

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Crooked Wash Unit Well No. 1 drilled  
in NE1/4 NE1/4 of sec 28, T 13 N, R 99 W, Sweetwater County, Wyoming

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/ 60° F	Properties of spent shale		Remarks
			Weight percent		Gas + loss	Gal per ton		Tendency to coke		
Laramie	Their		Oil	Water		Spent shale			Oil <sup>1/</sup>	Water
SBR69-563	0- 30						No oil			
SBR69-564	30- 60						c			
SBR69-565	60- 90						b			
SBR69-566	90-120						Trace			
SBR69-567-68	120-180						No oil			
SBR69-569	180-210	38655	3.9	1.7	92.8	1.6	10.3	4.1	0.919	None
SBR69-570	210-240	38656	1.5	1.4	95.2	1.9	3.8a	3.4		None
SBR69-571	240-270	38657	1.6	1.7	95.7	1.0	4.2a	4.1		None
SBR69-572	270-300	38658	1.2	1.8	95.4	1.6	3.1a	4.3		None
SBR69-573	300-330	38659	.7	1.4	97.5	.4	1.8a	3.4		None
SBR69-574	330-360	38660	.8	1.2	96.8	1.2	2.2a	2.9		None
SBR69-575	360-390	38661	1.5	1.6	94.8	2.1	3.9a	4.0		None
SBR69-576	390-420	38662	2.4	2.0	94.0	1.6	6.4	4.8	.906	None
SBR69-577	420-450	38663	1.5	2.4	94.6	1.5	3.9a	5.8		None
SBR69-578	450-480	38664	3.4	2.6	92.6	1.4	9.3	6.2	.892	None
SBR69-579	480-510	38665	3.2	1.9	93.7	1.2	8.5	4.6	.901	None
SBR69-580	540-550	38666	4.1	2.5	91.5	1.9	11.1	6.5	.896	None
SBR69-581	550-560	38667	3.7	2.9	91.8	1.6	9.9	7.0	.896	None
SBR69-582	560-570	38668	4.2	2.3	91.7	1.8	11.3	5.5	.897	None
SBR69-583	570-580	38669	1.8	3.5	93.7	1.0	4.6a	8.4		None
SBR69-584	580-590	38670	1.3	2.4	95.5	.8	3.3a	5.8		None
SBR69-585	590-600	38671	1.1	2.0	95.4	1.5	3.0a	4.8		None
SBR69-586	600-610	38672	.9	4.4	93.1	1.6	2.4a	10.5		None
SBR69-587	610-620	38673	1.1	4.2	92.4	2.3	2.9a	10.1		None
SBR69-588	620-630	38674	1.2	3.0	94.3	1.5	3.1a	7.2		None
SBR69-589	630-640	38675	3.8	5.5	85.0	5.7	9.9a	13.2		None
SBR69-590	640-650	38676	.0	.9	86.0	13.1	Trace	2.2		None
SBR69-591	650-660	38677	1.8	2.1	94.0	2.1	4.7a	5.0		None
SBR69-592	660-670	38678	1.8	2.3	94.4	1.5	4.6a	5.5		None
SBR69-593	670-680	38679	1.8	2.2	93.9	2.1	4.8a	5.3		None

See footnote at end of table.

Drill cutting samples received September 12, 1968; Assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4170P Sheet No. 1 of 4 sheets

January 29, 1969

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Crooked Wash Unit Well No. 1 (con.)

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			Gal per ton					
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water			
SBR69-594	680- 690	38680	2.5	2.7	92.2	2.6	6.4a	6.5		None	
SBR69-595	690- 700	38681	2.4	2.3	91.7	3.6	6.2a	5.5		None	
SBR69-596	710- 720	38682	1.9	2.3	92.0	3.8	5.0a	5.6		None	
SBR69-597	720- 730	38683	2.1	2.3	93.0	2.6	5.5a	5.6		None	
SBR69-598	730- 740	38684	4.4	3.8	88.3	3.5	11.1	9.0	0.957	None	
SBR69-599	740- 750	38685	3.9	3.7	88.2	4.2	9.6	9.0	.965	None	
SBR69-600	750- 760	38686	10.0	6.1	74.6	9.3	26.0a	14.6		None	
SBR69-601	760- 770	38687	4.4	3.0	86.7	5.9	11.5a	7.2		None	
SBR69-602	770- 780	38688	3.7	3.1	87.5	5.7	9.0	7.4	.996	None	
SBR69-603	780- 790	38689	.6	2.3	96.0	1.1	1.6a	5.5		None	
SBR69-604	790- 800	38690	.5	1.1	97.2	1.2	1.4a	2.6		None	
SBR69-605	800- 810	38691	3.5	3.7	89.4	3.4	9.2a	8.9		None	
SBR69-606	810- 820	38692	2.6	2.5	92.0	2.9	6.7a	6.1		None	
SBR69-607	820- 830	38693	3.1	3.2	90.6	3.1	7.6	7.6	.990	None	
SBR69-608	830- 840	38694	1.1	3.2	94.1	1.6	3.0a	7.7		None	
SBR69-609	840- 850	38695	1.0	2.9	94.2	1.9	2.5a	7.0		None	
SBR69-610	850- 860	38696	1.2	2.8	94.6	1.4	3.0a	6.7		None	
SBR69-611	860- 870	38697	2.6	2.8	91.1	3.5	6.6	6.7	.954	None	
SBR69-612	870- 880	38698	2.7	2.3	91.4	3.6	6.9	5.5	.949	None	
SBR69-613	880- 890	38699	2.6	2.1	92.7	2.6	6.7	5.0	.947	None	
SBR69-614	890- 900	38700	3.0	2.5	91.7	2.8	7.8a	5.9		None	
SBR69-615	900- 910	38701	2.3	2.4	93.1	2.2	5.8	5.8	.946	None	
SBR69-616	910- 920	38702	1.8	2.3	94.0	1.9	4.6a	5.5		None	
SBR69-617-21	920- 970						c				
SBR69-622	970- 980						b				
SBR69-623	980- 990						c				
SBR69-624-27	990-1030						b				
SBR69-628	1030-1040						Trace				
SBR69-629	1040-1050						c				
SBR69-630	1050-1060						b				

See footnote at end of table.

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OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Mountain Fuel Supply Company's Crooked Wash Unit Well No. 1 (con.)

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
			Weight percent		Gal per ton			Tendency to coke		
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water		
SBR69-631	1060-1070	38703	0.9	3.6	92.5	3.0	2.4a	8.6		None
SBR69-632	1070-1080	38704	1.0	3.1	94.3	1.6	2.7a	7.4		None
SBR69-633	1080-1090	38705	1.5	2.7	93.1	2.7	4.0a	6.5		None
SBR69-634	1090-1100	38706	1.2	1.3	96.2	1.3	3.2a	3.1		None
SBR69-635	1100-1110	38707	1.3	2.2	94.9	1.6	3.4a	5.4		None
SBR69-636	1110-1120	38708	1.3	2.0	95.8	.9	3.5a	4.8		None
SBR69-637	1120-1130	38709	1.8	2.3	94.6	1.3	4.6a	5.5		None
SBR69-638	1130-1140	38710	2.0	2.1	94.6	1.3	5.2a	5.1		None
SBR69-639	1140-1150	38711	1.9	2.0	94.1	2.0	5.0a	4.8		None
SBR69-640	1150-1160	38712	1.2	1.0	94.6	3.2	3.1a	2.4		None
SBR69-641	1160-1170	38713	.7	1.1	96.0	2.2	1.8a	2.5		None
SBR69-642	1170-1180	38714	.6	1.5	95.8	2.1	1.6a	3.6		None
SBR69-643	1180-1190	38715	1.2	1.5	95.2	2.1	3.2a	3.6		None
SBR69-644	1190-1200	38716	1.3	1.2	96.0	1.5	3.4a	2.9		None
SBR69-645	1290-1300	38717	1.0	1.9	95.5	1.6	2.7a	4.6		None
SBR69-646	1300-1310	38718	1.8	2.0	93.0	3.2	4.7a	4.8		None
SBR69-647-49	1310-1340						b			
SBR69-650	1340-1350	38719	1.2	1.7	95.6	1.5	3.0a	4.1		None
SBR69-651	1350-1360	38720	.6	1.8	96.7	.9	1.6a	4.3		None
SBR69-652	1360-1370	38721	.9	1.4	95.3	2.4	2.4a	3.4		None
SBR69-653	1370-1380	38722	1.4	1.7	94.6	2.3	3.5a	4.1		None
SBR69-654	1380-1390	38723	1.7	1.1	95.1	2.1	4.4a	2.6		None
SBR69-655	1390-1400	38724	.6	.8	95.5	3.1	1.7a	1.9		None
SBR69-656	1400-1410	38725	2.0	1.9	94.6	1.5	5.3a	4.6		None
SBR69-657	1410-1420	38726	1.6	1.7	95.5	1.2	4.0a	4.1		None
SBR69-658	1420-1430	38727	1.0	1.6	95.9	1.5	2.5a	4.0		None
SBR69-659	1430-1440	38728	1.0	1.5	95.9	1.6	2.7a	3.6		None
SBR69-660	1440-1450	38729	1.0	1.1	96.6	1.3	2.7a	2.6		None
SBR69-661	1450-1460	38730	1.0	1.4	96.7	.9	2.5a	3.4		None
SBR69-662	1460-1470	38731	2.7	2.6	92.5	2.2	6.8	6.2	0.953	None

See footnote at end of table.

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Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
			Weight percent		Gal per ton			Tendency to		
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water	coke	
SBR69-663	1470-1480	38732	5.7	2.5	89.0	2.8	13.7	5.9	None	
SBR69-664	1480-1490	38733	10.1	3.2	79.5	7.2	26.2a	7.7	Medium	
SBR69-665	1490-1500	38734	3.1	2.4	91.5	3.0	7.7	5.8	None	
SBR69-666	1500-1510	38735	2.9	2.2	92.7	2.2	7.0	5.3	Slight	
SBR69-667	1510-1520	38736	1.1	1.5	96.1	1.3	2.8a	3.6	None	
SBR69-668-72	1520-1570						b			

<sup>1/</sup> "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, "d"--3+ gal oil/ton but sample insufficient for assay.

Drill cutting samples received September 12, 1968; Assays made on air-dried samples

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4170P Sheet No. 4 of 4 sheets January 29, 1969