

CN#0663

0141

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 9 corehole located 2,000 feet  
S/N and 1,300 feet W/E of sec 34, T 12 S, R 24 E, S.L.M., Uintah County, Utah

Surface elevation 6,450 feet

(US80) 0302

Sample number		Run No.	Yield of product				Gal per ton		Specific gravity of oil at 60°/60° F	Properties of spent shale Tendency to coke	Remarks
			Weight percent		Spent shale	Gas + loss					
Laramie	Their		Oil	Water					Oil <sup>1/</sup>	Water	
SBR73-5594	59.4- 60.3	81939	6.6	1.3	90.5	1.6	17.2	3.1	0.922	None	
SBR73-5595	60.3- 61.0	81940	2.3	1.1	96.0	.6	6.0	2.6	.925	None	
SBR73-5596	61.0- 62.0	81941	1.7	1.2	96.7	.4	4.4a	2.9		None	
SBR73-5597	62.0- 63.0	81942	1.3	1.0	97.0	.7	3.4a	2.4		None	
SBR73-5598	63.0- 64.0	81943	1.0	.7	98.0	.3	2.6a	1.7		None	
SBR73-5599	64.0- 65.0	81944	2.5	1.1	95.6	.8	6.4	2.6	.929	None	
SBR73-5600	65.0- 66.0	81945	1.1	.9	97.4	.6	2.9a	2.2		None	
SBR73-5601	66.0- 67.0	81946	1.0	1.1	97.5	.4	2.6a	2.6		None	
SBR73-5602	67.0- 68.0	81947	.6	.8	98.2	.4	1.6a	1.9		None	
SBR73-5603	68.0- 69.0	81948	.7	.8	98.0	.5	1.8a	1.9		None	
SBR73-5604	69.0- 70.0	81949	2.7	1.0	95.2	1.1	7.1	2.4	.913	None	
SBR73-5605	70.0- 71.0	81950	4.5	1.1	92.6	1.8	11.7	2.6	.921	None	Base A-Groove
SBR73-5606	71.0- 72.0	81951	8.1	1.9	87.7	2.3	21.4	4.6	.909	None	
SBR73-5607	72.0- 73.0	81952	9.4	1.5	87.0	2.1	24.7	3.6	.913	None	
SBR73-5608	73.0- 74.0	81953	4.9	1.9	91.8	1.4	12.8	4.6	.916	None	
SBR73-5609	74.0- 75.0	81954	4.5	1.0	93.4	1.1	11.8	2.4	.913	None	
SBR73-5610	75.0- 76.0	81955	3.1	1.7	94.4	.8	8.1	4.1	.920	None	
SBR73-5611	76.0- 77.0	81956	8.2	2.0	88.3	1.5	21.3	4.8	.923	None	
SBR73-5612	77.0- 78.0	81957	11.9	1.6	83.9	2.6	31.0	3.8	.919	None	
SBR73-5613	78.0- 79.0	81958	8.9	1.5	87.5	2.1	23.3	3.6	.917	None	
SBR73-5614	79.0- 80.0	81959	13.3	1.4	82.4	2.9	35.5	3.4	.898	None	
SBR73-5615	80.0- 81.0	81960	17.8	2.0	76.1	4.1	46.9	4.8	.909	None	
SBR73-5616	81.0- 82.0	81961	10.8	1.0	86.4	1.8	28.8	2.4	.897	None	
SBR73-5617	82.0- 83.0	81962	6.6	1.3	90.5	1.6	17.4	3.1	.908	None	
SBR73-5618	83.0- 84.0	81963	5.5	1.2	91.4	1.9	14.3	2.9	.922	None	
SBR73-5619	84.0- 85.0	81964	4.0	1.0	93.7	1.3	10.4	2.4	.923	None	
SBR73-5620	85.0- 86.0	81965	7.9	1.2	88.4	2.5	20.7	2.9	.914	None	
SBR73-5621	86.0- 87.0	81966	5.8	.8	91.6	1.8	15.2	1.9	.916	None	
SBR73-5622	87.0- 88.0	81967	3.8	.7	94.0	1.5	9.9	1.7	.919	None	
SBR73-5623	88.0- 89.0	81968	4.2	.8	93.5	1.5	10.9	1.9	.920	None	

See footnote at end of table.

Core samples received May 5, 1972; Assays made on air-dried samples

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Surface elevation 6,450 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 coke		
Laramie	Their		Oil	Water					Oil 1/		Water	
SBR73-5624	89.0- 90.0	81969	3.3	1.8	93.9	1.0	8.7	4.3	0.912	None		
SBR73-5625	90.0- 91.0	81970	3.6	.6	94.3	1.5	9.4	1.4	.920	None		
SBR73-5626	91.0- 92.0	81971	2.8	.5	95.3	1.4	7.4	1.2	.910	None		
SBR73-5627	92.0- 93.0	81972	7.1	1.2	90.2	1.5	18.6	2.9	.914	None		
SBR73-5628	93.0- 94.0	81973	16.6	1.9	78.2	3.3	43.5	4.6	.914	None		
SBR73-5629	94.0- 95.0	81974	7.8	1.0	89.2	2.0	20.6	2.4	.905	None		
SBR73-5630	95.0- 96.0	81975	6.6	1.0	90.4	2.0	17.5	2.4	.905	None		
SBR73-5631	96.0- 97.0	81976	10.8	1.4	85.7	2.1	28.4	3.4	.911	None		
SBR73-5632	97.0- 98.0	81977	13.9	1.5	81.8	2.8	36.4	3.6	.914	Slight		
SBR73-5633	98.0- 99.0	81978	23.6	2.5	68.1	5.8	63.0	6.0	.898	Moderate		
SBR73-5634	99.0-100.0	81979	25.1	3.0	67.0	4.9	65.9	7.2	.913	Heavy		
SBR73-5635	100.0-101.0	81980	30.0	4.5	59.7	5.8	79.8	10.8	.901	Heavy		
SBR73-5636	101.0-102.0	81981	25.1	3.5	66.4	5.0	67.1	8.4	.896	Heavy		
SBR73-5637	102.0-103.0	81982	16.3	1.5	79.4	2.8	43.2	3.6	.904	Slight		
SBR73-5638	103.0-104.0	81983	21.7	2.4	72.0	3.9	57.0	5.8	.912	Slight		
SBR73-5639	104.0-105.0	81984	8.8	1.6	87.6	2.0	22.9	3.8	.920	None		
SBR73-5640	105.0-106.0	81985	6.2	1.0	91.3	1.5	16.2	2.4	.920	None		
SBR73-5641	106.0-107.0	81986	14.0	1.3	82.1	2.6	36.9	3.1	.910	None		
SBR73-5642	107.0-108.0	81987	8.2	1.3	88.7	1.8	21.2	3.1	.925	None		
SBR73-5643	108.0-109.0	81988	6.4	.8	91.7	1.1	16.7	1.9	.917	None		
SBR73-5644	109.0-110.0	81989	19.1	1.4	76.1	3.4	49.9	3.4	.917	None		
SBR73-5645	110.0-111.0	81990	18.8	1.3	76.3	3.6	49.6	3.1	.909	None		
SBR73-5646	111.0-112.0	81991	6.9	.7	91.2	1.2	18.6	1.7	.888	None		
SBR73-5647	112.0-113.0	81992	7.3	.7	90.8	1.2	20.0	1.7	.876	None		
SBR73-5648	113.0-114.0	81993	12.1	1.1	84.0	2.8	32.3	2.6	.898	None		
SBR73-5649	114.0-115.0	81994	6.1	.9	91.6	1.4	16.0	2.2	.913	None		
SBR73-5650	115.0-115.9	81995	4.9	.9	93.0	1.2	12.8	2.2	.915	None		
SBR73-5651	116.3-117.0	81996	11.0	1.2	85.3	2.5	28.7	2.9	.919	None		
SBR73-5652	117.0-118.0	81997	15.0	1.3	81.0	2.7	39.2	3.1	.917	None		
SBR73-5653	118.0-119.0	81998	4.0	.8	94.3	.9	10.5	1.9	.916	None		

See footnote at end of table.

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			Weight percent		Spent shale	Gas + loss				Tendency to coke		
Laramie	Their		Oil	Water					Oil <sup>1/</sup>	Water		
SBR73-5654	119.0-120.0	81999	4.0	1.1	93.7	1.2	10.4	2.6	0.922	None		
SBR73-5655	120.0-121.0	82000	5.6	1.4	91.7	1.3	14.6	3.4	.917	None		
SBR73-5656	121.0-122.0	82001	8.0	1.3	88.8	1.9	21.0	3.1	.914	None		
SBR73-5657	122.0-123.0	82002	13.1	1.0	83.9	2.0	35.1	2.4	.895	None		
SBR73-5658	123.0-124.0	82003	8.1	.9	89.8	1.2	21.4	2.2	.906	None		
SBR73-5659	124.0-125.0	82004	11.2	1.0	86.2	1.6	29.6	2.4	.907	None		
SBR73-5660	125.0-126.0	82005	8.1	1.2	88.9	1.8	21.5	2.9	.904	None		
SBR73-5661	126.0-127.0	82006	4.6	1.6	92.9	.9	12.0	3.8	.919	None		
SBR73-5662	127.0-128.0	82007	3.3	1.2	94.7	.8	8.5	2.9	.928	None		
SBR73-5663	128.0-129.0	82008	4.4	1.7	92.8	1.1	11.5	4.1	.920	None		
SBR73-5664	129.0-130.0	82009	11.0	1.4	85.8	1.8	28.6	3.4	.923	None		
SBR73-5665	130.0-131.0	82010	3.6	1.0	94.7	.7	9.4	2.4	.921	None		
SBR73-5666	131.0-132.0	82011	2.4	.5	96.3	.8	6.2	1.2	.931	None		
SBR73-5667	132.0-133.0	82012	1.4	.4	97.7	.5	3.6a	1.0		None		
SBR73-5668	133.0-134.0	82013	3.6	.5	94.9	1.0	9.5	1.2	.910	None		
SBR73-5669	134.0-135.0	82014	4.0	.5	94.8	.7	10.6	1.2	.902	None		
SBR73-5670	135.0-136.3	82015	2.3	1.5	95.2	1.0	6.0	3.6	.918	None		

<sup>1/</sup> "a"--indicates specific gravity estimated as 0.92.

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