

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 Well located in the SW1/4 SW1/4 (690 feet N/S and 680 feet E/W) of sec 4, T 18 N, R 106 W, Sweetwater County, Wyoming

Kelly Bushing elevation 7374 feet

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				
Laramie	Their		Oil	Water					Oil	Water
SBR73-14044-53	30- 130						No oil			
SBR73-14054	130- 140	89746	3.6	3.0	95.3	1.1	1.7a	7.2	None	
SBR73-14055	140- 150	89747	3.0	2.5	96.3	.7	1.3a	6.0	None	
SBR73-14056	150- 160	89748	2.7	1.8	95.4	1.9	2.4a	4.3	None	
SBR73-14057	160- 170	89749	1.6	2.8	94.8	.8	4.1a	6.7	None	
SBR73-14058	170- 180	89750	.7	2.7	95.7	.9	1.8a	6.5	None	
SBR73-14059	180- 190	89751	.8	2.7	95.9	.6	2.0a	6.5	None	
SBR73-14060	190- 200	89752	1.2	2.4	95.5	.9	3.2a	5.8	None	
SBR73-14061	200- 210	89753	.9	2.2	96.6	.3	2.4a	5.3	None	
SBR73-14062	210- 220	89754	1.1	2.1	96.4	.4	2.8a	5.0	None	
SBR73-14063	220- 230	89755	.7	2.2	96.2	.9	1.9a	5.3	None	
SBR73-14064	230- 240	89756	.9	2.1	96.6	.4	2.2a	5.0	None	
SBR73-14065	240- 250	89757	1.4	2.2	96.0	.4	3.6a	5.3	None	
SBR73-14066	250- 260	89758	.5	2.5	96.6	.4	1.3a	6.0	None	
SBR73-14067	260- 270	89759	.6	2.4	96.8	.2	1.5a	5.8	None	
SBR73-14068	270- 280	89760	9.8	2.6	85.3	2.3	25.1	6.2	0.936	
SBR73-14069	280- 290	89761	8.4	2.1	87.6	1.9	21.7	5.0	.930	
SBR73-14070	290- 300	89762	.9	2.3	95.5	1.3	2.3a	5.5	None	
SBR73-14071	300- 310	89763	1.8	2.5	95.5	.2	4.6a	6.0	None	
SBR73-14072	310- 320	89764	1.7	2.5	94.8	.9	4.6a	6.0	None	
SBR73-14073	320- 330	89765	1.8	2.6	94.7	.9	4.6a	6.2	None	
SBR73-14074	330- 340	89766	1.8	2.4	95.1	.7	4.8a	5.8	None	
SBR73-14075	340- 350	89767	1.6	2.1	95.1	1.2	4.1a	5.0	None	
SBR73-14076	350- 360	89768	1.7	2.5	95.0	.8	4.4a	6.0	None	
SBR73-14077	360- 370	89769	2.0	2.4	94.9	.7	5.2a	5.8	None	
SBR73-14078	370- 380	89770	1.7	2.6	94.8	.9	4.5a	6.2	None	
SBR73-14079	380- 390	89771	6.8	2.0	89.1	2.1	17.7	4.8	.918	
SBR73-14080	390- 400	89772	6.6	2.2	88.9	2.3	17.0	5.3	.922	
SBR73-14081	400- 410	89773	5.4	2.4	90.4	1.8	14.0	5.8	.928	
SBR73-14082	410- 420	89774	6.4	2.1	89.4	2.1	16.6	5.0	.924	

See footnote at end of table.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 well (Continued)

Kelly Bushing elevation 7374 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale Tendency to		Remarks
			Weight percent		Gal per ton					
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil	Water	coke	
SBR73-14083	420- 430	89776	6.3	2.3	89.0	2.4	15.9	5.5	0.940	None
SBR73-14084	430- 440	89777	5.5	1.6	90.9	2.0	14.4	3.8	.917	None
SBR73-14085	440- 450	89778	5.5	1.3	90.8	2.4	14.4	3.1	.922	None
SBR73-14086	450- 460	89779	5.1	1.5	91.0	2.4	13.4	3.6	.919	None
SBR73-14087	460- 470	87780	3.8	1.4	93.3	1.5	10.0	3.4	.912	None
SBR73-14088	470- 480	89781	3.4	1.4	93.2	2.0	8.9	3.4	.920	None
SBR73-14089	480- 490	89782	4.4	1.7	92.1	8.8	11.5	4.1	.912	None
SBR73-14090	490- 500	89783	3.6	1.7	93.1	1.6	9.6	4.1	.908	None
SBR73-14091	500- 510	89784	3.8	1.7	92.9	1.6	10.1	4.1	.910	None
SBR73-14092	510- 520	89785	2.0	12.2	84.4	1.4	5.1	29.2	.916	None
SBR73-14093	520- 530	89786	10.8	5.0	80.1	4.1	28.7	12.0	.904	None
SBR73-14094	540- 550	89787	9.2	3.5	84.9	2.4	24.4	8.4	.904	None
SBR73-14095	550- 560	89788	7.5	4.5	85.6	2.4	19.9	10.8	.902	None
SBR73-14096	560- 570	89789	6.7	4.0	87.0	2.3	17.9	9.6	.899	None
SBR73-14097	570- 580	89790	3.9	6.8	87.2	2.1	10.5	16.3	.887	None
SBR73-14098	580- 590	89791	4.2	5.4	88.8	1.6	11.0	12.9	.909	None
SBR73-14099	590- 600	89792	5.2	4.5	87.6	2.7	13.8	10.8	.905	None
SBR73-14100	600- 610	89793	4.9	5.4	87.9	1.8	12.9	12.8	.907	None
SBR73-14101	610- 620	89794	4.4	6.0	87.7	1.9	11.7	14.5	.907	None
SBR73-14102	620- 630	89795	6.2	3.0	88.8	2.0	16.4	7.2	.903	None
SBR73-14103	630- 640	89796	9.3	2.1	84.4	4.2	24.6	5.0	.909	None
SBR73-14104	640- 650	89797	10.8	3.4	83.0	2.8	28.5	8.2	.909	None
SBR73-14105	650- 660	89798	13.3	2.3	80.9	3.5	35.1	5.5	.910	None
SBR73-14106	660- 670	89799	10.0	3.1	84.0	2.9	26.5	7.4	.909	None
SBR73-14107	670- 680	89800	11.3	2.2	83.6	2.9	29.8	5.3	.907	None
SBR73-14108	680- 690	89801	11.5	2.8	83.0	2.7	30.6	6.7	.900	None
SBR73-14109	690- 700	89802	6.3	3.8	88.1	1.8	16.7	9.1	.906	None
SBR73-14110	700- 710	89803	11.1	2.7	83.4	2.8	29.0	6.5	.920	None
SBR73-14111	710- 720	89804	6.9	4.2	86.9	2.0	18.4	10.1	.902	None
SBR73-14112	720- 730	89805	2.3	4.2	92.5	1.0	6.2	10.1	.899	None

See footnote at end of table.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 well (Continued)

Kelly Bushing elevation 7374 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	Water		coke		
SBR73-14113	730- 740	89806	1.1	4.8	93.2	0.9	2.9a	11.5		None		
SBR73-14114	740- 750	89807	4.4	4.0	89.9	1.7	11.8	9.6	0.899	None		
SBR73-14115	750- 760	89808	2.8	4.0	90.7	2.5	7.4	9.6	.910	None		
SBR73-14116	760- 770	89809	3.3	4.6	90.9	1.2	8.8	11.0	.901	None		
SBR73-14117	770- 780	89810	.7	6.5	91.8	1.0	1.9a	15.6		None		
SBR73-14118	780- 790	89811	.3	7.0	91.9	.8	.8a	16.8		None		
SBR73-14119	790- 800	89812	.4	6.0	93.1	.5	.9a	14.4		None		
SBR73-14120	800- 810	89813	.3	6.2	93.0	.5	.7a	14.9		None		
SBR73-14121	810- 820	89814	1.4	4.0	92.9	1.7	3.7a	9.6		None		
SBR73-14122	820- 830	89815	1.7	3.6	92.9	1.8	4.4a	8.6		None		
SBR73-14123	830- 840	89816	1.7	3.9	93.6	.8	4.4a	9.3		None		
SBR73-14124	840- 850	89817	3.4	3.7	91.4	1.5	8.7a	8.9		None		
SBR73-14125	850- 860	89818	1.8	4.5	92.9	.8	4.7a	10.8		None		
SBR73-14126	860- 870	89819	1.0	4.8	93.4	.8	2.6a	11.5		None		
SBR73-14127	870- 880	89820	.8	4.2	94.4	.6	2.1a	10.1		None		
SBR73-14128	880- 890	89821	1.1	4.2	94.0	.7	2.9a	10.1		None		
SBR73-14129	890- 900	89822	.4	4.0	95.0	.6	1.1a	9.6		None		
SBR73-14130	900- 910	89823	1.5	3.6	94.1	.8	4.0a	8.6		None		
SBR73-14131	910- 920	89824	1.9	3.4	93.0	1.7	4.9a	8.2		None		
SBR73-14132	920- 930	89825	.9	4.0	94.1	1.0	2.4a	9.6		None		
SBR73-14133	930- 940	89826	1.6	4.0	93.4	1.0	4.3a	9.6		None		
SBR73-14134	940- 950	89827	1.8	3.8	93.5	.9	4.6a	9.1		None		
SBR73-14135	950- 960	89828	.3	5.0	93.8	.9	.8a	12.0		None		
SBR73-14136	960- 970	89829	5.8	2.6	89.4	2.2	15.2	6.2	.910	None		
SBR73-14137	970- 980	89830	6.4	2.6	88.7	2.3	16.6	6.2	.917	None		
SBR73-14138	980- 990	89831	6.9	2.0	88.9	2.2	17.9	4.8	.918	None		
SBR73-14139	990-1000	89832	6.0	2.4	89.5	2.1	15.8	5.8	.914	None		
SBR73-14140	1000-1010	89833	4.0	2.4	91.9	1.7	10.6	5.8	.909	None		
SBR73-14141	1010-1020	89834	3.6	2.4	92.4	1.6	9.5	5.8	.907	None		
SBR73-14142	1020-1030	89835	5.2	2.3	90.6	1.9	13.7	5.5	.912	None		

See footnote at end of table.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 well (Continued)

Kelly Bushing elevation 7374 feet

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			Gal per ton					
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil	Water			
SBR73-14143	1030-1040	89836	6.1	2.2	89.5	2.2	15.9	5.3	0.916	None	
SBR73-14144	1050-1060	89837	7.6	2.1	88.6	1.7	19.9	5.0	.921	None	
SBR73-14145	1120-1130	89838	2.4	2.1	94.9	.6	6.3	5.0	.908	None	
SBR73-14146	1130-1140	89839	2.0	2.0	95.5	.5	5.3	4.8	.901	None	
SBR73-14147	1140-1150	89840	3.0	1.8	94.4	.8	8.1	4.3	.907	None	
SBR73-14148	1150-1160	89841	2.1	2.0	95.2	.7	5.4	4.8	.916	None	
SBR73-14149	1160-1170	89842	1.7	2.4	95.0	.9	4.5a	5.8		None	
SBR73-14150	1170-1180	89843	1.8	2.3	95.1	.8	4.6a	5.5		None	
SBR73-14151	1180-1190	89844	1.7	1.3	95.3	1.7	4.5a	3.1		None	
SBR73-14152	1190-1200	89845	1.2	3.4	94.9	.5	3.0a	8.2		None	
SBR73-14153	1200-1210	89846	4.5	2.2	91.8	1.5	11.9	5.3	.904	None	
SBR73-14154	1210-1220	89847	3.6	2.4	93.0	1.0	9.5	5.8	.899	None	
SBR73-14155	1220-1230	89848	3.8	2.5	92.4	1.3	10.0	6.0	.919	None	
SBR73-14156	1230-1240	89849	3.0	2.4	93.6	1.0	7.9	5.8	.913	None	
SBR73-14157	1240-1250	89850	4.0	2.6	91.9	1.5	10.5	6.2	.918	None	
SBR73-14158	1250-1260	89851	4.3	1.8	91.9	2.0	11.3	4.3	.916	None	
SBR73-14159	1260-1270	89852	6.7	1.5	89.9	1.9	17.6	3.6	.912	None	
SBR73-14160	1270-1280	89853	9.0	2.1	86.5	2.4	23.7	5.0	.916	None	
SBR73-14161	1280-1290	89854	6.0	2.0	89.9	2.1	15.8	4.8	.914	None	
SBR73-14162	1290-1300	89855	7.3	2.8	87.7	2.2	19.1	6.7	.915	None	
SBR73-14163	1300-1310	89856	9.3	2.8	85.4	2.5	23.9	6.7	.930	None	
SBR73-14164	1310-1320	89857	4.1	6.0	88.2	1.7	10.8	14.4	.900	None	
SBR73-14165	1320-1330	89858	12.4	2.8	81.8	3.0	32.4	6.7	.919	None	
SBR73-14166	1330-1340	89859	13.9	2.4	80.8	2.9	36.2	5.8	.919	None	
SBR73-14167	1340-1350	89860	7.1	2.5	88.6	1.8	18.3	6.0	.924	None	
SBR73-14168	1350-1360	89861	8.2	2.1	88.3	1.4	21.2	5.0	.919	None	
SBR73-14169	1360-1370	89862	5.8	2.5	90.3	1.4	15.2	6.0	.918	None	
SBR73-14170	1370-1380	89863	3.9	3.0	91.9	1.2	10.5	7.2	.898	None	
SBR73-14171	1380-1390	89864	3.5	3.0	92.5	1.0	9.3	7.2	.896	None	
SBR73-14172	1390-1400	89865	5.7	2.5	89.9	1.9	14.8	6.0	.928	None	

See footnote at end of table.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 well (Continued)

Kelly Bushing elevation 7374 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	Water	coke	
SBR73-14173	1400-1410	89866	5.5	2.9	89.9	1.7	14.2	7.0	None	
SBR73-14174	1410-1420	89867	5.5	2.8	89.7	2.0	14.3	6.7	None	
SBR73-14175	1420-1430	89868	6.2	3.1	88.8	1.9	16.3	7.4	None	
SBR73-14176	1430-1440	89869	5.4	3.2	89.4	2.0	14.2	7.7	None	
SBR73-14177	1440-1450	89870	2.1	2.1	94.9	.9	5.5	5.0	None	
SBR73-14178	1450-1460	89871	2.0	2.4	94.7	.9	5.4	5.8	None	
SBR73-14179	1460-1470	89872	2.5	2.5	93.4	1.6	6.7	6.0	None	
SBR73-14180	1470-1480	89873	1.5	2.3	95.1	1.1	4.0a	5.5	None	
SBR73-14181	1480-1490	89874	.8	2.3	95.4	1.5	2.1a	5.5	None	
SBR73-14182	1490-1500	89875	.9	2.3	95.7	1.1	2.2a	5.5	None	
SBR73-14183	1500-1510	89876	.8	2.4	95.5	1.3	2.2a	5.8	None	
SBR73-14184	1510-1520	89877	1.8	2.5	94.3	1.4	4.7a	6.0	None	
SBR73-14185	1520-1530	89878	2.7	2.6	93.1	1.6	7.1	6.2	None	
SBR73-14186	1530-1540	89879	3.2	2.5	92.4	1.9	8.7	6.0	None	
SBR73-14187	1540-1550	89907	2.9	2.5	93.4	1.2	7.8	6.0	None	
SBR73-14188	1550-1560	89881	2.7	2.6	92.9	1.8	7.3	6.3	None	
SBR73-14189	1560-1570	89882	2.6	2.5	92.9	2.0	6.9	6.0	None	
SBR73-14190	1570-1580	89883	2.9	2.5	92.6	2.0	7.8	6.0	None	
SBR73-14191	1580-1590	89884	1.7	3.2	94.1	1.0	4.7a	7.7	None	
SBR73-14192	1590-1600	89885	1.9	2.8	94.3	1.0	5.1	6.7	None	
SBR73-14193	1600-1610	89886	5.5	2.3	90.6	1.6	14.2	5.6	None	
SBR73-14194	1610-1620	89887	1.9	2.5	94.5	1.1	5.1	6.0	None	
SBR73-14195	1620-1630	89888	.8	.8	97.6	.8	2.0a	1.9	None	
SBR73-14196	1630-1640	89889	1.1	1.7	96.7	.5	2.9a	4.1	None	
SBR73-14197	1640-1650	89890	.6	1.1	97.9	.4	1.5a	2.6	None	
SBR73-14198	1650-1660	89891	1.4	3.0	94.8	.8	3.6a	7.2	None	
SBR73-14199	1660-1670	89892	1.4	1.2	96.1	1.3	3.6a	2.9	None	
SBR73-14200	1670-1680	89893	.7	2.8	95.8	.7	1.9a	6.7	None	
SBR73-14201	1680-1690	89894	.9	3.0	95.4	.7	2.2a	7.2	None	
SBR73-14202-06	1690-1740						b			

See footnote at end of table.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Miami Oil Producers, Incorporated's West Rock Springs No. 1 well (Continued)

Kelly Bushing elevation 7374 feet

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		Gal per ton				
Laramie	Their		Oil	Water	Spent shale	Gas + loss	Oil	Water	
SBR73-14207	1740-1750						Trace		
SBR73-14208	1760-1770						No oil		

1/"a"--indicates specific gravity estimated at 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 of oil/ton.

Drill cuttings received August 9, 1973; assays made on air-dried samples.

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4590P, Sheet 6 of 6 sheets

December 28, 1973