

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs Well No. 4-2 drilled in SE1/4SE1/4NW1/4
sec 15, T 18 N, R 106 W, Sweetwater County, Wyoming

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	Gal per ton					
Laramie	Their	Oil	Water					Oil ¹ / _{Water}			
OSCR-RS-4-2	30.0-31.0	11198	0.3	1.0	98.4	0.3	0.8a	2.4		None	
	31.0-32.0	11199	.3	.2	98.9	.6	.7a	.5		None	
	32.0-33.0	11200	1.0	.5	97.9	.6	2.5a	1.3		None	
	33.0-33.8	11201	8.0	1.5	88.7	1.8	21.1	3.6	0.911	None	
	33.8-34.3	11202	2.6	1.0	95.5	.9	6.8	2.4	.909	None	
	34.3-34.8	11203	6.6	1.5	90.1	1.8	17.4	3.6	.910	None	
	34.8-35.8	11204	7.6	1.7	89.2	1.5	19.5	4.1	.930	None	
	35.8-36.8	11205	13.0	1.8	82.5	2.7	33.4	4.3	.931	None	
	36.8-37.2	11206	12.4	2.5	82.4	2.7	31.9	6.0	.928	None	
	37.2-37.5	11207	8.8	2.5	86.2	2.5	22.6	6.0	.933	None	
	37.5-38.6	11208	13.0	2.5	81.4	3.1	34.2	6.0	.910	None	
	38.6-39.6	11209	10.3	2.1	86.2	1.4	26.8	5.2	.918	None	
	39.6-40.2	11210	12.5	2.4	82.9	2.2	33.0	5.8	.910	None	
	40.2-41.1	11211	6.0	2.4	90.1	1.5	15.8	5.8	.910	None	
	41.1-41.7	10650	7.3	2.8	87.1	2.8	19.2	6.7	.912	None	
	41.7-42.5	11212	6.5	2.3	88.7	2.5	17.2	5.4	.906	None	
	42.5-43.7	11213	3.6	3.0	90.8	2.6	9.5	7.2	.915	None	
	43.7-44.0	10651	4.8	2.8	88.9	2.8	12.6	6.7	.915	None	
	44.0-44.7	11214	5.9	2.3	89.3	2.5	15.3a	5.5		None	
	44.7-44.9	11215	8.1	2.6	85.6	3.7	21.0	6.2	.925	None	
	44.9-45.1	10652	7.2	3.6	86.8	2.4	18.6	8.6	.931	None	
	45.1-46.1	10653	8.2	3.4	85.2	3.2	21.2	8.1	.930	None	
	46.1-46.5	11216	8.0	2.5	85.7	3.8	20.8	6.0	.926	None	
	46.5-46.9	10655	5.7	3.3	89.3	1.7	14.6	7.8	.940	None	
	46.9-47.2	11217	7.2	2.7	87.4	2.7	18.6	6.5	.927	None	
	47.2-47.8	10656	7.1	3.1	87.9	1.9	18.1	7.4	.939	None	
	47.8-48.1	11218	9.0	2.6	85.2	3.2	23.2	6.4	.930	None	
	48.1-48.3	10656	7.1	3.1	87.9	1.9	18.1	7.4	.939	None	
	48.3-48.9	11219	4.9	2.7	91.0	1.4	12.4	6.5	.944	None	
	48.9-49.0	11220	6.7	2.2	89.0	2.1	17.0	5.3	.938	None	

See footnotes at end of table.

Core samples received January 1966; assays made on as received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs Well No. 4-2 (con.)

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					
		Oil	Water	Spent shale	Gas + loss	Oil	Water			
Laramie Their										
OSCR-RS-4-2	49.0-49.1	11221	6.0	4.6	87.6	1.8	15.5a	11.1	.950	None
	49.1-49.8	10657	5.4	2.4	89.9	2.3	13.5	5.8	.941	None
	49.8-49.9	11222	6.1	2.8	88.6	2.5	15.4	6.7	.940	None
	49.9-50.5	10658	3.8	3.8	91.2	1.2	9.7	9.2	.936	None
	50.5-50.7	10659	8.0	2.9	86.2	2.9	20.5	6.8	.928	None
	50.7-51.0	11223	8.4	2.2	86.7	2.7	21.8	5.3	.924	None
	51.0-51.7	10660	9.6	3.0	84.6	2.8	24.9	7.1	.926	None
	51.7-52.0	11224	10.2	2.3	84.1	3.4	26.5	5.5	.928	None
	52.0-52.5	10661	8.9	3.3	85.9	1.9	23.1	7.9	.933	None
	52.5-52.7	11225	7.7	2.6	87.3	2.4	19.8	6.2	.928	None
	52.7-53.0	10661	8.9	3.3	85.9	1.9	23.1	7.9	.925	None
	53.0-53.4	11227	12.4	2.7	81.0	3.9	32.0	6.5	.944	None
	53.4-53.8	10662	6.9	2.6	88.0	2.5	17.5	6.2	.941	None
	53.8-54.0	11226	7.5	2.7	87.6	2.2	19.1	6.5	.944	None
	54.0-54.3	10663	8.5	2.7	85.9	2.9	21.7	6.5	.940	None
	54.3-54.6	11228	8.1	2.6	87.0	2.3	20.7	6.2	.944	None
	54.6-54.9	10663	8.5	2.7	85.9	2.9	21.7	6.5	.946	None
	54.9-55.4	11229	7.9	2.5	87.6	2.0	20.1	6.0	.954	None
	55.4-55.8	10664	6.6	3.2	88.2	2.0	16.5	7.7	.949	None
	55.8-56.1	11230	6.3	2.7	89.0	2.0	15.9	6.5	.946	None
	56.1-56.7	10665	5.9	3.2	88.8	2.1	15.1	7.7	.940	None
	56.7-57.1	11231	6.5	3.0	88.7	1.8	16.5	7.2	.933	None
	57.1-57.6	10666	8.0	3.2	83.9	4.9	20.7	7.7	.913	None
	57.6-58.0	10667	11.2	3.4	81.9	3.5	29.5	8.1	.916	None
	58.0-58.3	11232	12.6	2.1	82.2	3.1	32.8	5.0	.912	None
	58.3-58.7	10668	13.7	3.1	79.2	4.0	36.0	7.4	.919	None
	58.7-59.0	10669	8.0	1.6	88.5	1.9	20.9	3.8	.912	None
	59.0-59.7	10670	10.5	2.5	84.0	3.0	27.7	6.0	.910	None
	59.7-60.6	10671	11.1	2.4	83.5	3.0	29.1	5.8	.913	None
	60.6-60.8	11233	9.8	.8	87.2	2.2	25.8	1.8		

Core samples received January 1966; assays made on as received basis

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Samples from USBM Rock Springs Well No. 4-2 (con.)

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		Spent shale			Oil ^{1/}	Water	
OSCR-RS-4-2	60.8-61.0	10671	11.1	2.4	83.5	3.0	29.3	5.8	.910	None	
	61.0-61.1	11234	9.2	1.3	87.4	2.1	24.2	3.1	.908	None	
	61.1-62.0	10674	11.2	2.0	84.4	2.4	29.4	4.8	.913	None	
	62.0-62.5	10675	9.4	2.1	86.3	2.2	24.6	5.0	.915	None	
	62.5-62.8	10676	6.5	3.4	88.9	1.2	17.0	8.1	.914	None	
	62.8-63.7	10672	8.9	2.5	84.7	3.9	23.6	6.0	.906	None	
	63.7-64.0	11235	6.5	2.4	89.3	1.8	17.3	5.8	.907	None	
	64.0-64.7	10673	5.7	3.0	89.7	1.6	14.8	7.2	.921	None	
	64.7-64.9	10677	5.5	2.7	90.1	1.7	14.2	6.5	.928	None	
	64.9-65.5	10678	7.8	2.3	88.0	1.9	20.2	5.5	.924	None	
	65.5-65.7	11238	4.5	2.3	91.8	1.4	12.0	5.5	.906	None	
	65.7-66.0	10678	7.8	2.3	88.0	1.9	20.2	5.5	.924	None	
	66.0-66.2	11236	4.5	2.1	92.2	1.2	11.5	5.0	.930	None	
	66.2-67.0	10686	10.6	2.1	85.3	2.0	27.5	5.0	.925	None	
	67.0-67.2	10687	11.9	1.5	83.7	2.9	31.2	3.6	.914	None	
	67.2-67.5	10679	9.6	4.0	85.8	.6	25.6	9.6	.901	None	
	67.5-68.0	10680	12.3	2.4	83.3	2.0	32.2	5.8	.915	None	
	68.0-68.4	11237	13.8	2.2	81.3	2.7	36.0	5.3	.921	None	
	68.4-68.9	10681	1.6	2.3	95.4	.7	4.2a	5.5		None	
	68.9-69.0	11239	5.7	2.3	90.0	2.0	14.7	5.5	.928	None	
	69.0-69.1	10682	6.5	2.2	89.7	1.6	16.9	5.3	.916	None	
	69.1-69.5	11240	4.4	1.0	93.1	1.5	11.5	2.4	.924	None	
	69.5-70.0	10682	6.5	2.2	89.7	1.6	16.9	5.3	.916	None	
	70.0-70.3	10683	8.7	1.8	87.6	1.9	22.6	4.3	.919	None	
	70.3-70.5	11241	8.2	1.0	88.2	2.6	21.3	2.4	.919	None	
	70.5-71.0	10684	9.3	2.0	86.2	2.5	24.5	4.8	.914	None	
	71.0-71.1	10685	8.8	1.4	88.3	1.5	22.8	3.4	.921	None	
	71.1-71.3	11242	8.1	.7	88.3	2.9	21.2	1.7	.916	None	
	71.3-72.0	10685	8.8	1.4	88.3	1.5	22.8	3.4	.921	None	
	72.0-72.2	10688	6.8	2.5	88.8	1.9	18.0	6.0	.910	None	

See footnotes at end of table.

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Sample number			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 ^{1/}	Water			
OSCR-RS-4-2	72.2-72.5	11243	6.4	1.8	90.0	1.8	16.9	4.3	.905	None ¹	
	72.5-72.7	10688	6.8	2.5	88.8	1.9	18.0	6.0	.910	None	
	72.7-73.0	10689	3.9	3.0	91.3	1.8	10.4	7.3	.895	None	
	73.0-73.5	10690	4.8	1.7	91.8	1.7	13.0	4.1	.893	None	
	73.5-73.8	10691	2.1	1.9	94.8	1.2	5.8	4.6	.886	None	
	73.8-75.0	10692	1.7	2.4	94.3	1.6	4.5a	5.8		None	
	75.0-77.0	10693	1.7	2.0	95.1	1.2	4.4a	4.8		None	
	77.0-78.0	10694	1.4	2.3	95.2	1.1	3.7a	5.5		None	
	78.0-78.5	10695	.9	1.8	96.1	1.2	2.4a	4.3		None	
	78.5-78.9	10696	2.1	2.0	94.8	1.1	5.6	4.8	.910	None	
	78.9-79.1	11244	8.8	1.6	87.2	2.4	22.6	3.8	.929	None	
	79.1-79.5	10697	2.1	2.0	94.8	1.1	5.6	4.8	.910	None	
	79.5-79.7	11245	5.1	.7	92.6	1.6	13.2	1.6	.934	None	
	79.7-80.6	10698	5.7	1.5	91.1	1.7	15.0	3.6	.917	None	

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

Core samples received January 1966; assays made on as received basis