

Bonanza 006A

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Mineral Resources Company's Bonanza No. 6A Corehole located
1,425 feet N/S and 1,625 feet E/W of sec 34, T 10 S, R 25 E, S.L.M., Uintah County, Utah

Surface elevation 6,560 feet

U38M0364

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F		Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss	Gal per ton		Tendency to coke		
Laramie	Their		Oil	Water						Oil	Water
SBR73-5779	90.0- 91.0	82124	5.3	1.0	91.5	2.2	13.7	2.4	0.929	None	
SBR73-5780	91.0- 92.0	82125	4.1	1.2	93.4	1.3	10.6	2.9	.929	None	
SBR73-5781	92.0- 93.0	82126	3.6	.7	94.5	1.2	9.3	1.7	.930	None	
SBR73-5782	93.0- 94.0	82127	3.9	.9	93.8	1.4	10.0	2.2	.933	None	
SBR73-5783	94.0- 95.0	82128	4.0	1.0	93.9	1.1	10.2	2.4	.935	None	
SBR73-5784	95.0- 96.0	82129	4.1	2.0	91.6	2.3	10.5	4.8	.939	None	
SBR73-5785	96.0- 97.0	82130	.0	4.5	94.7	.8	Trace	10.8		None	
SBR73-5786	97.0- 98.0	82131	2.8	2.5	93.8	.9	7.2	6.0	.935	None	
SBR73-5787	98.0- 99.0	82132	4.5	.7	94.1	.7	11.6	1.7	.930	None	
SBR73-5788	99.0-100.0	82133	4.9	.7	93.5	.9	12.6	1.7	.930	None	
SBR73-5789	100.0-101.0	82134	6.0	.7	92.3	1.0	15.5	1.7	.925	None	
SBR73-5790	101.0-102.0	82135	6.0	1.0	92.2	.8	15.6	2.4	.923	None	
SBR73-5791	102.0-103.0	82136	6.1	1.1	92.1	.7	15.8	2.6	.928	None	
SBR73-5792	103.0-104.0	82137	3.0	1.1	94.5	1.4	7.7	2.6	.937	None	
SBR73-5793	104.0-105.0	82138	3.7	1.0	94.6	.7	9.5	2.4	.930	None	
SBR73-5794	105.0-106.0	82139	3.4	.8	95.0	.8	8.8	1.9	.929	None	
SBR73-5795	106.0-107.0	82140	2.6	1.0	93.5	2.9	6.7	2.4	.931	None	
SBR73-5796	107.0-108.0	82141	3.8	1.0	93.6	1.6	9.8	2.4	.929	None	
SBR73-5797	108.0-109.0	82142	2.9	1.0	95.2	.9	7.5	2.4	.931	None	
SBR73-5798	109.0-110.0	82143	3.1	1.1	94.6	1.2	8.0	2.6	.934	None	
SBR73-5799	110.0-111.0	82144	3.4	1.1	94.5	1.0	8.8	2.6	.931	None	
SBR73-5800	111.0-112.0	82145	2.0	1.2	96.1	.7	5.1	2.9	.932	None	
SBR73-5801	112.0-113.0	82146	5.6	1.1	91.4	1.9	14.5	2.6	.926	None	
SBR73-5802	113.0-114.0	82147	5.1	1.0	92.4	1.5	13.2	2.4	.926	None	
SBR73-5803	114.0-115.0	82148	3.4	1.0	94.5	1.1	8.7	2.4	.932	None	
SBR73-5804	115.0-116.0	82149	3.2	.8	94.7	1.3	8.3	1.9	.926	None	
SBR73-5805	116.0-117.0	82150	9.0	1.3	87.9	1.8	23.4	3.1	.923	None	
SBR73-5806	117.0-118.0	82151	7.8	1.4	88.9	1.9	20.1	3.4	.930	None	
SBR73-5807	118.0-119.0	82152	4.4	1.1	93.1	1.4	11.3	2.6	.930	None	
SBR73-5808	119.0-120.0	82153	5.1	1.0	92.5	1.4	13.2	2.4	.926	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. 6A Corehole (Continued)

Surface elevation 6,560 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			
SBR73-5809	120.0-121.0	82154A	4.0	2.0	92.5	1.5	10.4	4.8	0.923	None	
SBR73-5810	121.0-122.0	82154B	5.8	.8	91.7	1.7	15.1	1.9	.919	None	
SBR73-5811	122.0-123.0	82155	10.6	1.5	85.4	2.5	27.6	3.6	.921	None	
SBR73-5812	123.0-124.0	82156	5.1	1.0	87.9	6.0	13.2	2.4	.922	None	
SBR73-5813	124.0-125.0	82157	7.3	1.5	86.0	5.2	19.1	3.6	.916	None	
SBR73-5814	125.0-126.0	82158	3.5	.5	94.2	1.8	9.0	1.2	.930	None	
SBR73-5815	126.0-127.0	82159	9.4	1.5	87.0	2.1	24.4	3.6	.923	None	
SBR73-5816	127.0-128.0	82160	2.0	1.0	96.0	1.0	5.2a	2.4		None	
SBR73-5817	128.0-129.0	82161	1.1	.2	97.7	1.0	2.9a	.5		None	
SBR73-5818	129.0-129.9	82162	1.2	.3	97.3	1.2	3.1a	.7		None	
SBR73-5819	130.3-131.0	82166	2.8	.6	95.7	.9	7.2	1.4	.938	None	
SBR73-5820	131.0-132.0	82167	2.1	.7	96.6	.6	5.3	1.7	.943	None	
SBR73-5821	132.0-133.0	82168	1.6	.6	96.4	1.4	4.2a	1.4		None	
SBR73-5822	133.0-134.0	82169	1.0	.4	97.8	.8	2.6a	1.0		None	
SBR73-5823	134.0-135.0	82170	.8	.6	98.1	.5	2.1a	1.4		None	
SBR73-5824	135.0-136.0	82171	.8	.6	97.8	.8	2.1a	1.4		None	
SBR73-5825	136.0-137.0	82172	2.6	.7	95.4	1.3	6.8	1.7	.916	None	
SBR73-5826	137.0-138.0	82173	6.7	1.0	90.2	2.1	17.6	2.4	.912	None	
SBR73-5827	138.0-139.0	82174	4.7	1.0	92.5	1.8	12.2	2.4	.921	None	
SBR73-5828	139.0-140.0	82175	12.7	1.9	82.2	3.2	33.4	4.6	.911	None	
SBR73-5829	140.0-141.0	82176	6.2	1.1	90.8	1.9	16.1	2.6	.922	None	
SBR73-5830	141.0-142.0	82177	5.0	1.2	92.4	1.4	13.1	2.9	.914	None	
SBR73-5831	142.0-143.0	82178	4.2	1.8	93.0	1.0	10.9	4.3	.924	None	
SBR73-5832	143.0-144.0	82179	6.5	2.3	89.8	1.4	16.8	5.5	.929	None	
SBR73-5833	144.0-145.0	82180	10.4	2.4	84.5	2.7	26.8	5.8	.930	None	
SBR73-5834	145.0-146.0	82181	9.1	1.5	87.0	2.4	23.7	3.6	.920	None	
SBR73-5835	146.0-147.0	82182	11.2	1.7	85.1	2.0	29.5	4.1	.909	None	
SBR73-5836	147.0-148.0	82183	15.8	2.4	78.9	2.9	41.2	5.8	.918	None	
SBR73-5837	148.0-149.0	82184	11.0	1.7	85.1	2.2	29.0	4.1	.908	None	
SBR73-5838	149.0-150.0	82185	7.1	1.5	89.4	2.0	18.7	3.6	.910	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. 6A Corehole (Continued)

Surface elevation 6,560 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	1/			Tendency to	coke	
Laramie	Their		Oil	Water					Oil			Water
SBR73-5839	150.0-151.0	82186	5.2	1.3	92.0	1.5	13.5	3.1	0.922	None		
SBR73-5840	151.0-152.0	82187	5.3	1.2	92.1	1.4	13.8	2.9	.921	None		
SBR73-5841	152.0-153.0	82188	6.3	.8	90.9	2.0	16.4	1.9	.918	None		
SBR73-5842	153.0-154.0	82189	4.4	.9	93.1	1.6	11.5	2.2	.919	None		
SBR73-5843	154.0-155.0	82190	4.5	2.1	91.5	1.9	11.6	5.0	.928	None		
SBR73-5844	155.0-156.0	82191	4.4	.4	93.5	1.7	11.5	1.0	.920	None		
SBR73-5845	156.0-157.0	82192	3.0	.7	95.5	.8	7.8	1.7	.919	None		
SBR73-5846	157.0-158.0	82193	3.8	.8	94.4	1.0	9.9	1.9	.920	None		
SBR73-5847	158.0-159.0	82194	12.9	1.9	82.8	2.4	33.5	4.6	.923	None		
SBR73-5848	159.0-160.0	82195	9.6	1.6	86.8	2.0	25.2	3.8	.912	None		
SBR73-5849	160.0-161.0	82196	6.8	1.0	90.8	1.4	17.9	2.4	.908	None		
SBR73-5850	161.0-162.0	82197	8.2	1.2	88.8	1.8	21.6	2.9	.908	None		
SBR73-5851	162.0-163.0	82198	16.0	2.0	79.0	3.0	41.4	4.8	.926	None		
SBR73-5852	163.0-163.7 ^{163.7}	82199	16.9	1.5	76.9	4.7	45.0	3.6	.899	Moderate		
SBR73-5853	164.0-165.0 ^{164.0}	82200	20.7	1.9	73.4	4.0	54.4 ^{49.7}	4.6	.911	Moderate		
SBR73-5854	165.0-166.0	82202	28.1	3.0	61.9	7.0	73.4	7.2	.917	Heavy		
SBR73-5855	166.0-167.0	82203	24.3	2.6	68.0	5.1	63.4	6.2	.919	Heavy		
SBR73-5856	167.0-168.0	82204	14.8	1.5	79.9	3.8	39.0	3.6	.909	None		
SBR73-5857	168.0-169.0	82205	21.3	2.4	71.6	4.7	56.0	5.8	.912	Moderate		
SBR73-5858	169.0-170.0	82206	11.3	1.6	84.5	2.6	29.3	3.8	.924	None		
SBR73-5859	170.3-171.0 ^{170.3}	82207	7.5	1.5	89.5	1.5	19.3 ^{24.3}	3.6	.931	None		
SBR73-5860	171.0-172.0	82208	7.2	1.5	89.5	1.8	18.7	3.6	.923	None		
SBR73-5861	172.0-173.0	82209	12.0	1.2	83.7	3.1	31.6	2.9	.909	None		
SBR73-5862	173.0-174.0	82210	9.7	1.0	86.2	3.1	25.1	2.4	.927	None		
SBR73-5863	174.0-175.0	82211	6.0	.8	91.7	1.5	15.5	1.9	.926	None		
SBR73-5864	175.0-176.0	82212	13.0	1.2	83.5	2.3	34.2	2.9	.912	None		
SBR73-5865	176.0-177.0	82213	17.1	1.9	77.6	3.4	45.1	4.6	.909	Slight		
SBR73-5866	177.0-178.0	82214	17.3	1.6	77.3	3.8	45.8	3.8	.906	Slight		
SBR73-5867	178.0-179.0	82215	6.1	1.9	90.6	1.4	16.3	4.6	.898	None		
SBR73-5868	179.0-180.0	82216	14.5	1.8	80.4	3.3	38.2	4.3	.909	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. 6A Corehole (Continued)

Surface elevation 6,560 feet

Sample number		Run No.	Yield of product				Gal per ton 1/		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	Water		
SBR73-5869	180.0-181.0	82217	6.8	1.1	90.7	1.4	17.8	2.6	0.914	None		
SBR73-5870	181.0-182.0	82218	4.6	1.5	91.9	2.0	12.0	3.6	.919	None		
SBR73-5871	182.0-183.0	82219	15.0	2.0	79.5	3.5	38.9	4.8	.925	None		
SBR73-5872	183.0-184.0	82220	10.4	2.0	85.3	2.3	26.9	4.8	.925	None		
SBR73-5873	184.0-185.0	82221	3.3	1.5	94.0	1.2	8.6	3.6	.925	None		
SBR73-5874	185.0-186.0	82222	4.8	1.0	92.9	1.3	12.5	2.4	.922	None		
SBR73-5875	186.0-187.0	82223	14.6	1.9	80.8	2.7	38.2	4.6	.916	None		
SBR73-5876	187.0-188.0	82224	15.0	1.6	81.0	2.4	39.9	3.8	.900	Slight		
SBR73-5877	188.0-189.0	82225	10.4	1.6	86.0	2.0	27.9	3.8	.893	None		
SBR73-5878	189.0-190.0	82226	9.1	1.5	87.5	1.9	24.0	3.6	.909	None		
SBR73-5879	190.0-191.0	82227	12.9	2.0	82.8	2.3	34.2	4.8	.904	None		
SBR73-5880	191.0-192.0	82228	7.3	1.7	89.1	1.9	19.3	4.1	.908	None		
SBR73-5881	192.0-193.0	82229	5.7	1.6	91.4	1.3	14.8	3.8	.920	None		
SBR73-5882	193.0-194.0	82230	3.8	1.5	93.8	.9	9.8	3.6	.925	None		
SBR73-5883	194.0-195.0	82231	5.8	1.8	91.1	1.3	15.1	4.3	.920	None		
SBR73-5884	195.0-196.0	82232	9.0	1.4	87.7	1.9	23.3	3.4	.925	None		
SBR73-5885	196.0-197.0	82233	4.0	1.1	94.0	.9	10.4	2.6	.925	None		
SBR73-5886	197.0-198.0	82234	3.2	1.8	93.9	1.1	8.3	4.3	.925	None		
SBR73-5887	198.0-199.0	82235	2.1	1.0	96.3	.6	5.4	2.4	.928	None		
SBR73-5888	199.0-200.0	82236	1.2	.8	97.1	.9	3.1a	1.9		None		
SBR73-5889	200.0-201.0	82237	6.8	1.0	91.0	1.2	18.0	2.4	.903	None		
SBR73-5890	201.0-202.0	82238	4.5	2.5	92.1	.9	11.7	6.0	.924	None		
SBR73-5891	202.0-203.0	82239	4.8	1.0	93.5	.7	12.5	2.4	.917	None		
SBR73-5892	203.0-204.0	82240	11.0	1.3	85.6	2.1	28.5	3.1	.925	None		
SBR73-5893	204.0-205.0	82241	2.7	1.4	94.8	1.1	7.0	3.4	.919	None		
SBR73-5894	205.0-206.0	82242	3.5	.8	94.7	1.0	9.2	1.9	.910	None		
SBR73-5895	206.0-207.0	82243	12.6	1.6	83.2	2.6	33.0	3.8	.916	None		
SBR73-5896	207.0-208.0	82244	6.5	1.1	90.9	1.5	16.8	2.6	.927	None		
SBR73-5897	208.0-209.0	82245	2.6	1.2	95.2	1.0	6.7	2.9	.931	None		
SBR73-5898	209.0-210.0	82246	1.3	.9	97.1	.7	3.4a	2.2		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. 6A Corehole (Continued)

Surface elevation 6,560 feet

Sample number			Yield of product						Specific gravity of oil at 60°/60° F	Properties of spent shale Tendency to coke	Remarks
			Weight percent		Spent shale	Gas + loss	Gal per ton				
Laramie	Their	Run No.	Oil	Water			Oil	Water			
SBR73-5899	210.0-211.0	82247	2.1	0.9	95.7	1.3	5.4	2.2	0.934	None	
SBR73-5900	211.0-212.0	82248	7.4	1.3	89.6	1.7	19.2	3.1	.925	None	
SBR73-5901	212.0-213.0	82249	9.9	2.7	85.6	1.8	25.5	6.5	.929	None	
SBR73-5902	213.0-214.0	82250	6.2	1.2	91.0	1.6	16.2	2.9	.920	None	
SBR73-5903	214.0-215.0	82251	3.4	1.2	94.5	.9	8.7	2.9	.935	None	
SBR73-5904	215.0-216.0	82252	2.4	1.1	95.3	1.2	6.2	2.6	.930	None	
SBR73-5905	216.0-217.0	82253	2.3	1.0	96.0	.7	5.9	2.4	.936	None	
SBR73-5906	217.0-218.0	82254	2.9	1.0	94.8	1.3	7.4	2.4	.938	None	
SBR73-5907	218.0-219.0	82255	2.3	1.0	96.0	.7	5.9	2.4	.939	None	
SBR73-5908	219.0-220.1	82256	3.2	1.5	94.0	1.3	8.2	3.6	.935	None	

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

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