

# OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Oil Corporation's Five Mile Draw Unit No. 1 Well drilled 709 feet  
South of North line and 1912 feet West of East line sec. 35, T. 10 S., R. 14 E., Duchesne County, Utah

Kelly Bushing elevation 7,646 feet

mahog. Marker 5726'

Kelly burning elevation 7,646 feet

mahog, Marker 5726'

Sample number		Run No.	Yield of product				Specific gravity		Properties of spent shale	Remarks
			Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	
Laramie	Their	Oil	Water	Oil			Water	Oil		Water
SBR61-1254-56	300- 330						b			
SBR61-1257-75	330- 520						No oil			
SBR61-1276-78	520- 550						b			
SBR61-1279	550- 560						c			
SBR61-1280-83	560- 600						b			
SBR61-1284-1301	600- 780						c			
SBR61-1302	780- 790	71261	0.5	1.9	97.4	0.2	1.2a	4.6		None
SBR61-1303	790- 800	71262	1.3	2.0	96.5	.2	3.3a	4.8		None
SBR61-1304	800- 810	71263	.8	2.1	95.7	1.4	2.1a	5.0		None
SBR61-1305	810- 820	71264	1.3	1.5	96.6	.6	3.3a	3.6		None
SBR61-1306	820- 830	71265	1.5	1.6	96.7	.2	4.0a	3.8		None
SBR61-1307	830- 840	71266	1.5	1.8	96.2	.5	3.8a	4.3		None
SBR61-1308	840- 850	71267	.7	2.4	96.6	.3	1.9a	5.6		None
SBR61-1309	850- 860	71268	.6	2.2	96.9	.3	1.6a	5.2		None
SBR61-1310	860- 870	71269	.7	2.1	96.7	.5	1.8a	5.0		None
SBR61-1311	870- 880	71270	.9	2.1	96.3	.7	2.3a	5.0		None
SBR61-1312	880- 890	71271	1.2	2.2	95.8	.8	3.2a	5.2		None
SBR61-1313	890- 900	71272	.9	2.2	95.9	1.0	2.4a	5.3		None
SBR61-1314	900- 910	71273	1.1	2.0	96.0	.9	2.8a	4.8		None
SBR61-1315	910- 920	71274	1.0	2.2	95.9	.9	2.6a	5.2		None
SBR61-1316	920- 930	71275	2.8	1.9	94.8	.5	7.4	4.6	0.896	None
SBR61-1317	930- 940	71276	2.8	2.0	94.7	.5	7.4	4.8	.897	None
SBR61-1318	940- 950	71277	3.0	2.0	94.2	.8	8.1	4.8	.897	None
SBR61-1319	950- 960	71278	3.0	1.9	94.5	.6	8.1	4.6	.895	None
SBR61-1320	960- 970	71279	1.1	2.1	96.4	.4	2.8a	5.0		None
SBR61-1321	970- 980	71280	1.1	1.6	96.5	.8	2.8a	3.8		None
SBR61-1322	980- 990	71281	1.1	2.0	96.5	.4	3.0a	4.8		None
SBR61-1323	990-1000	71282	1.5	1.3	96.3	.9	3.9a	3.1		None
SBR61-1324	1000-1010	71283	1.5	1.6	95.8	1.1	3.9a	3.8		None
SBR61-1325	1010-1020	71284	1.4	1.9	96.1	.6	3.6a	4.6		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 June 17, 1960; assays made on air-dried samples

60' of 30 g/l  
90' of 25 g/l  
180' of 15 g/l  
These values are probably much too high.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Oil Corporation's Five Mile Draw Unit No. 1 Well (Con.)

Kelly Bushing elevation 7,646 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	Thick		Oil	Water					Oil	Water
SHR61-1326	1020-1030	71285	1.5	1.6	96.2	0.7	3.9a	3.8	None	
SHR61-1327	1030-1040	71286	1.4	1.6	96.4	.6	3.7a	3.8	None	
SHR61-1328	1040-1050	71287	1.2	1.3	96.7	.8	3.2a	3.1	None	
SHR61-1329	1050-1060	71288	1.4	1.4	96.6	.6	3.6a	3.4	None	
SHR61-1330	1060-1070	71289	1.4	1.5	96.6	.5	3.7a	3.6	None	
SHR61-1331	1070-1080	71290	1.0	1.6	96.4	1.0	2.7a	3.8	None	
SHR61-1332	1080-1090	71291	1.0	1.7	96.9	.4	2.7a	4.1	None	
SHR61-1333	1090-1100	71292	1.0	1.8	96.8	.3	2.6a	4.3	None	
SHR61-1334	1100-1110	71293	.8	1.7	96.9	.6	2.2a	4.1	None	
SHR61-1335-36	1110-1130						c			
SHR61-1337	1130-1140	71294	.8	1.9	96.6	.7	2.1a	4.6	None	
SHR61-1338	1140-1150	71295	.8	1.9	96.9	.4	2.2a	4.5	None	
SHR61-1339	1150-1160	71296	.9	1.8	96.7	.6	2.3a	4.4	None	
SHR61-1340-47	1160-1240						c			
SHR61-1348	1240-1250	71297	.9	1.9	96.3	.9	2.3a	4.6	None	
SHR61-1349	1250-1260	71298	.9	1.5	96.4	1.2	2.4a	3.5	None	
SHR61-1350	1260-1270						c			
SHR61-1351	1270-1280	71299	.9	1.9	96.8	.4	2.4a	4.4	None	
SHR61-1352	1280-1290	71300	.8	1.9	96.8	.5	2.1a	4.6	None	
SHR61-1353	1290-1300	71301	.5	2.0	97.2	.3	1.3a	4.8	None	
SHR61-1354-56	1300-1330						c			
SHR61-1356A	1330-1340	71302	.6	1.9	97.0	.5	1.6a	4.4	None	
SHR61-1357	1340-1350	71303	.9	1.6	96.9	.6	2.3a	4.0	None	
SHR61-1358	1370-1380	71304	.9	1.6	96.9	.6	2.4a	3.7	None	
SHR61-1359	1380-1390	71305	1.0	1.5	96.9	.6	2.7a	3.6	None	
SHR61-1360-61	1390-1410						c			
SHR61-1362	1410-1420	71306	1.0	1.6	96.1	1.3	2.7a	3.8	None	
SHR61-1363	1420-1430	71307	1.0	1.8	96.5	.7	2.7a	4.3	None	
SHR61-1364	1430-1440	71308	1.2	2.0	96.3	.5	3.0a	4.8	None	
SHR61-1365	1440-1450	71309	.9	2.0	95.6	.5	2.3a	4.8	None	

a - Specific gravity estimated due to insufficient oil.

b - More than 1.0 but less than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 17, 1960; assays made on air-dried samples

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from Gulf Oil Corporation's Five Mile Draw Unit No. 1 Well (Con.)

Kelly Bushing elevation 7,646 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	Water		
SER61-1366	1450-1460	71310	1.2	2.0	96.4	0.4	3.0a	4.8		None
SER61-1367	1460-1470	71311	1.2	1.9	96.6	.3	3.0a	4.6		None
SER61-1368	1470-1480	71312	1.1	1.6	96.4	.9	2.9a	3.8		None
SER61-1369	1480-1490	71313	1.1	2.0	96.2	.7	2.9a	4.8		None
SER61-1370	1490-1500	71314	1.2	2.0	96.2	.6	3.1a	4.8		None
SER61-1371	1500-1510	71315	3.9	2.1	93.5	.5	10.2	5.0	0.915	None
SER61-1372	1510-1520	71316	3.5	2.4	93.4	.7	9.3	5.6	.912	None
SER61-1373	1520-1530	71317	1.9	2.3	95.4	.4	4.8a	5.5		None
SER61-1374	1530-1540	71318	2.4	2.3	94.7	.6	6.3	5.6	.914	None
SER61-1375	1540-1550	71319	4.0	2.3	92.9	.8	10.7	5.5	.906	None
SER61-1376	1550-1560	71320	2.8	2.2	94.2	.8	7.4	5.3	.906	None
SER61-1377	1560-1570	71321	1.8	2.0	95.2	1.0	4.8a	4.8		None
SER61-1378	1570-1580	71322	1.8	2.5	94.6	1.1	4.7a	6.0		None
SER61-1379	1580-1590	71323	3.3	2.2	93.8	.7	8.8	5.3	.908	None
SER61-1380	1590-1600	71324	3.6	2.2	93.6	.6	9.4	5.4	.907	None
SER61-1381	1600-1610	71325	1.0	1.9	96.8	.3	2.6a	4.6		None
SER61-1382	1610-1620	71326	.7	1.5	97.2	.6	1.9a	3.6		None
SER61-1383	1620-1630	71327	.8	1.5	97.3	.4	2.1a	3.6		None
SER61-1384	1630-1640	71328	1.3	1.7	96.0	1.0	3.5a	4.1		None
SER61-1385	1640-1650	71329	1.2	1.9	96.4	.5	3.0a	4.6		None
SER61-1386	1650-1660	71330	1.6	2.4	95.5	.5	4.1a	5.8		None
SER61-1387	1660-1670	71331	1.9	2.6	93.6	1.9	5.1a	6.2		None
SER61-1388	1670-1680	71332	1.5	2.4	95.6	.5	3.9a	5.8		None
SER61-1389	1680-1690	71333	1.6	1.8	96.0	.6	4.2a	4.2		None
SER61-1390	1690-1700	71334	1.2	1.6	96.5	.7	3.2a	3.8		None
SER61-1391	1700-1710	71335	1.2	1.5	96.7	.6	3.1a	3.6		None
SER61-1392	1710-1720	71336	.4	1.8	97.3	.5	1.0a	4.3		None
SER61-1393	1720-1730	71337	.9	1.8	96.9	.4	2.3a	4.3		None
SER61-1394	1730-1740	71338	1.8	1.8	95.8	.6	4.7a	4.3		None
SER61-1395	1740-1750	71339	1.8	1.9	95.6	.7	4.8a	4.6		None

a - Specific gravity estimated due to insufficient oil.

Drill cutting samples received June 17, 1960; assays made on air-dried samples

# OIL-SHALE ASSAYS BY MODIFIED FISCHER REPORT METHOD

Samples from Gulf Oil Corporation's Five Mile Draw Unit No. 1 Well (Con.)

60' of 30 gal  
90' of 25 gal  
180' of 15 gal

Kelly Bushing elevation 7,646 feet

			Yield of product				Specific gravity		Properties of spent shale		Remarks
Sample number		Run No.	Weight percent		Spent shale	Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke	
Laramie	Their		Oil	Water			Oil	Water			
SBR61-1396	1750-1760	71340	2.8	2.1	94.2	0.9	7.2	5.2	0.914	None	
SBR61-1397	1780-1790	71341	1.8	1.6	95.8	.8	4.7a	3.7		None	
SBR61-1398	1790-1800	71342	2.2	1.6	95.3	.9	5.9	3.7	.907	None	
SBR61-1399	1800-1810	71343	2.7	1.8	94.6	.9	7.2	4.3	.909	None	
SBR61-1400	1810-1820	71344	2.3	1.8	95.1	.8	6.1	4.2	.910	None	
SBR61-1401	1820-1830	71345	2.5	1.8	95.0	.7	6.6	4.2	.911	None	
SBR61-1402	1830-1840	71346	1.3	2.0	95.9	.8	3.4a	4.8		None	
SBR61-1403	1840-1850	71347	1.3	2.1	96.1	.5	3.5a	5.0		None	
SBR61-1404	1850-1860	71348	14.4	2.0	81.5	2.1	38.2	4.8	.902	Slight	
SBR61-1405	1860-1870	71349	2.3	1.7	95.5	.5	6.2	4.1	.893	None	
SBR61-1406	1870-1880	71350	2.4	1.5	94.6	1.5	6.5	3.6	.901	None	
SBR61-1407	1880-1890	71351	5.7	1.6	91.6	1.1	15.1	3.8	.907	None	
SBR61-1408	1890-1900	71352	4.1	1.3	93.2	1.4	10.7	3.1	.913	None	
SBR61-1409	1900-1910	71353	4.2	1.6	93.0	1.2	11.2	3.8	.904	None	
SBR61-1410	1910-1920	71354	17.8	1.0	77.8	3.4	47.3	2.4	.904	Slight	
SBR61-1411	1920-1930	71355	17.2	1.1	78.6	3.1	46.1	2.6	.896	Slight	
SBR61-1412	1930-1940	71356	17.8	1.3	77.8	3.1	47.3	3.1	.903	Slight	
SBR61-1413	1940-1950	71357	2.1	1.4	95.9	.6	5.5	3.4	.891	None	
SBR61-1414	1950-1960	71358	2.2	1.5	95.6	.7	5.8	3.6	.893	None	
SBR61-1415	1960-1970	71359	.8	1.1	97.5	.6	2.2a	2.6		None	
SBR61-1416	1970-1980	71360	1.1	1.1	97.1	.7	3.0a	2.6		None	
SBR61-1417	1980-1990	71361	1.0	1.4	97.2	.4	2.7a	3.4		None	
SBR61-1418	1990-2000	71362	1.2	1.4	97.1	.3	3.1a	3.4		None	
SBR61-1419-21	2000-2030						No oil				
SBR61-1422-25	2030-2070						c				
SBR61-1426	2070-2080	71363	.7	1.3	97.8	.2	1.9a	3.0		None	
SBR61-1427	2080-2090	71364	1.4	1.5	96.3	.8	3.6a	3.6		None	
SBR61-1428	2090-2100	71365	1.6	1.5	96.2	.7	4.3a	3.6		None	
SBR61-1429-38	2200-2300						No oil				

Samples checked to bottom of hole and no visible evidence of oil.

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

Drill cutting samples received June 17, 1960; assays made on air-dried samples