



OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb <sup>TEXACO</sup> ~~Agricultural Association~~ No. 2 Uintah Unit well drilled in NW 1/4, NW 1/4, of sec. 35, T. 10 S., R. 20 E., Uintah County, Utah

Surface elevation 5,239 feet

Mahogany Marker 3779'		Yield of product					Specific gravity of oil at 60°/60° F.		Properties of spent shale		Remarks
Sample number		Run No.	Weight percent		Gas + loss	Gal. per ton		of oil at 60°/60° F.	Tendency to coke		
Laramie	Their		Oil	Water		shale	Oil			Water	
SBR61-713-21	200-290						No Oil				
SBR61-722-26	300-350						No Oil				
SBR61-727	350-360						b				
SBR61-728-31	360-400						No Oil				
SBR61-732-35	400-440						Trace				
SBR61-736-43	440-520						No Oil				
SBR61-744-46	520-550						b				
SBR61-747	550-560						c				
SBR61-748-57	560-660						b				
SBR61-758-59	660-680						c				
SBR61-760	680-690						No Oil				
SBR61-761	690-700						b				
SBR61-762-64	700-730						c				
SBR61-765	730-740	71032	2.8	0.7	95.9	0.6	7.5	1.8	0.876	None	
SBR61-766	740-750	71033	2.6	.8	96.0	.6	7.2	1.9	.887	None	
SBR61-767	750-760	71034	2.2	1.4	95.6	.8	6.0	3.5	.879	None	
SBR61-768	760-770	71035	1.3	.9	97.6	.2	3.4a	2.2		None	
SBR61-769	770-780	71036	1.4	1.6	97.0	.6	3.5a	3.8		None	
SBR61-770	780-790	71037	.9	1.1	97.8	.2	2.4a	2.6		None	
SBR61-771	790-800						Assay				
SBR61-772	800-810	71038	1.4	2.1	96.1	.4	3.7a	5.0		None	
SBR61-773	810-820	71039	1.0	1.3	97.5	.2	2.5a	3.1		None	
SBR61-774	820-830	71040	1.5	1.6	96.2	.7	4.0a	3.7		None	
SBR61-775	830-840	71041	.7	.9	97.9	.5	1.9a	2.0		None	
SBR61-776	840-850	71042	.7	1.3	97.4	.6	1.8a	3.1		None	
SBR61-777	850-860	71043	1.4	1.5	96.4	.7	3.7a	3.6		None	
SBR61-778	860-870	71044	1.3	1.5	96.7	.5	3.4a	3.6		None	
SBR61-779	870-880	71045	.9	2.0	96.5	.6	2.4a	4.8		None	
SBR61-780	880-890	71046	1.1	1.4	96.9	.6	2.9a	3.4		None	
SBR61-781	890-900	71047	1.1	1.2	96.9	.8	2.9a	2.9		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. Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 2 Uintah Unit well (Con't)

Surface elevation 5,239 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	Thier		Oil	Water	Spent shale	Gas loss	Oil	Water			
SBR61-782	900-910	71048	1.6	1.4	96.2	0.8	4.2a	3.4	0.863	None	
SBR61-783	910-920	71049	1.4	.9	97.1	.6	3.7a	2.2		None	
SBR61-784	920-930	71050	2.6	1.1	94.7	1.6	7.2	2.6		None	
SBR61-785	930-940	71051	1.9	.8	97.1	.2	4.9a	1.9		None	
SBR61-786	940-950	71052	1.4	.5	98.0	.1	3.6a	1.2		None	
SBR61-787	950-960	71053	.5	.4	98.9	.2	1.4a	.8		None	
SBR61-788	960-970	71054	1.7	.3	97.8	.2	4.4a	.8		None	
SBR61-789	970-980						Assay				
SBR61-790	980-990	71055	2.6	.3	96.6	.5	6.8	.8	.899	None	
SBR61-791	990-1000	71056	2.6	.3	96.0	1.1	6.8	.8	.903	None	
SBR61-792	1000-1010	71057	2.5	.4	96.2	.9	6.6	.8	.902	None	
SBR61-793	1010-1020	71058	3.3	.3	95.2	1.2	8.7	.6	.910	None	
SBR61-794	1020-1030	71059	3.2	.7	95.2	.9	8.3	1.8	.908	None	
SBR61-795	1030-1040	71060	3.1	.6	95.4	.9	8.2	1.3	.910	None	
SBR61-796	1040-1050	71061	3.0	.4	95.5	1.1	7.8	1.0	.921	None	
SBR61-797	1050-1060	71062	2.9	.4	95.6	1.1	7.4	1.1	.922	None	
SBR61-798	1060-1070	71063	2.9	.5	95.5	1.1	7.6	1.2	.925	None	
SBR61-799	1070-1080	71064	1.4	1.3	96.3	1.0	3.6	3.1	.921	None	
SBR61-800	1080-1090	71065	2.1	.7	96.4	.8	5.5	1.6	.913	None	
SBR61-801	1090-1100	71066	2.4	.1	95.9	1.6	6.3	.4	.916	None	
SBR61-802	1100-1110	71067	2.5	.4	96.1	1.0	6.6	1.1	.904	None	
SBR61-803	1110-1120	71068	2.3	.4	96.2	1.1	6.1	1.1	.902	None	
SBR61-804	1120-1130	71069	2.6	.4	95.8	1.2	6.9	1.1	.904	None	
SBR61-805	1130-1140	71070	2.1	.9	95.8	1.2	5.6	2.2	.909	None	
SBR61-806	1140-1150	71071	.8	.9	96.9	1.4	2.0a	2.2		None	
SBR61-807	1150-1160	71072	.9	1.0	97.2	.9	2.4a	2.4		None	
SBR61-808	1160-1170	71073	2.3	.6	95.7	1.4	6.0	1.4	.915	None	
SBR61-809	1170-1180	71074	2.4	.4	95.9	1.3	6.2	1.1	.917	None	
SBR61-810	1180-1190	71075	2.6	.5	95.9	1.0	6.7	1.3	.921	None	
SBR61-811	1190-1200						Assay				

a - Specific gravity estimated due to insufficient oil. Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SPR3457P, Sheet No. 2 of 6 sheets, February 7, 1961

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 2 Uintah Unit well (Cont'd)

Surface elevation 5,239 feet

			Yield of product				Specific gravity of oil at 60°/60° F.		Properties of spent shale Tendency to coke		Remarks
			Weight percent		Gal. per ton						
Sample number		Run No.	Oil	Water	Spent shale	Gas + loss	Oil	Water			
Laramie	Their										
SBR61-812	1200-1210	71076	3.0	0.4	95.9	0.7	7.8	1.0	.911	None	
SBR61-813	1210-1220	71077	4.8	.3	93.6	1.3	12.5	.8	.915	None	
SBR61-814	1220-1230	71078	2.6	.5	95.7	1.2	7.0	1.2	.915	None	
SBR61-815	1230-1240	71079	3.8	.6	94.3	1.3	10.1	1.3	.910	None	
SBR61-816	1240-1250	71080	1.5	.3	97.0	1.2	4.0a	.7		None	
SBR61-817	1250-1260	71081	1.5	.3	97.3	.9	4.0a	.7		None	
SBR61-818	1260-1270	71082	1.4	.2	97.5	.9	3.6a	.5		None	
SBR61-819	1270-1280	71083	2.0	.5	96.8	.7	5.1a	1.3		None	
SBR61-820-21	1280-1300						Assay				
SBR61-822	1300-1310	71084	3.1	.4	95.9	.6	8.0	.8	.925	None	
SBR61-823	1310-1320						Assay				
SBR61-824	1320-1330	71085	3.4	.7	95.0	.9	8.9	1.7	.923	None	
SBR61-825	1330-1340	71086	3.2	.6	95.2	1.0	8.4	1.3	.923	None	
SBR61-826	1340-1350	71087	2.7	.5	96.1	.7	7.1	1.2	.923	None	
SBR61-827	1350-1360	71088	2.3	.2	96.4	1.1	5.9	.6	.926	None	
SBR61-828	1360-1370	71089	2.2	.7	96.5	.6	5.8	1.7	.924	None	
SBR61-829	1370-1380	71090	2.3	.2	96.5	1.0	5.9	.6	.930	None	
SBR61-830	1380-1390	71091	3.8	.5	94.6	1.1	10.0	1.2	.919	None	
SBR61-831	1390-1400	71092	3.5	.5	94.9	1.1	9.2	1.2	.920	None	
SBR61-832	1400-1410						Assay				
SBR61-833	1410-1420	71093	3.7	.5	94.8	1.0	9.8	1.2	.914	None	
SBR61-834	1420-1430	71094	3.7	.4	94.5	1.4	9.5	1.0	.925	None	
SBR61-835	1430-1440	71095	3.5	.6	94.4	1.5	9.0	1.6	.918	None	
SBR61-836	1440-1450						No Oil				
SBR61-837	1450-1460	71096	3.0	.7	94.7	1.6	7.6	1.8	.925	None	
SBR61-838	1460-1470	71097	7.1	.7	90.3	1.9	18.9	1.7	.904	None	
SBR61-839	1470-1480	71098	7.0	.5	90.4	2.1	18.4	1.3	.909	None	
SBR61-840	1480-1490	71099	4.0	.9	94.3	.8	10.5	2.2	.921	None	
SBR61-841	1490-1500	71100	4.0	.9	94.1	1.0	10.4	2.2	.919	None	
SBR61-842	1500-1510	71101	4.0	.8	94.2	1.0	10.3	1.9	.921	None	

a - Specific gravity estimated due to insufficient oil. Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-3157P, Sheet No. 3 of 6 sheets, February 7, 1961

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 1 Uintah Unit well (Con'd)

Surface elevation 5,239 feet

Sample number		Run No.	Yield of product				Specific gravity		Properties of spent shale		Remarks
			Weight percent		Spent shale	Gas + loss	Cal. per ton		of oil at 60°/60° F.	Tendency to coke	
Locality	Interval		Oil	Water							Oil
SBR61-843	1510-1520	71102	5.5	0.9	93.5	1.0	11.6	2.3	.924	None	
SBR61-844	1520-1530	71103	4.2	.9	94.2	.7	10.8	2.3	.920	None	
SBR61-845	1530-1540	71104	4.3	.9	93.8	1.0	11.3	2.0	.920	None	
SBR61-846	1540-1550	71105	4.4	.9	93.9	.8	11.3	2.3	.923	None	
SBR61-847	1550-1560	71106	4.2	.8	94.1	.9	11.0	1.9	.923	None	
SBR61-848	1560-1570	71107	5.5	.6	92.7	1.2	14.3	1.4	.922	None	
SBR61-849	1570-1580	71108	5.8	.6	92.4	1.2	14.2	1.4	.920	None	
SBR61-850	1580-1590	71109	6.5	.5	91.6	1.4	16.2	1.3	.921	None	
SBR61-851	1590-1600	71110	6.2	.5	91.8	1.5	16.2	1.2	.919	None	
SBR61-852	1600-1610	71111	4.5	.8	93.9	.8	11.7	1.8	.919	None	
SBR61-853	1610-1620	71112	3.2	.6	94.8	1.4	8.4	1.3	.925	None	
SBR61-854	1620-1630	71113	3.7	.8	94.5	1.0	9.7	1.8	.919	None	
SBR61-855	1630-1640	71114	3.5	.4	94.5	1.6	8.9	1.1	.925	None	
SBR61-856	1640-1650	71115	3.8	.9	93.6	1.7	9.7	2.3	.911	None	
SBR61-857	1650-1660						Assay				
SBR61-858	1660-1670	71116	9.2	.9	88.1	1.8	24.4	2.2	.902	None	
SBR61-859	1670-1680	71117	9.7	.6	87.8	1.9	25.6	1.6	.902	None	
SBR61-860-61	1680-1700						Assay				
SBR61-862	1700-1710						c				
SBR61-863-64	1710-1730						b				
SBR61-865	1730-1740						No Oil				
SBR61-866	1740-1750						b				
SBR61-867	1750-1760	71118	5.2	.8	91.9	1.4	15.6	2.0	.900	None	
SBR61-868	1760-1770	71119	1.5	.6	95.0	2.9	3.9a	1.4		None	
SBR61-869	1770-1780	71120	3.1	.8	95.0	1.1	8.3	1.8	.905	None	
SBR61-870	1780-1790	71121	2.7	1.0	95.1	1.0	7.7	2.4	.903	None	
SBR61-871	1790-1800	71122	6.4	.5	91.2	1.6	17.0	1.9	.907	None	
SBR61-872	1800-1810	71123	3.1	1.0	94.7	1.2	8.3	2.4	.899	None	
SBR61-873	1810-1820	71124	1.7	1.5	94.7	.7	4.9a	3.6		None	
SBR61-874	1820-1830	71125	2.5	1.7	94.7	.9	6.4	4.1	.921	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. Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 2 Uintah Unit well (Con'd)

Surface elevation 5,239 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		of oil at 60°/60° F.	Tendency to		
Laramie	Ther		Oil	Water	Spent shale	Gas + loss	Oil	Water	coke	
SBR61-875	1830-1840	71126	1.3	1.0	96.9	0.8	1.3a	2.4	None	
SBR61-876	1840-1850						No Oil			
SBR61-877-78	1850-1870						c			
SBR61-879	1870-1880						No Oil			
SBR61-880	1880-1890						c			
SBR61-881	1890-1900						No Oil			
SBR61-882	1900-1910	71127	.5	2.1	96.8	.6	1.3a	5.0	None	
SBR61-883	1910-1920	71128	1.9	2.3	94.7	1.1	5.0a	5.5	None	
SBR61-884	1920-1930	71129	1.7	2.2	94.7	1.2	4.5a	5.3	None	
SBR61-885	1930-1940	71130	.4	1.6	96.7	1.1	1.0a	3.8	None	
SBR61-886	1940-1950	71131	.9	.6	96.3	.2	2.3a	1.3	None	
SBR61-887	1950-1960	71132	.4	1.8	97.4	.4	1.0a	1.4	None	
SBR61-888	1960-1970	71133	.9	.6	98.1	.4	2.2a	1.4	None	
SBR61-889	2000-2010	71134	1.7	1.5	96.0	.9	4.5a	3.6	None	
SBR61-890	2010-2020	71135	1.3	1.8	96.0	.9	3.3a	4.3	None	
SBR61-891-92	2030-2050						Assay			
SBR61-893-94	2050-2070						Trace			
SBR61-895	2070-2080						b			
SBR61-896	2080-2090						c			
SBR61-897	2090-2100	71136	1.0	.9	97.3	.8	2.7a	2.2	None	
SBR61-898	2100-2110	71137	1.2	1.0	97.1	.7	3.1a	2.4	None	
SBR61-899	2110-2120	71138	1.5	1.1	96.8	.6	3.8a	2.6	None	
SBR61-900	2120-2130	71139	1.2	1.1	97.5	.2	3.1a	2.6	None	
SBR61-901	2130-2140	71140	1.1	1.5	96.7	.4	3.7a	3.6	None	
SBR61-902	2140-2150						Trace			
SBR61-903-04	2150-2170						No Oil			
SBR61-905	2170-2180						c			
SBR61-906	2180-2190						Trace			
SBR61-907	2190-2200						No Oil			
SBR61-908-10	2200-2230						b			

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.  
 Assay - Sample contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 10, 1960; assays made on air-dried samples.

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association's No. 2 Uintah Unit well (Con'd)

Surface elevation 5,232 feet

Sample number		Run No.	Yield of product				Gal. per ton		Specific gravity of oil at 60°/60° F.	Properties of spent shale Tendency to coke	Remarks
			Weight percent		Spent shale	Gas + loss	Oil	Water			
Laramie	Thair		Oil	Water							
SER61-211-12	2230-2250						No Oil				
SER61-213	2250-2260	71111	1.8	1.3	96.5	0.4	4.7*	3.1		None	
SER61-214	2260-2270	71112	3.6	1.1	94.5	.8	9.6	2.6	0.905	None	
SER61-215	2270-2280	71113	3.7	.9	94.2	1.2	9.8	2.2	.907	None	
SER61-216	2280-2290						Assay				
SER61-217-18	2290-2310						b				
SER61-219	2310-2320						No Oil				
SER61-220	2320-2330						b				
SER61-221	2330-2340	71114	.9	.3	98.3	.5	2.4*	.7		None	
SER61-222-25	2340-2380						No Oil				
SER61-226-41	2400-2560						No Oil				
	2560-2610										
Samples spot checked showed occasional traces of oil.											

Samples spot checked showed occasional traces of oil.

\* - Specific gravity estimated due to insufficient oil. b - Less than 1.0 gallon of oil per ton of shale. Assay - Samples contained more than 3.0 gallons of oil per ton of shale.

Drill cutting samples received June 13, 1960; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SER-3475P, Sheet No. 6 of 6 sheets, February 7, 1961