

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Moab Drilling Company's Gem well No. 1 drilled in NE1/4SW1/4 2288 feet
N/S 2079 feet E/W of sec. 22, T. 10 S., R. 24 E., Uintah County, Utah

Elevation 5290 Estimate from topo sheet
Morgan numbered 4360 ±

50' of 25g
300' of 15g

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	Oil ^{1/}	Water			
Laramie	Their		Oil	Water							
SBR63-3998-99	240-260						b				
SBR63-4000	260-270						Trace				
SBR63-4001-03	270-300						b				
SBR63-4004-07	300-340						c				
SBR63-4008	340-350						b				
SBR63-4009-12	350-390						c				
SBR63-4013	390-400	86615	0.6	1.6	96.7	1.1	1.4a	4.0		None	
SBR63-4014	400-410	86616	1.3	1.9	95.7	1.1	3.4a	4.4		None	
SBR63-4015	410-420	86617	1.4	1.5	96.1	1.0	3.6a	3.7		None	
SBR63-4016	420-430	86618	1.6	1.5	95.9	1.0	4.1a	3.7		None	
SBR63-4017	430-440	86619	1.0	2.8	95.1	1.1	2.7a	6.6		None	
SBR63-4018	440-450	86620	1.7	1.9	95.5	.9	4.4a	4.6		None	
SBR63-4019	450-460	86621	8.7	1.1	87.3	2.9	22.5	2.8	0.926	None	
SBR63-4020	460-470	86622	7.8	1.4	88.5	2.3	20.1	3.4	.927	None	
SBR63-4021	470-480	86623	9.3	1.2	86.6	2.9	24.0	2.9	.930	None	
SBR63-4022	480-490	86624	2.6	1.0	95.1	1.3	6.7	2.4	.935	None	
SBR63-4023	490-500	86625	2.5	1.5	95.1	.9	6.4	3.6	.934	None	
SBR63-4024	500-510	86626	2.8	1.3	94.9	1.0	7.2	3.0	.935	None	
SBR63-4025	510-520	86627	2.8	.3	95.8	1.1	7.2	.6	.934	None	
SBR63-4026	520-530	86628	2.7	.3	95.8	1.2	7.0	.7	.933	None	
SBR63-4027	530-540	86629	6.9	.4	90.9	1.8	17.7	1.0	.927	None	
SBR63-4028	540-550	86630	5.2	.4	93.5	.9	13.4	.8	.928	None	
SBR63-4029	550-560	86631	4.0	.2	95.1	.7	10.2	.5	.935	None	
SBR63-4030	560-570	86632	3.7	.1	95.0	1.2	9.5	.2	.940	None	
SBR63-4031	570-580	86633	3.4	.3	95.0	1.3	8.7	.7	.937	None	
SBR63-4032	580-590	86634	3.7	.3	95.0	1.0	9.5	.7	.937	None	
SBR63-4033	590-600	86635	3.8	.2	95.0	1.0	9.6	.5	.940	None	
SBR63-4034	600-610	86636	2.9	.5	95.6	1.0	7.5	1.1	.940	None	
SBR63-4035	610-620	86637	3.3	.3	95.4	1.0	8.4	.8	.934	None	
SBR63-4036	620-630	86638	3.1	.5	94.9	1.5	8.0	1.2	.935	None	

See footnotes at end of table.

Drill cutting samples received May 9, 1962; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Moab Drilling Company's Gem 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		Gas + loss	Gal. per ton		Tendency to coke			
Laramie	Their		Oil	Water		shale			Oil	Water	
SBR63-4037	630-640	86639	2.7	0.3	95.4	1.6	6.9	0.6	0.937	None	
SBR63-4038	640-650	86640	3.2	.4	94.8	1.6	8.1	1.1	.937	None	
SBR63-4039	650-660	86641	3.5	.4	94.6	1.5	9.0	1.0	.936	None	
SBR63-4040	660-670	86642	3.2	.4	94.9	1.5	8.2	1.0	.937	None	
SBR63-4041	670-680	86643	3.0	.3	95.4	1.3	7.8	.7	.933	None	
SBR63-4042	680-690	86644	2.9	.4	95.3	1.4	7.4	1.1	.933	None	
SBR63-4043	690-700	86645	5.7	.5	91.7	2.1	14.8	1.1	.930	None	
SBR63-4044	700-710	86646	5.7	.6	91.9	1.8	14.7	1.4	.928	None	
SBR63-4045	710-720	86647	5.5	.4	92.2	1.9	14.1	1.1	.930	None	
SBR63-4046	720-730	86648	5.8	.7	91.7	1.8	15.0	1.7	.928	None	
SBR63-4047	730-740	86649	5.1	.5	92.9	1.5	13.3	1.1	.926	None	
SBR63-4048	740-750	86650	4.8	.6	92.4	2.2	12.6	1.4	.924	None	
SBR63-4049	750-760	86651	5.3	.6	92.0	2.1	13.8	1.4	.925	None	
SBR63-4050	760-770	86652	3.3	.5	94.4	1.8	8.6	1.1	.928	None	
SBR63-4051	770-780	86653	5.4	.8	91.4	2.4	13.9	1.9	.929	None	
SBR63-4052	780-790	86654	5.6	.6	92.0	1.8	14.6	1.3	.926	None	
SBR63-4053	790-800	86655	5.2	.4	92.6	1.8	13.5	.8	.927	None	
SBR63-4054	800-810	86656	4.0	.3	93.7	2.0	10.3	.7	.927	None	
SBR63-4055	810-820	86657	4.2	.3	93.8	1.7	10.7	.8	.932	None	
SBR63-4056	820-830	86658	4.6	.7	93.0	1.7	11.7	1.7	.930	None	
SBR63-4057	830-840	86659	3.6	.6	94.1	1.7	9.3	1.3	.933	None	
SBR63-4058	840-850	86660	3.9	.6	94.1	1.4	10.0	1.4	.928	None	
SBR63-4059	850-860	86661	3.6	.4	95.3	.7	9.3	1.0	.928	None	
SBR63-4060	860-870	86662	3.4	.4	95.2	1.0	8.8	1.0	.931	None	
SBR63-4061	870-880	86663	6.0	.4	91.8	1.8	15.4	1.0	.929	None	
SBR63-4062	880-890	86664	2.3	.3	96.7	.7	5.9	.7	.925	None	
SBR63-4063	890-900	86665	8.1	.6	89.3	2.0	21.1	1.4	.919	None	
SBR63-4064	900-910	86666	6.3	.6	91.7	1.4	16.6	1.3	.914	None	
SBR63-4065	910-920	86667	7.2	.3	91.0	1.5	18.9	.7	.915	None	
SBR63-4066	920-930	86668	6.9	.4	91.4	1.3	18.0	1.1	.912	None	

Drill cutting samples received May 9, 1962; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Moab Drilling Company's Gem 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		Spent shale	Gas + loss		Gal. per ton			Tendency to coke
Laramie	Their		Oil	Water					Oil ^{1/}	Water	
SBR63-4067	930- 940	86669	9.4	0.5	87.7	2.4	24.6	1.1	0.914	None	
SBR63-4068	940- 950	86670	10.3	.5	87.4	1.8	27.1	1.2	.908	None	
SBR63-4069	950- 960	86671	9.4	.4	88.0	2.2	24.7	1.0	.912	None	
SBR63-4070	960- 970	86672	10.7	.6	86.8	1.9	28.5	1.3	.900	None	
SBR63-4071	970- 980	86673	6.6	.5	90.9	2.0	17.2	1.2	.924	None	
SBR63-4072	980- 990	86674	2.7	.3	95.5	1.5	7.0a	.8		None	
SBR63-4073	990-1000	86675	2.9	.2	95.9	1.0	7.5	.5	.927	None	
SBR63-4074	1000-1010	86676	2.0	.7	96.4	.9	5.3a	1.7		None	
SBR63-4075	1010-1020	86677	2.1	.6	96.0	1.3	5.3	1.6	.929	None	
SBR63-4076	1020-1030	86678	3.3	.3	95.5	.9	8.5	.7	.934	None	
SBR63-4077	1030-1040	86679	3.9	.3	94.9	.9	10.0	.6	.937	None	
SBR63-4078	1040-1050	86680	2.3	.5	95.9	1.3	5.8	1.3	.925	None	
SBR63-4079	1050-1060	86681	2.2	.6	94.5	2.7	5.8	1.4	.923	None	
SBR63-4080	1060-1070	86682	2.3	.6	96.1	1.0	5.9	1.6	.929	None	
SBR63-4081	1070-1080	86683	2.2	.7	96.1	1.0	5.7	1.7	.934	None	
SBR63-4082	1080-1090	86684	2.4	.8	96.0	.8	6.1	2.0	.921	None	
SBR63-4083	1090-1100	86685	1.9	.7	96.5	.9	5.0a	1.6		None	
SBR63-4084	1100-1110	86686	2.2	.7	96.5	.6	5.7	1.7	.925	None	
SBR63-4085	1110-1120	86687	2.3	.7	96.6	.4	5.9	1.7	.922	None	
SBR63-4086	1120-1130						c				
SBR63-4087	1130-1140	86688	2.0	1.0	96.3	.7	5.2a	2.4		None	
SBR63-4088	1140-1150	86689	4.4	1.2	92.9	1.5	11.4	2.9	.927	None	
SBR63-4089	1150-1160	86690	2.3	1.7	95.2	.8	5.9	4.1	.918	None	
SBR63-4090	1160-1170	86691	3.5	1.2	94.1	1.2	9.2	2.9	.921	None	
SBR63-4091	1170-1180	86692	1.4	1.4	96.0	1.2	3.6a	3.4		None	
SBR63-4092-93	1180-1200						c				
SBR63-4094	1220-1230	86693	3.2	2.2	93.5	1.1	8.2	5.3	.925	None	
SBR63-4095	1230-1240	86694	1.9	1.1	96.2	.8	4.8a	2.6		None	
SBR63-4096	1240-1250	86695	2.5	1.2	95.5	.8	6.4	2.9	.917	None	
SBR63-4097	1250-1260	86696	2.2	1.2	95.9	.7	5.9	2.9	.915	None	

See footnotes at end of table.

Drill cutting samples received May 9, 1962; assays made on air-dried samples

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Samples from Moab Drilling Company's Gem 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		Spent shale	Gas + loss	Gal. per ton				
Laramie	Thair		Oil	Water					Oil ^{1/}	Water	
SBR63-4098	1260-1270	86697	2.3	1.0	95.0	1.7	6.1	2.3	0.925	None	
SBR63-4099	1270-1280	86698	2.0	1.2	95.7	1.1	5.1a	2.9		None	
SBR63-4100	1280-1290	86699	1.8	.8	96.1	1.3	4.7a	1.8		None	
SBR63-4101	1290-1300	86700	1.7	.7	96.1	1.5	4.4a	1.7		None	
SBR63-4102	1300-1310	86701	1.7	1.1	95.8	1.4	4.3a	2.6		None	
SBR63-4103	1310-1320	86702	2.3	1.3	95.0	1.4	5.9	3.1	.917	None	
SBR63-4104	1320-1330						c				
SBR63-4105	1330-1340	86703	3.0	1.3	93.6	2.1	7.7	3.1	.926	None	
SBR63-4106	1340-1350	86704	3.4	1.2	93.4	2.0	8.8	2.9	.915	None	
SBR63-4107	1350-1360	86705	3.7	1.6	93.0	1.7	9.7	3.8	.913	None	
SBR63-4108	1360-1370	86706	4.5	1.6	91.3	2.6	11.7	3.8	.918	None	
SBR63-4109	1370-1380	86707	4.2	1.8	92.0	2.0	11.0	4.3	.914	None	
SBR63-4110	1380-1390	86708	4.5	1.8	91.8	1.9	11.9	4.3	.910	None	
SBR63-4111	1390-1400	86709	4.2	1.5	92.7	1.6	11.0	3.6	.908	None	
SBR63-4112	1400-1410	86710	3.5	1.8	93.2	1.5	9.2	4.3	.911	None	
SBR63-4113	1410-1420	86711	3.1	1.8	93.6	1.5	8.1	4.3	.913	None	
SBR63-4114	1420-1430	86712	2.4	1.7	94.3	1.6	6.1	4.1	.933	None	
SBR63-4115	1430-1440	86713	2.4	1.8	94.1	1.7	6.2	4.3	.916	None	
SBR63-4116	1440-1450	86714	2.5	2.2	93.8	1.5	6.3	5.3	.942	None	
SBR63-4117	1450-1460	86715	3.5	1.8	93.0	1.7	9.2	4.3	.921	None	
SBR63-4118	1460-1470	86716	3.9	1.8	92.9	1.4	10.2	4.3	.917	None	
SBR63-4119	1470-1480	86717	3.3	2.3	92.3	2.1	8.5	5.5	.922	None	
SBR63-4120	1480-1490	86718	4.1	2.0	92.2	1.7	10.6	4.8	.916	None	
SBR63-4121	1490-1500	86719	3.4	1.9	93.3	1.4	8.8	4.6	.914	None	
SBR63-4122	1500-1510	86720	2.6	1.9	94.3	1.2	6.9	4.6	.912	None	
SBR63-4123	1510-1520	86721	2.5	1.6	93.9	2.0	6.6	3.8	.919	None	
SBR63-4124	1520-1530	86722	2.9	1.6	94.4	1.1	7.5	3.8	.919	None	
SBR63-4125	1530-1540	86723	2.7	1.6	93.1	2.6	6.9a	3.8		None	
SBR63-4126	1540-1550	86724	2.0	2.0	94.8	1.2	5.2a	4.8		None	
SBR63-4127	1550-1560	86725	2.0	2.0	94.6	1.4	5.2a	4.8		None	

See footnotes at end of table.

Drill cutting samples received May 9, 1962; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Moab Drilling Company's Gem 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		
			Oil	Water	Spent shale	Gas + loss	Oil ^{1/}	Water				
Laramie	Their											
SBR63-4128	1560-1570	86726	2.1	1.5	95.0	1.4	5.5	3.6	0.923	None		
SBR63-4129	1570-1580	86727	2.2	1.7	94.9	1.2	5.8	4.1	.910	None		
SBR63-4130	1580-1590	86728	2.2	1.7	94.8	1.3	5.8	4.1	.912	None		
SBR63-4131	1590-1600	86729	2.0	1.8	95.1	1.1	5.4	4.3	.908	None		
SBR63-4132	1600-1610	86730	1.0	1.4	96.7	.9	2.6a	3.4		None		
SBR63-4133-38	1610-1670						c					
SBR63-4139-44	1670-1730						b					
SBR63-4145-48	1730-1770						Trace					
SBR63-4149-52	1770-1810						b					
SBR63-4153-54	1810-1830						Trace					
SBR63-4155	1830-1840						b					
SBR63-4156-57	1870-1890						b					
SBR63-4158	1890-1900	86731	3.6	1.9	92.9	1.6	9.3	4.6	.913	None		
SBR63-4159	1900-1910	86732	2.0	2.0	94.4	1.6	5.2a	4.8		None		
SBR63-4160-64	1910-1960						c					
SBR63-4165-67	1960-1990						b					
SBR63-4168-72	2010-2060						b					
SBR63-4173-79	2060-2130						Trace					
SBR63-4180-84	2130-2180						c					
SBR63-4185-95	2180-2290						No Oil					
SBR63-4196	2290-2300	86733	2.0	1.8	94.9	1.3	5.1a	4.3		None		
SBR63-4197	2300-2310	86734	2.1	2.1	94.6	1.2	5.4a	5.0		None		
SBR63-4198	2310-2320	86735	2.3	1.9	94.6	1.2	6.1	4.6	.900	None		
SBR63-4199	2320-2330						c					
SBR63-4200	2330-2340	86736	2.1	2.4	94.2	1.3	5.4a	5.8		None		
SBR63-4201	2340-2350	86737	2.0	2.0	94.7	1.3	5.2a	4.8		None		
SBR63-4202	2350-2360	86738	2.5	2.0	94.2	1.3	6.6	4.8	.901	None		
SBR63-4203	2360-2370	86739	2.7	1.8	94.2	1.3	7.2	4.3	.906	None		
SBR63-4204	2370-2380	86740	2.6	1.6	94.1	1.7	6.8	3.8	.904	None		
SBR63-4205	2380-2390	86741	2.8	2.0	94.0	1.2	7.4	4.8	.905	None		

See footnotes at end of table.

Drill cutting samples received May 9, 1962; assays made on air-dried samples

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Samples from Moab Drilling Company's Gem well No. 1 (con.)

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	Oil ^{1/}	Water			
Laramie	Their		Oil	Water							
SBR63-4206-07	2390-2410						b				
SBR63-4208	2410-2420						Trace				
SBR63-4209	2420-2430						b				
SBR63-4210	2430-2440	86742	2.5	1.2	94.6	1.7	6.8	2.9	0.886	None	
SBR63-4211	2440-2450	86743	2.6	1.4	94.6	1.4	7.1	3.4	.879	None	
SBR63-4212	2450-2460	86744	2.7	1.5	94.6	1.2	7.2	3.6	.877	None	
SBR63-4213	2460-2470	86745	5.4	1.5	91.6	1.5	14.3	3.6	.897	None	
SBR63-4214	2470-2480	86746	5.0	1.5	92.0	1.5	13.4	3.6	.894	None	
SBR63-4215	2500-2510	86747	1.2	1.1	95.0	2.7	3.1a	2.7		None	
SBR63-4216-19	2510-2550						c				
SBR63-4220	2550-2560	86748	1.2	1.2	96.9	.7	3.3a	2.9		None	
SBR63-4221	2560-2570	86749	2.2	1.6	95.2	1.0	5.7a	3.8		None	
SBR63-4222	2570-2580	86750	2.3	1.3	95.5	.9	6.3	3.1	.893	None	
SBR63-4223	2580-2590	86751	2.0	1.4	94.9	1.7	5.4	3.2	.893	None	
SBR63-4224	2590-2600	86752	2.4	1.4	95.5	.7	6.3	3.5	.898	None	
SBR63-4225	2600-2610	86753	1.6	1.2	96.4	.8	4.3a	2.9		None	
SBR63-4226	2610-2620						b				
SBR63-4227-29	2620-2650						c				
SBR63-4230-34	2650-2700						b				
SBR63-4235	2700-2710						c				
SBR63-4236	2710-2720	86754	1.1	1.3	96.8	.8	2.8a	3.1		None	
SBR63-4237	2720-2730	86755	3.6	1.6	93.6	1.2	9.5	3.8	.901	None	
SBR63-4238	2730-2740	86756	3.9	1.5	92.9	1.7	10.4	3.6	.902	None	
SBR63-4239	2740-2750	86757	3.5	1.4	93.8	1.3	9.4	3.4	.899	None	
SBR63-4240	2770-2780	86758	3.9	1.6	93.0	1.5	10.5	3.8	.890	None	
SBR63-4241	2780-2790	86759	1.1	1.1	97.1	.7	2.9a	2.5		None	
SBR63-4242-48	2790-2860						c				
SBR63-4249-52	2860-2900						Trace				
SBR63-4253	2900-2910						b				

1/ "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.

Drill cutting samples received May 9, 1962; assays made on air-dried samples