

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company James E. Russell Pet., Inc. Lease Minckley "B" Well No. 102

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	732.6	13.5	8	78	86	84	Imp.	0.7	0.7	59	0.00
2	733.5	13.0	17	70	87	172	0.48	0.7	1.4	120	0.34
3	734.0	14.5	28	43	71	316	0.17	1.0	2.4	316	0.17
4	735.6	15.4	22	69	91	263	0.40	1.1	3.5	289	0.44
5	738.3	13.4	29	54	83	302	0.33	1.0	4.5	302	0.33
6	740.5	15.1	20	54	74	235	5.5	1.0	5.5	235	5.50
7	741.5	16.0	39	38	77	485	6.5	0.9	6.4	436	5.85
8	742.6	15.5	24	44	68	289	0.56	1.3	7.7	376	7.28
9	743.5	13.0	35	55	90	354	0.15	1.0	8.7	354	0.15
10	744.5	15.0	31	53	84	362	0.76	1.0	9.7	362	0.76
11	745.5	13.5	31	54	85	325	0.57	1.0	10.7	325	0.57
12	746.3	15.2	35	43	78	414	2.0	0.9	11.6	373	1.80
13	747.5	13.7	16	69	85	170	0.82	0.9	12.5	153	0.74
14	748.5	12.6	33	58	91	323	0.38	1.0	13.5	323	0.38
15	749.3	14.9	34	44	78	394	0.97	1.0	14.5	394	0.97
16	750.5	15.9	34	42	76	420	1.4	1.2	15.7	588	1.96
17	751.5	14.3	31	58	89	345	3.7	1.0	16.7	345	3.70
18	752.6	12.7	21	67	88	207	0.28	1.0	17.7	207	0.28
19	753.5	16.2	40	41	81	504	3.4	1.0	18.7	504	3.40
20	754.5	18.7	43	30	73	625	2.7	1.0	19.7	625	2.70
21	755.5	15.4	38	53	91	455	3.5	1.3	21.0	591	4.55
22	756.5	17.4	43	31	74	582	8.6	0.7	21.7	407	6.02
23	757.5	16.0	37	41	78	460	0.91	1.0	22.7	460	0.91
24	758.5	16.7	45	30	75	584	5.2	0.9	23.6	526	4.68
25	759.6	14.1	31	57	88	340	Imp.	0.6	24.2	204	0.00
26	760.5	13.4	21	63	84	219	1.9	1.3	25.5	285	0.25
27	761.5	16.9	36	41	77	473	8.9	0.7	26.2	331	6.23
28	762.5	14.4	24	62	86	269	3.5	0.6	26.8	161	2.10

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			Oil	Water	Total			Ft.	Cum. Ft.		
29	763.5	17.5	50	33	83	680	3.4	1.4	28.2	952	4.76
30	764.5	16.9	50	40	90	657	0.91	1.0	29.2	657	0.91
31	765.5	15.7	45	49	94	549	2.7	1.0	30.2	549	2.70
32	766.5	14.3	30	61	91	334	Imp.	1.0	31.2	334	0.00

Oilfield Research Laboratories

RESULTS OF LABORATORY FLOODING TESTS

TABLE IV

Company James E. Russell Petroleum, Inc.

Lease Minckley "B"

Well No. 102

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	732.6	13.5	8	84	0	0	8	78	84	0	Imp.	-
2	733.5	13.0	17	172	0	0	17	70	172	0	Imp.	-
3	734.0	14.5	28	316	0	0	28	43	316	0	Imp.	-
4	735.6	15.4	22	263	0	0	22	69	263	0	Imp.	-
5	738.3	13.4	29	302	0	0	29	54	302	0	Imp.	-
6	740.5	15.1	20	235	0	0	20	54	235	0	Imp.	-
7	741.5	16.0	39	485	0	0	39	38	485	0	Imp.	-
8	742.6	15.5	24	289	0	0	24	44	289	0	Imp.	-
9	743.5	13.0	35	354	0	0	35	55	354	0	Imp.	-
10	744.5	15.0	31	362	0	0	31	53	362	0	Imp.	-
11	745.5	13.5	31	325	0	0	31	54	325	0	Imp.	-
12	746.3	15.2	35	414	0	0	35	43	414	0	Imp.	-
13	747.5	13.7	16	170	0	0	16	69	170	0	Imp.	-
14	748.5	12.6	33	323	0	0	33	58	323	0	Imp.	-
15	749.3	16.5	34	436	2	26	32	60	410	0	-	50
16	750.5	15.9	34	420	0	0	34	42	420	0	Imp.	-
17	751.5	14.3	31	345	0	0	31	58	345	0	Imp.	-
18	752.6	12.7	21	207	0	0	21	67	207	0	Imp.	-
19	753.5	16.2	40	504	0	0	40	41	504	0	Imp.	-
20	754.5	18.7	43	625	0	0	43	30	625	0	Imp.	-
21	755.5	15.4	38	455	0	0	38	53	455	0	Imp.	-
22	756.5	18.3	43	611	8	114	35	54	497	7	0.25	40
23	757.5	16.0	37	460	0	0	37	41	460	0	Imp.	-
24	758.5	17.5	45	611	2	27	43	53	584	2	0.08	50
25	759.6	14.1	31	340	0	0	31	57	340	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 Minckley "B" Well No. 102

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.			
26	760.5	13.4	21	219	0	0	21	63	219	0	Imp.	-
27	761.5	16.9	36	472	4	52	32	61	420	19	0.42	40
28	762.5	14.4	24	269	0	0	24	62	269	0	Imp.	-
29	763.5	17.5	50	680	0	0	50	33	680	0	Imp.	-
30	764.5	16.9	50	657	0	0	50	40	657	0	Imp.	-
31	765.5	15.7	45	549	0	0	45	49	549	0	Imp.	-
32	766.5	14.3	30	334	0	0	30	61	334	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.