

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Jack Grynberg and Associates Federal North Trail 1-27 Well located
SE1/4 SW1/4 (661 feet E/W, 1977 feet E/W) of sec 27, T 14 N, R 100 W, Sweetwater County, Wyoming

Surface elevation 7268 feet

Sample number	Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale Tendency to coke	Remarks			
		Weight percent		Gas + loss	Gal per ton						
Laramie	Their	Oil	Water		Spent shale	Oil	Water				
SBR74-6711	50- 60	93045	4.6	2.1	91.0	2.3	12.1	5.0	0.919	None	
SBR74-6712	60- 70	93046	3.6	1.8	92.1	2.5	9.5	4.3	.910	None	
SBR74-6713	70- 80	93047	2.7	3.5	91.8	2.0	7.1	8.4	.903	None	
SBR74-6714	80- 90	93048	3.0	3.0	92.7	1.3	7.9	7.2	.896	None	
SBR74-6715	90- 100	93049	2.1	2.6	93.2	2.1	5.5a	6.2		None	
SBR74-6716	100- 110	93050	2.0	3.0	93.8	1.2	5.3a	7.1		None	
SBR74-6717	110- 120	93051	2.4	3.1	92.3	2.2	6.3	7.4	.903	None	
SBR74-6718	120- 130	93052	2.5	3.0	92.2	2.3	6.7	7.2	.907	None	
SBR74-6719	130- 140	93053	2.4	2.5	92.1	3.0	6.3	6.0	.912	None	
SBR74-6720	140- 150	93054	2.5	2.0	93.6	1.9	6.6	4.8	.905	None	
SBR74-6721	150- 160	93055	2.0	2.3	93.6	2.1	5.4	5.5	.906	None	
SBR74-6722	160- 170	93056	2.1	2.2	93.8	1.9	5.5	5.3	.899	None	
SBR74-6723	170- 180	93057	2.1	2.1	93.5	2.3	5.4a	5.0		None	
SBR74-6724	180- 190	93058	2.6	2.3	92.8	2.3	6.8	5.6	.902	None	
SBR74-6725	190- 200	93059	2.2	2.5	92.6	2.7	5.7	6.0	.900	None	
SBR74-6726	200- 210	93060	4.7	3.0	89.1	3.2	12.7	7.1	.896	None	
SBR74-6727	210- 220	93061	4.9	3.0	86.9	5.2	13.1	7.2	.896	None	
SBR74-6728	220- 230	93062	5.0	2.7	89.6	2.7	13.3	6.5	.892	None	
SBR74-6729	230- 240	93063	3.5	2.7	89.8	3.9	9.2a	6.6		None	
SBR74-6730	240- 250	93064	1.5	1.9	94.8	1.8	3.8a	4.6		None	
SBR74-6731	250- 260	93065	1.6	2.9	93.6	1.9	4.1a	7.0		None	
SBR74-6732	260- 270	93066	1.6	2.1	94.5	1.8	4.2a	5.0		None	
SBR74-6733	270- 280	93067	1.4	2.6	94.5	1.5	3.8a	6.2		None	
SBR74-6734	280- 290	93068	1.9	2.4	94.4	1.3	4.9a	5.8		None	
SBR74-6735	290- 300	93069	2.3	2.7	93.2	1.8	6.1	6.5	.898	None	
SBR74-6736	300- 310	93070	1.7	.8	93.7	1.8	4.4a	6.7		None	
SBR74-6737	310- 320	93071	.4	2.4	95.3	1.9	1.1a	5.8		None	
SBR74-6738-39	320- 340						c				
SBR74-6740	340- 350						Trace				
SBR74-6741	350- 360	93072	.4	1.5	96.8	1.3	1.1a	3.6		None	

See footnote at end of table.

Drill cutting samples received February 25, 1974; assays made on air-dried samples.

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Surface elevation 7268 feet

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		Weight percent		Spent shale	Gas + loss		Gal per ton			Tendency to coke	
Laramie	Their	Oil	Water					Oil	Water		
SBR74-6742	370- 380	93073	14.8	5.0	78.2	2.0	34.8	12.0	1.020	None	Tar Impregnated
SBR74-6743	380- 390	93074	12.6	5.5	74.4	7.4	30.0	13.2	1.007	None	Tar Impregnated
SBR74-6744-45	390- 410						Trace				
SBR74-6746-48	420- 450						b				
SBR74-6749	450- 460						c				
SBR74-6750	460- 470	93075	.3	2.0	95.1	2.6	.8a	4.8		None	
SBR74-6751	470- 480	93076	.9	2.1	96.2	.8	2.4a	5.0		None	
SBR74-6752	480- 490	93077	3.3	4.5	88.4	3.8	7.9	10.8	1.000	None	Tar Impregnated
SBR74-6753	490- 500	93078	.4	2.3	96.7	.6	1.0a	5.5		None	
SBR74-6754	500- 510	93079	.6	1.9	96.6	.9	1.6a	4.6		None	
SBR74-6755	510- 520	93080	.8	1.6	95.7	1.9	2.1a	3.8		None	
SBR74-6756-58	520- 550						c				
SBR74-6759-60	550- 570						Trace				
SBR74-6761	570- 580	93081	5.2	3.1	89.1	2.6	13.4	7.4	.925	None	
SBR74-6762	580- 590	93082	4.7	3.1	90.0	2.2	12.3	7.4	.923	None	
SBR74-6763	590- 600	93083	3.2	3.5	90.6	2.7	8.4	8.4	.922	None	
SBR74-6764	600- 610	93084	3.3	3.0	91.4	2.3	8.7	7.2	.923	None	
SBR74-6765	610- 620	93085	2.3	2.5	92.3	2.9	5.9	6.0	.924	None	
SBR74-6766	620- 630	93086	2.5	3.0	92.7	1.8	6.5	7.2	.924	None	
SBR74-6767	630- 640	93087	2.7	3.1	92.4	1.8	7.0	7.4	.928	None	
SBR74-6768	640- 650	93088	2.2	2.6	93.8	1.4	5.8	6.2	.914	None	
SBR74-6769	650- 660	93089	2.0	3.0	93.5	1.5	5.2	7.2	.914	None	
SBR74-6770	660- 670	93090	2.1	2.6	93.5	1.8	5.6	6.2	.917	None	
SBR74-6771	670- 680	93091	2.0	3.1	93.6	1.3	5.3	7.4	.914	None	
SBR74-6772	680- 690	93092	2.0	2.8	94.0	1.2	5.2	6.7	.911	None	
SBR74-6773	690- 700	93093	1.4	2.6	95.3	.7	3.7a	6.2		None	
SBR74-6774	700- 730	93094	.8	1.9	97.1	.2	2.0a	4.6		None	
SBR74-6775	730- 760	93095	.9	2.1	95.6	1.4	2.4a	5.0		None	
SBR74-6776	760- 790	93096	.9	2.2	96.1	.8	2.3a	5.3		None	
SBR74-6777	790- 800	93097	.1	.7	98.9	.3	.1a	1.8		None	

See footnote at end of table.

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			Weight percent		Gal per ton	Tendency to				
Laramie	Their		Oil	Water			Spent shale	Gas + loss	Oil	Water
SBR74-6777	790- 820	93097	0.1	0.7	98.9	0.3	0.1a	1.8	None	
SBR74-6778	820- 850	93098	7.2	.5	89.6	2.7	16.9	1.2	None	Tar Impregnated
SBR74-6779	880- 910						Trace			
SBR74-6780-81	910- 970						c			
SBR74-6782	970-1000						Trace			
SBR74-6783	1060-1090						Trace			
SBR74-6784-93	1090-1390						No oil			
SBR74-6794	6720-6730						No oil			
SBR74-6795-96	6730-6750						Trace			
SBR74-6797	6750-6760						No oil			
SBR74-6798-800	6770-6800						No oil			
SBR74-6801-02	6810-6830						No oil			
SBR74-6803	6830-6840						Trace			
SBR74-6804-06	6840-6870						No oil			

1/"a"--indicates specific gravity estimated as 0.92. Oil yields were estimated by a rapid test-tube method: "No oil," "Trace," "b"--less than 1 gal oil/ton, "c"--1 to 3 gal oil/ton.

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