

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 located in the NW1/4SW1/4 (2,033 feet N/S and 960 feet E/W) of sec 29, T 24 N, R 108 W, Sweetwater County, Wyoming

Surface elevation 6,639 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	shale			Oil ¹ / _{Water}			
SBR73-3903-17	100	-250					<u>2</u> /No oil				
SBR73-3918	250	-260	80337	0.0	2.1	97.6	0.3	Trace	5.0		None
SBR73-3919	260	-270	80338	.0	2.9	96.5	.6	Trace	7.0		None
SBR73-3920	270	-280	80339	.0	1.8	97.2	1.0	Trace	4.3		None
SBR73-3921	280	-290					<u>2</u> /No oil				
SBR73-3922	290	-300					<u>2</u> /Trace				
SBR73-3923-26	300	-320					<u>2</u> /No oil				
SBR73-3927	320	-325					<u>2</u> /Trace				
SBR73-3928-30	325	-340					<u>2</u> /No oil				
SBR73-3931-32	340	-350					<u>2</u> /Trace				
SBR73-3933-34	350	-360					<u>2</u> /No oil				
SBR73-3935	360	-365	80340	1.2	2.3	94.7	1.8	3.1a	5.5		None
SBR73-3936	368.0-369.0		80341	2.0	3.4	93.4	1.2	5.2	8.1	0.916	None
SBR73-3937	369.0-370.0		80342	2.9	2.5	93.1	1.5	7.7	6.0	.906	None
SBR73-3938	370.0-371.0		80343	3.4	2.9	92.1	1.6	9.0	7.0	.904	None
SBR73-3939	371.0-372.0		80344	3.3	3.0	92.0	1.7	8.8	7.2	.896	None
SBR73-3940	372.0-373.0		80345	4.2	2.5	91.1	2.2	11.2	6.0	.897	None
SBR73-3941	373.0-374.0		80346	5.4	2.8	89.6	2.2	14.4	6.7	.901	None
SBR73-3942	374.0-375.0		80347	5.0	3.0	90.1	1.9	13.4	7.2	.894	None
SBR73-3943	375.0-376.0		80348	3.5	2.8	91.7	2.0	9.2	6.7	.911	None
SBR73-3944	376.0-377.0		80349	3.7	3.6	90.7	2.0	9.6	8.6	.921	None
SBR73-3945	377.0-378.0		80350	4.3	3.6	89.7	2.4	11.1	8.6	.927	None
SBR73-3946	378.0-379.0		80351	2.8	1.9	91.2	4.1	7.3	4.6	.922	None
SBR73-3947	379.0-380.0		80352	3.1	3.0	91.4	2.5	8.0	7.2	.925	None
SBR73-3948	380.0-381.0		80353	2.9	3.4	91.6	2.1	7.6	8.1	.919	None
SBR73-3949	381.0-382.0		80354	2.7	3.0	92.1	2.2	7.0	7.2	.923	None
SBR73-3950	382.0-383.0		80355	2.7	3.4	92.0	1.9	7.1	8.1	.914	None
SBR73-3951	383.0-384.4		80356	2.8	2.8	92.8	1.6	7.3	6.7	.913	None
SBR73-3952	384.4-385.4		80357	3.7	3.6	91.2	1.5	9.7	8.6	.917	None
SBR73-3953	385.4-386.4		80358	5.1	3.4	89.8	1.7	13.2	8.1	.926	None

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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	
SBR73-3954	386.4-386.9	80359	1.4	1.7	96.3	0.6	3.6a	4.1	None	
SBR73-3955	386.9-387.6	80360	3.6	4.0	91.1	1.3	9.3	9.6	0.928	None
SBR73-3956	387.6-389.0	80361	1.4	2.5	95.4	.7	3.6a	6.0	None	
SBR73-3957	389.0-390.5	80362	3.9	2.9	91.9	1.3	10.3	7.0	.905	None
SBR73-3958	390.5-391.7	80363	3.3	2.1	93.2	1.4	8.7	5.0	.909	None
SBR73-3959	392.0-393.1	80364	6.0	2.4	89.8	1.8	15.6	5.8	.924	None
SBR73-3960	393.1-394.4	80365	1.0	3.0	95.3	.7	2.6a	7.2	None	
SBR73-3961	394.4-396.0	80366	3.5	2.6	92.4	1.5	9.3	6.2	.898	None
SBR73-3962	396.0-397.4	80367	3.9	2.0	92.2	1.9	10.3	4.8	.909	None
SBR73-3963	397.4-399.0	80368	6.9	1.5	89.4	2.2	17.7	3.6	.932	None
SBR73-3964	399.0-399.8	80369	3.0	2.5	93.4	1.1	7.8	6.0	.925	None
SBR73-3965	399.8-400.6	80370	8.2	2.2	87.4	2.2	21.1	5.3	.933	None
SBR73-3966	400.6-401.4	80371	1.7	2.0	95.4	.9	4.4a	4.8	None	
SBR73-3967	401.4-402.8	80372	4.8	3.4	90.4	1.4	12.4	8.1	.924	None
SBR73-3968	402.8-403.8	80373	8.4	3.0	85.9	2.7	22.1	7.2	.909	None
SBR73-3969	403.8-405.4	80374	.3	4.3	94.6	.8	.8a	10.3	None	
SBR73-3970	405.4-406.6	80375	5.5	1.9	90.9	1.7	14.4	4.6	.917	None
SBR73-3971	406.6-407.5	80376	.8	3.8	94.8	.6	2.1a	9.1	None	
SBR73-3972	407.5-408.6	80377	8.6	3.0	86.3	2.1	22.8	7.2	.902	None
SBR73-3973	408.6-409.8	80378	1.4	4.2	93.2	1.2	3.6a	10.1	None	
SBR73-3974	409.8-411.1	80379	2.2	3.5	93.0	1.3	5.8	8.4	.915	None
SBR73-3975	411.1-412.5	80380	8.1	2.4	87.3	2.2	21.5	5.8	.902	None
SBR73-3976	412.5-413.7	80381	.8	3.6	94.8	.8	2.1a	8.6	None	
SBR73-3977	413.7-414.7	80382	6.0	1.7	90.6	1.7	15.7	4.1	.913	None
SBR73-3978	414.7-415.7	80383	6.7	1.6	89.9	1.8	17.6	3.8	.913	None
SBR73-3979	415.7-416.7	80384	5.1	1.2	92.2	1.5	13.3	2.9	.917	None
SBR73-3980	416.7-417.6	80385	.1	4.0	95.4	.5	.3a	9.6	None	
SBR73-3981	417.6-418.1	80386	2.7	1.5	95.0	.8	7.1	3.6	.909	None
SBR73-3982	418.1-419.0	80387	7.9	2.7	86.9	2.5	20.9	6.5	.907	None
SBR73-3983	419.0-420.0	80388	4.6	1.4	91.6	2.4	12.0	3.4	.916	None

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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					
		Oil	Water	Spent shale	Gas + loss	Oil ^{1/}	Water				
Laramie Their											
SBR73-3984	80389	420.0-421.6	6.0	1.7	90.3	2.0	15.7	4.1	0.915	None	
SBR73-3985	80390	421.6-422.8	7.0	2.8	88.2	2.0	18.4	6.7	.914	None	
SBR73-3986	80391	422.8-424.0	5.4	1.7	91.1	1.8	14.1	4.1	.916	None	
SBR73-3987	80392	424.0-425.0	4.6	1.4	91.8	2.2	12.0	3.4	.916	None	
SBR73-3988	80393	425.0-426.0	5.9	1.5	90.5	2.1	15.5	3.6	.914	None	
SBR73-3989	80394	426.0-427.0	6.2	1.3	90.2	2.3	16.2	3.1	.916	None	
SBR73-3990	80395	427.0-428.0	7.3	1.5	89.1	2.1	19.2	3.6	.911	None	
SBR73-3991	80396	428.0-429.5	6.4	2.0	89.8	1.8	16.8	4.8	.910	None	
SBR73-3992	80397	429.5-430.5	9.5	2.1	86.1	2.3	25.1	5.0	.908	None	
SBR73-3993	80398	430.5-431.6	10.7	2.2	84.6	2.5	28.3	5.3	.906	None	
SBR73-3994	80399	431.6-433.2	9.5	2.1	85.7	2.7	25.1	5.0	.906	None	
SBR73-3995	80400	433.2-433.9	13.5	2.0	81.2	3.3	35.8	4.8	.904	None	
SBR73-3996	80401	433.9-434.4	6.2	.8	92.0	1.0	16.5	1.9	.901	None	
SBR73-3997	80402	434.4-435.1	9.6	1.6	86.4	2.4	25.3	3.8	.908	None	
SBR73-3998	80403	435.1-435.8	10.2	2.0	85.3	2.5	27.0	4.8	.906	None	
SBR73-3999	80404	435.8-436.6	13.4	2.0	81.4	3.2	35.5	4.8	.904	None	
SBR73-4000	80405	436.6-437.6	5.8	1.0	91.9	1.3	15.4	2.4	.905	None	
SBR73-4001	80406	437.6-438.7	6.0	1.3	91.1	1.6	15.8	3.1	.911	None	
SBR73-4002	80407	438.7-439.8	4.7	1.2	92.8	1.3	12.3	2.9	.913	None	
SBR73-4003	80408	439.8-440.9	2.4	1.5	95.4	.7	6.3	3.6	.909	None	
SBR73-4004	80409	440.9-441.9	12.6	1.8	82.9	2.7	33.2	4.3	.908	None	
SBR73-4005	80410	441.9-443.0	12.7	2.1	82.1	3.1	33.5	5.0	.908	None	
SBR73-4006	80411	443.0-444.5	8.3	1.8	87.3	2.6	21.9	4.3	.908	None	
SBR73-4007	80412	444.5-445.8	2.4	2.9	93.7	1.0	6.3	7.0	.907	None	
SBR73-4008	80413	445.8-447.0	1.6	1.7	96.1	.6	4.2 _a	4.1		None	
SBR73-4009	80414	447.0-448.0	2.7	.7	95.2	1.4	7.1	1.7	.912	None	
SBR73-4010	80415	448.0-449.2	3.3	1.2	94.1	1.4	8.7	2.9	.912	None	
SBR73-4011	80416	449.2-450.3	2.4	1.0	95.6	1.0	6.2	2.4	.919	None	
SBR73-4012	80417	450.3-451.3	2.4	.8	96.0	.8	6.3	1.9	.914	None	
SBR73-4013	80418	451.3-452.3	2.3	1.1	95.7	.9	6.0	2.6	.915	None	

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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	coke	
		Oil	Water	Spent shale	Gas + loss	Oil ^{1/}	Water					
Laramie	Their											
SBR73-4014	80419	2.8	1.2	94.6	1.4	7.3	2.9	0.916		None		
SBR73-4015	80420	4.0	1.7	92.8	1.5	10.5	4.1	.912		None		
SBR73-4016	80421	3.2	1.2	94.1	1.5	8.4	2.9	.914		None		
SBR73-4017	80422	4.1	1.6	92.8	1.5	10.8	3.8	.910		None		
SBR73-4018	80423	4.9	2.1	91.3	1.7	12.9	5.0	.907		None		
SBR73-4019	80424	6.9	2.6	88.3	2.2	18.2	6.2	.906		None		
SBR73-4020	80425	5.6	1.7	90.9	1.8	14.9	4.1	.900		None		
SBR73-4021	80426	6.0	2.1	89.8	2.1	15.8	5.0	.907		None		
SBR73-4022	80427	4.2	1.7	92.3	1.8	11.1	4.1	.910		None		
SBR73-4023	80428	2.4	1.4	95.1	1.1	6.3	3.4	.918		None		
SBR73-4024	80429	3.8	1.7	92.8	1.7	10.0	4.1	.912		None		
SBR73-4025	80430	10.0	2.5	84.6	2.9	26.4	6.0	.908		None		
SBR73-4026	80431	7.4	2.3	88.2	2.1	19.6	5.5	.905		None		
SBR73-4027	80432	11.3	2.2	83.3	3.2	30.0	5.3	.903		None		
SBR73-4028	80433	4.5	1.6	92.6	1.3	11.9	3.8	.903		None		
SBR73-4029	80434	.8	2.0	96.5	.7	2.1a	4.8			None		
SBR73-4030	80435	2.4	.4	95.7	1.5	6.2	1.0	.919		None		
SBR73-4031	80436	3.0	.8	94.3	1.9	7.8	1.9	.920		None		
SBR73-4032	80437	5.4	1.8	90.8	2.0	14.2	4.3	.910		None		
SBR73-4033	80438	11.2	2.1	83.6	3.1	29.7	5.0	.903		None		
SBR73-4034	80439	11.7	2.8	82.3	3.2	30.9	6.7	.907		None		
SBR73-4035	80440	8.9	1.4	86.5	3.2	23.5	3.4	.909		None		
SBR73-4036	80441	4.4	1.2	92.7	1.7	11.6	2.9	.908		None		
SBR73-4037	80442	7.8	1.4	88.9	1.9	20.8	3.4	.900		None		
SBR73-4038	80443	9.2	1.5	86.9	2.4	24.6	3.6	.896		None		
SBR73-4039	80444	8.3	1.3	88.0	2.4	22.0	3.1	.902		None		
SBR73-4040	80445	3.2	1.1	94.6	1.1	8.4	2.6	.907		None		
SBR73-4041	80446	3.1	.5	95.3	1.1	8.3	1.2	.898		None		
SBR73-4042	80447	7.9	.7	88.4	3.0	21.1	1.7	.896		None		
SBR73-4043	80448	11.0	1.1	85.3	2.6	29.4	2.6	.898		None		

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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				
SBR73-4044	486.3-487.4	80449	4.0	0.8	94.0	1.2	10.6	1.9	0.903	None	
SBR73-4045	487.4-488.5	80450	2.8	.8	95.4	1.0	7.4	1.9	.908	None	
SBR73-4046	488.5-489.5	80452	4.2	.4	94.2	1.2	11.0	1.0	.912	None	
SBR73-4047	489.5-490.7	80453	18.2	1.7	76.1	4.0	48.3	4.1	.903	None	
SBR73-4048	490.7-491.9	80454	19.7	1.8	74.6	3.9	52.6	4.3	.897	Moderate	
SBR73-4049	491.9-493.2	80455	5.0	.8	92.5	1.7	13.2	1.9	.906	None	
SBR73-4050	493.2-494.0	80456	3.0	2.0	93.9	1.1	7.9	4.8	.906	None	
SBR73-4051	494.0-495.1	80457	3.0	.6	95.3	1.1	8.0	1.4	.904	None	
SBR73-4052	495.1-496.2	80458	6.8	1.0	90.3	1.9	17.8	2.4	.915	None	
SBR73-4053	496.2-497.8	80459	4.0	.6	94.3	1.1	10.6	1.4	.906	None	
SBR73-4054	497.8-499.0	80460	1.7	.5	97.2	.6	4.4a	1.2		None	
SBR73-4055	499.0-500.3	80461	1.6	.4	97.5	.5	4.2a	1.0		None	
SBR73-4056	500.3-501.3	80462	3.7	.2	94.9	1.2	9.8	.5	.900	None	
SBR73-4057	501.3-502.8	80463	15.4	1.7	79.4	3.5	41.0	4.1	.900	None	
SBR73-4058	502.8-503.6	80464	9.7	1.0	86.9	2.4	26.0	2.4	.893	None	
SBR73-4059	503.6-504.6	80465	4.8	.5	93.3	1.4	12.9	1.2	.892	None	
SBR73-4060	504.6-505.9	80466	3.8	.5	94.8	.9	10.2	1.2	.889	None	
SBR73-4061	505.9-507.3	80467	8.0	.8	89.3	1.9	21.3	1.9	.899	None	
SBR73-4062	507.3-508.6	80468	11.8	1.4	84.0	2.8	31.4	3.4	.900	None	
SBR73-4063	508.6-509.2	80469	12.2	1.4	84.5	1.9	33.2	3.4	.880	None	Layered tuff
SBR73-4064	509.2-509.9	80470	9.0	1.0	87.5	2.5	23.9	2.4	.901	None	
SBR73-4065	509.9-510.9	80471	5.7	.7	91.8	1.8	15.1	1.7	.907	None	
SBR73-4066	510.9-512.0	80472	1.6	.5	97.0	.9	4.2a	1.2		None	
SBR73-4067	512.0-513.1	80473	1.8	.5	96.9	.8	4.7a	1.2		None	
SBR73-4068	513.1-514.1	80474	2.8	.4	95.9	.9	7.4	1.0	.910	None	
SBR73-4069	514.1-515.3	80475	10.6	1.0	86.1	2.3	28.2	2.4	.899	None	
SBR73-4070	515.3-516.5	80476	9.6	.9	87.3	2.2	25.5	2.2	.902	None	
SBR73-4071	516.5-517.2	80477	7.4	1.0	89.4	2.2	19.5	2.4	.908	None	
SBR73-4072	517.2-518.2	80478	1.1	.7	97.4	.8	2.9a	1.7		None	
SBR73-4073	518.2-519.0	80479	.6	.8	98.0	.6	1.6a	1.9		None	

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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		Spent shale	Gas + loss			
Laramie	Their		Oil	Water	Oil ^{1/}	Water					
SBR73-4074	519.0-519.6	80480	3.4	0.2	95.2	1.2	9.0	0.5	0.906	None	
SBR73-4075	519.6-520.6	80481	17.7	2.0	75.3	5.0	47.0	4.8	.903	Moderate	
SBR73-4076	520.6-521.4	80482	13.3	1.5	82.1	3.1	35.1	3.6	.909	None	
SBR73-4077	521.4-522.1	80483	7.7	.8	88.7	2.8	20.2	1.9	.911	None	
SBR73-4078	522.1-523.5	80484	1.3	.5	96.9	1.3	3.4a	1.2		None	
SBR73-4079	523.5-525.0	80485	1.3	.6	97.6	.5	3.4a	1.4		None	
SBR73-4080	525.0-526.9	80486	.5	.5	98.3	.7	1.3a	1.2		None	
SBR73-4081	526.9-527.9	80487	17.6	2.0	75.7	4.7	46.1	4.8	.914	Slight	
SBR73-4082	527.9-528.9	80488	17.6	2.0	74.8	5.6	46.6	4.8	.905	Slight	
SBR73-4083	528.9-530.1	80489	10.2	1.3	85.6	2.9	26.9	3.1	.909	None	
SBR73-4084	530.1-531.8	80490	1.3	.6	96.6	1.5	3.4a	1.4		None	
SBR73-4085	531.8-532.9	80491	1.1	.6	97.5	.8	2.9a	1.4		None	
SBR73-4086	532.9-534.2	80492	10.1	1.7	85.0	3.2	26.7	4.1	.907	None	
SBR73-4087	534.2-535.4	80493	11.3	2.0	83.3	3.4	29.8	4.8	.909	None	
SBR73-4088	535.4-537.0	80494	9.8	2.0	85.2	3.0	25.9	4.8	.908	None	
SBR73-4089	537.0-538.4	80495	2.3	.5	95.7	1.5	6.1	1.2	.909	None	
SBR73-4090	538.4-538.8	80496	6.9	1.2	89.3	2.6	18.2	2.9	.910	None	
SBR73-4091	538.8-539.8	80497	14.7	2.1	78.4	4.8	39.1	5.0	.900	None	
SBR73-4092	539.8-540.8	80498	15.2	2.5	78.5	3.8	40.5	6.0	.899	None	
SBR73-4093	540.8-541.4	80499	8.0	2.0	87.3	2.7	21.1	4.8	.907	None	
SBR73-4094	541.4-542.6	80500	1.7	.6	97.0	.7	4.4a	1.4		None	
SBR73-4095	542.6-543.6	80501	8.4	1.7	87.6	2.3	22.1	4.1	.912	None	
SBR73-4096	543.6-544.3	80502	10.9	1.6	84.7	2.8	28.9	3.8	.903	None	
SBR73-4097	544.3-544.8	80503	9.2	1.1	87.8	1.9	24.7	2.6	.891	None	
SBR73-4098	544.8-545.8	80504	3.7	.9	93.9	1.5	9.8	2.2	.903	None	
SBR73-4099	545.8-546.8	80505	1.1	.6	97.8	.5	2.9a	1.4		None	
SBR73-4100	546.8-548.4	80506	5.4	2.0	90.7	1.9	14.0	4.8	.922	None	
SBR73-4101	548.4-549.2	80507	.1	.9	98.8	.2	.3a	2.2		None	Main tuff
SBR73-4102	549.2-550.0	80508	4.1	.9	93.7	1.3	10.7	2.2	.919	None	
SBR73-4103	550.0-551.0	80509	1.6	.7	97.0	.7	4.2a	1.7		None	

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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		
SBR73-4104	551.0-552.1	80510	1.8	0.4	96.9	0.9	4.7a	1.0	None	
SBR73-4105	552.1-552.9	80511	4.8	.9	92.6	1.7	12.8	2.2	0.897	None
SBR73-4106	552.9-553.4	80512	7.6	1.1	89.0	2.3	20.3	2.6	.896	None
SBR73-4107	553.4-554.4	80513	4.6	1.4	92.1	1.9	12.1	3.4	.908	None
SBR73-4108	554.4-555.4	80514	4.2	1.5	92.4	1.9	11.0	3.6	.916	None
SBR73-4109	555.4-556.6	80515	3.1	1.1	94.3	1.5	8.1	2.6	.919	None
SBR73-4110	556.6-557.8	80516	2.1	.8	95.8	1.3	5.5	1.9	.913	None
SBR73-4111	557.8-559.0	80517	2.7	.9	95.0	1.4	7.1	2.2	.916	None
SBR73-4112	559.0-560.0	80518	2.5	.7	95.5	1.3	6.5	1.7	.916	None
SBR73-4113	560.0-561.2	80519	2.1	.7	96.0	1.2	5.5	1.7	.914	None
SBR73-4114	561.2-562.2	80520	8.2	1.8	87.5	2.5	21.8	4.3	.899	None
SBR73-4115	562.2-563.4	80521	7.2	1.7	88.4	2.7	19.1	4.1	.903	None
SBR73-4116	563.4-564.6	80522	5.3	2.6	89.7	2.4	14.0	6.2	.907	None
SBR73-4117	564.6-565.8	80523	4.4	2.6	90.8	2.2	11.6	6.2	.909	None
SBR73-4118	565.8-567.3	80524	2.4	1.1	95.1	1.4	6.3	2.6	.915	None
SBR73-4119	567.3-568.1	80525	4.8	1.5	91.5	2.2	12.6	3.6	.913	None
SBR73-4120	568.1-569.2	80526	9.2	2.0	85.9	2.9	24.6	4.8	.898	None
SBR73-4121	569.2-570.2	80527	5.8	2.1	89.7	2.4	15.4	5.0	.905	None
SBR73-4122	570.2-571.9	80528	4.2	2.0	91.4	2.4	11.0	4.8	.911	None
SBR73-4123	571.9-572.9	80529	2.2	1.5	95.1	1.2	5.8	3.6	.913	None
SBR73-4124	572.9-574.2	80530	4.0	2.6	91.6	1.8	10.4	6.2	.918	None
SBR73-4125	574.2-575.4	80531	2.2	1.3	94.6	1.9	5.8	3.1	.914	None
SBR73-4126	575.4-576.5	80532	.8	.5	97.5	1.2	2.1a	1.2	None	None
SBR73-4127	576.5-577.5	80533	6.4	1.6	89.8	2.2	16.8	3.8	.910	None
SBR73-4128	577.5-578.5	80534	9.2	2.0	86.0	2.8	24.4	4.8	.904	None
SBR73-4129	578.5-579.8	80535	11.2	2.4	83.3	3.1	29.8	5.8	.900	None
SBR73-4130	579.8-581.0	80536	11.1	2.2	83.5	3.2	29.6	5.3	.899	None
SBR73-4131	581.0-582.2	80537	6.2	2.1	89.1	2.6	16.4	5.0	.906	None
SBR73-4132	582.2-583.0	80538	2.0	2.0	94.8	1.2	5.2	4.8	.921	None
SBR73-4133	583.0-584.5	80539	7.6	2.4	87.6	2.4	20.0	5.8	.910	None

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
Laramie	Their		Weight percent		Gal per ton			Tendency to		
			Oil	Water	Spent shale	Gas + loss	Oil ^{1/}	Water	coke	
SBR73-4134	584.5-585.5	80540	10.8	2.6	83.7	2.9	28.4	6.2	None	
SBR73-4135	585.5-586.5	80541	6.9	2.3	88.5	2.3	18.2	5.5	None	
SBR73-4136	586.5-587.7	80542	2.1	1.6	95.1	1.2	5.5	3.8	None	
SBR73-4137	587.7-588.2	80543	3.6	1.7	92.8	1.9	9.4	4.1	None	
SBR73-4138	588.2-589.2	80544	10.8	2.6	83.4	3.2	28.4	6.2	None	
SBR73-4139	589.2-590.2	80545	12.0	2.7	81.9	3.4	31.5	6.5	None	
SBR73-4140	590.2-591.2	80546	10.9	2.4	83.5	3.2	28.7	5.8	None	
SBR73-4141	591.2-592.4	80547	2.6	1.7	94.2	1.5	6.8	4.1	None	
SBR73-4142	592.4-593.4	80548	11.1	2.1	83.3	3.5	29.3	5.0	None	
SBR73-4143	593.4-594.7	80549	11.6	2.5	83.1	2.8	30.8	6.0	None	
SBR73-4144	594.7-596.0	80550	10.1	3.0	84.0	2.9	26.7	7.2	None	
SBR73-4145	596.0-597.6	80551	2.0	2.5	94.4	1.1	5.3	6.0	None	
SBR73-4146	597.6-598.3	80552	.7	.9	97.9	.5	1.8a	2.2	None	
SBR73-4147	598.3-599.3	80553	13.9	3.8	79.1	3.2	37.0	9.1	None	
SBR73-4148	599.3-600.4	80554	13.1	4.0	79.4	3.5	34.7	9.6	None	
SBR73-4149	600.4-601.4	80555	9.9	3.1	84.2	2.8	26.2	7.4	None	
SBR73-4150	601.4-603.2	80556	5.5	3.4	87.8	3.3	14.4	8.1	None	
SBR73-4151	603.2-604.3	80557	.7	2.3	96.2	.8	1.8a	5.5	None	
SBR73-4152	604.3-605.3	80558	.2	1.7	97.0	1.1	.5a	4.1	None	
SBR73-4153	605.3-606.8	80559	11.3	2.9	83.0	2.8	29.8	7.0	None	
SBR73-4154	606.8-607.8	80560	6.9	3.6	87.3	2.2	18.1	8.6	None	
SBR73-4155	607.8-609.5	80561	.4	2.8	96.3	.5	1.0a	6.7	None	
SBR73-4156	609.5-611.0	80562	.6	1.7	97.2	.5	1.6a	4.1	None	
SBR73-4157	611.0-613.0	80563	.2	1.4	97.9	.5	.5a	3.4	None	
SBR73-4158	613.0-614.6	80564	.7	1.4	97.3	.6	1.8a	3.4	None	
SBR73-4159	614.6-615.3	80565	7.3	2.2	88.8	1.7	19.1	5.3	None	
SBR73-4160	615.3-616.9	80566	1.7	1.7	95.9	.7	4.4a	4.1	None	
SBR73-4161	616.9-617.9	80567	9.6	2.9	85.1	2.4	25.6	7.0	None	
SBR73-4162	617.9-618.9	80568	1.6	2.4	95.1	.9	4.2a	5.8	None	
SBR73-4163	618.9-619.9	80569	1.0	3.1	95.3	.6	2.6a	7.4	None	

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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 coke				
Laramie	Their		Oil	Water			Spent shale	Gas + loss	Oil ^{1/}	Water
SBR73-4164	619.9-620.5	80570	0.9	1.3	97.3	0.5	2.3a	3.1		None
SBR73-4165	621.0-622.0	80571	3.9	2.5	92.3	1.3	10.3	6.0	0.905	None
SBR73-4166	622.0-623.0	80572	3.4	2.0	93.3	1.3	8.9	4.8	.911	None
SBR73-4167	623.0-623.7	80573	.7	1.6	97.3	.4	1.8a	3.8		None
SBR73-4168	623.7-624.8	80574	2.0	2.0	95.1	.9	5.3	4.8	.908	None
SBR73-4169	624.8-625.8	80575	6.0	2.2	89.9	1.9	15.7	5.3	.914	None
SBR73-4170	625.8-626.8	80576	2.7	2.0	93.9	1.4	7.1	4.8	.911	None
SBR73-4171	626.8-627.8	80577	1.4	1.8	96.1	.7	3.6a	4.3		None
SBR73-4172	627.8-628.8	80578	.8	1.2	97.4	.6	2.1a	2.9		None
SBR73-4173	628.8-629.8	80579	1.7	1.3	95.6	1.4	4.4a	3.1		None
SBR73-4174	629.8-630.9	80580	.0	2.6	96.7	.7	Trace	6.2		None
SBR73-4175	630.9-632.7	80581	4.4	2.0	92.0	1.6	11.5	4.8	.913	None
SBR73-4176	632.7-633.7	80582	4.2	2.3	91.9	1.6	11.1	5.5	.910	None
SBR73-4177	633.7-635.7	80583	2.2	2.0	95.0	.8	5.8	4.8	.909	None
SBR73-4178	635.7-637.0	80584	9.1	2.5	85.7	2.7	24.2	6.0	.903	None
SBR73-4179	637.0-638.0	80585	2.2	1.8	94.6	1.4	5.8	4.3	.908	None
SBR73-4180	638.0-640.0	80586	1.2	1.3	96.6	.9	3.1a	3.1		None
SBR73-4181	640.0-641.9	80587	2.5	2.1	94.4	1.0	6.6	5.0	.906	None
SBR73-4182	641.9-642.7	80588	2.2	2.6	94.2	1.0	5.8	6.2	.907	None
SBR73-4183	642.7-643.6	80589	.8	2.0	96.6	.6	2.1a	4.8		None
SBR73-4184	643.6-644.8	80590	.0	4.8	94.7	.5	Trace	11.5		None
SBR73-4185	645.0-645.6	80591	3.6	1.9	92.5	2.0	9.6	4.6	.903	None
SBR73-4186	645.6-646.4	80592	1.3	1.2	96.6	.9	3.4a	2.9		None
SBR73-4187	646.4-647.6	80593	3.5	2.5	92.4	1.6	9.2	6.0	.908	None
SBR73-4188	647.6-649.0	80594	3.2	2.8	92.6	1.4	8.4	6.7	.908	None
SBR73-4189	649.0-650.5	80595	3.2	3.0	92.6	1.2	8.4	7.2	.907	None
SBR73-4190	650.5-652.4	80596	1.0	1.7	96.4	.9	2.6a	4.1		None
SBR73-4191	652.4-653.1	80597	9.0	2.5	86.4	2.1	23.5	6.0	.917	None
SBR73-4192	653.1-653.7	80598	1.0	1.9	96.1	1.0	2.6a	4.6		None
SBR73-4193	653.7-655.0	80599	3.4	2.2	92.8	1.6	8.9	5.3	.919	None

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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	
SBR73-4194	655.0-656.2	80600	0.0	2.8	97.0	0.2	Trace	6.7	None	
SBR73-4195	656.2-657.0	80601	1.9	2.5	94.6	1.0	5.0	6.0	0.913	None
SBR73-4196	657.0-658.9	80602	.0	2.3	97.1	.6	Trace	5.5	None	
SBR73-4197	658.9-660.8	80603	.0	2.7	96.9	.4	Trace	6.5	None	
SBR73-4198	660.8-661.3	80604	9.8	2.5	85.3	2.4	25.5	6.0	.920	None
SBR73-4199	661.3-662.1	80605	4.1	2.6	91.6	1.7	10.8	6.2	.914	None
SBR73-4200	662.1-662.6	80606	2.9	2.1	93.2	1.8	7.6	5.0	.911	None
SBR73-4201	662.6-663.8	80607	2.6	1.6	94.6	1.2	6.8	3.8	.910	None
SBR73-4202	663.8-664.7	80608	1.5	.9	96.8	.8	3.9a	2.2	None	
SBR73-4203	664.7-665.8	80609	4.3	2.7	91.3	1.7	11.3	6.5	.913	None
SBR73-4204	665.8-666.8	80510	.0	2.8	96.3	.9	Trace	6.7	None	
SBR73-4205	666.8-668.8	80611	.0	1.8	97.5	.7	Trace	4.3	None	
SBR73-4206	668.9-670.0	80612	.0	1.4	98.1	.5	Trace	3.4	None	
SBR73-4207	670.0-675.0	80613	.0	1.6	97.7	.7	Trace	3.8	None	
SBR73-4208	675.0-680.0	80614	.0	1.9	97.7	.4	No oil	4.6	None	
SBR73-4209	680.0-685.0	80615	.0	2.2	97.3	.5	Trace	5.3	None	
SBR73-4210	685.0-690.0	80616	.0	2.6	96.9	.5	Trace	6.2	None	
SBR73-4211	690.0-695.0	80617	.0	2.7	96.8	.5	Trace	6.5	None	
SBR73-4212	695.0-697.0	80618	.0	3.2	96.4	.4	Trace	7.7	None	
SBR73-4213	697.0-698.8	80619	.0	3.1	96.5	.4	Trace	7.4	None	
SBR73-4214	698.8-700.2	80620	.0	3.2	96.6	.2	Trace	7.7	None	
SBR73-4215	700.2-701.4	80621	.7	2.6	96.0	.7	1.8a	6.2	None	
SBR73-4216	701.4-702.4	80622	1.6	3.0	94.6	.8	4.2a	7.2	None	
SBR73-4217	702.4-703.7	80623	1.3	2.3	95.7	.7	3.4a	5.5	None	
SBR73-4218	703.7-705.1	80624	2.5	1.6	94.7	1.2	6.6	3.8	.908	None
SBR73-4219	705.1-706.4	80625	1.1	1.9	96.5	.5	2.9a	4.6	None	
SBR73-4220	706.4-707.2	80626	3.7	1.8	93.4	1.1	9.8	4.3	.902	None
SBR73-4221	707.2-707.8	80627	1.6	.9	95.9	1.6	4.2a	2.2	None	
SBR73-4222	707.8-708.3	80628	2.1	2.3	93.8	1.8	5.6	5.5	.902	None
SBR73-4223	708.3-709.2	80629	.9	1.6	97.0	.5	2.3a	3.8	None	

See footnote at end of table.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from U.S. Bureau of Mines' Wyoming Corehole No. 3 (con.)

Surface elevation 6,639 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 ^{1/}	Water		
SBR73-4224	709.2-709.8	80630	2.5	1.4	94.9	1.2	6.6	3.4	0.914	None
SBR73-4225	709.8-710.9	80631	1.1	1.8	96.3	.8	2.9a	4.3		None
SBR73-4226	710.9-712.0	80632	3.9	2.5	92.0	1.6	10.2	6.0	.912	None
SBR73-4227	712.0-712.8	80633	1.6	.9	96.4	1.1	4.2a	2.2		None
SBR73-4228	712.8-713.6	80634	5.3	1.7	89.2	3.8	13.9	4.1	.911	None
SBR73-4229	713.6-716.2	80635	.0	1.4	98.0	.6	No oil	3.4		None
SBR73-4230	717.0-723.0	80636	.0	1.8	97.9	.3	No oil	4.3		None
SBR73-4231	723.0-730.0	80637	.0	3.1	96.5	.4	No oil	7.4		None
SBR73-4232	730.0-740.0	80638	.0	1.5	97.9	.6	No oil	3.6		None
	740.0-799.2		Barren rock--not sampled							

^{1/} "a"--indicates specific gravity estimated as 0.92.^{2/} Oil yields from 100 to 250 and from 280 to 360 estimated by rapid test-tube method.

Drill cutting and core samples received September 20, 1971; Assays made on air-dried samples

Laramie Energy Research Center, Laramie, Wyoming, Illustration No. SBR-4515P Sheet No. 11 of 11 sheets

April 6, 1973