

CNS 0657

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 3 Corehole located 1,750 feet S/N and 50 feet W/E of sec 7, T 12 S, R 25 E, S.L.M., Uintah County, Utah

Surface elevation 6,540 feet

USBM 0359

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of		Remarks
			Weight percent		Spent shale	Gas + loss				spent shale		
Laramie	Their		Oil	Water					Oil	Water		
SBR73-5294	277.7-279.0	81639	6.9	2.4	89.0	1.7	18.1	5.8	0.912	None	Base A-Groove 276	
SBR73-5295	279.0-280.0	81640	5.5	2.3	90.9	1.3	14.4	5.5	.918	None		
SBR73-5296	280.0-281.0	81641	4.3	1.6	92.7	1.4	11.2	3.8	.918	None		
SBR73-5297	281.0-282.0	81642	3.5	1.9	93.5	1.1	9.1	4.6	.921	None		
SBR73-5298	282.0-283.0	81643	5.7	2.1	91.3	.9	14.8	5.0	.921	None		
SBR73-5299	283.0-284.0	81644	9.3	2.0	87.0	1.7	24.2	4.8	.919	None		
SBR73-5300	284.0-285.0	81645	9.2	1.8	87.2	1.8	24.2	4.3	.911	None		
SBR73-5301	285.0-286.0	81646	16.2	2.2	78.8	2.8	42.9	5.3	.904	None		
SBR73-5302	286.0-287.0	81647	7.4	1.7	89.3	1.6	19.6	4.1	.904	None		
SBR73-5303	287.0-288.0	81648	6.4	1.9	90.0	1.7	16.8	4.6	.915	None		
SBR73-5304	288.0-289.0	81649	3.8	1.4	93.8	1.0	9.9	3.4	.921	None	Mahogany marker 292.6-293.0 feet	
SBR73-5305	289.0-290.0	81650	7.0	1.7	89.7	1.6	18.3	4.1	.918	None		
SBR73-5306	290.0-291.0	81651	5.4	1.5	91.7	1.4	14.1	3.6	.920	None		
SBR73-5307	291.0-292.0	81652	4.1	1.6	93.2	1.1	10.7	3.8	.918	None		
SBR73-5308	292.0-293.0	81653	3.5	2.8	92.9	.8	9.1	6.7	.925	None		
SBR73-5309	293.0-294.0	81654	3.5	1.6	93.9	1.0	9.1	3.8	.924	None		
SBR73-5310	294.0-295.1	81655	3.2	1.6	94.6	.6	8.4	3.8	.912	None		
SBR73-5311	295.1-296.2	81656	5.1	1.2	93.0	.7	13.4	2.9	.911	None		
SBR73-5312	296.2-297.2	81657	15.4	2.5	79.0	3.1	40.2	6.0	.917	None		
SBR73-5313	297.2-298.3	81658	7.4	1.3	89.8	1.5	19.6	3.1	.907	None		
SBR73-5314	298.3-299.4	81659	6.3	1.9	90.2	1.6	16.6	4.6	.910	None	Slight Heavy Heavy None None None None None None None	
SBR73-5315	299.4-300.5	81660	11.4	1.6	84.7	2.3	29.9	3.8	.914	None		
SBR73-5316	300.5-301.6	81661	12.0	1.1	84.7	2.2	31.5	2.6	.912	None		
SBR73-5317	301.6-302.6	81662	19.9	2.4	74.0	3.7	52.8	5.8	.904	None		
SBR73-5318	302.6-303.6	81663	28.1	3.8	62.2	5.9	74.3	9.1	.906	None		
SBR73-5319	303.6-304.6	81664	23.4	3.0	68.9	4.7	62.2	7.2	.902	None		
SBR73-5320	304.6-305.1	81665	12.9	1.4	83.0	2.7	34.3	3.4	.901	None		
SBR73-5321	305.1-306.1	81666	22.0	2.6	71.1	4.3	58.0	6.2	.909	None		
SBR73-5322	306.1-307.1	81667	9.0	1.6	87.5	1.9	23.4	3.8	.922	None		
SBR73-5323	307.1-308.1	81668	6.7	1.2	90.5	1.6	17.4	2.9	.921	None		

Core samples received April 28, 1972; Assays made on air-dried samples

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4531P Sheet No. 1 of 4 sheets

May 16, 1973

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Samples from Gulf Mineral Resources Company's Bonanza No. 3 Corehole (con.)

Surface elevation 6,540 feet

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss				Tendency to		
Laramie	Their		Oil	Water					Oil	Water		coke
SBR73-5324	308.1-309.0	81669	18.2	2.0	76.2	3.6	47.2	4.8	0.923	None		
SBR73-5325	309.0-310.0	81670	5.7	1.0	92.0	1.3	14.8	2.4	.923	None		
SBR73-5326	310.0-311.0	81671	5.9	1.1	91.4	1.6	15.4	2.6	.919	None		
SBR73-5327	311.0-312.0	81672	9.6	1.4	87.1	1.9	25.2	3.4	.914	None		
SBR73-5328	312.0-313.0	81673	18.4	2.0	76.5	3.1	48.6	4.8	.907	None		
SBR73-5329	313.0-314.0	81674	11.9	1.9	84.0	2.2	31.4	4.6	.907	None		
SBR73-5330	314.0-315.1	81675	11.6	1.9	84.3	2.2	30.5	4.6	.911	None		
SBR73-5331	315.1-316.1	81676	6.3	1.4	90.9	1.4	16.4	3.4	.918	None		
SBR73-5332	316.1-317.2	81677	5.3	1.7	91.4	1.6	13.8	4.1	.918	None		
SBR73-5333	317.2-318.2	81678	16.0	2.6	78.4	3.0	41.5	6.2	.923	None		
SBR73-5334	318.2-319.2	81679	4.2	.9	93.2	1.7	10.9	2.2	.922	None		
SBR73-5335	319.2-320.3	81680	5.9	1.2	91.7	1.2	15.4	2.9	.917	None		
SBR73-5336	320.3-321.3	81681	12.9	2.0	82.8	2.3	33.8	4.8	.914	None		
SBR73-5337	321.3-322.3	81682	12.6	.8	83.9	2.7	33.5	1.9	.902	None		
SBR73-5338	322.3-323.3	81683	7.5	.5	89.5	2.5	19.8	1.2	.909	None		
SBR73-5339	323.3-324.3	81684	11.0	1.7	85.0	2.3	29.1	4.1	.906	None		
SBR73-5340	324.3-325.4	81685	5.8	1.0	91.5	1.7	15.2	2.4	.915	None		
SBR73-5341	325.4-326.5	81686	3.7	1.0	94.0	1.3	9.6	2.4	.927	None		
SBR73-5342	326.5-327.5	81687	5.1	1.1	92.1	1.7	13.3	2.6	.918	None		
SBR73-5343	327.5-328.6	81688	6.6	1.1	90.9	1.4	17.1	2.6	.925	None		
SBR73-5344	328.6-329.7	81689	2.0	.6	96.0	1.4	5.2a	1.4		None		
SBR73-5345	329.7-330.7	81690	2.7	.5	95.9	.9	7.0	1.2	.919	None		
SBR73-5346	330.7-331.8	81691	3.8	2.8	92.7	.7	9.9	6.7	.922	None		
SBR73-5347	331.8-332.8	81692	9.3	1.9	87.6	1.2	24.3	4.6	.916	None		
SBR73-5348	332.8-333.8	81693	2.6	1.2	95.4	.8	6.8	2.9	.915	None		
SBR73-5349	333.8-334.8	81694	6.1	1.3	90.8	1.8	16.0	3.1	.914	None		
SBR73-5350	334.8-335.8	81695	6.7	1.5	90.3	1.5	17.4	3.6	.922	None		
SBR73-5351	335.8-336.8	81696	1.2	.6	97.5	.7	3.1a	1.4		None		
SBR73-5352	336.8-337.9	81697	3.3	1.3	94.0	1.4	8.6	3.1	.925	None		
SBR73-5353	337.9-339.0	81698	4.6	3.0	92.0	.4	11.8	7.2	.933	None		

See footnote at end of table.

Core samples received April 28, 1972; Assays made on air-dried samples

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Samples from Gulf Mineral Resources Company's Bonanza No. 3 Corehole (con.)

Surface elevation 6,540 feet

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss				Tendency to		
Laramie	Their		Oil	Water					Oil ¹ / _{Water}			coke
SBR73-5354	339.0-340.0	81699	3.0	2.0	94.4	0.6	7.8	4.8	0.924	None		
SBR73-5355	340.0-341.0	81700	1.7	.5	97.4	.4	4.4a	1.2		None		
SBR73-5356	341.0-342.0	81701	2.0	.7	96.6	.7	5.2a	1.7		None		
SBR73-5357	342.0-343.0	81702	1.9	.7	96.7	.7	4.9a	1.7		None		
SBR73-5358	343.0-344.0	81703	1.0	1.0	97.6	.4	2.6a	2.4		None		
SBR73-5359	344.0-345.0	81704	.8	.4	98.4	.4	2.1a	1.0		None		
SBR73-5360	345.0-346.0	81705	2.1	.2	97.2	.5	5.5a	.5		None		
SBR73-5361	346.0-347.0	81706	1.0	.5	98.3	.2	2.6a	1.2		None		
SBR73-5362	347.0-348.0	81707	.3	1.0	98.5	.2	.8a	2.4		None		
SBR73-5363	348.0-348.9	81708	1.4	.7	97.1	.8	3.6a	1.7		None		
SBR73-5364	348.9-350.0	81709	.6	.2	98.4	.8	1.6a	.5		None		
SBR73-5365	350.0-351.2	81710	3.1	.8	95.3	.8	8.1	1.9	.921	None		
SBR73-5366	351.7-353.0	81711	2.4	.8	95.7	1.1	6.3	1.9	.908	None		
SBR73-5367	353.0-354.0	81712	6.2	1.3	91.0	1.5	16.4	3.1	.904	None		
SBR73-5368	354.0-355.0	81713	4.7	1.0	93.3	1.0	12.4	2.4	.907	None		
SBR73-5369	355.0-356.0	81714	2.3	.8	95.7	1.2	6.0	1.9	.910	None		
SBR73-5370	356.0-357.0	81715	4.3	1.2	93.4	1.1	11.4	2.9	.907	None		
SBR73-5371	357.0-358.0	81716	3.6	.6	95.0	.8	9.6	1.4	.898	None		
SBR73-5372	358.0-359.0	81717	1.2	.6	97.4	.8	3.1a	1.4		None		
SBR73-5373	359.0-360.0	81718	3.0	1.0	95.0	1.0	7.9	2.4	.911	None		
SBR73-5374	360.0-361.0	81719	2.2	1.1	95.9	.8	5.8	2.6	.913	None		
SBR73-5375	361.0-362.0	81720	2.8	1.2	94.8	1.2	7.4	2.9	.911	None		
SBR73-5376	362.0-363.0	81721	2.2	1.3	95.6	.9	5.8	3.1	.907	None		
SBR73-5377	363.0-364.0	81722	2.4	2.0	94.8	.8	6.4	4.8	.899	None		
SBR73-5378	364.0-365.0	81723	2.4	.9	95.8	.9	6.3	2.2	.917	None		
SBR73-5379	365.0-366.0	81724	1.4	2.6	95.5	.5	3.6a	6.2		None		
SBR73-5380	366.0-367.0	81725	3.1	.9	95.1	.9	8.1	2.2	.914	None		
SBR73-5381	367.0-368.0	81726	6.6	2.5	89.4	1.5	17.4	6.0	.909	None		
SBR73-5382	368.0-369.0	81727	4.7	1.9	92.0	1.4	12.3	4.6	.913	None		
SBR73-5383	369.0-370.0	81728	2.0	1.1	96.5	.4	5.2	2.6	.921	None		

See footnote at end of table.

Core samples received April 28, 1972; Assays made on air-dried samples

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May 16, 1973

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 3 Corehole (con.)

Surface elevation 6,540 feet

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of	Remarks
			Weight percent		Spent shale	Gas + loss				Tendency to	
Laramie	Their		Oil	Water					Oil ^{1/}		Water
SBR73-5384	370.0-371.0	81729	3.2	2.3	93.8	0.7	8.4	5.5	0.913	None	
SBR73-5385	371.0-371.8	81730	4.4	1.2	92.9	1.5	11.4	2.9	.927	None	
SBR73-5386	371.8-373.1	81731	2.1	.1	97.0	.8	5.4	.2	.924	None	
SBR73-5387	373.1-374.4	81732	1.2	.2	98.4	.2	3.1a	.5		None	
SBR73-5388	374.4-375.5	81733	.0	.3	99.6	.1	Trace	.7		None	
SBR73-5389	375.5-377.0	81734	.0	.5	99.4	.1	Trace	1.2		None	
SBR73-5390	377.0-379.0	81735	.0	.9	98.9	.2	Trace	2.2		None	
SBR73-5391	379.0-380.4	81736	.0	1.2	98.7	.1	Trace	2.9		None	
SBR73-5392	380.4-381.4	81737	1.2	.2	98.1	.5	3.1a	.5		None	
SBR73-5393	381.4-382.7	81738	5.5	.1	93.8	.6	14.3	.2	.924	None	
SBR73-5394	382.7-384.0	81739	4.2	.1	95.3	.4	10.9	.2	.925	None	
SBR73-5395	384.0-386.0	81740	4.4	.1	95.1	.4	11.4	.2	.925	None	
SBR73-5396	386.0-388.0	81741	3.1	.1	96.3	.5	8.0	.2	.926	None	
SBR73-5397	388.0-390.0	81742	3.3	.1	96.1	.5	8.5	.2	.926	None	
SBR73-5398	390.0-392.0	81743	2.5	.1	97.0	.4	6.5	.2	.927	None	

^{1/} "a"--indicates specific gravity estimated as 0.92.

Core samples received April 28, 1972; Assays made on air-dried samples

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May 16, 1973