

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 drilled in the SW1/4NE1/4  
(2,111 feet S/N, 2,131 feet W/E) of sec 20, T 14 N, R 108 W, Sweetwater County, Wyoming

Surface elevation 6,224 feet

Sample number		Run No.	Yield of product				Specific gravity		Properties of spent shale Tendency to coke	Remarks
			Weight percent		Spent shale	Gas + loss	Gal per ton			
Laramie	Their		Oil	Water					Oil <sup>1/</sup>	Water
SBR74-9198-9223	30-290						No oil			
SBR74-9224	290-300	94306	0.5	3.1	95.4	1.0	1.3a	7.4	None	
SBR74-9225	310-320	94307	6.5	3.2	88.3	2.0	16.7	7.7	0.930	
SBR74-9226	320-330	94308	1.8	2.7	94.1	1.4	4.7a	6.5	None	
SBR74-9227	330-340	94310	3.0	4.2	91.9	.9	7.9	10.1	.908	
SBR74-9228	340-350	94311	2.8	4.2	91.8	1.2	7.3	10.1	.908	
SBR74-9229	350-360	94312	1.9	4.0	93.1	1.0	5.0a	9.6	None	
SBR74-9230	360-370	94313	1.5	4.0	93.7	.8	3.8a	9.6	None	
SBR74-9231	370-380	94314	1.4	3.2	94.6	.8	3.6a	7.7	None	
SBR74-9232	380-390	94315	1.3	3.2	94.6	.9	3.4a	7.7	None	
SBR74-9233	390-400	94316	1.5	2.6	95.2	.7	4.0a	6.2	None	
SBR74-9234	400-410	94317	1.2	2.8	95.3	.7	3.2a	6.7	None	
SBR74-9235	410-420	94318	1.9	3.0	94.3	.8	4.9a	7.2	None	
SBR74-9236	420-430	94319	1.4	2.9	94.9	.8	3.5a	7.0	None	
SBR74-9237	430-440	94320	1.6	2.9	94.8	.7	4.1a	7.0	None	
SBR74-9238	440-450	94321	1.9	2.7	94.7	.7	5.0a	6.5	None	
SBR74-9239	450-460	94322	1.4	3.0	94.8	.8	3.5a	7.2	None	
SBR74-9240	460-470	94323	1.5	2.7	93.6	2.2	3.9a	6.5	None	
SBR74-9241	470-480	94324	1.1	2.1	96.2	.6	2.9a	5.0	None	
SBR74-9242	480-490	04325	1.2	1.9	96.2	.7	3.1a	4.6	None	
SBR74-9243	490-500	94326	1.0	1.8	96.4	.8	2.7a	4.3	None	
SBR74-9244	510-520	94327	.7	1.9	96.8	.6	1.8a	4.6	None	
SBR74-9245	520-530	94328	.4	1.9	96.8	.9	.9a	4.6	None	
SBR74-9246	530-540	94329	.3	1.7	97.1	.9	.7a	4.1	None	
SBR74-9247	540-550	94330	.2	1.8	96.9	1.1	.5a	4.3	None	
SBR74-9248	550-560	94331	4.5	2.0	91.8	1.7	11.8	4.8	.911	
SBR74-9249	560-570	94332	4.5	1.8	91.7	2.0	12.1	4.3	.899	
SBR74-9250	570-580	94333	4.3	2.1	91.8	1.8	11.5	5.0	.906	
SBR74-9251	580-590	94334	.2	1.7	97.6	.5	.5a	4.1	None	
SBR74-9252	590-600						b			

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 (con.)

Surface elevation 6,224 feet

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		
Laramie	Their		Oil	Water					Oil <sup>1/</sup>	Water
SBR74-9253	600-610						c			
SBR74-9254	610-620						Trace			
SBR74-9255	620-630						No oil			
SBR74-9256	630-640						Trace			
SBR74-9257-9	640-670						c			
SBR74-9260	670-680	94335	0.7	3.4	95.4	0.5	1.9a	8.1		None
SBR74-9261	680-690	94336	.4	3.6	95.5	.5	1.1a	8.6		None
SBR74-9262	690-700	94337	2.8	3.0	93.1	1.1	7.5	7.2	0.901	None
SBR74-9263	700-710	94338	3.7	1.7	93.5	1.1	9.8	4.1	.914	None
SBR74-9264	710-720	94339	4.9	1.6	91.9	1.6	13.0	3.8	.905	None
SBR74-9265	720-730	94340	3.3	1.2	94.1	1.4	8.7	2.9	.916	None
SBR74-9266	730-740	94341	3.0	1.5	94.3	1.2	8.0	3.6	.907	None
SBR74-9267	740-750	94342	7.1	1.8	88.9	2.2	18.6	4.3	.922	None
SBR74-9268	750-760	94343	7.3	2.1	88.2	2.4	18.8	5.0	.923	None
SBR74-9269	760-770	94344	7.0	1.7	88.7	2.6	18.2	4.1	.921	None
SBR74-9270	770-780	94345	6.5	2.2	89.3	2.0	17.0	5.3	.920	None
SBR74-9271	780-790	94346	6.5	2.0	89.5	2.0	17.0	4.8	.920	None
SBR74-9272	790-800	94347	7.2	2.0	88.3	2.5	18.6	4.8	.925	None
SBR74-9273	800-810	94348	6.1	2.0	89.6	2.3	15.7	4.8	.925	None
SBR74-9274	810-820	94349	6.6	2.2	89.0	2.2	17.0	5.3	.926	None
SBR74-9275	820-830	94350	6.2	2.0	89.6	2.2	16.1	4.8	.921	None
SBR74-9276	830-840	94351	6.0	2.2	89.8	2.0	15.6	5.3	.919	None
SBR74-9277	840-850	94352	6.2	2.1	89.5	2.2	16.1	5.0	.921	None
SBR74-9278	850-860	94353	5.9	1.9	90.2	2.0	15.5	4.6	.917	None
SBR74-9279	860-870	94354	4.5	1.8	92.0	1.7	11.9	4.3	.914	None
SBR74-9280	870-880	94355	4.5	2.0	91.7	1.8	11.8	4.8	.915	None
SBR74-9281	880-890	94356	4.2	1.7	92.2	1.9	11.2	4.1	.912	None
SBR74-9282	890-900	94357	4.7	1.6	91.7	2.0	12.2	3.7	.918	None
SBR74-9283	900-910	94358	4.7	2.0	91.4	1.9	12.4	4.9	.910	None
SBR74-9284	910-920	94359	4.4	1.6	92.0	2.0	11.6	3.8	.914	None

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 (con.)

Surface elevation 6,224 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 <sup>1/</sup>	Water	coke	
SBR74-9285	920- 930	94360	3.8	1.8	92.5	1.9	9.9	4.3	0.919	None
SBR74-9286	930- 940	94361	3.8	1.3	92.9	2.0	10.0a	3.1		None
SBR74-9287	940- 950	94362	3.6	1.5	93.3	1.6	9.4	3.6	.909	None
SBR74-9288	950- 960	94363	3.3	1.1	94.2	1.4	8.7	2.6	.905	None
SBR74-9289	960- 970	94364	2.7	1.0	95.1	1.2	7.2	2.4	.918	None
SBR74-9290	970- 980	94365	3.2	1.2	94.3	1.3	8.5	2.9	.909	None
SBR74-9291	980- 990	94366	2.8	1.1	95.1	1.0	7.5	2.6	.909	None
SBR74-9292	990-1000	94367	2.7	.9	95.3	1.1	7.0	2.2	.908	None
SBR74-9293	1000-1010	94368	2.8	1.0	95.1	1.1	7.4	2.4	.904	None
SBR74-9294	1010-1020	94369	2.8	1.2	95.0	1.0	7.2	2.9		None
SBR74-9295	1020-1030	94370	2.5	1.0	95.2	1.3	6.5	2.4	.908	None
SBR74-9296	1030-1040	94371	2.7	1.2	94.9	1.2	7.2	2.9	.905	None
SBR74-9297	1040-1050	94372	2.8	1.2	94.8	1.2	7.5	2.9	.906	None
SBR74-9298	1050-1060	94373	2.3	1.5	95.0	1.2	6.1	3.6	.908	None
SBR74-9299	1060-1070	94374	2.8	1.4	94.5	1.3	7.5	3.4	.907	None
SBR74-9300	1070-1080	94375	2.5	1.5	94.7	1.3	6.7	3.6	.905	None
SBR74-9301	1080-1090	94376	1.4	1.6	95.9	1.1	3.5a	3.8		None
SBR74-9302	1090-1100	94377	1.1	1.7	96.2	1.0	2.9a	4.1		None
SBR74-9303	1100-1110	94378	1.0	1.7	96.3	1.0	2.7a	4.1		None
SBR74-9304	1110-1120	94379	1.2	1.7	96.0	1.1	3.2a	4.1		None
SBR74-9305	1120-1130	94380	1.1	1.4	96.4	1.1	2.9a	3.4		None
SBR74-9306	1130-1140	94381	1.3	1.7	96.2	.8	3.4a	4.1		None
SBR74-9307	1140-1150	94382	2.4	1.5	95.3	.8	6.3	3.6	.912	None
SBR74-9308	1150-1160	94383	1.7	1.2	95.9	1.2	4.3a	2.9		None
SBR74-9309	1160-1170	94384	1.9	1.5	95.7	.9	5.0a	3.6		None
SBR74-9310	1170-1180	94385	2.3	1.2	95.4	1.1	6.2	2.9	.909	None
SBR74-9311	1180-1190	94386	1.6	1.1	96.6	.7	4.2a	2.6		None
SBR74-9312	1200-1210	94387	.9	.6	98.1	.4	2.4a	1.4		None
SBR74-9313	1210-1220	94388	1.8	.7	96.9	.6	4.8a	1.7		None
SBR74-9314	1220-1230	94389	1.5	.8	97.1	.6	4.0a	1.8		None

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

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Surface elevation 6,224 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 <sup>1/</sup>	Water	coke	
SBR74-9315	1230-1240	94390	1.6	0.7	96.8	0.9	4.2a	1.6	None	
SBR74-9316	1240-1250	94391	1.4	.6	97.4	.6	3.6a	1.4	None	
SBR74-9317	1250-1260	94392	.3	.0	98.2	1.5	.7a	.0	None	
SBR74-9318	1260-1270	94393	2.2	.9	95.9	1.0	5.8a	2.2	None	
SBR74-9319	1270-1280	94394	2.3	1.0	95.7	1.0	6.2	2.4	0.910	None
SBR74-9320	1280-1290	94395	4.9	.6	92.7	1.8	12.8	1.6	.912	None
SBR74-9321	1290-1300	94396	4.5	.7	92.7	2.1	11.8	1.7	.913	None
SBR74-9322	1300-1310	94397	2.4	.9	95.6	1.1	6.3	2.2	.910	None
SBR74-9323	1310-1320	94398	2.1	1.1	95.7	1.1	5.4	2.6	.913	None
SBR74-9324	1320-1330	94399	1.9	.8	96.0	1.3	4.8a	2.0	None	None
SBR74-9325	1330-1340	94400	1.9	.8	96.0	1.3	5.0a	1.9	None	None
SBR74-9326	1340-1350	94401	1.9	.9	96.3	.9	5.0a	2.2	None	None
SBR74-9327	1350-1360	94402	.1	1.3	97.9	.7	.3a	3.1	None	None
SBR74-9328	1360-1370	94403	.6	.8	97.6	1.0	1.7a	1.9	None	None
SBR74-9329	1370-1380	94404	.6	.7	97.6	1.1	1.5a	1.7	None	None
SBR74-9330	1380-1390	94405	.5	1.1	97.7	.7	1.2a	2.6	None	None
SBR74-9331	1390-1400	94406	.5	.8	98.0	.7	1.4a	1.9	None	None
SBR74-9332	1400-1410	94407	.5	1.0	97.5	1.0	1.3a	2.4	None	None
SBR74-9333	1410-1420	94408	.6	1.1	97.4	.9	1.6a	2.6	None	None
SBR74-9334	1420-1430	94409	1.2	1.3	96.3	1.2	3.2a	3.1	None	None
SBR74-9335	1430-1440	94410	1.8	1.4	95.6	1.2	4.6a	3.4	None	None
SBR74-9336	1440-1450	94411	1.8	1.3	95.3	1.6	4.6a	3.1	None	None
SBR74-9337	1450-1460	94412	1.2	.9	96.6	1.3	3.2a	2.2	None	None
SBR74-9338	1460-1470	94413	1.1	1.0	96.9	1.0	2.8a	2.4	None	None
SBR74-9339	1470-1480	94414	1.1	1.0	96.9	1.0	2.9a	2.4	None	None
SBR74-9340	1480-1490	94415	.6	1.0	97.6	.8	1.5a	2.4	None	None
SBR74-9341	1490-1500	94416	.6	.7	97.7	1.0	1.5a	1.8	None	None
SBR74-9342	1500-1510	94417	1.3	.8	97.1	.8	3.3a	1.9	None	None
SBR74-9343	1510-1520	94418	1.0	1.9	96.7	.4	2.5a	4.6	None	None
SBR74-9344	1520-1530	94419	1.2	1.5	96.6	.7	3.1a	3.6	None	None

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 (con.)

Surface elevation 6,224 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 <sup>1/</sup>	Water	coke	
SBR74-9345	1530-1540	94420	1.2	1.5	95.4	1.9	3.1a	3.6	None	
SBR74-9346	1540-1550	94421	1.1	1.3	96.6	1.0	2.8a	3.1	None	
SBR74-9347	1550-1560	94422	.3	2.0	97.1	.6	.9a	4.8	None	
SBR74-9348	1560-1570	94423	2.4	1.0	95.0	1.6	6.3	2.4	0.923	None
SBR74-9349	1570-1580	94424	.6	1.6	96.5	1.3	1.5a	3.8	None	
SBR74-9350	1580-1590	94425	.1	.5	98.8	.6	.2a	1.2	None	
SBR74-9351	1590-1600	94426	2.0	1.2	95.3	1.5	5.1	2.9	.919	None
SBR74-9352	1600-1610	94427	.8	1.2	96.7	1.3	2.1a	2.9	None	
SBR74-9353	1610-1620	94428	.1	1.8	96.9	1.2	.3a	4.3	None	
SBR74-9354	1620-1630	94429	.5	1.8	96.6	1.1	1.2a	4.3	None	
SBR74-9355	1630-1640	94430	.6	.0	90.6	8.8	1.6a	.0	None	
SBR74-9356	1640-1650	94431	.2	1.9	96.9	1.0	.5a	4.6	None	
SBR74-9357	1650-1660	94432	.6	1.0	96.9	1.5	1.5a	2.5	None	
SBR74-9358	1660-1670	94433	1.5	1.0	96.6	.9	3.8a	2.4	None	
SBR74-9359	1670-1680	94434	1.4	1.0	96.1	1.5	3.7a	2.4	None	
SBR74-9360	1680-1690	94435	1.6	.8	95.9	1.7	4.3a	1.8	None	
SBR74-9361	1690-1700	94436	.9	.6	97.6	.9	2.4a	1.3	None	
SBR74-9362	1700-1710	94437	.8	.7	97.8	.7	2.2a	1.7	None	
SBR74-9363	1710-1720	94438	.9	.6	97.8	.7	2.3a	1.4	None	
SBR74-9364	1720-1730	94439	.2	.2	99.0	.6	.6a	.5	None	
SBR74-9365	1730-1740	94440	.6	.4	96.6	2.4	1.7a	.8	None	
SBR74-9366	1740-1750	94441	2.3	.5	96.3	.9	5.9	1.3	.908	None
SBR74-9367	1750-1760	94442	2.1	.7	96.3	.9	5.4	1.7	.907	None
SBR74-9368	1760-1770	94443	4.8	.7	92.4	2.1	12.6	1.9	.904	None
SBR74-9369	1770-1780	94444	4.6	.8	91.9	2.7	12.2	1.9	.906	None
SBR74-9370	1780-1790	94445	4.7	.8	92.6	1.9	12.5	1.8	.904	None
SBR74-9371	1790-1800	94446	1.7	.7	96.2	1.4	4.5a	1.7	None	
SBR74-9372	1800-1810	94447	1.9	.7	95.5	1.9	5.0a	1.7	None	
SBR74-9373	1810-1820	94448	1.7	.4	97.4	.5	4.4a	1.0	None	
SBR74-9374	1820-1830	94449	3.8	.7	94.5	1.0	10.0	1.8	.905	None

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 (con.)

Surface elevation 6,224 feet

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 <sup>1/</sup>	Water
SBR74-9375	1830-1840	94450	3.5	0.5	94.9	1.1	9.1	1.3	0.909	None	
SBR74-9376	1840-1850	94451	3.9	.7	94.5	.9	10.4	1.7	.906	None	
SBR74-9377	1850-1860	94452	.3	.5	98.6	.6	.8a	1.2		None	
SBR74-9378	1860-1870	94453	.4	.8	98.4	.4	1.0a	1.9		None	
SBR74-9379	1870-1880	94454	.4	.8	97.9	.9	1.0a	1.9		None	
SBR74-9380	1880-1890	94455	1.4	.9	96.4	1.3	3.7a	2.2		None	
SBR74-9381	1890-1900	94456	1.4	.9	96.4	1.3	3.7a	2.2		None	
SBR74-9382	1900-1910	94457	1.3	.9	96.8	1.0	3.4a	2.2		None	
SBR74-9383	1910-1920	94458	1.4	1.0	96.5	1.1	3.7a	2.3		None	
SBR74-9384	1920-1930	94459	1.8	.9	96.1	1.2	4.6a	2.2		None	
SBR74-9385	1930-1940	94460	1.1	.8	96.8	1.3	2.9a	1.9		None	
SBR74-9386	1940-1950	94461	.3	.4	99.1	.2	.8a	1.0		None	
SBR74-9387	1950-1960	94462	1.3	.7	97.1	.9	3.4a	1.8		None	
SBR74-9388	1960-1970	94463	.2	.1	99.6	.1	.4a	.2		None	
SBR74-9389	1970-1980	94464	.7	1.0	97.6	.7	1.9a	2.3		None	
SBR74-9390	1980-1990	94465	1.8	.5	96.8	.9	4.7a	1.2		None	
SBR74-9391	1990-2000	94466	1.0	.7	97.5	.8	2.6a	1.7		None	
SBR74-9392	2000-2010	94467	4.7	.9	92.2	2.2	12.5	2.2	.901	None	
SBR74-9393	2010-2020	94468	3.6	1.0	93.1	2.3	9.5	2.4	.903	None	
SBR74-9394	2020-2030	94469	3.3	.9	93.9	1.9	8.8	2.0	.904	None	
SBR74-9395	2030-2040	94470	2.9	1.1	94.4	1.6	7.6	2.6	.901	None	
SBR74-9396	2040-2050	94471	3.7	1.3	92.6	2.4	9.7	3.1	.900	None	
SBR74-9397	2050-2060	94472	1.8	1.3	95.0	1.9	4.8a	3.1		None	
SBR74-9398	2060-2070	94473	2.8	1.3	94.4	1.5	7.3a	3.1		None	
SBR74-9399	2070-2080	94474	3.3	1.1	93.8	1.8	8.7	2.6	.901	None	
SBR74-9400	2080-2090	94475	2.3	1.0	94.4	2.3	6.2	2.4	.896	None	
SBR74-9401	2090-2100	94476	2.1	1.0	95.2	1.7	5.6	2.4	.899	None	
SBR74-9402	2100-2110	94477	3.3	.8	94.6	1.3	8.8	1.9	.902	None	
SBR74-9403	2110-2120	94478	3.6	.6	94.2	1.6	9.5	1.4	.904	None	
SBR74-9404	2120-2130	94479	3.9	.8	93.8	1.5	10.3	1.9	.903	None	

See footnote at end of table.

Drill cutting samples received April 19, 1974; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Lone Star Producing Company's Currant Creek Federal Unit Well 1 (con.)

Surface elevation 6,224 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	
SBR74-9405	2130-2140	94480	2.6	0.6	95.0	1.8	7.0	1.4	0.908	None
SBR74-9406	2140-2150	94481	3.0	.7	95.0	1.3	7.8	1.8	.905	None
SBR74-9407	2150-2160	94482	4.0	.6	93.9	1.5	10.4	1.4	.913	None
SBR74-9408	2160-2170	94483	4.1	.6	93.6	1.7	10.6	1.6	.915	None
SBR74-9409	2170-2180	94484	4.1	.5	94.1	1.3	10.9	1.1	.909	None
SBR74-9410	2180-2190	94485	4.5	1.2	93.0	1.3	12.0	2.9	.906	None
SBR74-9411	2190-2200	94486	4.6	1.1	92.6	1.7	12.3	2.6	.907	None

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 April 19, 1974; assays made on air-dried samples