

Stopped above Mahogany  
UR 214

# OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association, Billings, Montana, Ute Trail No. 2 well,  
drilled NE 1/4 NE 1/4 of sec. 17, T. 10 S., R. 22 E., Uintah County, Utah

Surface elevation 5,072 feet

Samples collected and provided by the Utah State Land Board, Salt Lake City, Utah.

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					
Laramie	Ther		Oil	Water					Oil	Water	
SER59-3371	885- 890						b				
SER59-3372-74	890- 905						trace				
SER59-3375-77	905- 920						b				
SER59-3378	920- 925						none				
SER59-3379-80	925- 935						trace				
SER59-3381-86	950- 980						c				
SER59-3387-98	980-1040						none				
SER59-3399-3400	1040-1050						b				
SER59-3401-03	1050-1065						c				
SER59-3404	1065-1070						b				
SER59-3405-07	1070-1085						trace				
SER59-3408	1085-1090						b				
SER59-3409-11	1090-1105						trace				
SER59-3412	1105-1110						b				
SER59-3413	1110-1115						trace				
SER59-3414	1115-1120						none				
SER59-3415	1120-1125						trace				
SER59-3416	1125-1130						c				
SER59-3417	1130-1135						b				
SER59-3418	1135-1140	62040	0.7	2.0	96.9	0.4	1.9a	4.8		None	
SER59-3419	1140-1145	62041	1.3	1.4	96.5	0.8	3.4a	3.4		None	
SER59-3420	1145-1150						b				
SER59-3421	1150-1153						c				
SER59-3422	1153-1155	62042	.7	1.4	97.3	.6	1.8a	3.4		None	
SER59-3423	1155-1160	62043	.6	.6	98.6	.2	1.6a	1.4		None	
SER59-3424-25	1160-1170						b				
SER59-3426-27	1170-1180						c				
SER59-3428	1180-1185						b				
SER59-3429-33	1185-1210						c				
SER59-3434	1210-1215						trace				

Drill-cutting samples received June 11, 1959; assays made on air-dried samples.

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

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association, Billings, Montana, Ute Trail No. 2 well,  
drilled NE 1/4 NE 1/4 of sec. 17, T. 10 S., R. 22 E., Uintah County, Utah

Surface elevation 5,072 feet

Samples collected and provided by the Utah State Land Board, Salt Lake City, Utah.

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	Thier		Oil	Water							
SR59-3435-37	1215-1230						b				
SR59-3438	1230-1235						trace				
SR59-3439	1235-1240						b				
SR59-3440-44	1240-1265						trace				
SR59-3445	1265-1270	62044	0.5	0.8	97.9	0.8	1.3a	2.0		None	
SR59-3446	1270-1275	62045	1.3	1.4	96.1	1.2	3.4a	3.5		None	
SR59-3447	1275-1280	62046	.9	.4	98.1	.6	2.4a	.8		None	
SR59-3448	1280-1285	62047	.7	.7	98.1	.5	1.7a	1.8		None	
SR59-3449	1285-1290	62048	.8	1.4	97.1	.7	2.0a	3.4		None	
SR59-3450	1290-1295	62049	.6	1.0	97.9	.5	1.7a	2.4		None	
SR59-3451	1295-1300	62050	.6	.8	98.2	.4	1.4a	2.0		None	
SR59-3452	1300-1305	62051	.6	.6	98.4	.4	1.7a	1.3		None	
SR59-3453	1305-1310	62052	1.0	.5	98.1	.4	2.6a	1.1		None	
SR59-3454	1310-1315	62053	1.3	.6	97.7	.4	3.3a	1.4		None	
SR59-3455	1315-1320	62054	1.6	.7	97.1	.6	4.2a	1.7		None	
SR59-3456	1320-1325	62055	1.9	.8	96.3	1.0	5.0a	2.0		None	
SR59-3457	1325-1330	62056	2.2	.8	96.4	.6	5.7	1.8	0.928	None	
SR59-3458	1330-1335	62057	2.3	.3	96.5	.9	5.9	.8	.925	None	
SR59-3459	1335-1340	62058	3.0	.2	96.0	.8	7.9	.6	.905	None	
SR59-3460	1340-1345	62059	2.0	.3	96.8	.9	5.3	.6	.924	None	
SR59-3461	1345-1350	62060	2.0	.3	96.6	1.1	5.2	.7	.925	None	
SR59-3462	1350-1355	62061	1.6	.5	97.3	.6	4.1a	1.2		None	
SR59-3463	1355-1360	62062	2.5	.4	96.8	.3	6.5	.8	.935	None	
SR59-3464	1360-1365	62063	1.5	.6	97.2	.7	4.0a	1.4		None	
SR59-3465	1370-1375	62064	2.2	.6	96.6	.6	5.8	1.4	.931	None	
SR59-3466	1375-1380	62065	1.8	.4	97.4	.4	4.8a	.8		None	
SR59-3467	1380-1385	62066	1.5	.6	97.1	.8	3.9a	1.3		None	
SR59-3468	1385-1390	62067	1.9	.5	96.9	.7	4.9a	1.3		None	
SR59-3469	1390-1395	62068	1.9	.8	96.6	.7	5.0a	1.8		None	
SR59-3470	1395-1400	62069	1.9	.4	97.0	.7	4.8a	1.1		None	

a - Specific gravity estimated due to insufficient oil.

b - Less than 1.0 gallon of oil per ton of shale.

Drill-cutting samples received June 11, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SR-2810P August 17, 1959

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association, Billings, Montana, Ute Trail No. 2 well,  
drilled NE 1/4 NE 1/4 of sec. 17, T. 10 S., R. 22 E., Uintah County, Utah

Surface elevation 5,072 feet

Samples collected and provided by the Utah State Land Board, Salt Lake City, Utah.

			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		
Laramie	Their		Oil	Water			Oil	Water				
SER59-3471	1400-1405	62070	2.1	0.5	97.0	.4	5.3	1.2	0.926	None		
SER59-3472	1405-1410	62071	1.7	.6	97.2	.5	4.5a	1.4		None		
SER59-3473	1410-1415	62072	1.9	.6	97.0	.5	5.0a	1.3		None		
SER59-3474	1415-1420	62073	1.4	1.2	96.5	.9	3.7a	2.8		None		
SER59-3475	1420-1425	62074	1.6	1.2	96.4	.8	4.1a	3.0		None		
SER59-3476	1425-1430	62075	1.9	.8	96.4	.9	5.0a	1.9		None		
SER59-3477	1430-1435	62076	1.7	1.0	96.5	.8	4.4a	2.3		None		
SER59-3478	1435-1440	62077	2.2	.8	96.3	.7	5.7	1.8	.926	None		
SER59-3479	1440-1445	62078	2.6	.5	96.1	.8	6.8	1.2	.930	None		
SER59-3480	1445-1450	62079	2.6	.6	96.0	.8	6.7	1.4	.931	None		
SER59-3481	1450-1455	62080	1.8	.6	96.8	.8	4.8a	1.4		None		
SER59-3482	1455-1460	62081	2.6	.5	96.1	.8	6.9	1.2	.921	None		
SER59-3483	1460-1465	62082	5.2	.6	92.8	1.4	13.7	1.4	.916	None		
SER59-3484	1465-1470	62083	4.8	.7	93.2	1.3	12.5	1.6	.923	None		
SER59-3485	1470-1475	62084	3.5	.7	94.3	1.5	9.2	1.6	.922	None		
SER59-3486	1475-1480	62085	3.2	.6	95.0	1.2	8.3	1.4	.924	None		
SER59-3487	1480-1485	62086	5.5	.4	92.8	1.3	14.3	1.0	.919	None		
SER59-3488	1485-1490	62087	3.1	.4	95.5	1.0	8.1	1.0	.926	None		
SER59-3489	1490-1495	62088	3.8	.3	94.9	1.0	9.9	.7	.925	None		
SER59-3490	1495-1500	62089	3.1	.4	95.8	.7	8.0	1.0	.924	None		
SER59-3491	1500-1505	62090	3.8	.4	94.7	1.1	9.9	.8	.922	None		
SER59-3492	1505-1510	62091	3.0	.3	94.9	1.8	7.9	.7	.923	None		
SER59-3493	1510-1515	62092	2.2	.3	96.7	.8	5.7	.7	.924	None		
SER59-3494	1515-1520	62093	4.1	.4	94.4	1.1	10.6	1.1	.923	None		
SER59-3495	1520-1525	62094	3.1	.3	95.6	1.0	8.1	.7	.923	None		
SER59-3496	1525-1530	62095	1.7	.5	97.0	.8	4.3a	1.2		None		
SER59-3497	1530-1535	62096	2.4	.4	96.2	1.0	6.1	1.1	.924	None		
SER59-3498	1535-1540	62097	3.9	.7	94.2	1.2	10.0	1.7	.924	None		
SER59-3499	1540-1545	62098	3.9	1.5	92.7	1.9	10.1	3.6	.936	None		
SER59-3500	1545-1550	62099	3.6	.9	94.1	1.4	9.3	2.2	.932	None		

a - Specific gravity estimated due to insufficient oil.

Drill-cutting samples received June 11, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SER-2811P

August 17, 1959

## OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from DeKalb Agricultural Association, Billings, Montana, Ute Trail No. 2 well,  
drilled NE 1/4 NE 1/4 of sec. 17, T. 10 S., R. 22 E., Uintah County, Utah

Surface elevation 5,072 feet

Samples collected and provided by the Utah State Land Board, Salt Lake City, Utah.

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					
Laramie	Their		Oil	Water					Oil	Water	
SBR59-3501	1550-1555	62100	3.8	1.0	93.8	1.4	9.8	2.3	0.934	None	
SBR59-3502	1555-1560	62101	3.6	.7	94.7	1.0	9.2	1.8	.929	None	

Drill-cutting samples received June 11, 1959; assays made on air-dried samples.

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-2812P August 17, 1959