

UE-12

42' of 30 UH 192
60' of 25 ✓
180' of 15

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House Unit well drilled in the SE 1/4, SE 1/4
of sec. 10, T. 11 S., R. 23 E., Uintah County, Utah

Surface elevation 5,849 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	Water	
SBR61-1576-85	20-120						No Oil				
SBR61-1586	120-130						1.0 B				
SBR61-1587	130-140						No Oil				
SBR61-1588-89	140-160						1.0 B				
SBR61-1590	160-170						No Oil				
SBR61-1591	170-180						1.0 B				
SBR61-1592	180-190						Trace				
SBR61-1593-94	190-210						1.0 B				
SBR61-1595	210-220						No Oil				
SBR61-1596-1601	260-320						No Oil				
SBR61-1602	320-330						Trace				
SBR61-1603-04	330-350						No Oil				
SBR61-1605	350-360						1.0 B				
SBR61-1606-10	360-410						3.0 c				
SBR61-1611-17	410-480						1.0 B				
SBR61-1618-26	490-580						No Oil				
SBR61-1627	580-590						Trace				
SBR61-1628-33	590-650						No Oil				
SBR61-1634	650-660						Trace				
SBR61-1635	660-670	71446	1.4	1.0	96.6	1.0	3.6a	2.4		None	
SBR61-1636	670-680	71447	1.4	1.1	96.6	.9	3.6a	2.6		None	
SBR61-1637	680-690	71448	.4	.6	98.4	.6	1.1a	1.4		None	
SBR61-1638	690-700	71449	1.8	.4	97.0	.8	4.6a	1.0		None	
SBR61-1639	700-710	71450	1.9	.3	96.7	1.1	4.8a	.7		None	
SBR61-1640	710-720	71451	1.9	.6	96.9	.6	5.0a	1.4		None	
SBR61-1641	720-730	71452	2.7	.5	95.9	.9	6.9	1.2	0.933	None	
SBR61-1642	730-740	71453	2.0	.5	96.8	.7	5.1a	1.2		None	
SBR61-1643	740-750	71454	2.2	.5	96.7	.6	5.7	1.3	.925	None	
SBR61-1644	750-760	71455	2.6	.4	96.2	.8	6.7	.8	.930	None	
SBR61-1645	760-780	71456	2.6	.4	96.2	.8	6.8	.8	.922	None	

a - Specific gravity estimated due to insufficient oil; b - Less than 1.0 gallon of oil per ton of shale; c - More than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received October 24, 1960; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House unit well (Con'd)

Surface elevation 5,849 feet

Surface elevation 5,049 feet

Sample number		Run No.	Yield of product				Gal. per ton		Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss				Tendency to		
Laramie	Their		Oil	Water					Oil	Water		coke
SBR61-1646	780-790	71457	3.3	0.5	95.0	1.2	8.5	1.2	0.923	None		
SBR61-1647	790-800	71458	12.3	.6	84.8	2.3	31.8	1.4	.928	Slight		
SBR61-1648	810-820	71463	1.7	.3	97.2	.8	4.4a	.7		None		
SBR61-1649	820-830	71464	3.6	.2	94.7	1.5	9.3	.5	.933	None		
SBR61-1650	830-840	71465	3.9	.2	94.2	1.7	10.0	.5	.934	None		
SBR61-1651	840-850	71466		.3	94.0	1.6	10.6	.7	.932	None		
SBR61-1652	850-860	71467		.4	96.2	.5	7.4	1.1	.925	None		
SBR61-1653	860-870	71468	4.1		94.9	.6	10.5	1.0	.927	None		
SBR61-1654	870-880	71469	3.5		95.2	.9	9.2	1.0	.925	None		
SBR61-1655	880-890	71470	3.5	.3	95.7	.5	9.0	.8	.926	None		
SBR61-1656	890-900	71471	5.6	.5	92.8	1.1	14.4	1.2	.922	None		
SBR61-1657	900-910	71472	2.0	.3	96.7	1.0	5.3	.6	.924	Slight		
SBR61-1658	910-920	71473	9.6	.6	87.9	1.9	25.0	1.6	.917	Slight		
SBR61-1659	920-930	71474	3.9	.4	94.5	1.2	10.2	1.0	.919	None		
SBR61-1660	930-940	71475	4.9	.4	93.7	1.0	12.7	1.1	.916	None		
SBR61-1661	940-950	71476	4.4	.6	94.2	.8	11.5	1.3	.918	None		
SBR61-1662	950-960	71477	2.8	.5	96.1	.6	7.4	1.2	.920	None		
SBR61-1663	960-970	71478	4.0	.4	94.5	1.1	10.2	1.0	.931	None		
SBR61-1664	970-980	71479	4.9	.5	93.3	1.3	12.7	1.2	.919	None		
SBR61-1665	980-990	71480	4.5	.5	93.7	1.3	11.8	1.2	.915	None		
SBR61-1666	990-1000	71481	5.3	.7	92.6	1.4	13.2	1.6	.917	None		
SBR61-1667	1010-1020	71482	4.8	.8	93.1	1.3	12.6	1.9	.919	None		
SBR61-1668	1030-1040	71483	4.6	.8	93.5	1.1	12.0a	1.8		None		
SBR61-1669	1050-1060	71484	4.2	1.0	93.6	1.2	11.0a	2.4		None		
SBR61-1670	1060-1070	71485	4.3	1.0	93.6	1.1	11.1a	2.4		None		
SBR61-1671	1070-1080	71486	5.0	1.0	92.7	1.3	13.1	2.4	.917	None		
SBR61-1672	1080-1090	71487	4.3	1.0	93.7	1.0	11.3	2.4	.915	None		
SBR61-1673	1090-1100	71488	4.8	.7	93.1	1.4	12.4	1.7	.917	None		
SBR61-1674	1100-1110	71489	4.5	.8	93.3	1.4	11.8	1.9	.914	None		
SBR61-1675	1110-1120	71490	4.7	.7	93.3	1.3	12.4	1.7	.917	None		

a - Specific gravity estimated due to insufficient oil.

Drill cutting samples received October 24, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House unit well (Con'd)

Surface elevation 5,849 feet

Surface elevation 5,049 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			
SBR61-1676	1120-1130	71491	4.8	0.5	93.3	1.4	12.7	1.2	0.902		
SBR61-1677	1130-1140	71492	12.4	.7	84.3	2.6	32.9	1.6	.905	180'	Slight
SBR61-1678	1140-1150	71493	18.6	.7	76.7	4.0	49.0	1.8	.909	of	Heavy
SBR61-1679	1150-1160	71494	11.6	.5	85.3	2.6	31.1	1.2	.898	30	Slight
SBR61-1680	1160-1170	71495	4.2	.5	93.9	1.4	11.0	1.3	.903	of	None
SBR61-1681	1170-1180	71496	6.0	.8	91.3	1.9	15.6	1.9	.917	25	None
SBR61-1682	1180-1190	71497	2.8	.6	95.4	1.2	7.3	1.6	.913		None
SBR61-1683	1190-1200	71498	2.6	.8	95.7	.9	6.8	1.8	.911		None
SBR61-1684	1200-1210	71499	2.8	.8	95.8	.6	7.3	2.0	.917		None
SBR61-1685	1210-1220	71500	1.0	.8	97.8	.4	2.7a	1.9			None
SBR61-1686	1220-1230	71501	.5	.5	98.9	.1	1.3a	1.2			None
SBR61-1687	1230-1240	71502	1.8	1.0	96.6	.6	4.8a	2.3			None
SBR61-1688	1240-1250	71503	2.0	.6	96.3	1.1	5.1a	1.4			None
SBR61-1689	1250-1260	71504	1.8	.8	95.6	1.8	4.7a	1.8			None
SBR61-1690	1260-1270	71505	3.8	.8	94.0	1.4	9.9	1.9	.919		None
SBR61-1691	1270-1280	71506	1.8	.8	96.3	1.1	4.7a	1.9			None
SBR61-1692	1280-1290	71507	2.2	1.0	96.0	.8	5.9	2.4	.907		None
SBR61-1693	1290-1300	71508	2.1	1.1	96.0	.8	5.6	2.6	.913		None
SBR61-1694	1300-1310	71509	3.9	1.3	93.8	1.0	10.2	3.1	.924		None
SBR61-1695	1310-1320	71510	4.1	1.6	93.2	1.1	10.6	3.8	.924		None
SBR61-1696	1320-1330						1.08				
SBR61-1697	1340-1350						Trace				
SBR61-1698-1702	1350-1400						1.08				
SBR61-1703	1400-1410	71511	1.8	2.5	94.5	1.2	4.7a	6.0			None
SBR61-1704	1410-1420	71512	1.9	2.5	94.5	1.1	5.0a	6.0			None
SBR61-1705	1420-1430	71513	2.3	1.4	95.4	.9	6.1	3.4	.916		None
SBR61-1706	1430-1440	71514	3.7	1.4	93.5	1.4	9.5	3.4	.921		None
SBR61-1707	1440-1450	71515	1.5	4.7	90.8	3.0	3.9a	11.3			None
SBR61-1708	1450-1460	71516	1.5	3.3	92.7	2.5	3.8a	7.9			None
SBR61-1709	1460-1470	71517	1.5	2.0	95.5	1.0	3.9a	4.8			None

50' of sample

a - Specific gravity estimated due to insufficient oil; b - Less than 1.0 gallon of oil per ton of shale.

Drill cutting samples received October 24, 1960; assays made on air-dried samples.

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House unit well (Con'd)

Surface elevation 5,849 feet

			Yield of product						Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
Sample number		Run No.	Weight percent		Spent shale	Gas + loss	Gal. per ton			Tendency to coke		
			Oil	Water			Oil	Water				
Laramie	Their											
SBR61-1710	1470-1480	71518	1.6	1.8	95.7	0.9	4.1a	4.3		None		
SBR61-1711	1480-1490	71519	1.4	1.6	96.3	.7	3.6a	3.8		None		
SBR61-1712	1490-1500	71520	3.6	2.6	92.5	1.3	9.3	6.2	0.919	None		
SBR61-1713	1500-1510	71521	3.1	3.1	92.0	1.8	7.9	7.4	.932	None		
SBR61-1714	1520-1530	71522	4.3	3.1	91.0	1.6	11.4	7.4	.916	None		
SBR61-1715	1530-1540	71523	2.7	1.6	94.4	1.3	7.0	3.8	.919	None		
SBR61-1716	1540-1550	71524	4.2	1.7	92.5	1.6	10.9	4.2	.917	None		
SBR61-1717	1550-1560	71525	1.8	5.0	90.0	3.2	4.8a	12.0		None		
SBR61-1718	1560-1570	71526	2.4	6.0	87.5	4.1	6.2a	14.4		None		
SBR61-1719	1570-1580	71527	2.1	5.2	89.0	3.7	5.4a	12.5		None		
SBR61-1720	1580-1590	71528	.7	3.6	94.1	1.6	1.8a	8.6		None		
SBR61-1721	1590-1600	71529	.9	3.8	93.8	1.5	2.4a	9.1		None		
SBR61-1722	1600-1610	71530	5.6	2.0	90.3	2.1	14.6	4.8	.916	None		
SBR61-1723	1610-1620	71531	7.1	2.8	87.9	2.2	18.6	6.7	.915	None		
SBR61-1724	1620-1630	71532	2.4	2.2	94.4	1.0	6.5	5.3	.898	None		
SBR61-1725	1630-1640	71533	1.3	.8	96.8	1.1	3.3a	2.0		None		
SBR61-1726	1640-1650	71534	1.8	2.0	95.1	1.1	4.7a	4.8		None		
SBR61-1727	1650-1660	71535	3.8	2.2	92.7	1.3	9.9	5.3	.922	None		
SBR61-1728	1660-1670	71536	.6	1.0	97.8	.6	1.5a	2.4		None		
SBR61-1729	1670-1680	71537	.6	1.2	97.4	.8	1.6a	2.9		None		
SBR61-1730	1680-1690	71538	1.2	1.4	96.3	1.1	3.1a	3.4		None		
SBR61-1731	1690-1700	71539	.9	1.8	96.3	1.0	2.3a	4.4		None		
SBR61-1732	1700-1710	71540	.5	2.7	96.2	.6	1.4a	6.5		None		
SBR61-1733	1710-1720	71541	3.2	1.2	94.4	1.2	8.4	3.0	.913	None		
SBR61-1734	1720-1730	71542	1.1	1.6	96.4	.9	2.8a	4.0		None		
SBR61-1735	1730-1740	71543	1.1	2.1	96.2	.6	2.8a	5.0		None		
SBR61-1736	1740-1750	71544	1.3	1.1	96.7	.9	3.3a	2.8		None		
SBR61-1737	1750-1760	71545	3.0	.8	95.4	.8	7.9	1.8	.914	None		
SBR61-1738	1760-1770	71546	1.5	1.6	96.3	.6	3.9a	3.8		None		
SBR61-1739	1770-1780	71547	1.4	1.7	96.3	.6	3.7a	4.1		None		

a - Specific gravity estimated due to insufficient oil.

Drill cutting samples received October 24, 1960; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3461P, Sheet No. 4 of 6 sheets, March 2, 1961

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House unit well (Con'd)

Surface elevation 5,849 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		Spent shale	Gas + loss	Gal. per ton		Tendency to coke	
			Oil	Water			Oil	Water		
SBR61-1740	1780-1790	71548	2.2	1.4	95.6	0.8	5.8a	3.4	0.914	None
SBR61-1741	1790-1800	71549	2.3	1.1	95.5	1.1	6.0	2.8		None
SBR61-1742	1800-1810	71550	1.4	1.4	96.5	.7	3.6a	3.4		None
SBR61-1743	1810-1820	71551	1.4	1.2	96.8	.6	3.5a	2.9		None
SBR61-1744	1820-1830	71552	1.4	1.2	96.6	.8	3.5a	2.9		None
SBR61-1745	1830-1840	71553	1.3	1.6	95.9	1.2	3.3a	3.8		None
SBR61-1746	1840-1850	71554	1.8	1.8	95.2	1.2	4.7a	4.3		None
SBR61-1747	1850-1860	71555	1.5	2.1	95.4	1.0	4.0a	5.0		None
SBR61-1748	1860-1870	71556	.3	2.8	95.9	1.0	.8a	6.7		None
SBR61-1749	1870-1880						1.0B			
SBR61-1750-51	1880-1900						3.0c			
SBR61-1752-54	1900-1930						Trace			
SBR61-1755	1930-1940						1.0B			
SBR61-1756-57	1940-1960						3.0c			
SBR61-1758-59	1980-2000						3.0c			
SBR61-1760	2000-2010	71557	.5	1.6	96.8	1.1	1.3a	3.9		None
SBR61-1761	2010-2020	71558	.7	2.4	95.8	1.1	1.9a	5.8		None
SBR61-1762	2020-2030	71559	.7	1.8	96.8	.7	1.9a	4.2		None
SBR61-1763	2030-2040	71560	1.3	2.8	94.0	1.9	3.5a	6.6		None
SBR61-1764	2040-2050	71561	1.3	3.0	94.0	1.7	3.4a	7.1		None
SBR61-1765	2050-2060	71562	1.0	3.0	94.3	1.7	2.5a	7.2		None
SBR61-1766	2060-2070	71563	1.2	2.5	95.7	.6	3.2a	6.0		None
SBR61-1767	2070-2080	71564	1.1	1.8	97.1	.0	2.9a	4.5		None
SBR61-1768	2080-2090	71565	1.3	3.0	94.5	1.2	3.5a	7.2		None
SBR61-1769	2100-2110	71566	1.6	3.2	93.2	2.0	4.3a	7.7		None
SBR61-1770	2110-2120	71567	2.0	4.8	91.0	2.2	5.3a	11.4		None
SBR61-1771	2120-2130	71568	1.0	2.5	96.0	.5	2.6a	6.0		None
SBR61-1772	2130-2140	71569	1.9	3.0	93.1	2.0	4.9a	7.2		None
SBR61-1773	2140-2150	71570	1.4	2.5	94.2	1.9	3.6a	6.0		None
SBR61-1774-75	2150-2170						1.0B			

a - Specific gravity estimated due to insufficient oil; b - Less than 1.0 gallon of oil per ton of shale; c - More than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received October 24, 1960; assays made on air-dried samples

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Shamrock Oil & Gas Corporation's No. 1 Rock House unit well (Con'd)

Surface elevation 5,849 feet

Sample number		Run No.	Yield of product				Sal. per ton		Specific gravity of oil at 60°/60° F.	Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss						
			Oil	Water			Oil	Water				
Laramie	Thier											
SBR61-1776-80	2170-2220						Trace					
SBR61-1781-91	2230-2340						Trace					
SBR61-1792-93	2340-2360						3.0c					
SBR61-1794	2360-2370						Trace					
SBR61-1795-1806	2370-2490						1.0 B					
SBR61-1807	2490-2500	71571	1.7	1.6	95.9	0.8	4.3a	3.8		None		
SBR61-1808-09	2510-2530						1.0 B					
SBR61-1810-11	2530-2550						Trace					
SBR61-1812	2550-2560						No Oil					
SBR61-1813	2560-2570	71572	4.2	1.9	92.6	1.3	11.1	4.7	0.904	None		
SBR61-1814	2570-2580	71573	2.9	2.1	94.0	1.0	7.6	5.0	.903	None		
SBR61-1815	2580-2590	71574	2.5	2.1	94.2	1.2	6.6	4.9	.907	None		
SBR61-1816	2590-2600	71575	2.1	1.9	94.9	1.1	5.4a	4.6		None		
SBR61-1817	2600-2610	71576	1.8	1.8	95.3	1.1	4.8a	4.3		None		
SBR61-1818	2610-2620	71577	2.0	2.3	94.5	1.2	5.2a	5.5		None		
SBR61-1819-22	2620-2660						1.0 B					
SBR61-1823-26	2660-2700						Trace					
SBR61-1827	2700-2710	71578	.6	2.2	96.1	1.1	1.5a	5.3		None		
SBR61-1828	2710-2720	71579	1.7	2.0	95.2	1.1	4.5a	4.8		None		
SBR61-1829	2720-2730	71580	2.9	2.0	93.9	1.2	8.0	4.7	.866	None		
SBR61-1830	2730-2740	71581	4.4	2.0	92.2	1.4	11.8	4.8	.893	None		
SBR61-1831	2740-2750	71582	4.4	2.0	92.2	1.4	11.7	4.8	.891	None		
SBR61-1832	2750-2760	71583	3.3	2.0	93.7	1.0	8.9	4.8	.892	None		
SBR61-1833	2760-2770	71584	3.6	1.9	93.3	1.2	9.8	4.6	.890	None		
SBR61-1834	2770-2780	71585	3.2	2.2	93.1	1.5	8.7	5.3	.890	None		
SBR61-1835	2780-2790	71586	2.7	2.0	94.2	1.1	7.2	4.8	.899	None		
SBR61-1836	2790-2800	71587	2.9	2.1	94.3	.7	7.8	4.9	.900	None		

a - Specific gravity estimated due to insufficient oil; b - Less than 1.0 gallon of oil per ton of shale; c - More than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received October 24, 1960; assays made on air-dried samples.

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