0	Imp.	-
12	759.5	17.9	22	306	0	0	22	60	306	20	0.30	40
13	760.5	19.8	20	307	0	0	20	44	307	0	Imp.	-
14	761.5	15.2	22	259	0	0	22	60	259	24	0.30	45
15	762.6	9.0	25	175	0	0	25	55	175	10	0.30	50
16	763.5	15.3	44	522	0	0	44	38	522	0	Imp.	-
17	764.5	17.3	27	362	0	0	27	57	362	28	0.50	40
18	765.7	15.0	42	489	0	0	42	42	489	0	Imp.	-
19	766.5	16.2	28	352	0	0	28	54	352	12	0.15	50
20	767.5	13.7	36	382	0	0	36	46	382	0	Imp.	-
21	768.5	12.7	31	306	0	0	31	60	306	0	Imp.	-
22	769.5	14.9	37	427	0	0	37	50	427	0	Imp.	-
23	770.5	13.8	33	353	0	0	33	54	353	0	Imp.	-
24	771.5	14.9	50	578	0	0	50	47	578	0	Imp.	-
25	772.5	16.3	39	493	0	0	39	40	493	0	Imp.	-
26	773.5	14.4	10	112	0	0	10	59	112	0	Imp.	-
27	774.5	16.1	40	500	0	0	40	38	500	0	Imp.	-
28	775.5	17.5	43	584	0	0	43	27	584	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 LABORATORY FLOODING TESTS

TABLE IV

Company James E Russell Petroleum, Inc. Lease B. Bain Tract 1 Well No. 8

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.			
29	776.5	17.3	33	443	0	0	33	35	443	0	Imp.	-
30	777.5	17.1	41	544	0	0	41	31	544	0	Imp.	-
31	778.5	17.4	44	594	0	0	44	32	594	0	Imp.	-
32	779.5	16.9	35	459	0	0	35	40	459	0	Imp.	-
33	780.5	14.7	53	604	0	0	53	42	604	0	Imp.	-
34	781.5	12.5	40	388	0	0	40	32	388	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.