

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Oil Company's White Mountain Unit Well 1-C-19 drilled in NE1/4NW1/4
(660 feet S/N 1,881 feet E/W) of sec 19, T 19 N, R 105 W, Sweetwater County, Wyoming

Surface elevation 7,549 feet

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		Spent shale			Oil/	Water
SBR72-4229-37	0-130						No oil			
SBR72-4238	130-140	71134	1.0	1.8	96.5	0.7	2.6a	4.3		None
SBR72-4239	140-150	71135	3.3	2.3	92.4	2.0	8.2	5.5	0.958	None
SBR72-4240	150-160	71136	4.2	2.2	91.4	2.2	10.6	5.3	.943	None
SBR72-4241	160-170	71137	4.2	2.3	91.1	2.4	10.9	5.5	.932	None
SBR72-4242	170-180	71138	8.3	2.2	84.6	4.9	21.3	5.3	.934	None
SBR72-4243	180-190	71139	6.1	1.9	88.8	3.2	15.7	4.6	.931	None
SBR72-4244	190-200	71140	7.2	2.2	87.6	3.0	18.8a	5.3		None
SBR72-4245	200-210	71141	3.1	1.5	93.9	1.5	8.0a	3.6		None
SBR72-4246	210-220	71142	2.6	1.6	94.6	1.2	6.9a	3.8		None
SBR72-4247	220-230	71143	4.1	1.6	92.5	1.8	10.8	3.8	.915	None
SBR72-4248	230-240	71144	3.8	1.4	93.3	1.5	10.0	3.4	.916	None
SBR72-4249	240-250	71145	4.2	1.1	92.9	1.8	11.1	2.6	.912	None
SBR72-4250	250-260	71146	5.1	1.2	91.4	2.3	13.3	2.9	.915	None
SBR72-4251	260-270	71147	3.8	1.2	92.7	2.3	10.0	2.9	.914	None
SBR72-4252	270-280	71148	2.8	1.7	93.8	1.7	7.4	4.1	.919	None
SBR72-4253	280-290	71149	3.6	1.3	93.4	1.7	9.3	3.1	.915	None
SBR72-4254	290-300	71150	3.1	1.6	94.0	1.3	8.1	3.7	.915	None
SBR72-4255	300-310	71151	3.0	1.3	94.3	1.4	7.9	3.1	.915	None
SBR72-4256	310-320	71152	4.1	1.4	92.4	2.1	10.8	3.4	.914	None
SBR72-4257	320-330	71153	2.1	1.3	95.1	1.5	5.6	3.1	.908	None
SBR72-4258	330-340	71154	3.5	1.3	93.3	1.9	9.1	3.1	.914	None
SBR72-4259	340-350	71155	1.9	2.8	93.8	1.5	4.9a	6.7		None
SBR72-4260	350-360	71156	.6	2.9	95.3	1.2	1.6a	7.0		None
SBR72-4261	360-370	71157	2.4	2.0	94.0	1.6	6.5	4.8	.908	None
SBR72-4262	370-380	71158	.8	3.8	94.3	1.1	2.2a	9.1		None
SBR72-4263	380-390	71159	.7	6.2	91.9	1.2	1.7a	14.9		None
SBR72-4264	390-400	71160	1.3	1.7	95.7	1.3	3.4a	4.1		None
SBR72-4265	400-410	71161	1.4	1.6	96.0	1.0	3.8a	3.8		None
SBR72-4266	410-420	71162	1.2	1.4	96.7	.7	3.1a	3.4		None

See footnote at end of table.

Drill cutting samples received September 19, 1971; Assays made on air-dried samples

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Surface elevation 7,549 feet

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		
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil ¹ /	Water	coke			
SBR72-4267	420-430	71163	0.9	1.3	96.9	0.9	2.3a	3.1		None		
SBR72-4268	430-440	71164	1.6	1.5	96.3	.6	4.2a	3.6		None		
SBR72-4269	440-450	71165	1.1	1.8	96.2	.9	2.8a	4.3		None		
SBR72-4270	450-460	71166	1.9	2.2	94.9	1.0	4.8a	5.3		None		
SBR72-4271	460-470	71167	3.2	1.3	93.7	1.8	8.5	3.1	0.911	None		
SBR72-4272	470-480	71168	.9	2.7	95.8	.6	2.3a	6.5		None		
SBR72-4273	480-490	71169	1.0	2.9	95.4	.7	2.7a	7.0		None		
SBR72-4274	490-500	71170	.8	2.5	96.1	.6	2.0a	6.0		None		
SBR72-4275	500-510	71171	.3	3.0	96.0	.7	.8a	7.2		None		
SBR72-4276	510-520	71172	.1	2.6	96.5	.8	.3a	6.2		None		
SBR72-4277	520-530	71173	.2	2.4	96.7	.7	.5a	5.8		None		
SBR72-4278	530-540	71174	.5	2.7	96.1	.7	1.3a	6.5		None		
SBR72-4279	540-550	71175	.8	2.8	95.7	.7	2.0a	6.7		None		
SBR72-4280	550-560	71176	.1	3.5	95.5	.9	.4a	8.4		None		
SBR72-4281	560-570	71177	.3	4.0	94.9	.8	.8a	9.6		None		
SBR72-4282	570-580	71178	1.2	2.4	95.0	1.4	3.1a	5.8		None		
SBR72-4283	580-590	71179	1.0	2.4	95.7	.9	2.5a	5.8		None		
SBR72-4284	590-600	71180	.1	2.9	96.5	.5	.3a	7.0		None		
SBR72-4285	600-610	71181	.0	3.4	96.1	.5	Trace	8.2		None		
SBR72-4286	610-620	71182	.1	4.3	94.8	.8	.4a	10.3		None		
SBR72-4287	620-630	71183	.1	3.8	95.3	.8	.2a	9.1		None		
SBR72-4288	630-640	71184	.0	3.5	95.8	.7	Trace	8.4		None		
SBR72-4289	640-650	71185	.0	3.2	96.4	.4	No oil	7.8		None		
SBR72-4290	650-660	71186	.0	2.8	96.7	.5	Trace	6.8		None		
SBR72-4291	660-670	71187	.0	2.7	97.0	.3	No oil	6.4		None		
SBR72-4292	670-680	71188	.1	2.8	96.7	.4	.3a	6.7		None		
SBR72-4293	680-690	71189	.2	3.6	95.4	.8	.4a	8.6		None		
SBR72-4294	690-700	71190	.4	2.4	96.4	.8	.9a	5.8		None		
SBR72-4295	700-710	71191	.1	3.0	96.1	.8	.1a	7.3		None		
SBR72-4296	710-720	71192	1.2	2.9	94.8	1.1	3.1a	7.0		None		

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Surface elevation 7,549 feet

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			Weight percent		Gal per ton			Tendency to		
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil ¹ /	Water	coke	
SBR72-4297	720- 730	71193	0.9	2.5	95.0	1.6	2.3a	6.0	None	
SBR72-4298	730- 740	71194	1.9	1.8	95.2	1.1	5.0a	4.3	None	
SBR72-4299	740- 750	71195	1.5	2.1	94.8	1.6	4.0a	5.0	None	
SBR72-4300	740- 750	71196	.4	3.0	96.0	.6	1.2a	7.2	None	
SBR72-4301	750- 760	71197	.6	2.7	96.4	.3	1.6a	6.5	None	
SBR72-4302	760- 770	71198	.5	3.0	96.0	.5	1.4a	7.2	None	
SBR72-4303	770- 780	71199	.4	3.0	96.1	.5	.9a	7.2	None	
SBR72-4304	780- 790	71200	.5	4.6	94.5	.4	1.2a	11.0	None	
SBR72-4305	790- 800	71201	1.1	3.0	94.3	1.6	2.9a	7.2	None	
SBR72-4306	800- 810	71202	.1	4.1	95.2	.6	.3a	9.8	None	
SBR72-4307	810- 820	71203	.4	3.4	95.9	.3	1.1a	8.1	None	
SBR72-4308	820- 830	71204	1.1	2.3	96.0	.6	2.8a	5.5	None	
SBR72-4309	830- 840	71205	1.1	2.2	96.1	.6	3.0a	5.3	None	
SBR72-4310	840- 850	71229	1.4	2.0	96.0	.6	3.6a	4.8	None	
SBR72-4311	850- 860	71236	.6	2.7	96.3	.4	1.5a	6.5	None	
SBR72-4312	860- 870	71237	.5	3.0	96.1	.4	1.3a	7.2	None	
SBR72-4313	870- 880	71238	.5	2.6	96.5	.4	1.3a	6.4	None	
SBR72-4314	880- 890	71239	1.4	2.3	95.5	.8	3.6a	5.5	None	
SBR72-4315	890- 900	71242	1.1	2.6	95.3	1.0	2.7a	6.2	None	
SBR72-4316	900- 910	71240	1.2	2.5	95.6	.7	3.2a	6.0	None	
SBR72-4317	910- 920	71241	2.2	2.7	94.2	.9	5.7	6.5	0.905	None
SBR72-4318	920- 930	71243	1.5	2.4	94.4	1.7	3.9a	5.6	None	
SBR72-4319	930- 940	71244	2.3	2.9	93.3	1.5	6.1	7.0	.917	None
SBR72-4320	940- 950	81245	2.2	2.7	93.8	1.3	5.8	6.5	.913	None
SBR72-4321	950- 960	71246	1.3	3.2	94.6	.9	3.5a	7.5	None	
SBR72-4322	960- 970	71247	2.7	3.0	92.9	1.4	7.0	7.2	.906	None
SBR72-4323	970- 980	71248	1.9	3.0	94.1	1.0	4.9a	7.2	None	
SBR72-4324	980- 990	71249	1.4	3.0	94.4	1.2	3.7a	7.1	None	
SBR72-4325	990-1000	71250	7.1	2.6	87.8	2.5	18.8	6.2	.909	None
SBR72-4326	1000-1010	71251	6.5	2.2	89.1	2.2	17.0	5.4	.911	None

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Surface elevation 7,549 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 ^{1/}	Water		
SBR72-4327	1010-1020	71252	7.0	2.6	88.4	2.0	18.3	6.2	0.914	None		
SBR72-4328	1020-1030	71253	3.2	2.2	92.8	1.8	8.5	5.4	.894	None		
SBR72-4329	1030-1040	71254	3.0	3.1	92.4	1.5	8.1	7.4	.896	None		
SBR72-4330	1040-1050	71255	2.7	3.8	91.8	1.7	7.3	9.1	.896	None		
SBR72-4331	1050-1060	71256	2.8	2.6	92.9	1.7	7.4	6.2	.897	None		
SBR72-4332	1060-1070	71257	2.2	2.5	93.8	1.5	5.9	6.0	.903	None		
SBR72-4333	1070-1080	71258	2.4	2.4	93.7	1.5	6.4	5.8	.902	None		
SBR72-4334	1080-1090	71259	2.6	2.2	93.7	1.5	6.8	5.3	.900	None		
SBR72-4335	1090-1100	71260	2.2	2.3	94.1	1.4	5.8	5.5	.901	None		
SBR72-4336	1100-1110	71261	2.3	2.6	93.7	1.4	6.1	6.2	.901	None		
SBR72-4337	1110-1120	71262	1.2	5.5	92.0	1.3	3.0a	13.3		None		
SBR72-4338	1120-1130	71263	1.6	1.9	94.9	1.6	4.2a	4.4		None		
SBR72-4339	1130-1140	71266	1.6	2.4	94.8	1.2	4.0a	5.8		None		
SBR72-4340	1140-1150	71267	1.4	1.9	95.8	.9	3.6a	4.6		None		

^{1/} "a"--indicates specific gravity estimated as 0.92. "No oil"--oil yield was estimated by a rapid test-tube method.

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