

BONANZA 001  
CNC 0655

U001

# OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 1 Corehole located 2,150 feet N/S and 2,125 feet W/E of sec 14, T 12 S, R 24 E, S.L.M., Uintah County, Utah

Surface elevation 6,165 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
SBR73-5499	30.0-30.8	81844	3.0	1.4	94.8	0.8	7.8	3.4	0.922	None	Base A-Groove 24	
SBR73-5500	30.8-31.8	81845	8.2	1.5	88.1	2.2	21.6	3.6	.911	None		
SBR73-5501	31.8-32.3	81846	20.1	1.2	74.7	4.0	53.4	2.9	.902	None		
SBR73-5502	32.3-33.3	81847	8.2	1.1	88.9	1.8	21.8	2.6	.899	None		
SBR73-5503	33.3-34.9	81848	2.5	1.7	94.6	1.2	6.5	4.1	.917	None		
SBR73-5504	34.9-36.0	81849	7.9	1.0	89.3	1.8	20.7	2.4	.915	None		
SBR73-5505	36.0-37.0	81850	4.7	.6	93.3	1.4	12.3	1.4	.917	None	Mahogany Marker 38.7-39.0	
SBR73-5506	37.0-38.0	81851	3.0	1.0	94.6	1.4	7.8	2.4	.920	None		
SBR73-5507	38.0-39.0	81852	3.3	2.3	93.2	1.2	8.6	5.5	.921	None		
SBR73-5508	39.8-40.9	81853	2.3	1.0	95.3	1.4	6.1	2.4	.908	None		
SBR73-5509	40.9-42.4	81854	4.4	.9	93.6	1.1	11.5	2.2	.914	None		
SBR73-5510	42.4-43.0	81855	15.2	1.4	80.4	3.0	39.6	3.4	.919	Slight		
SBR73-5511	43.0-44.2	81856	8.0	.7	89.4	1.9	21.2	1.7	.905	None	Mahogany bed	
SBR73-5512	44.2-45.3	81857	6.9	.5	91.0	1.6	18.2	1.2	.908	None		
SBR73-5513	45.3-46.3	81858	10.1	.5	87.3	2.1	26.6	1.2	.909	None		
SBR73-5514	46.3-46.9	81859	21.4	1.4	73.5	3.7	56.1	3.4	.914	Slight		
SBR73-5515	46.9-47.5	81860	11.3	.6	86.1	2.0	30.0	1.4	.902	Slight		
SBR73-5516	47.5-49.0	81861	23.1	1.4	71.1	4.4	61.2	3.4	.904	Heavy		
SBR73-5517	49.0-50.0	81862	30.8	2.2	61.0	6.0	81.8	5.3	.902	Heavy		
SBR73-5518	50.0-51.1	81863	24.7	2.6	67.4	5.3	65.4	6.2	.905	Heavy		
SBR73-5519	51.1-51.6	81864	12.2	1.1	84.4	2.3	32.7	2.6	.894	Slight		
SBR73-5520	51.6-52.8	81865	23.3	2.2	70.1	4.4	61.6	5.3	.906	Heavy		
SBR73-5521	52.8-53.9	81866	9.4	.9	87.6	2.1	24.6	2.2	.915	None		
SBR73-5522	53.9-55.0	81867	18.3	1.3	77.0	3.4	47.5	3.1	.923	Slight		
SBR73-5523	55.0-56.2	81868	6.2	.6	91.9	1.3	16.1	1.4	.923	None		
SBR73-5524	56.2-57.4	81869	8.2	.6	89.6	1.6	21.6	1.4	.910	None		
SBR73-5525	57.4-58.2	81870	20.4	1.2	75.2	3.2	53.8	2.9	.909	Slight		
SBR73-5526	58.2-59.3	81871	16.3	1.0	79.4	3.3	43.1	2.4	.906	Slight		
SBR73-5527	59.3-60.7	81872	7.4	.5	90.8	1.3	19.9	1.2	.892	None		
SBR73-5528	60.7-61.3	81873	17.8	1.2	77.8	3.2	46.9	2.9	.909	Slight		

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. 1 Corehole (con.)

Surface elevation 6,165 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	Oil 1/	Water		Tendency to coke		
Laramie	Their		Oil	Water								
SBR73-5529	61.3-62.4	81874	6.0	0.5	91.6	1.9	15.8	1.2	0.912	None		
SBR73-5530	62.4-63.6	81875	5.5	.3	92.2	2.0	14.4	.7	.916	None		
SBR73-5531	63.6-64.6	81876	18.3	1.4	76.6	3.7	47.5	3.4	.924	Moderate		
SBR73-5532	64.6-65.6	81877	5.5	.5	92.6	1.4	14.4	1.2	.917	None		
SBR73-5533	65.6-66.7	81878	3.8	.3	95.0	.9	9.9	.7	.917	None		
SBR73-5534	66.7-67.8	81879	6.5	.3	91.6	1.6	17.0	.7	.914	None		
SBR73-5535	67.8-68.8	81880	14.5	1.0	82.0	2.5	38.3	2.4	.907	None		
SBR73-5536	68.8-69.9	81881	10.4	.5	87.0	2.1	27.8	1.2	.895	None		
SBR73-5537	69.9-71.0	81882	8.1	.6	89.7	1.6	21.4	1.4	.909	None		
SBR73-5538	71.0-72.0	81883	10.8	.8	86.4	2.0	28.7	1.9	.903	None		
SBR73-5539	72.0-73.3	81884	6.0	.7	91.9	1.4	15.8	1.7	.911	None		
SBR73-5540	73.3-74.6	81885	3.6	.4	95.0	1.0	9.3	1.0	.926	None		
SBR73-5541	74.6-75.6	81886	5.2	.4	93.0	1.4	13.6	1.0	.918	None		
SBR73-5542	75.6-76.3	81887	9.7	.7	87.5	2.1	25.1	1.7	.925	None		
SBR73-5543	76.3-76.9	81888	3.5	.6	94.9	1.0	9.1	1.4	.922	None		
SBR73-5544	76.9-78.0	81889	2.6	.5	96.2	.7	6.8	1.2	.922	None		
SBR73-5545	78.0-79.2	81890	2.0	.5	96.9	.6	5.2	1.2	.919	None		
SBR73-5546	79.2-80.2	81891	4.6	.6	93.6	1.2	12.1	1.4	.911	None		
SBR73-5547	80.2-81.2	81892	3.3	2.2	93.6	.9	8.6	5.3	.920	None		
SBR73-5548	81.2-82.1	81893	11.1	1.0	85.6	2.3	29.0	2.4	.918	None		
SBR73-5549	82.1-83.7	81894	3.3	.4	95.1	1.2	8.7	1.0	.911	None		
SBR73-5550	83.7-84.7	81895	8.8	.9	88.5	1.8	23.1	2.2	.913	None		
SBR73-5551	84.7-86.0	81896	1.5	.5	97.4	.6	3.9a	1.2		None		
SBR73-5552	86.0-87.0	81897	4.9	.6	93.4	1.1	12.8	1.4	.917	None		
SBR73-5553	87.0-88.2	81898	4.9	2.6	91.7	.8	12.7	6.2	.925	None		
SBR73-5554	88.2-89.2	81899	2.2	1.0	96.0	.8	5.7	2.4	.917	None		
SBR73-5555	89.2-90.5	81900	1.6	.4	97.3	.7	4.2a	1.0		None		
SBR73-5556	90.5-91.9	81901	1.7	.1	96.8	1.4	4.4a	.2		None		
SBR73-5557	91.9-93.2	81902	1.1	.3	98.1	.5	2.9a	.7		None		
SBR73-5558	93.2-94.2	81903	1.8	.2	97.6	.4	4.7a	.5		None		

See footnote at end of table

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

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4533P Sheet No. 2 of 4 sheets

May 24, 1973

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 1 Corehole (con.)

Surface elevation 6,165 feet

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/	Water	
SBR73-5559	94.2- 95.2	81904	0.4	0.4	99.0	0.2	1.0a	1.0		None	
SBR73-5560	95.2- 96.2	81905	1.1	.5	97.5	.9	2.9a	1.2		None	
SBR73-5561	96.8- 97.8	81906	1.2	.2	98.2	.4	3.1a	.5		None	
SBR73-5562	97.8- 98.8	81907	4.1	.4	94.8	.7	10.7	1.0	0.917	None	
SBR73-5563	98.8-100.2	81908	2.8	.5	96.0	.7	7.4	1.2	.910	None	
SBR73-5564	100.2-101.2	81909	6.9	.7	91.1	1.3	18.3	1.7	.904	None	
SBR73-5565	101.2-102.2	81910	3.6	.3	95.4	.7	9.4	.7	.913	None	
SBR73-5566	102.2-103.2	81911	4.9	.5	93.4	1.2	12.8	1.2	.915	None	
SBR73-5567	103.2-104.2	81912	2.6	.5	96.1	.8	6.8	1.2	.915	None	
SBR73-5568	104.2-105.5	81913	2.4	.3	96.9	.4	6.3	.7	.914	None	
SBR73-5569	105.5-106.8	81914	2.1	.4	97.0	.5	5.5	1.0	.914	None	
SBR73-5570	106.8-107.8	81915	2.9	1.1	94.9	1.1	7.6	2.6	.916	None	
SBR73-5571	107.8-108.9	81916	2.1	1.4	95.6	.9	5.6	3.4	.904	None	
SBR73-5572	108.9-110.1	81917	1.2	1.0	96.9	.9	3.1a	2.4		None	
SBR73-5573	110.1-111.2	81918	2.6	.2	96.3	.9	6.8	.5	.909	None	
SBR73-5574	111.2-112.4	81919	4.7	.8	93.2	1.3	12.3	1.9	.913	None	
SBR73-5575	112.4-113.4	81920	2.8	.8	95.6	.8	7.3	1.9	.923	None	
SBR73-5576	116.4-117.3	81921	3.2	.8	95.2	.8	8.2	1.9	.931	None	
SBR73-5577	117.3-118.7	81922	5.6	.1	93.1	1.2	14.5	.2	.927	None	
SBR73-5578	118.7-119.7	81923	.8	.2	98.2	.8	2.1a	.5		None	
SBR73-5579	119.7-121.9	81924	4.4	.1	94.7	.8	11.4	.2	.927	None	
SBR73-5580	121.9-122.9	81925	3.3	.1	96.2	.4	8.6	.2	.925	None	
SBR73-5581	122.9-124.9	81926	4.6	.1	95.0	.3	11.9	.2	.925	None	
SBR73-5582	124.9-126.8	81927	1.6	.1	97.6	.7	4.2a	.2		None	
SBR73-5583	126.8-128.5	81928	2.5	.1	97.0	.4	6.5	.2	.924	None	
SBR73-5584	128.5-130.1	81929	.9	.3	98.3	.5	2.3a	.7		None	
SBR73-5585	130.1-132.4	81930	5.1	.1	94.3	.5	13.2	.2	.925	None	
SBR73-5586	132.4-134.7	81931	5.2	.0	94.4	.4	13.5	.0	.924	None	
SBR73-5587	134.7-136.3	81932	3.1	.1	96.4	.4	8.0	.2	.922	None	
SBR73-5588	136.3-138.0	81933	2.2	.2	97.3	.3	5.7	.5	.923	None	

See footnote at end of table.

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

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 1 Corehole (con.)

Surface elevation 6,165 feet

Surface elevation 6,165 feet			Yield of product							Specific gravity of oil at 60°/60° F	Properties of spent shale Tendency to coke	Remarks
Sample number		Run No.	Weight percent				Gal per ton					
			Oil	Water	Spent shale	Gas + loss	Oil <sup>1/</sup>	Water				
Laramie	Their											
SBR73-5589	138.0-140.2	81934	2.8	0.1	96.6	0.5	7.2	0.2	0.926	None		
SBR73-5590	140.2-142.2	81935	.8	.3	98.4	.5	2.1a	.7		None		
SBR73-5591	142.2-145.0	81936	.0	.8	98.6	.6	No Oil	1.9		None		
SBR73-5592	145.0-147.7	81937	.0	.7	98.9	.4	No Oil	1.7		None		
SBR73-5593	148.0-150.7	81938	2.5	.4	96.6	.5	6.4	1.0	.930	None		

3.2

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

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