

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19 corehole drilled in the C SW1/4 of sec. 19, T 17 N, R 110 W, Sweetwater County, Wyoming

Kelly Bushing elevation: 6,404.5 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 ^{1/}	Water
SBR76-490	1900.0-1901.0	15160	0.2	1.4	96.8	1.6	0.5a	3.4	None	
SBR76-491	1901.0-1902.0	15161	.3	.7	97.4	1.6	.7a	1.7	None	
SBR76-492	1902.0-1903.0	15162	.1	1.9	97.1	.9	.2a	4.6	None	
SBR76-493	1903.0-1904.0	15163	.0	1.4	96.8	1.8	Trace	3.4	None	
SBR76-494	1904.0-1905.0	15164	.5	.5	97.7	1.3	1.2a	1.2	None	
SBR76-495	1905.0-1906.0	15165	4.6	.6	92.2	2.6	12.0	1.4	0.912	None
SBR76-496	1906.0-1907.0	15166	1.2	2.2	95.3	1.3	3.1a	5.3	None	
SBR76-497	1907.0-1908.0	15167	.2	.7	97.5	1.6	.5a	1.7	None	
SBR76-498	1908.0-1909.0	15168	.0	.1	98.0	1.9	No Oil	.2	None	
SBR76-499	1909.0-1910.0	15169	.0	.2	99.4	.4	No Oil	.4	None	
SBR76-500	1910.0-1911.0	15170	.0	.1	99.3	.6	No Oil	.3	None	
SBR76-501	1911.0-1912.0	15171	.0	.3	99.2	.5	No Oil	.8	None	
SBR76-502	1912.0-1913.0	15172	.0	.2	98.0	1.8	No Oil	.5	None	
SBR76-503	1913.0-1914.3	15173	.7	.1	97.3	1.9	1.7a	.2	None	
SBR76-504	1914.3-1915.4	15174	.0	.2	98.1	1.7	No Oil	.6	None	
SBR76-505	1915.4-1916.5	15175	.0	.1	98.0	1.9	No Oil	.1	None	
SBR76-506	1916.5-1917.6	15176	.0	.3	99.1	.6	No Oil	.6	None	
SBR76-507	1917.6-1918.7	15177	.0	.3	98.6	1.1	No Oil	.8	None	
SBR76-508	1918.7-1919.7	15178	.0	.3	99.1	.6	No Oil	.6	None	
SBR76-509	1919.7-1920.7	15179	.2	.2	97.2	2.4	.5a	.5	None	
SBR76-510	1920.7-1921.8	15180	.3	.5	97.9	1.3	.7a	1.2	None	
SBR76-511	1921.8-1922.8	15181	.6	.5	98.2	.7	1.6a	1.2	None	
SBR76-512	1922.8-1924.0	15182	.0	.1	99.7	.2	No Oil	.2	None	
SBR76-513	1924.0-1925.0	15183	.0	.3	99.4	.3	No Oil	.7	None	
SBR76-514	1925.0-1926.3	15184	.0	.1	98.9	1.0	No Oil	.2	None	
SBR76-515	1926.3-1927.3	15185	.2	.4	97.9	1.5	.6a	1.0	None	
SBR76-516	1927.3-1928.6	15186	.0	.3	98.2	1.5	No Oil	.6	None	
SBR76-517	1928.6-1929.6	15187	.0	.1	99.5	.4	No Oil	.2	None	
SBR76-518	1929.6-1930.8	15188	.0	.2	99.3	.5	No Oil	.5	None	
SBR76-519	1930.8-1931.9	15190	.4	.2	98.9	.5	1.2a	.5	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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
SBR76-520	1931.9-1933.0	15191	0.0	0.2	98.6	1.2	No Oil	0.6	None	
SBR76-521	1933.0-1934.0	15192	.0	.1	99.6	.3	No Oil	.2	None	
SBR76-522	1934.0-1935.0	15193	.0	.2	98.8	1.0	No Oil	.4	None	
SBR76-523	1935.0-1936.0	15194	.0	.0	99.8	.2	No Oil	.1	None	
SBR76-524	1936.0-1937.0	15195	.0	.1	99.8	.1	No Oil	.2	None	
SBR76-525	1937.0-1938.1	15196	.0	.1	99.0	.9	No Oil	.2	None	
SBR76-526	1938.1-1939.3	15197	.0	.1	98.2	1.7	No Oil	.3	None	
SBR76-527	1939.3-1940.4	15198	.0	.2	98.3	1.5	No Oil	.5	None	
SBR76-528	1940.4-1941.4	15199	1.1	.7	96.5	1.7	2.8a	1.7	None	
SBR76-529	1941.4-1942.5	15202	1.8	.4	96.6	1.2	4.8a	1.0	None	
SBR76-530	1942.5-1943.6	15203	1.7	.2	95.7	2.4	4.6a	.5	None	
SBR76-531	1943.6-1944.6	15204	2.8	.5	94.8	1.9	7.3	1.2	0.906	None
SBR76-532	1944.6-1946.0	15205	.5	.5	96.9	2.1	1.3a	1.2	None	
SBR76-533	1946.0-1947.0	15206	.0	.1	99.2	.7	No Oil	.3	None	
SBR76-534	1947.0-1948.0	15207	.3	.4	98.8	.5	.8a	1.0	None	
SBR76-535	1948.0-1949.0	15208	.5	.5	97.4	1.6	1.4a	1.2	None	
SBR76-536	1949.0-1950.0	15209	.2	.1	98.1	1.6	.6a	.2	None	
SBR76-537	1950.0-1951.0	15271	.0	.2	98.0	1.8	No Oil	.5	None	
SBR76-538	1951.0-1952.0	15211	.0	.4	98.2	1.4	No Oil	1.0	None	
SBR76-539	1952.0-1953.0	15212	.0	.3	98.4	1.3	No Oil	.8	None	
SBR76-540	1953.0-1954.0	15213	.0	.3	97.6	2.1	No Oil	.7	None	
SBR76-541	1954.0-1955.0	15214	.0	.3	98.8	.9	Trace	.8	None	
SBR76-542	1955.0-1956.0	15215	.2	.4	97.0	2.4	.6a	1.0	None	
SBR76-543	1956.0-1957.0	15216	.0	.2	97.8	2.0	Trace	.6	None	
SBR76-544	1957.0-1958.7	15217	.7	1.0	96.4	1.9	1.9a	2.4	None	
SBR76-546	1960.0-1960.5	15219	.7	.4	98.3	.6	1.7a	1.0	None	
SBR76-547	1960.5-1961.6	15220	3.6	.8	93.4	2.2	9.5	1.9	.902	None
SBR76-548	1961.6-1962.6	15221	3.2	.9	94.6	1.3	8.4	2.2	.907	None
SBR76-549	1962.6-1963.8	15222	1.1	1.4	92.5	5.0	3.0a	3.4	None	
SBR76-550	1963.8-1965.2	15223	.3	.4	96.8	2.5	.8a	1.1	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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 ^{1/}			Water				
SBR76-551	1965.2-1966.2	15224	5.5	1.5	90.8	2.2	14.6	3.6	0.908	None	
SBR76-552	1966.2-1967.7	15225	2.6	.9	94.7	1.8	6.8	2.2	.911	None	
SBR76-554	1967.7-1968.8	15227	1.6	1.0	93.7	3.7	4.2a	2.4		None	
SBR76-555	1968.8-1970.0	15228	.9	1.4	95.9	1.8	2.3a	3.4		None	
SBR76-556	1970.0-1971.1	15229	.4	1.0	97.9	.7	1.1a	2.4		None	
SBR76-557	1971.1-1972.2	15230	.2	1.0	97.9	.9	.5a	2.4		None	
SBR76-558	1972.2-1973.3	15231	.1	.9	98.5	.5	.3a	2.2		None	
SBR76-559	1973.3-1974.5	15232	.4	.2	97.6	1.8	1.0a	.5		None	
SBR76-560	1974.5-1975.7	15233	1.2	1.0	94.0	3.8	3.2a	2.4		None	
SBR76-561	1975.7-1976.2	15234	.8	.4	94.8	4.0	2.1a	1.0		None	
SBR76-562	1976.2-1977.6	15235	.9	1.7	96.4	1.0	2.4a	4.1		None	
SBR76-563	1977.6-1978.6	15236	.6	.1	98.7	.6	1.5a	.2		None	
SBR76-564	1978.6-1979.7	15237	.4	.1	98.1	1.4	1.1a	.2		None	
SBR76-565	1979.7-1980.8	15238	.3	.3	98.8	.6	.8a	.7		None	
SBR76-566	1980.8-1981.8	15239	.3	.3	97.3	2.1	.8a	.7		None	
SBR76-567	1981.8-1983.4	15240	.0	1.2	97.7	1.1	No Oil	2.9		None	Trona
SBR76-568	1983.4-1984.9	15241	.0	.3	97.9	1.8	Trace	.6		None	Trona
SBR76-569	1984.9-1986.0	15242	.6	.1	98.8	.5	1.5a	.2		None	
SBR76-570	1986.0-1987.0	15243	.6	.3	98.6	.5	1.4a	.7		None	
SBR76-571	1987.0-1988.1	15244	.5	.1	97.9	1.5	1.3a	.2		None	
SBR76-572	1988.1-1989.2	15245	.9	.6	97.6	.9	2.4a	1.4		None	
SBR76-573	1989.2-1990.3	15246	1.4	.4	93.3	4.9	3.7a	1.0		None	
SBR76-574	1990.3-1991.8	15247	.1	.3	97.7	1.9	.2a	.7		None	
SBR76-575	1991.8-1993.0	15248	1.0	.4	96.9	1.7	2.6a	1.0		None	
SBR76-576	1993.0-1994.2	15249	4.7	.7	92.3	2.3	12.3	1.7	.908	None	
SBR76-577	1994.2-1995.4	15250	.8	.5	97.7	1.0	2.1a	1.2		None	
SBR76-578	1995.4-1996.4	15251	5.2	.7	90.7	3.4	13.7	1.7	.914	None	
SBR76-579	1996.4-1997.5	15252	3.4	.8	94.1	1.7	9.0	1.9	.910	None	
SBR76-580	1997.5-1998.5	15253	3.6	.7	92.7	3.0	9.4	1.7	.911	None	
SBR76-581	1998.5-2000.2	15254	11.8	1.2	84.1	2.9	31.3	2.9	.902	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

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Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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	
SBR76-582	2000.2-2001.2	15255	3.0	0.8	94.8	1.4	8.0	1.9	None	
SBR76-583	2001.2-2002.4	15256	1.3	.9	96.1	1.7	3.3a	2.2	None	
SBR76-584	2002.4-2003.4	15257	.5	.5	95.9	3.1	1.4a	1.2	None	
SBR76-585	2003.4-2004.4	15258	1.0	.4	94.2	4.4	2.5a	1.0	None	
SBR76-586	2004.4-2005.6	15259	1.1	.3	96.9	1.7	2.9a	.7	None	
SBR76-587	2005.6-2006.8	15260	3.1	.4	95.1	1.4	8.3	1.0	.905	
SBR76-588	2006.8-2007.9	15262	2.1	.2	96.4	1.3	5.7	.5	.899	
SBR76-589	2007.9-2008.5	15263	17.7	1.2	75.9	5.2	46.8	2.9	.906	
SBR76-590	2008.5-2009.6	15264	3.2	.4	93.2	3.2	8.6	1.0	.905	
SBR76-591	2009.6-2011.0	15265	2.0	.9	95.6	1.5	5.4	2.2	.895	
SBR76-592	2011.0-2012.5	15266	3.9	.8	93.5	1.8	10.3	1.9	.903	
SBR76-593	2012.5-2013.3	15267	7.1	.6	89.8	2.5	18.9	1.4	.899	
SBR76-594	2013.3-2014.1	15268	8.7	.7	85.8	4.8	23.1	1.7	.898	
SBR76-595	2014.1-2015.1	15269	5.9	.7	90.7	2.7	15.7	1.7	.906	
SBR76-596	2015.1-2016.1	15270	3.0	.6	89.8	6.6	7.9	1.4	.907	
SBR76-597	2016.1-2017.2	15274	1.6	.6	96.7	1.1	4.3a	1.4	None	
SBR76-598	2017.2-2018.3	15275	.9	.2	93.8	5.1	2.2a	.5	None	
SBR76-599	2018.3-2019.6	15276	.7	.5	96.7	2.1	1.7a	1.2	None	Some rubble
SBR76-600	2019.6-2022.0	15277	.9	7.7	88.6	2.8	2.4a	18.5	None	Trona
SBR76-601	2022.0-2025.0	15278	.0	6.5	87.5	6.0	No Oil	15.6	None	Trona
SBR76-602	2025.0-2027.0	15279	.0	5.0	92.5	2.5	No Oil	12.0	None	Trona
SBR76-603	2030.0-2033.0	15280	.5	8.0	76.2	15.3	1.3a	19.2	None	Trona
SBR76-604	2033.0-2034.0	15281	7.4	1.3	88.1	3.2	19.7	3.1	.899	
SBR76-605	2034.0-2035.0	15282	7.0	.6	86.5	5.9	18.6	1.4	.895	
SBR76-606	2035.0-2036.3	15283	4.4	.6	93.2	1.8	11.7	1.4	.896	
SBR76-607	2036.3-2037.8	15284	5.7	.5	91.7	2.1	15.4	1.2	.895	
SBR76-608	2037.8-2039.0	15285	7.2	.5	89.4	2.9	19.3	1.2	.896	
SBR76-609	2039.0-2040.0	15286	8.7	.6	88.3	2.4	23.4	1.4	.889	
SBR76-610	2040.0-2041.2	15287	9.1	.9	86.6	3.4	24.5	2.1	.892	
SBR76-611	2041.2-2042.2	15288	4.1	.5	93.5	1.9	11.0	1.2	.895	

See footnote at end of table.

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Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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			
SBR76-612	2042.2-2043.4	15289	2.1	0.3	94.6	3.0	5.7	0.7	0.888	None	
SBR76-613	2043.4-2044.5	15290	2.0	.3	96.6	1.1	5.4	.8	.888	None	
SBR76-614	2044.5-2045.5	15291	2.5	.4	95.8	1.3	6.8	.9	.892	None	
SBR76-615	2045.5-2046.5	15292	11.3	.6	84.4	3.7	30.1	1.4	.902	None	
SBR76-616	2046.5-2047.5	15293	5.9	.7	89.7	3.7	15.5	1.7	.908	None	
SBR76-617	2047.5-2048.5	15294	2.7	.7	92.9	3.7	7.2	1.7	.898	None	
SBR76-618	2048.5-2049.5	15295	1.2	.7	96.7	1.4	3.1a	1.7		None	
SBR76-619	2049.5-2050.5	15296	.2	.3	98.5	1.0	.6a	.7		None	
SBR76-620	2050.5-2051.6	15297	.3	.3	98.5	.9	.7a	.7		None	
SBR76-621	2051.6-2052.6	15298	.4	.4	98.3	.9	1.0a	1.0		None	
SBR76-622	2052.6-2053.6	15299	.3	.3	97.0	2.4	.8a	.7		None	
SBR76-623	2053.6-2054.6	15300	.8	.4	94.9	3.9	2.2a	1.0		None	
SBR76-624	2054.6-2055.6	15301	1.4	.3	94.8	3.5	3.6a	.7		None	
SBR76-625	2055.6-2056.6	15302	4.8	.5	92.5	2.2	12.6	1.2	.907	None	
SBR76-626	2056.6-2058.1	15303	13.0	1.0	82.4	3.6	34.5	2.3	.904	None	
SBR76-627	2058.1-2059.1	15304	4.2	.3	93.4	2.1	11.1	.7	.909	None	
SBR76-628	2059.1-2060.5	15305	4.9	.3	93.0	1.8	13.0	.7	.903	None	
SBR76-629	2060.5-2061.7	15345	1.0	.3	97.5	1.2	2.5a	.7		None	
SBR76-630	2061.7-2063.0	15307	.8	.3	97.3	1.6	2.1a	.7		None	
SBR76-631	2063.0-2064.0	15308	.3	.2	98.1	1.4	.8a	.5		None	
SBR76-632	2064.0-2065.0	15309	.5	.6	96.8	2.1	1.3a	1.4		None	
SBR76-633	2065.0-2066.0	15310	1.1	1.7	93.9	3.3	2.8a	4.1		None	
SBR76-634	2066.0-2067.0	15311	1.5	1.1	90.7	6.7	4.0a	2.6		None	
SBR76-635	2067.0-2068.0	15312	.6	4.4	79.8	15.2	1.6a	10.5		None	Trona
SBR76-636	2068.0-2069.0	15313	.6	7.3	73.6	18.5	1.6a	17.5		None	Trona
SBR76-637	2069.0-2070.3	15314	6.1	1.7	90.1	2.1	16.3	4.1	.897	None	
SBR76-638	2070.3-2071.3	15315	10.3	.5	86.7	2.5	27.8	1.2	.893	None	
SBR76-639	2071.3-2072.3	15316	5.1	.3	91.5	3.1	13.4	.7	.906	None	
SBR76-640	2072.3-2073.3	15317	1.3	.2	96.4	2.1	3.5a	.5		None	
SBR76-641	2073.3-2074.3	15318	.8	.3	93.9	5.0	2.0a	.7		None	

See footnote at end of table.

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Kelly Bushing elevation: 6,404.5 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	
SBR76-642	2074.3-2075.3	15319	0.2	0.2	97.2	2.4	0.6a	0.5	None	
SBR76-643	2075.3-2076.3	15320	1.5	.4	96.4	1.7	4.0a	1.0	None	
SBR76-644	2076.3-2078.0	15321	.0	7.4	87.8	4.8	No Oil	17.6	None	Trona
SBR76-645	2078.0-2080.0	15322	.0	4.6	92.7	2.7	No Oil	11.0	None	Trona
SBR76-646	2080.0-2082.0	15323	.8	4.1	91.0	4.1	2.0a	9.8	None	Trona
SBR76-647	2082.0-2084.0	15324	.0	9.3	85.0	5.7	No Oil	22.3	None	Trona
SBR76-648	2084.0-2086.0	15325	1.9	10.2	77.5	10.4	5.0a	24.4	None	Trona
SBR76-649	2086.0-2087.0	15326	11.4	2.0	80.7	5.9	30.0	4.8	Slight	
SBR76-650	2087.0-2088.0	15327	5.9	3.4	82.3	8.4	15.6	8.1	0.908	
SBR76-651	2088.0-2089.0	15328	6.2	.4	90.5	2.9	16.5	1.0	.900	
SBR76-652	2089.0-2090.0	15329	7.0	2.4	83.3	7.3	18.5	5.8	.904	
SBR76-653	2090.0-2091.0	15330	5.9	3.7	76.4	14.0	15.4	8.9	.911	
SBR76-654	2091.0-2092.0	15331	10.5	2.0	81.6	5.9	27.9	4.8	.900	
SBR76-655	2092.0-2093.0	15332	10.1	4.0	74.7	11.2	27.0	9.6	.897	
SBR76-656	2093.0-2094.0	15333	12.7	1.8	77.9	7.6	33.9	4.3	.899	
SBR76-657	2094.0-2095.0	15334	12.8	.8	82.9	3.5	34.0	2.0	.900	
SBR76-658	2095.0-2096.0	15335	2.4	1.1	93.2	3.3	6.5	2.7	.892	
SBR76-659	2096.0-2097.0	15336	1.3	.7	94.3	3.7	3.4a	1.7	None	
SBR76-660	2097.0-2098.0	15337	.8	2.6	91.8	4.8	2.2a	6.2	None	
SBR76-661	2098.0-2099.2	15338	1.5	3.7	90.2	4.6	4.0a	8.9	None	
SBR76-662	2099.2-2100.5	15339	4.2	7.0	82.4	6.4	11.1	16.8	.904	
SBR76-663	2100.5-2101.7	15340	1.5	15.0	72.2	11.3	3.9a	36.0	None	Trona
SBR76-664	2101.7-2102.9	15341	.0	18.9	70.7	10.4	Trace	45.3	None	Trona
SBR76-665	2102.9-2104.4	15342	8.2	5.8	79.0	7.0	22.0	13.9	.898	
SBR76-666	2104.4-2105.6	15343	5.4	1.2	90.0	2.5	14.5	2.9	.898	
SBR76-667	2105.6-2106.6	15344	1.0	.9	96.4	1.7	2.6a	2.2	None	
SBR76-668	2106.6-2107.6	15346	.5	1.1	96.9	1.5	1.2a	2.6	None	
SBR76-669	2107.6-2108.6	15347	.2	.7	94.8	4.3	.6a	1.7	None	
SBR76-670	2108.6-2109.6	15348	.4	.8	95.0	3.8	1.1a	1.9	None	
SBR76-671	2109.6-2110.6	15349	.7	.9	95.0	3.4	2.0a	2.2	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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		
SBR76-672	2110.6-2111.3	15350	9.7	2.1	84.6	3.6	25.9	5.0	0.901	None	
SBR76-673	2111.3-2112.1	15351	4.6	2.2	90.8	2.4	12.1	5.3	.905	None	
SBR76-674	2112.1-2112.6	15352	3.2	6.0	86.6	4.2	8.4a	14.4		None	Tuff
SBR76-675	2112.6-2113.1	15353	10.2	1.3	81.7	6.8	27.3	3.1	.897	None	
SBR76-676	2113.1-2114.1	15354	6.1	.7	91.1	2.1	16.3	1.7	.901	None	
SBR76-677	2114.1-2115.2	15355	3.0	1.0	94.1	1.9	8.1	2.4	.903	None	
SBR76-678	2115.2-2116.3	15356	.5	.9	97.4	1.2	1.3a	2.2		None	
SBR76-679	2116.3-2117.5	15358	.3	.8	97.3	1.6	.8a	1.9		None	
SBR76-680	2117.5-2118.6	15359	.3	1.2	96.0	2.5	.9a	2.9		None	
SBR76-681	2118.6-2120.0	15360	.0	9.0	81.8	9.2	Trace	21.5		None	Trona?
SBR76-682	2120.0-2121.0	15361	.0	15.6	75.3	9.1	Trace	37.5		None	Trona?
SBR76-683	2121.0-2123.0	15362	.0	15.5	75.6	8.9	Trace	37.1		None	Trona?
SBR76-684	2123.0-2125.0	15363	1.2	13.0	77.7	8.1	3.2a	31.2		None	Trona?
SBR76-685	2125.0-2127.0	15364	.0	15.7	74.0	10.3	No Oil	37.6		None	Trona?
SBR76-686	2127.0-2129.0	15401	1.8	13.0	75.3	9.9	4.7a	31.2		None	Trona?
SBR76-687	2129.0-2130.0	15366	2.0	14.0	74.0	10.0	5.2a	33.6		None	Trona?
SBR76-688	2130.0-2131.0	15367	3.6	9.0	77.6	9.8	9.5	21.6	.909	None	Trona & Oil Shale
SBR76-689	2131.0-2132.0	15368	4.0	1.0	92.4	2.6	10.5	2.4	.904	None	
SBR76-690	2132.0-2133.0	15369	2.0	1.0	94.8	2.2	5.4	2.4	.902	None	
SBR76-691	2133.0-2134.0	15370	1.3	.6	97.4	.7	3.5a	1.3		None	
SBR76-692	2134.0-2135.0	15371	1.7	.4	93.7	4.2	4.3a	1.0		None	
SBR76-693	2135.0-2136.0	15376	3.3	.7	93.6	2.4	8.8	1.7	.897	None	
SBR76-694	2136.0-2137.0	15377	3.5	1.5	93.0	2.0	9.3	3.5	.901	None	
SBR76-695	2137.0-2138.0	15378	5.4	.8	91.6	2.2	14.3	1.9	.900	None	
SBR76-696	2138.0-2139.3	15379	5.2	1.1	91.3	2.4	14.0	2.5	.900	None	
SBR76-697	2139.3-2140.4	15380	3.4	.7	94.0	1.9	9.2	1.7	.901	None	
SBR76-698	2140.4-2141.4	15381	6.0	.7	90.3	3.0	16.0	1.7	.905	None	
SBR76-699	2141.4-2142.4	15382	4.5	.8	93.2	1.5	11.9	1.9	.905	None	
SBR76-700	2142.4-2143.5	15383	4.7	1.0	91.8	2.5	12.4	2.4	.909	None	
SBR76-701	2143.5-2144.5	15384	3.8	.7	90.4	5.1	10.1	1.7	.911	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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										
SBR76-702	2144.5-2145.5	15385	3.2	0.9	92.8	3.1	8.5	2.2	0.912	None	
SBR76-703	2145.5-2146.6	15386	5.7	1.0	90.8	2.5	15.0	2.4	.909	None	
SBR76-704	2146.6-2147.6	15387	6.2	1.0	90.5	2.3	16.4	2.4	.904	None	
SBR76-705	2147.6-2148.6	15388	4.8	.7	91.6	2.9	12.8	1.6	.903	None	
SBR76-706	2148.6-2149.7	15389	4.8	.8	89.7	4.7	12.8	1.9	.906	None	
SBR76-707	2149.7-2150.7	15390	2.4	.5	95.6	1.4	6.5	1.3	.904	None	
SBR76-708	2150.7-2151.8	15391	1.4	.7	96.6	1.3	3.6a	1.7		None	
SBR76-709	2151.8-2152.8	15392	1.0	.2	97.9	.9	2.5a	.5		None	
SBR76-710	2152.8-2153.8	15394	.9	1.1	96.9	1.1	2.2a	2.6		None	
SBR76-711	2153.8-2155.0	15395	.0	15.2	72.7	12.1	Trace	36.5		None	Trona
SBR76-712	2155.0-2157.0	15396	.9	12.0	76.9	10.2	2.5a	28.8		None	Trona
SBR76-713	2157.0-2159.0	15397	.0	15.6	72.6	11.8	Trace	37.5		None	Trona
SBR76-714	2159.0-2160.3	15398	.9	9.9	74.5	14.7	2.4a	23.7		None	Trona
SBR76-715	2160.3-2161.4	15399	3.7	.8	93.6	1.9	9.7	1.9	.903	None	
SBR76-716	2161.4-2162.6	15400	1.4	.5	96.2	1.9	3.8a	1.2		None	
SBR76-717	2162.6-2163.7	15406	1.6	.4	96.1	1.9	4.2a	1.0		None	
SBR76-718	2163.7-2164.7	15407	2.6	1.8	91.1	4.5	7.1	4.2	.896	None	
SBR76-719	2164.7-2165.8	15408	3.0	.4	89.5	7.1	8.0	1.0	.896	None	
SBR76-720	2165.8-2167.0	15409	3.1	.6	93.8	2.5	8.2	1.4	.905	None	
SBR76-721	2167.0-2168.1	15410	1.8	.2	97.0	1.0	4.6a	.5		None	
SBR76-722	2168.1-2169.2	15411	1.2	.1	97.9	.8	3.1a	.2		None	
SBR76-723	2170.5-2171.5	15412	.9	.1	96.5	2.5	2.4a	.1		None	
SBR76-724	2171.5-2172.7	15413	2.2	.3	96.1	1.4	5.8	.7	.895	None	
SBR76-725	2172.7-2174.0	15414	2.0	.0	96.8	1.2	5.3	.1	.888	None	
SBR76-726	2174.0-2175.0	15415	1.0	.1	95.8	3.1	2.7a	.3		None	
SBR76-727	2175.0-2176.0	15416	2.0	.5	95.6	1.9	5.3	1.2	.896	None	
SBR76-728	2176.0-2177.0	15417	1.7	.5	96.0	1.8	4.3a	1.2		None	
SBR76-729	2177.0-2178.0	15418	1.3	.6	96.8	1.3	3.5a	1.4		None	
SBR76-730	2178.0-2179.0	15419	1.4	.5	93.8	4.3	3.6a	1.2		None	
SBR76-731	2179.0-2180.0	15420	1.5	.5	91.9	6.1	4.0a	1.2		None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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	
SBR76-732	2180.0-2181.0	15421	1.5	0.5	96.7	1.3	4.0a	1.2	None	
SBR76-733	2181.0-2182.0	15422	.8	.2	97.8	1.2	2.2a	.5	None	
SBR76-734	2182.0-2183.0	15423	.8	.5	97.9	.8	2.0a	1.2	None	
SBR76-735	2183.0-2184.0	15424	.5	.5	97.5	1.5	1.3a	1.2	None	
SBR76-736	2184.0-2185.5	15425	1.0	.7	96.1	2.2	2.6a	1.7	None	
SBR76-737	2188.5-2190.0	15426	.8	.5	97.9	.8	2.1a	1.2	None	
SBR76-738	2190.0-2191.1	15427	.6	.5	97.9	1.0	1.7a	1.2	None	
SBR76-739	2191.1-2192.2	15428	.8	.4	98.0	.8	2.0a	1.0	None	
SBR76-740	2192.5-2193.6	15429	.0	3.7	93.3	3.0	No Oil	8.9	None	Halite
SBR76-741	2193.6-2194.8	15430	.0	5.2	88.7	6.1	No Oil	12.5	None	Halite and trona
SBR76-742	2194.8-2195.8	15431	2.2	3.0	94.6	.2	5.8a	7.2	None	
SBR76-743	2195.8-2197.0	15432	2.0	.6	92.1	5.3	5.1a	1.4	None	
SBR76-744	2197.0-2198.0	15433	1.2	.3	94.6	3.9	3.1a	.7	None	
SBR76-745	2198.0-2199.0	15434	.8	.3	98.3	.6	2.0a	.7	None	
SBR76-746	2199.0-2200.0	15435	.9	.3	98.0	.8	2.4a	.7	None	
SBR76-747	2200.0-2201.0	15436	.4	.2	98.2	1.2	1.1a	.5	None	
SBR76-748	2201.0-2202.0	15437	.9	.3	96.7	2.1	2.4a	.7	None	
SBR76-749	2202.0-2203.0	15438	.0	9.1	78.1	12.8	No Oil	21.7	None	Trona
SBR76-750	2203.0-2204.0	15442	.0	7.8	78.2	14.0	Trace	18.8	None	Trona
SBR76-751	2204.0-2205.2	15443	.0	10.1	73.7	16.2	Trace	24.2	None	Trona
SBR76-752	2205.2-2206.2	15444	3.2	.8	90.1	5.9	8.4	1.9	0.906	None
SBR76-753	2206.2-2207.2	15445	9.0	.9	84.7	5.4	23.8	2.2	.902	None
SBR76-754	2207.2-2208.2	15446	7.0	.5	90.0	2.5	18.7	1.3	.898	None
SBR76-755	2208.2-2209.2	15447	8.9	.7	87.6	2.8	23.8	1.7	.898	None
SBR76-756	2209.2-2210.2	15448	3.4	.7	93.6	2.3	9.0	1.7	.897	None
SBR76-757	2210.2-2211.2	15454	3.2	.7	93.6	2.5	8.5	1.8	.905	None
SBR76-758	2211.2-2212.2	15455	2.8	.7	94.6	1.9	7.5	1.7	.902	None
SBR76-759	2212.2-2213.2	15456	3.2	.8	94.6	1.4	8.6	1.9	.904	None
SBR76-760	2213.2-2214.2	15457	3.6	.8	93.8	1.8	9.6	1.9	.906	None
SBR76-761	2214.2-2215.2	15458	3.1	.7	94.7	1.5	8.3	1.8	.904	None

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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			
SBR76-762	2215.2-2216.2	15459	2.8	0.5	95.1	1.6	7.5	1.3	0.903	None	
SBR76-763	2216.2-2217.2	15460	5.0	.6	91.2	3.2	13.4	1.4	.902	None	
SBR76-764	2217.2-2218.2	15461	6.4	.6	90.7	2.3	17.2	1.4	.901	None	
SBR76-765	2218.2-2219.2	15462	5.2	.5	92.5	1.8	13.9	1.2	.904	None	
SBR76-766	2219.2-2219.7	15463	.4	.2	97.2	2.2	1.1a	.5		None	Tuff
SBR76-767	2219.7-2221.1	15464	6.8	.6	89.7	2.9	8.1	1.4	.898	None	
SBR76-768	2221.1-2222.4	15465	3.1	.5	93.6	2.8	8.2	1.2	.906	None	
SBR76-769	2222.4-2223.5	15466	3.0	.6	94.8	1.6	7.9	1.4	.907	None	
SBR76-770	2223.5-2224.5	15467	3.1	.4	91.5	5.0	8.1	1.0	.906	None	
SBR76-771	2224.5-2225.6	15468	4.0	.9	91.9	3.2	10.5	2.2	.906	None	
SBR76-772	2225.6-2227.0	15469	1.0	12.0	74.2	12.8	2.5a	28.8		None	Trona?
SBR76-773	2227.0-2228.0	15470	3.9	6.9	84.5	4.7	10.5	16.5	.897	None	
SBR76-774	2228.0-2229.1	15471	6.9	3.3	86.4	3.4	18.6	7.9	.890	None	
SBR76-775	2229.1-2230.2	15472	2.9	1.3	93.2	2.6	7.7	3.1	.895	None	
SBR76-776	2230.2-2231.2	15473	.4	9.0	86.0	4.6	.9a	21.6		None	
SBR76-777	2231.2-2232.4	15474	1.4	4.7	90.9	3.0	3.6a	11.3		None	
SBR76-778	2232.4-2233.5	15475	.0	16.5	74.0	9.5	Trace	39.5		None	Trona
SBR76-779	2233.5-2234.5	15476	.0	15.6	72.9	11.5	Trace	37.4		None	Trona
SBR76-780	2234.5-2235.3	15477	.6	9.4	82.9	7.1	1.6a	22.5		None	
SBR76-781	2235.6-2236.5	15478	.0	18.2	71.1	10.7	Trace	43.7		None	Trona
SBR76-782	2236.5-2237.4	15479	7.7	2.4	84.8	5.1	20.6	5.8	.897	None	
SBR76-783	2237.4-2238.7	15480	2.0	3.3	91.9	2.8	5.5	7.9	.894	None	
SBR76-784	2238.7-2240.0	15481	1.1	3.2	92.7	3.0	2.8a	7.7		None	
SBR76-785	2240.0-2241.0	15482	.0	16.1	75.2	8.7	Trace	38.7		None	Trona
SBR76-786	2241.0-2242.7	15483	.5	6.9	88.8	3.8	1.4a	16.5		None	
SBR76-787	2242.7-2244.0	15484	.0	16.8	79.2	4.0	No Oil	40.2		None	Trona
SBR76-788	2244.0-2245.3	15485	.0	16.8	69.4	13.8	No Oil	40.2		None	Trona
SBR76-789	2245.3-2245.8	15486	5.3	5.6	84.1	5.0	14.3	13.4	.887	None	
SBR76-790	2245.8-2246.6	15487	9.5	2.9	83.9	3.7	25.6	7.0	.885	None	
SBR76-791	2246.6-2247.9	15488	3.6	2.5	90.3	3.6	9.7	6.0	.890	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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	
SBR76-792	2247.9-2249.3	15489	1.4	1.6	94.9	2.1	3.5a	3.8	None	
SBR76-793	2249.3-2250.8	15490	.5	4.9	91.6	3.0	1.3a	11.7	None	
SBR76-794	2250.8-2253.0	15491	.0	14.4	75.2	10.4	Trace	34.4	None	Trona
SBR76-795	2253.0-2255.0	15492	.0	14.4	71.6	14.0	No Oil	34.6	None	Trona
SBR76-796	2255.0-2257.0	15493	.0	15.0	73.8	11.2	Trace	36.1	None	Trona
SBR76-797	2257.0-2259.0	15494	.0	13.3	71.8	14.9	Trace	31.9	None	Trona
SBR76-798	2259.0-2260.9	15495	.0	16.2	74.6	9.2	Trace	38.8	None	Trona
SBR76-799	2260.9-2261.9	15496	2.0	7.3	86.4	4.3	5.4	17.5	0.905	None
SBR76-800	2261.9-2263.0	15497	7.9	3.2	84.3	4.6	21.3	7.7	.888	None
SBR76-801	2263.0-2264.0	15549	6.1	4.5	85.1	4.3	16.6	10.8	.889	None
SBR76-802	2264.0-2265.0	15499	6.9	1.6	88.7	2.8	18.5	3.7	.889	None
SBR76-803	2268.0-2269.0	15500	5.6	2.3	88.8	3.3	15.0	5.5	.901	None
SBR76-804	2269.0-2270.0	15501	9.4	1.9	84.0	4.7	25.1	4.6	.896	None
SBR76-805	2270.0-2271.0	15502	11.7	1.6	83.7	3.0	31.6	3.8	.891	None
SBR76-806	2277.0-2277.8	15503	1.6	11.0	79.6	7.8	4.3a	26.4	None	Trona & marlstone
SBR76-807	2277.8-2278.8	15504	16.1	1.3	79.3	3.3	42.9	3.1	.897	None
SBR76-808	2278.8-2280.0	15505	7.6	2.5	86.8	3.1	20.3	6.0	.895	None
SBR76-809	2280.0-2281.0	15506	1.5	1.4	95.9	1.2	4.0a	3.4	None	
SBR76-810	2281.0-2282.0	15507	1.2	1.9	95.9	1.0	3.1a	4.6	None	
SBR76-811	2282.0-2283.0	15508	1.6	2.4	93.2	2.8	4.2a	5.8	None	
SBR76-812	2283.0-2284.3	15509	1.8	8.0	83.5	6.7	4.7a	19.2	None	Some trona
SBR76-813	2284.3-2285.3	15548	3.8	2.5	90.6	3.1	10.0	6.0	.914	None
SBR76-814	2285.3-2286.3	15511	2.9	10.0	77.5	9.6	7.5	24.0	.912	None
SBR76-815	2286.3-2287.3	15512	9.9	2.4	83.4	4.3	26.1	5.8	.906	None
SBR76-816	2287.3-2288.4	15513	5.9	1.9	88.1	4.1	15.5	4.6	.909	None
SBR76-817	2288.4-2289.0	15514	.9	1.2	96.7	1.2	2.4a	2.9	None	
SBR76-818	2292.0-2293.0	15515	.0	8.6	85.3	6.1	Trace	20.7	None	
SBR76-819	2293.0-2294.0	15516	.0	10.2	82.9	6.9	Trace	24.4	None	
SBR76-820	2294.0-2295.0	15517	.4	10.0	84.0	5.6	1.0a	24.0	None	
SBR76-821	2295.0-2296.0	15518	.0	10.3	83.0	6.7	Trace	24.6	None	

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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	
SBR76-822	2296.0-2297.6	15519	.0	13.8	67.7	18.5	No Oil	33.0	None	Trona
SBR76-823	2297.6-2299.1	15520	.0	13.4	69.1	17.5	No Oil	32.0	None	Trona
SBR76-824	2299.1-2300.4	15521	9.8	1.3	86.0	2.9	26.0	3.1	0.898	None
SBR76-825	2300.4-2301.8	15522	10.2	.8	82.7	6.3	27.1	1.9	.904	None
SBR76-826	2301.8-2303.0	15523	.8	.4	97.6	1.2	2.1a	1.0		None
SBR76-827	2303.0-2304.0	15524	.0	.7	97.1	2.2	Trace	1.7		None
SBR76-828	2304.0-2305.0	15525	.0	.5	97.3	2.2	Trace	1.1		None
SBR76-829	2305.0-2306.5	15526	.6	.5	98.2	.7	1.5a	1.3		None
SBR76-830	2306.5-2307.7	15527	2.8	.7	95.4	1.1	7.5	1.7	.899	None
SBR76-831	2307.7-2308.7	15528	5.8	1.2	91.2	1.8	15.5	2.9	.898	None
SBR76-832	2308.7-2310.2	15529	11.6	.9	84.8	2.7	30.9	2.3	.901	None
SBR76-833	2310.2-2311.2	15530	9.4	1.3	87.1	2.2	24.9	3.1	.901	None
SBR76-834	2311.2-2312.6	15531	6.0	.6	91.9	1.5	15.8	1.4	.906	None
SBR76-835	2312.6-2313.7	15532	2.0	.1	96.9	1.0	5.1a	.2		None
SBR76-836	2313.7-2314.7	15533	2.1	.2	95.6	2.1	5.6	.5	.914	None
SBR76-837	2314.7-2315.7	15534	5.0	.5	90.9	3.6	13.1	1.2	.908	None
SBR76-838	2315.7-2316.7	15535	2.3	.4	96.3	1.0	6.1	1.0	.908	None
SBR76-839	2316.7-2317.7	15536	3.6	.6	93.9	1.9	9.4	1.4	.909	None
SBR76-840	2317.7-2318.8	15537	7.6	.9	88.3	3.2	20.3	2.2	.903	None
SBR76-841	2318.8-2319.8	15538	4.7	1.0	91.6	2.7	12.2	2.4	.914	None
SBR76-842	2319.8-2321.4	15539	5.9	.9	90.2	3.0	15.7	2.2	.900	None
SBR76-843	2321.4-2322.5	15540	7.1	.9	89.9	2.1	19.2	2.2	.886	None
SBR76-844	2322.5-2323.7	15541	7.8	.5	89.6	2.1	21.1	1.2	.883	None
SBR76-845	2323.7-2324.9	15542	7.5	.7	89.9	1.9	20.2	1.7	.887	None
SBR76-846	2324.9-2326.0	15543	14.1	1.3	81.0	3.6	37.4	3.1	.903	None
SBR76-847	2326.0-2327.1	15544	11.7	.9	83.2	4.2	30.8	2.2	.914	None
SBR76-848	2327.1-2328.2	15545	7.8	.7	89.0	2.5	20.2	1.7	.922	None
SBR76-849	2328.2-2329.4	15546	10.6	1.0	84.8	3.6	27.8	2.4	.912	None
SBR76-850	2329.4-2330.5	15547	16.2	.8	78.3	4.7	42.8	1.9	.910	None
SBR76-851	2330.5-2331.5	15550	13.2	1.1	82.6	3.1	34.4	2.6	.919	None

See footnote at end of table.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America No. 2-19

Kelly Bushing elevation: 6,404.5 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				
SBR76-852	2331.5-2332.5	15551	11.5	0.9	84.8	2.8	29.6	2.2	0.932	None	
SBR76-853	2332.5-2333.5	15552	12.4	.6	84.3	2.7	32.7	1.4	.909	None	
SBR76-854	2333.5-2334.5	15553	13.9	.6	81.4	4.1	36.8	1.4	.904	None	
SBR76-855	2334.5-2335.5	15554	11.7	.7	85.1	2.5	30.8	1.7	.909	None	
SBR76-856	2335.5-2336.5	15555	10.9	.7	86.3	2.1	29.0	1.7	.900	None	
SBR76-857	2336.5-2337.5	15556	9.7	.5	86.9	2.9	25.5	1.2	.907	None	
SBR76-858	2337.5-2338.5	15557	11.0	.9	85.4	2.7	29.3	2.2	.904	None	
SBR76-859	2338.5-2339.5	15558	10.8	1.2	84.8	3.2	28.6	2.9	.904	None	
SBR76-860	2339.5-2340.5	15559	12.4	.9	81.9	4.8	32.7	2.2	.905	None	
SBR76-861	2340.5-2341.5	15560	7.7	1.5	88.9	1.9	20.6	3.6	.900	None	
SBR76-862	2341.5-2342.5	15561	10.0	.9	86.1	3.0	26.9	2.2	.893	None	
SBR76-863	2342.5-2343.5	15562	7.5	1.1	89.7	1.7	20.1	2.6	.895	None	
SBR76-864	2343.5-2344.7	15563	10.0	.8	85.3	3.9	26.4	1.9	.906	None	
SBR76-865	2344.7-2345.8	15564	11.7	1.6	83.6	3.1	30.8	3.8	.911	None	
SBR76-866	2345.8-2347.0	15565	8.9	2.4	86.8	1.9	23.7	5.8	.900	None	
SBR76-867	2347.0-2348.3	15566	6.9	.8	90.6	1.7	18.4	1.9	.903	None	
SBR76-868	2348.3-2349.3	15567	11.9	1.2	84.6	2.3	31.6	2.8	.902	None	
SBR76-869	2349.5-2350.5	15568	10.2	1.6	85.4	2.8	27.0	3.8	.907	None	
SBR76-870	2350.5-2351.5	15569	4.7	1.9	91.7	1.7	12.5	4.6	.901	None	
SBR76-871	2351.5-2352.8	15570	3.7	1.8	93.1	1.4	9.8	4.3	.909	None	
SBR76-872	2352.8-2353.8	15571	2.9	1.2	94.8	1.1	7.7	2.9	.897	None	
SBR76-873	2353.8-2355.3	15572	4.5	.9	92.8	1.8	12.0	2.2	.901	None	
SBR76-874	2355.3-2356.4	15573	5.6	1.1	90.9	2.4	14.7	2.6	.911	None	

1/ "a"-indicates specific gravity estimated as 0.92.

Core samples received June 26, 1970; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America Well No. 2-19 drilled in the center of the SW1/4, sec. 19, T 17 N, R 110 W, Sweetwater County, Wyoming

Kelly Bushing elevation: 6,404.5 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
SBR81-1-25	30-290						No oil			
SBR81-26	290-300						b			
SBR81-27-28	300-320						No oil			
SBR81-29	320-330						b			
SBR81-30-38	330-430						No oil			
SBR81-39	430-440						c			
SBR81-40	450-460						Trace			
SBR81-41-46	460-520						No oil			
SBR81-47	520-530						b			
SBR81-48-49	530-550						No oil			
SBR81-50	560-570						b			
SBR81-51	570-580						No oil			
SBR81-52	580-590						Trace			
SBR81-53-55	590-620						No oil			
SBR81-56	620-630						b			
SBR81-57	640-650						No oil			
SBR81-58-59	650-670						Trace			
SBR81-60-62	670-700						No oil			
SBR81-63-64	740-760						b			
SBR81-65-66	810-830						No oil			
SBR81-67	940-950						Trace			
SBR81-68-69	970-985						No oil			
SBR81-70	985-990						Trace			
SBR81-71-72	1190-1200						c			
SBR81-73	1200-1205	65171	1.4	1.1	96.9	0.6	3.7a	2.6		None
SBR81-74	1205-1210	65172	2.7	1.4	95.1	0.8	7.1	3.4	0.904	None
SBR81-75	1210-1215	65173	1.5	1.2	96.6	0.7	4.0a	2.9		None
SBR81-76	1215-1220	65174	0.4	0.5	97.8	1.3	1.1a	1.2		None
SBR81-77	1220-1225	65175	1.5	1.4	96.5	0.6	3.9a	3.4		None
SBR81-78	1225-1230	65176	2.3	1.7	94.8	1.1	6.2	4.1	.908	None

See footnote at end of table.

Drill-cutting samples received June 20, 1978; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America Well No. 2-19

Kelly Bushing elevation: 6,404.5 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 ^{1/}	Water
SBR81-79	1230-1235	65177	2.4	1.7	94.5	1.4	6.4	4.1	0.906	None
SBR81-80	1235-1240	65178	2.1	1.9	94.6	1.4	5.5	4.6	.903	None
SBR81-81	1240-1245	65179	1.4	1.4	96.0	1.2	3.6a	3.4		None
SBR81-82	1245-1250	65180	0.6	1.0	97.4	1.0	1.6a	2.4		None
SBR81-83	1250-1255	65181	0.5	1.2	97.4	0.9	1.4a	2.9		None
SBR81-84	1255-1260	65182	2.2	1.5	95.0	1.3	5.8	3.6	.910	None
SBR81-85	1260-1265	65248	2.0	1.4	95.5	1.1	5.2a	3.4		None
SBR81-86	1265-1270	65184	1.0	1.1	96.9	1.0	2.7a	2.6		None
SBR81-87	1270-1275	65185	0.9	1.1	96.9	1.1	2.4a	2.6		None
SBR81-88	1275-1280	65186	0.6	0.7	97.0	1.7	1.4a	1.7		None
SBR81-89	1280-1285	68187	1.7	1.0	96.4	0.9	4.3a	2.4		None
SBR81-90	1285-1290	65188	1.5	0.8	96.3	1.4	3.8a	1.9		None
SBR81-91	1290-1295	65189	0.5	0.6	98.1	0.8	1.3a	1.4		None
SBR81-92	1295-1300	65190	0.4	0.5	98.2	0.9	1.0a	1.2		None
SBR81-93	1300-1305	65191	3.2	1.4	94.0	1.4	8.5	3.4	.907	None
SBR81-94	1305-1310	65192	3.1	1.4	94.1	1.4	8.2	3.4	.910	None
SBR81-95	1310-1315	65193	0.5	1.1	97.7	0.7	1.3a	2.6		None
SBR81-96-99	1315-1335						c			
SBR81-100-103	1335-1355						b			
SBR81-104-105	1355-1365						c			
SBR81-106-109	1365-1385						b			
SBR81-110	1385-1390						c			
SBR81-111-116	1390-1420						b			
SBR81-117	1420-1425						c			
SBR81-118-121	1425-1445						b			
SBR81-122-123	1450-1460						b			
SBR81-124	1460-1465						No oil			
SBR81-125-126	1465-1475						Trace			
SBR81-127-128	1480-1490						b			
SBR81-129-131	1495-1510						b			

See footnote at end of table.

Drill-cutting samples received June 20, 1978; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Union Pacific Railroad Company's Little America Well No. 2-19

Kelly Bushing elevation: 6,404.5 feet

Sample number		Run No.	Yield of product				Specific gravity of oil at 60°/60° F	Properties of spent shale		Remarks
			Weight percent		Gas + Spent shale	Gal per ton		Tendency to coke		
Laramie	Their		Oil	Water			Oil ^{1/}		Water	
SBR81-132	1510-1515	65194	1.8	1.5	95.4	1.3	4.7a	3.6		None
SBR81-133	1515-1520	65195	1.6	1.4	95.1	1.9	4.3a	3.4	0.920	None
SBR81-134	1520-1525	65196	0.7	1.3	96.5	1.5	1.8a	3.1		None
SBR81-135	1525-1530						c			
SBR81-136-146	1535-1620						b			
SBR81-147	1620-1630	65197	1.3	1.0	96.3	1.4	3.3a	2.4		None
SBR81-148	1630-1640	65198	1.2	1.7	95.5	1.6	3.2a	4.1		None
SBR81-149	1650-1660	65199	6.0	1.7	89.6	2.7	16.0	4.1	.901	None
SBR81-150	1660-1670	65200	5.4	1.6	90.4	2.6	14.4	3.8	.904	None
SBR81-151	1670-1680	65201	4.3	1.6	92.1	2.0	11.4	3.8	.907	None
SBR81-152	1680-1690	65202	2.4	1.1	93.6	2.9	6.3	2.6	.903	None
SBR81-153	1690-1700	65203	1.9	2.3	94.3	1.5	5.0a	5.5		None
SBR81-154	1710-1720	65204	3.2	1.8	93.3	1.7	8.5	4.3	.904	None
SBR81-155	1720-1730	65205	3.3	1.7	93.2	1.8	8.7	4.1	.907	None
SBR81-156	1730-1740	65207	3.1	1.7	93.3	1.9	8.2	4.1	.900	None
SBR81-157	1740-1750	65208	2.9	1.8	93.6	1.7	7.8	4.3	.903	None
SBR81-158	1760-1770	65209	2.0	2.2	94.4	1.4	5.1a	5.3		None
SBR81-159	1770-1780	65210	1.5	2.0	95.1	1.4	3.9a	4.8		None
SBR81-160	1780-1790	65211	1.3	1.9	95.4	1.4	3.5a	4.6		Slight
SBR81-161	1790-1800	65212	1.0	2.1	95.5	1.4	2.6a	5.0		None
SBR81-162	1800-1810	65213	0.8	2.2	95.9	1.1	2.0a	5.3		None
SBR81-163	1810-1820	65214	0.4	2.1	95.7	1.8	1.0a	5.0		None
SBR81-164	1820-1830	65215	1.7	2.3	94.4	1.6	4.3a	5.5		None
SBR81-165	1830-1840	65216	2.0	2.5	93.8	1.7	5.2a	6.0		None
SBR81-166	1850-1860	65217	13.4	2.0	80.3	4.3	35.6	4.8	.903	None
SBR81-167	1860-1870	65218	7.6	1.5	87.6	3.3	20.1	3.6	.908	None
SBR81-168	1870-1880	65219	3.1	1.3	93.8	1.8	8.2	3.1	.908	None
SBR81-169	1880-1890	65220	3.2	1.4	93.6	1.8	8.4	3.4	.910	None
SBR81-170	1890-1900	65221	1.3	1.3	96.1	1.3	3.5a	3.1		None

^{1/} "a"--indicates specific gravity estimated as 0.920. Oil yields estimated by test tube method: "No oil," "Trace," "b"--less than 1.0 gallons per ton, "c"--more than 1.0 and less than 3.0 gallons per ton.

Drill-cutting samples received June 20, 1978; assays made on air-dried samples