

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from the Laramie Energy Research Center's White Mountain Corehole #5 drilled in the SW1/4NW1/4 (2,131 feet FNL, 317 FWL) of sec 27, T 19 N, R 106 W, Sweetwater County, Wyoming

Surface elevation 7,220 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	
SBR75-14641	91.0- 92.0	7659	0.1	3.1	96.2	0.6	0.1a	7.4	None	
SBR75-14642	92.0- 93.0	7660	.0	4.7	95.0	.3	No Oil	11.2	None	
SBR75-14643	93.0- 94.0	7661	.0	7.0	91.7	1.3	No Oil	16.8	None	
SBR75-14644	94.0- 95.2	7662	.0	7.9	91.0	1.1	Trace	18.9	None	
SBR75-14645	95.2- 96.4	7663	.0	5.3	93.4	1.3	.1a	12.7	None	
SBR75-14646	96.4- 97.5	7664	.1	3.4	94.4	2.1	.2a	8.1	None	
SBR75-14647	97.5- 98.6	7665	.0	3.3	94.4	2.3	.1a	7.9	None	
SBR75-14648	98.6- 99.7	7666	.2	2.5	96.8	.5	.4a	6.0	None	0.1 missing
SBR75-14649	99.7-100.7	7667	.1	5.9	91.3	2.7	.2a	14.1	None	
SBR75-14650	100.7-101.7	7668	.0	8.3	90.7	1.0	Trace	19.9	None	
SBR75-14651	101.7-103.0	7669	.0	6.2	92.7	1.1	Trace	14.8	None	
SBR75-14652	103.0-104.4	7670	.0	4.9	94.7	.4	Trace	11.7	None	
SBR75-14653	104.4-105.5	7671	.5	4.7	93.5	1.3	1.2a	11.3	None	
SBR75-14654	105.5-106.6	7672	2.3	4.0	92.3	1.4	5.9	9.6	0.925	
SBR75-14655	106.6-108.0	7673	.4	2.5	95.2	1.9	.9a	6.0	None	
SBR75-14656	108.0-108.6	7674	6.1	3.0	89.2	1.7	15.8	7.2	.928	
SBR75-14657	108.6-110.0	7675	.9	2.3	95.1	1.7	2.3a	5.5	None	0.1 missing
SBR75-14658	110.0-111.4	7676	1.8	2.7	94.6	.9	4.8	6.5	None	
SBR75-14659	111.4-112.7	7677	.2	2.1	95.8	1.9	.5a	5.0	None	
SBR75-14660	112.7-114.2	7678	1.0	2.8	95.5	.7	2.7a	6.7	None	
SBR75-14661	114.2-115.2	7679	.5	4.7	93.7	1.1	1.3a	11.3	None	
SBR75-14662	115.2-116.2	7680	.4	6.0	92.7	.9	1.0a	14.4	None	
SBR75-14663	116.2-117.3	7681	.0	6.6	92.5	.9	Trace	15.9	None	
SBR75-14664	117.3-118.3	7682	1.7	6.5	90.4	1.4	4.4a	15.6	None	
SBR75-14665	118.3-119.3	7683	.2	5.0	93.7	1.1	.6a	12.0	None	
SBR75-14666	119.3-120.6	7684	3.1	4.5	91.2	1.2	7.9	10.8	.939	
SBR75-14667	120.6-121.6	7686	3.9	3.5	91.4	1.2	10.0	8.4	.932	
SBR75-14668	121.6-122.7	7687	5.6	3.0	90.0	1.4	14.3	7.2	.932	
SBR75-14669	122.7-123.7	7688	2.8	3.2	92.8	1.2	7.3	7.7	.935	
SBR75-14670	123.7-124.4	7689	6.0	3.4	88.6	2.0	15.5	8.1	.936	

See footnote at end of table.

Core samples received June 30, 1975; assays made on air-dried samples

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Surface elevation 7,220 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		Spent shale	Gas + loss			
Laramie	Their		Oil	Water					Oil ^{1/}	Water	
SBR75-14671	124.4-125.5	7690	0.8	3.4	94.7	1.1	2.2a	8.1		None	
SBR75-14672	125.5-126.7	7691	.8	3.7	94.0	1.5	2.1a	8.9		None	
SBR75-14673	126.7-127.5	7758	4.3	2.1	91.9	1.7	11.3	5.0	0.906	None	
SBR75-14674	127.5-128.5	7759	6.1	2.8	89.0	2.1	16.4	6.7	.894	None	
SBR75-14675	128.5-129.5	7760	10.1	2.8	85.5	1.6	26.9	6.7	.905	None	
SBR75-14676	129.5-130.8	7761	6.1	3.8	86.0	4.1	16.2	9.1	.905	None	
SBR75-14677	130.8-131.9	7762	9.3	4.1	83.8	2.8	23.7	9.8	.937	None	
SBR75-14678	131.9-132.9	7763	8.2	4.5	84.8	2.5	20.9	10.8	.938	None	
SBR75-14679	132.9-134.0	7704	12.1	5.0	78.6	4.3	30.6	12.0	.945	None	
SBR75-14680	134.0-134.8	7705	4.0	1.9	92.7	1.4	10.5	4.6	.927	None	
SBR75-14681	134.8-135.8	7706	5.1	4.7	88.2	2.0	13.4	11.3	.917	None	
SBR75-14682	135.8-136.8	7707	4.7	5.8	87.2	2.3	12.2	13.9	.914	None	Weathered fracture
SBR75-14683	136.8-137.7	7708	4.2	7.5	86.4	1.9	10.8	18.0	.925	None	Weathered fracture
SBR75-14684	137.7-138.3	7710	2.1	2.9	94.4	.6	5.5	7.0	.910	None	
SBR75-14685	138.3-139.4	7711	4.6	4.4	89.4	1.6	12.3	10.5	.906	None	
SBR75-14686	139.5-140.6	7712	3.9	4.5	89.6	2.0	10.5	10.8	.900	None	
SBR75-14687	140.6-141.2	7713	5.6	3.5	89.0	1.9	15.0	8.4	.900	None	
SBR75-14688	141.2-143.1	7714	.2	5.1	93.3	1.4	.6a	12.2		None	
SBR75-14689	143.1-144.1	7715	8.1	4.5	84.8	2.6	21.5	10.8	.905	None	
SBR75-14690	144.1-145.3	7781	13.5	4.2	78.5	3.8	35.3	10.1	.918	None	
SBR75-14691	145.3-146.3	7717	5.7	5.0	86.5	2.8	15.1	12.0	.908	None	
SBR75-14692	146.3-147.3	7718	6.6	2.4	88.5	2.5	17.5	5.8	.906	None	
SBR75-14693	147.3-148.3	7719	6.0	3.5	88.8	1.7	15.8	8.4	.906	None	
SBR75-14694	148.3-149.3	7728	7.1	4.7	85.9	2.3	18.8	11.3	.898	None	
SBR75-14695	149.3-150.4	7729	7.1	3.4	86.9	2.6	18.9	8.1	.901	None	
SBR75-14696	150.4-151.5	7730	5.5	3.8	88.6	2.1	14.6	9.1	.904	None	
SBR75-14697	151.5-152.6	7731	5.5	4.9	87.4	2.2	14.5	11.7	.906	None	
SBR75-14698	152.6-153.6	7732	1.1	3.9	93.8	1.2	2.9a	9.3		None	
SBR75-14699	153.6-154.7	7733	.8	3.8	94.7	.7	2.0a	9.1		None	
SBR75-14700	154.7-155.8	7734	1.0	3.9	93.7	1.4	2.7a	9.3		None	

See footnote at end of table.

Core samples received June 30, 1975; assays made on air-dried samples

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Samples from the Laramie Energy Research Center's White Mountain Corehole #5 (con.)

Surface elevation 7,220 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 / _{ton}	Water	coke	
SBR75-14701	155.8-156.9	7735	0.8	3.8	94.6	0.8	2.2a	9.1	None	
SBR75-14702	156.9-158.0	7736	.4	3.2	95.8	.6	1.1a	7.7	None	
SBR75-14703	158.0-159.0	7737	.3	2.8	96.5	.4	.9a	6.7	None	
SBR75-14704	159.0-160.0	7738	.5	3.3	95.4	.8	1.3a	7.9	None	
SBR75-14705	160.0-161.0	7739	.3	4.3	94.2	1.2	.8a	10.3	None	
SBR75-14706	161.0-162.0	7740	.7	4.1	94.2	1.0	1.7a	9.8	None	
SBR75-14707	162.0-163.3	7741	7.2	4.2	86.0	2.6	18.9	10.1	0.910	None
SBR75-14708	163.3-164.5	7742	5.6	4.9	86.7	2.8	14.7	11.7	.916	None
SBR75-14709	164.5-165.7	7743	8.3	3.8	83.1	4.8	21.4	9.1	.930	None
SBR75-14710	165.7-167.0	7744	10.6	3.2	83.0	3.2	27.8	7.7	.919	None
SBR75-14711	167.0-168.2	7745	9.9	4.3	82.9	2.9	26.0	10.3	.916	None
SBR75-14712	168.2-169.4	7746	8.4	4.8	84.2	2.6	22.2	11.5	.910	None
SBR75-14713	169.4-170.4	7747	9.0	5.0	83.2	2.8	23.4	12.0	.924	None
SBR75-14714	170.4-171.6	7748	14.1	4.4	76.6	4.9	36.3	10.5	.929	None
SBR75-14715	171.6-172.6	7749	14.6	3.2	76.1	6.1	37.8	7.7	.926	None
SBR75-14716	172.6-173.6	7750	12.6	2.8	80.3	4.3	32.7	6.8	.919	None
SBR75-14717	173.6-174.7	7751	11.7	3.6	81.2	3.5	30.4	8.6	.924	None
SBR75-14718	174.7-175.8	7752	10.1	3.7	82.9	3.3	26.2	8.9	.924	None
SBR75-14719	175.8-176.8	7753	13.2	2.9	79.9	4.0	34.2	7.0	.927	None
SBR75-14720	176.8-177.8	7754	12.7	2.5	80.6	4.2	32.8	6.0	.927	None
SBR75-14721	177.8-178.9	7755	8.8	3.3	85.1	2.8	23.1	7.9	.914	None
SBR75-14722	178.9-180.1	7756	8.7	3.1	85.5	2.7	22.8	7.4	.915	None
SBR75-14723	180.1-181.1	7757	13.0	2.5	80.9	3.6	34.1	6.0	.916	0.2 missing
SBR75-14724	181.1-181.9	7764	10.2	2.4	84.7	2.7	26.9	5.8	.910	None
SBR75-14725	181.9-182.7	7765	11.6	2.2	82.5	3.7	30.5	5.3	.911	None
SBR75-14726	182.7-183.2	7766	9.6	3.8	84.3	2.3	25.1	9.1	.918	None
SBR75-14727	183.2-184.2	7767	6.5	1.8	90.1	1.6	16.9	4.3	.917	None
SBR75-14728	184.2-185.1	7768	6.9	1.6	89.9	1.6	18.0	3.8	.921	None
SBR75-14729	185.1-185.8	7769	4.7	1.6	91.9	1.8	12.4	3.8	.919	None
SBR75-14730	185.8-186.7	7770	10.5	1.7	84.9	2.9	27.5	4.1	.917	None

See footnote at end of table.

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Surface elevation 7,220 feet

Sample number	Run	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	No.	Oil	Water	Spent shale	Gas + loss			
SBR75-14731	186.7-187.7	7771	3.4	1.3	93.2	2.1	8.8	3.1	0.917	None	
SBR75-14732	187.7-189.4	7772	2.2	1.9	94.7	1.2	5.7	4.6	.917	None	
SBR75-14733	189.6-190.7	7773	2.1	2.0	94.2	1.7	5.5	4.8	.917	None	
SBR75-14734	190.7-191.7	7774	2.9	2.2	93.4	1.5	7.5	5.3	.918	None	
SBR75-14735	191.7-192.7	7775	4.0	1.5	93.2	1.3	10.3	3.6	.921	None	
SBR75-14736	192.7-193.8	7776	1.9	1.4	96.1	.6	4.9a	3.4		None	
SBR75-14737	193.8-194.8	7777	6.5	1.3	89.3	2.9	17.1	3.1	.911	None	
SBR75-14738	194.8-196.0	7778	7.4	2.2	88.2	2.2	19.2	5.3	.917	None	
SBR75-14739	196.0-197.3	7779	8.5	2.3	87.0	2.2	22.3	5.5	.914	None	
SBR75-14740	197.3-198.3	7780	6.0	1.8	90.6	1.6	16.0	4.3	.905	None	
SBR75-14741	198.3-199.3	7782	6.3	1.4	89.7	2.6	16.4	3.4	.914	None	
SBR75-14742	199.3-200.4	7783	10.1	1.4	85.2	3.3	26.7	3.4	.907	None	
SBR75-14743	200.4-201.4	7784	7.2	1.2	89.4	2.2	19.1	2.8	.908	None	
SBR75-14744	201.4-202.6	7785	6.9	1.3	89.1	2.7	18.1	3.2	.907	None	
SBR75-14745	202.6-203.6	7786	4.4	1.2	92.4	2.0	11.7	2.9	.895	None	
SBR75-14746	203.6-204.6	7787	4.4	1.1	92.7	1.8	11.4	2.8	.916	None	
SBR75-14747	204.6-205.5	7788	5.2	.7	92.8	1.3	13.7	1.7	.906	None	
SBR75-14748	205.5-206.4	7789	5.5	1.5	91.3	1.7	14.5	3.6	.916	None	
SBR75-14749	206.4-207.4	7790	3.1	1.1	94.8	1.0	8.0	2.6	.916	None	
SBR75-14750	207.4-208.3	7791	5.6	1.2	90.1	3.1	15.0	2.9	.904	None	
SBR75-14751	208.3-209.4	7792	3.5	1.5	94.0	1.0	9.3	3.6	.898	None	
SBR75-14752	209.6-210.9	7793	5.6	1.0	92.0	1.4	14.9	2.4	.906	None	
SBR75-14753	210.9-211.9	7794	4.8	.5	93.2	1.5	12.4	1.2	.919	None	
SBR75-14754	211.9-212.6	7795	7.2	1.2	89.7	1.9	18.9	2.9	.915	None	
SBR75-14755	212.6-213.7	7796	5.7	1.5	90.9	1.9	14.9	3.6	.919	None	
SBR75-14756	213.7-214.7	7797	7.8	1.5	88.1	2.6	20.9	3.6	.901	None	
SBR75-14757	214.7-215.4	7798	5.2	1.0	91.5	2.3	13.5	2.4	.916	None	
SBR75-14758	215.4-216.2	7799	7.0	1.3	89.6	2.1	18.3	3.1	.922	None	
SBR75-14759	216.2-217.2	7800	9.2	1.6	87.3	1.9	24.3	3.8	.909	None	
SBR75-14760	217.2-218.3	7801	8.1	1.2	88.7	2.0	21.4	2.9	.912	None	

See footnote at end of table.

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Surface elevation 7,220 feet

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			Weight percent		Spent shale	Gas + loss		Gal per ton			Tendency to coke
Laramie	Their	Oil	Water	Oil ^{1/}			Water				
SBR75-14761	218.3-219.4	7802	8.0	1.5	88.5	2.0	21.3	3.6	0.907	None	
SBR75-14762	219.6-220.4	7803	6.2	1.2	90.9	1.7	16.4	2.9	.906	None	
SBR75-14763	220.4-221.0	7804	7.0	2.0	89.3	1.7	18.6	4.8	.899	None	
SBR75-14764	221.0-222.2	7805	4.9	1.6	91.8	1.7	13.0	3.8	.904	None	Top Wilkins Peak
SBR75-14765	222.2-223.8	7806	6.3	1.2	91.2	1.3	16.7	2.9	.913	None	
SBR75-14766	223.8-224.6	7807	4.5	1.8	92.6	1.1	12.0	4.3	.909	None	
SBR75-14767	224.6-225.6	7808	.3	5.0	93.5	1.2	.8a	12.0		None	
SBR75-14768	225.6-226.7	7809	.5	4.0	94.6	.9	1.2a	9.6		None	
SBR75-14769	226.7-228.0	7810	8.0	3.1	86.9	2.0	20.7	7.4	.922	None	
SBR75-14770	228.0-229.2	7811	8.3	3.6	85.3	2.8	21.5	8.6	.922	None	
SBR75-14771	229.2-230.5	7812	3.1	3.2	92.3	1.4	8.1	7.7	.916	None	
SBR75-14772	230.5-231.5	7813	.8	2.7	95.6	.9	2.1a	6.5		None	
SBR75-14773	231.5-232.7	7814	2.8	2.4	93.6	1.2	7.4	5.8	.916	None	
SBR75-14774	232.7-233.7	7815	2.6	1.6	94.5	1.3	6.7	3.8	.919	None	
SBR75-14775	233.7-234.7	7816	1.4	1.7	95.7	1.2	3.8a	4.1		None	
SBR75-14776	234.7-235.7	7817	.6	2.9	95.4	1.1	1.6a	7.0		None	
SBR75-14777	235.7-236.8	7818	.1	2.5	96.6	.8	.3a	6.0		None	
SBR75-14778	236.8-238.3	7819	1.0	2.2	95.7	1.1	2.5a	5.3		None	
SBR75-14779	238.3-239.6	7820	3.5	2.3	92.6	1.6	9.0	5.5	.917	None	Bottom of core

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

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