OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs well No. 5-3 drilled in NENWNE sec 15, T 18N, R 106 W, Sweetwater County, Wyoming

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil[1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 15.0-16.0 | | | | | 6.6 | | | None | |
| 16.0-17.0 | | | | | 8.1 | | | None | |
| 17.0-18.0 | | | | | 6.6 | | | None | |
| 18.0-19.0 | | | | | 12.3 | | | None | |
| 19.0-20.0 | | | | | 9.6 | | | None | |
| 20.0-20.6 | | | | | 15.0 | | | None | |
| 20.6-21.6 | | | | | 15.7 | | | None | |
| 21.6-22.6 | | | | | 16.4 | | | None | |
| 22.6-22.9 | | | | | 17.3 | | | None | |
| 22.9-23.9 | | | | | 3.1a | | | None | |
| 23.9-24.9 | | | | | 2.2a | | | None | |
| 24.9-27.3 | | | | | 5.1a | | | None | |
| 27.3-28.3 | | | | | 3.6a | | | None | |
| 28.3-29.3 | | | | | 8.6 | | | None | |
| 29.3-30.3 | | | | | 4.8a | | | None | |
| 30.3-31.5 | | | | | 6.3 | | | None | |
| 31.5-32.4 | | | | | 19.1 | | | None | |
| 32.4-33.1 | | | | | 16.2 | | | None | |
| 33.1-34.1 | | | | | 8.5 | | | None | |
| 34.1-35.1 | | | | | 7.8 | | | None | |
| 35.1-36.1 | | | | | 3.9a | | | None | |
| 36.1-37.1 | | | | | 2.7a | | | None | |
| 37.1-38.2 | | | | | 2.4a | | | None | |
| 38.2-39.2 | | | | | 8.2 | | | None | |
| 39.2-40.2 | 6.1 | 2.1 | 90.0 | 1.8 | 16.0 | 5.0 | 0.913 | None | |
| 40.2-41.2 | 7.2 | 2.8 | 87.9 | 2.1 | 19.1 | 6.7 | .908 | None | |
| 41.2-41.5 | 6.4 | 2.6 | 88.5 | 2.5 | 16.8 | 6.2 | .913 | None | |
| 41.5-41.7 | 7.1 | 2.1 | 88.7 | 2.1 | 18.7 | 5.0 | .910 | None | |
| 41.7-42.7 | 6.6 | 1.9 | 89.7 | 1.8 | 17.3 | 4.6 | .918 | None | |
| 43.6-44.2 | 2.3 | 1.7 | 95.1 | 0.9 | 6.0a | 4.1 | | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Sample from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil[1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 44.2-44.5 | 5.8 | 1.5 | 91.1 | 1.6 | 15.0 | 3.5 | 0.924 | None | |
| 44.5-45.5 | .2 | 2.0 | 97.2 | .6 | .6a | 4.8 | | None | |
| 45.5-45.8 | .4 | 1.7 | 97.6 | .3 | 1.1a | 4.0 | | None | |
| 45.8-46.9 | .3 | 1.7 | 97.8 | .2 | .8a | 4.1 | | None | |
| 46.9-47.9 | .1 | 2.3 | 97.3 | .3 | .3a | 5.5 | | None | |
| 47.9-48.9 | .2 | 2.7 | 96.9 | .2 | .5a | 6.5 | | None | |
| 48.9-49.5 | .1 | 3.0 | 96.8 | .1 | .2a | 7.2 | | None | |
| 49.5-50.5 | 1.2 | 2.7 | 95.8 | .3 | 3.0a | 6.5 | | None | |
| 50.5-51.6 | .2 | 1.0 | 97.5 | 1.3 | .5a | 2.4 | | None | |
| 51.6-52.4 | 5.5 | 1.3 | 90.9 | 2.3 | 14.1 | 3.1 | .929 | None | |
| 52.4-52.9 | 7.8 | 2.1 | 88.0 | 2.1 | 20.2 | 5.0 | .929 | None | |
| 52.9-53.6 | 7.6 | 2.2 | 87.8 | 2.4 | 19.8 | 5.3 | .926 | None | |
| 53.6-54.6 | 8.5 | 2.2 | 87.4 | 1.9 | 22.2 | 5.3 | .916 | None | |
| 54.6-55.2 | 7.6 | 1.9 | 88.3 | 2.2 | 19.9 | 4.6 | .918 | None | |
| 55.2-55.7 | 5.4 | 2.1 | 90.6 | 1.9 | 14.0 | 5.0 | .925 | None | |
| 55.7-56.7 | 2.4 | 2.1 | 94.7 | .8 | 6.3 | 5.0 | .922 | None | |
| 56.7-57.7 | .2 | 1.2 | 98.1 | .5 | .5a | 2.9 | | None | |
| 57.7-58.7 | .1 | 1.3 | 97.8 | .8 | .2a | 3.1 | | None | |
| 58.7-59.7 | .2 | 1.5 | 97.3 | 1.0 | .4a | 3.6 | | None | |
| 59.7-60.0 | .2 | .5 | 98.2 | 1.1 | .5a | 1.2 | | None | |
| 60.0-60.9 | 1.3 | .9 | 97.2 | .6 | 3.3a | 2.2 | | None | |
| 60.9-61.9 | 2.3 | 3.0 | 93.5 | 1.2 | 5.9 | 7.2 | .922 | None | |
| 61.9-62.9 | 6.6 | 2.5 | 88.9 | 2.0 | 17.4 | 6.0 | .918 | None | |
| 62.9-63.9 | 7.4 | 3.1 | 87.4 | 2.1 | 19.0 | 7.4 | .933 | None | |
| 63.9-64.9 | 12.2 | 3.0 | 82.1 | 2.7 | 31.3 | 7.2 | .933 | None | |
| 64.9-65.9 | 11.5 | 2.9 | 83.0 | 2.6 | 29.5 | 7.0 | .935 | None | |
| 65.9-66.9 | 12.0 | 3.0 | 82.4 | 2.6 | 31.2 | 7.2 | .924 | None | |
| 66.9-67.9 | 11.8 | 2.8 | 82.6 | 2.8 | 30.7 | 6.7 | .919 | None | |
| 67.9-68.7 | 11.0 | 2.8 | 83.7 | 2.5 | 28.8 | 6.7 | .918 | None | |
| 68.7-69.7 | 10.4 | 3.0 | 83.8 | 2.8 | 27.3 | 7.2 | .915 | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Sample from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 69.7-70.7 | 9.8 | 2.6 | 86.3 | 1.3 | 25.8 | 6.2 | 0.914 | None | |
| 70.7-71.2 | 8.3 | 2.1 | 88.6 | 1.0 | 22.0 | 5.0 | .899 | None | |
| 71.2-72.0 | 4.1 | 1.5 | 92.8 | 1.6 | 10.8 | 3.6 | .905 | None | |
| 72.0-73.0 | 6.0 | 1.4 | 90.9 | 1.7 | 15.9 | 3.4 | .909 | None | |
| 73.0-74.0 | 7.2 | 2.1 | 88.9 | 1.8 | 19:1 | 5.0 | .906 | None | |
| 74.0-75.0 | 4.6 | 2.7 | 90.0 | 2.7 | 12.2 | 6.5 | .907 | None | |
| 75.0-76.0 | 5.9 | 2.8 | 89.0 | 2.3 | 15.1 | 6.7 | .930 | None | |
| 76.0-77.0 | 7.8 | 3.0 | 86.4 | 2.8 | 20.7 | 7.2 | .902 | None | |
| 77.0-78.0 | 6.8 | 3.0 | 87.5 | 2.7 | 17.4 | 7.2 | .933 | None | |
| 78.0-78.3 | 7.7 | 3.0 | 86.9 | 2.4 | 19.9 | 7.2 | .926 | None | |
| 78.3-79.3 | 8.1 | 2.8 | 86.2 | 2.9 | 20.8 | 6.7 | .931 | None | |
| 79.3-80.3 | 6.0 | 2.9 | 88.9 | 2.2 | 15.3 | 7.0 | .939 | None | |
| 80.3-81.4 | 5.0 | 2.8 | 90.0 | 2.2 | 12.7 | 6.7 | .943 | None | |
| 81.4-81.8 | 2.8 | 5.5 | 90.2 | 1.5 | 7.0 | 13.2 | .945 | None | |
| 81.8-82.8 | 9.3 | 2.2 | 85.5 | 3.0 | 24.1 | 5.3 | .923 | None | |
| 82.8-83.5 | 9.5 | 2.0 | 85.5 | 3.0 | 24.6 | 4.8 | .925 | None | |
| 83.5-84.5 | 9.5 | 2.3 | 85.1 | 3.1 | 24.6 | 5.5 | .929 | None | |
| 84.5-85.5 | 8.1 | 2.4 | 86.1 | 3.4 | 20.6 | 5.8 | .938 | None | |
| 85.5-86.5 | 6.6 | 3.0 | 88.3 | 2.1 | 16.7 | 7.2 | .948 | None | |
| 86.5-87.5 | 6.4 | 2.9 | 88.6 | 2.1 | 16.2 | 7.0 | .946 | None | |
| 87.5-88.3 | 8.6 | 2.2 | 86.6 | 2.6 | 22.2 | 5.3 | .925 | None | |
| 88.3-89.3 | 12.0 | 2.0 | 82.1 | 3.9 | 31.8 | 4.8 | .907 | None | |
| 89.3-90.3 | 11.6 | 1.7 | 82.8 | 3.9 | 30.6 | 4.1 | .909 | None | |
| 90.3-91.3 | 10.2 | 1.6 | 84.7 | 3.5 | 27.0 | 3.8 | .906 | None | |
| 91.3-92.2 | 13.5 | 1.5 | 80.9 | 4.1 | 35.6 | 3.6 | .908 | None | |
| 92.2-93.2 | 12.5 | 2.1 | 82.0 | 3.4 | 33.1 | 5.0 | .906 | None | |
| 93.2-93.7 | 6.3 | 3.0 | 89.1 | 1.6 | 16.5 | 7.2 | .920 | None | |
| 93.7-93.9 | 5.8 | 4.1 | 89.0 | 1.1 | 15.3 | 9.8 | .900 | None | |
| 93.9-94.2 | 7.7 | 2.9 | 87.9 | 1.5 | 20.5 | 7.0 | .903 | None | |
| 94.2-95.2 | 9.5 | 2.6 | 85.7 | 2.2 | 25.4 | 6.2 | .899 | None | |

Core samples received December 1966; assays made on as-received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Sample from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil 1/ | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 95.2- 95.9 | 6.1 | 2.6 | 89.7 | 1.6 | 16.2 | 6.2 | 0.910 | None | |
| 95.9- 96.0 | 1.6 | 2.0 | 95.0 | 1.4 | 4.2a | 4.7 | | None | |
| 96.0- 97.0 | 8.4 | 1.6 | 87.7 | 2.3 | 21.7 | 3.8 | .924 | None | |
| 97.0- 98.0 | 11.6 | 2.6 | 83.2 | 2.6 | 30.1 | 6.2 | .921 | None | |
| 98.0- 98.3 | 10.8 | 3.3 | 83.7 | 2.2 | 28.8 | 7.9 | .900 | None | |
| 98.3- 98.6 | 13.8 | 2.5 | 80.8 | 2.9 | 36.3 | 6.0 | .914 | None | |
| 98.6- 99.6 | 4.6 | 3.0 | 90.5 | 1.9 | 12.2 | 7.2 | .913 | None | |
| 99.6-100.1 | 6.1 | 1.7 | 90.0 | 2.2 | 16.0 | 4.1 | .918 | None | |
| 100.1-101.2 | 9.7 | 2.2 | 85.0 | 3.1 | 25.3 | 5.3 | .917 | None | |
| 101.2-101.4 | 2.4 | 3.0 | 92.7 | 1.9 | 6.3a | 7.2 | | None | |
| 101.4-102.4 | 6.4 | 3.7 | 87.3 | 2.6 | 17.1 | 8.9 | .903 | None | |
| 102.4-102.9 | 3.4 | 3.0 | 92.2 | 1.4 | 9.0 | 7.2 | .890 | None | |
| 102.9-103.0 | 2.8 | 2.7 | 93.7 | .8 | 7.2a | 6.5 | | None | |
| 103.0-104.0 | 2.0 | 3.0 | 94.5 | .5 | 5.1a | 7.2 | | None | |
| 104.0-105.0 | 1.8 | 1.8 | 95.5 | .9 | 4.8a | 4.2 | | None | |
| 105.0-106.0 | 1.7 | 2.0 | 95.6 | .7 | 4.4a | 4.8 | | None | |
| 106.0-106.3 | 1.4 | 2.7 | 95.2 | .7 | 3.7a | 6.5 | | None | |
| 106.3-107.0 | 1.1 | 2.5 | 95.4 | 1.0 | 2.8a | 6.0 | | None | |
| 107.0-108.1 | 1.8 | 2.1 | 95.3 | .8 | 4.7a | 5.0 | | None | |
| 108.1-109.1 | 5.4 | 1.4 | 91.0 | 2.2 | 13.9 | 3.4 | .929 | None | |
| 109.1-109.4 | 8.4 | 2.2 | 87.6 | 1.8 | 21.7 | 5.3 | .928 | None | |
| 109.4-109.6 | 5.9 | 1.3 | 91.5 | 1.3 | 15.2 | 3.1 | .928 | None | |
| 109.6-110.6 | 5.2 | 2.3 | 90.9 | 1.6 | 13.6 | 5.5 | .921 | None | |
| 110.6-111.4 | 4.3 | 2.4 | 91.7 | 1.6 | 11.3a | 5.8 | | None | |
| 111.4-112.2 | 6.8 | 2.3 | 88.9 | 2.0 | 17.9 | 5.5 | .909 | None | |
| 112.2-112.3 | 3.6 | .6 | 94.6 | 1.2 | 9.3a | 1.4 | | None | |
| 112.3-113.3 | 8.4 | 2.6 | 87.3 | 1.7 | 21.8 | 6.2 | .924 | None | |
| 113.3-114.4 | 9.3 | 2.5 | 86.2 | 2.0 | 24.2a | 6.0 | | None | |
| 114.4-114.6 | 1.8 | .2 | 97.7 | .3 | 4.7a | .5 | | None | |
| 114.6-115.7 | 2.7 | 3.4 | 92.6 | 1.3 | 7.1 | 8.1 | .902 | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Sample from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil[1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 115.7-115.9 | 2.6 | 5.5 | 90.3 | 1.6 | 6.8 | 13.2 | 0.901 | None | |
| 115.9-116.2 | 5.2 | 3.5 | 89.1 | 2.2 | 13.8 | 8.4 | .901 | None | |
| 116.2-116.3 | .1 | 7.6 | 92.1 | .2 | Trace | 18.4 | | None | |
| 116.3-117.3 | 3.4 | 2.5 | 92.8 | 1.3 | 8.9 | 6.0 | .899 | None | |
| 117.3-118.3 | 3.5 | 3.3 | 91.6 | 1.6 | 9.1a | 7.9 | | None | |
| 118.3-118.6 | 3.4 | 3.2 | 91.5 | 1.9 | 9.1 | 7.7 | .901 | None | |
| 118.6-119.3 | 2.5 | 1.3 | 94.6 | 1.6 | 6.5 | 3.2 | .911 | None | |
| 119.3-119.9 | 4.8 | 2.7 | 90.1 | 2.4 | 12.7 | 6.6 | .899 | None | |
| 119.9-120.9 | 4.9 | 3.0 | 90.2 | 1.9 | 13.1 | 7.2 | .900 | None | |
| 120.9-121.3 | 5.3 | 2.8 | 90.4 | 1.5 | 14.2 | 6.7 | .894 | None | |
| 121.3-122.2 | 6.6 | 3.0 | 88.0 | 2.4 | 17.6 | 7.3 | .894 | None | |
| 122.2-122.8 | .0 | 6.6 | 92.4 | 1.0 | Trace | 15.7 | | None | |
| 122.8-123.3 | 5.2 | 3.5 | 90.0 | 1.3 | 13.9 | 8.4 | .892 | None | |
| 123.3-123.5 | .9 | 1.1 | 97.8 | .2 | 2.4a | 2.5 | | None | |
| 123.5-124.5 | 4.6 | 4.6 | 89.0 | 1.8 | 12.2 | 11.1 | .894 | None | |
| 124.5-124.9 | 4.2 | 4.8 | 88.4 | 2.6 | 11.2 | 11.5 | .896 | None | |
| 124.9-125.6 | 3.3 | 1.6 | 93.2 | 1.9 | 8.5a | 4.0 | | None | |
| 125.6-126.0 | .0 | 6.8 | 92.8 | .4 | Trace | 16.4 | | None | |
| 126.0-126.8 | 5.4 | 2.7 | 89.8 | 2.1 | 14.3 | 6.5 | .898 | None | |
| 126.8-127.3 | 7.9 | 3.6 | 85.2 | 3.3 | 21.1 | 8.6 | .895 | None | |
| 127.3-128.2 | 3.9 | 3.7 | 90.0 | 2.4 | 10.6 | 8.9 | .892 | None | |
| 128.2-129.1 | .4 | 5.2 | 93.2 | 1.2 | 1.1a | 12.5 | | None | |
| 129.1-129.5 | .1 | .9 | 98.6 | .4 | .3a | 2.0 | | None | |
| 129.5-130.4 | .3 | 3.8 | 94.8 | 1.1 | .8a | 9.1 | | None | |
| 130.4-130.9 | .3 | 1.1 | 98.0 | .6 | .8a | 2.8 | | None | |
| 130.9-131.1 | .9 | 3.0 | 94.9 | 1.2 | 2.4a | 7.2 | | None | |
| 131.1-131.2 | .6 | 1.7 | 96.0 | 1.7 | 1.5a | 4.1 | | None | |
| 131.2-131.7 | .5 | 2.4 | 96.2 | .9 | 1.4a | 5.6 | | None | |
| 131.7-131.9 | .0 | 2.5 | 96.9 | .6 | Trace | 5.9 | | None | |
| 131.9-132.1 | 1.0 | 3.3 | 94.3 | 1.4 | 2.7a | 7.9 | | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4366P Sheet No. 5 of 9 sheets, March 6, 1967

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil [1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 132.1-133.1 | .1 | 3.6 | 95.7 | .6 | .4a | 8.6 | | None | |
| 133.1-133.5 | 1.0 | 4.4 | 92.8 | 1.8 | 2.5a | 10.5 | | None | |
| 133.5-133.9 | 1.4 | 5.8 | 91.8 | 1.0 | 3.7a | 13.9 | | None | |
| 133.9-134.9 | 1.6 | 3.2 | 94.0 | 1.2 | 4.3a | 7.7 | | None | |
| 134.9-135.2 | 1.9 | 2.5 | 94.7 | .9 | 5.0a | 6.0 | | None | |
| 135.2-136.3 | 5.4 | 2.6 | 90.0 | 2.0 | 14.3 | 6.2 | 0.905 | None | |
| 136.3-137.5 | 2.6 | 2.2 | 93.5 | 1.7 | 7.0 | 5.3 | .901 | None | |
| 137.5-137.8 | 4.1 | 5.0 | 88.5 | 2.4 | 10.8 | 12.0 | .903 | None | |
| 137.8-138.8 | 1.9 | 2.8 | 93.9 | 1.4 | 5.0a | 6.7 | | None | |
| 138.8-139.8 | 2.5 | 2.3 | 93.9 | 1.3 | 6.7 | 5.5 | .897 | None | |
| 139.8-140.8 | 3.6 | 3.0 | 91.9 | 1.5 | 9.5 | 7.2 | .895 | None | |
| 140.8-141.8 | 4.1 | 2.8 | 91.2 | 1.9 | 10.9 | 6.8 | .890 | None | |
| 141.8-142.9 | 3.1 | 2.2 | 93.1 | 1.6 | 8.3 | 5.3 | .899 | None | |
| 142.9-143.7 | 3.8 | 4.2 | 89.9 | 2.1 | 10.0 | 10.2 | .906 | None | |
| 143.7-144.6 | 3.0 | 2.2 | 93.7 | 1.1 | 8.1 | 5.3 | .898 | None | |
| 144.6-145.6 | 2.5 | 2.3 | 94.6 | .6 | 6.6 | 5.6 | .897 | None | |
| 145.6-146.6 | 4.2 | 2.8 | 91.4 | 1.6 | 11.4 | 6.7 | .891 | None | |
| 146.6-147.6 | 3.8 | 3.9 | 91.3 | 1.0 | 10.2 | 9.3 | .883 | None | |
| 147.6-148.6 | 3.2 | 3.4 | 92.1 | 1.3 | 8.6 | 8.1 | .889 | None | |
| 148.6-149.6 | 2.5 | 2.6 | 94.1 | .8 | 6.7 | 6.2 | .890 | None | |
| 149.6-150.6 | 3.0 | 2.8 | 92.6 | 1.6 | 8.1 | 6.7 | .891 | None | |
| 150.6-151.6 | 5.8 | 3.8 | 87.8 | 2.6 | 15.7 | 9.2 | .883 | None | |
| 151.6-152.6 | 4.3 | 4.7 | 88.6 | 2.4 | 11.6 | 11.3 | .884 | None | |
| 152.6-152.9 | 3.4 | 4.5 | 91.0 | 1.1 | 9.3 | 10.8 | .886 | None | |
| 152.9-153.9 | 6.1 | 3.8 | 87.6 | 2.5 | 15.7 | 9.1 | .927 | None | |
| 153.9-154.9 | 4.4 | 3.4 | 90.1 | 2.1 | 11.4 | 8.1 | .917 | None | |
| 154.9-155.5 | 4.9 | 3.5 | 89.2 | 2.4 | 12.7 | 8.4 | .917 | None | |
| 155.5-155.8 | 2.5 | 2.3 | 93.9 | 1.3 | 6.6 | 5.5 | .906 | None | |
| 155.8-156.0 | 3.7 | 5.0 | 88.6 | 2.7 | 9.7 | 12.0 | .907 | None | |
| 156.0-156.3 | 5.0 | 2.7 | 89.7 | 2.6 | 12.9 | 6.5 | .926 | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4366P Sheet No. 6 of 9 sheets, March 6, 1967

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Sample from USBM Rock Spring Well No. 5-3 (con. )

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil[1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 156.3-157.3 | 5.0 | 3.0 | 90.3 | 1.7 | 12.9 | 7.2 | 0.925 | None | |
| 157.3-158.3 | 6.2 | 2.8 | 88.0 | 3.0 | 16.1 | 6.7 | .925 | None | |
| 158.3-159.3 | 6.1 | 3.0 | 89.3 | 1.6 | 15.8 | 7.2 | .920 | None | |
| 159.3-160.3 | 6.1 | 2.7 | 89.6 | 1.6 | 15.6 | 6.5 | .930 | None | |
| 160.3-161.3 | 6.9 | 2.6 | 88.9 | 1.6 | 17.8 | 6.2 | .929 | None | |
| 161.3-161.8 | 6.8 | 3.0 | 88.0 | 2.2 | 17.6 | 7.2 | .932 | None | |
| 161.8-162.8 | 7.1 | 2.8 | 88.3 | 1.8 | 18.1 | 6.7 | .942 | None | |
| 162.8-163.9 | 6.8 | 4.0 | 87.0 | 2.2 | 17.3 | 9.6 | .939 | None | |
| 163.9-164.1 | 3.0 | 1.6 | 94.1 | 1.3 | 7.7 | 3.8 | .933 | None | |
| 164.1-164.4 | 6.9 | 3.8 | 86.7 | 2.6 | 17.7 | 9.1 | .935 | None | |
| 164.4-164.6 | 1.6 | .4 | 97.2 | .8 | 4.1a | 1.1 | | None | |
| 164.6-165.6 | 5.4 | 4.6 | 87.5 | 2.5 | 13.9 | 11.0 | .933 | None | |
| 165.6-166.0 | 8.4 | 3.4 | 84.8 | 3.4 | 21.4 | 8.1 | .938 | None | |
| 166.0-166.3 | 2.2 | .8 | 95.4 | 1.6 | 5.6 | 1.9 | .937 | None | |
| 166.3-166.6 | 8.5 | 3.5 | 85.0 | 3.0 | 21.8 | 8.4 | .936 | None | |
| 166.6-167.6 | 11.1 | 2.0 | 83.5 | 3.4 | 28.5 | 4.8 | .930 | None | |
| 167.6-168.6 | 7.4 | 2.3 | 87.4 | 2.9 | 19.1 | 5.5 | .924 | None | |
| 168.6-169.5 | 8.3 | 3.0 | 85.4 | 3.3 | 21.7 | 7.2 | .919 | None | |
| 169.5-170.2 | 7.6 | 1.1 | 91.0 | .3 | 20.1 | 2.6 | .913 | None | |
| 170.2-171.2 | 6.1 | 3.2 | 87.9 | 2.8 | 16.0 | 7.7 | .909 | None | |
| 171.2-171.4 | 5.5 | 3.5 | 88.1 | 2.9 | 14.7 | 8.4 | .904 | None | |
| 171.4-172.4 | 8.4 | 3.8 | 84.5 | 3.3 | 22.2 | 9.1 | .910 | None | |
| 172.4-173.1 | 8.5 | 3.3 | 83.8 | 4.4 | 22.2 | 7.9 | .915 | None | |
| 173.1-174.1 | 9.2 | 3.1 | 84.9 | 2.8 | 23.8 | 7.4 | .928 | None | |
| 174.1-174.2 | 1.7 | .5 | 94.3 | 3.5 | 4.3a | 1.2 | | None | |
| 174.2-174.4 | 4.2 | 4.0 | 89.4 | 2.4 | 10.9 | 9.6 | .932 | None | |
| 174.4-174.5 | 1.6 | 3.0 | 93.2 | 2.2 | 4.1a | 7.3 | | None | |
| 174.5-175.0 | 5.8 | 3.2 | 87.3 | 3.7 | 15.2 | 7.7 | .912 | None | |
| 175.0-175.2 | 3.5 | 1.3 | 92.8 | 2.4 | 9.2 | 3.2 | .901 | None | |
| 175.2-176.2 | 4.4 | 3.5 | 89.6 | 2.5 | 11.6 | 8.4 | .902 | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil 1/ | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 176.2-176.4 | 4.4 | 3.5 | 90.0 | 2.1 | 11.7 | 8.4 | 0.903 | None | |
| 176.4-176.7 | 3.5 | .9 | 94.1 | 1.5 | 9.3 | 2.2 | .909 | None | |
| 176.7-177.3 | 6.1 | 3.9 | 87.6 | 2.4 | 16.1 | 9.3 | .909 | None | |
| 177.3-178.3 | 8.6 | 2.8 | 85.5 | 3.1 | 22.4a | 6.7 | | None | |
| 178.3-179.1 | 8.2 | 2.4 | 87.2 | 2.2 | 21.4a | 5.8 | | None | |
| 179.1-180.0 | 7.8 | 2.2 | 87.1 | 2.9 | 20.2 | 5.3 | .923 | None | |
| 180.0-180.3 | 2.8 | 1.2 | 95.2 | .8 | 7.4 | 2.9 | .901 | None | |
| 180.3-180.9 | 6.4 | 3.6 | 87.9 | 2.1 | 17.2 | 8.6 | .893 | None | |
| 180.9-181.6 | 6.4 | 5.4 | 85.6 | 2.6 | 17.1 | 12.9 | .902 | None | |
| 181.6-181.8 | 3.6 | 1.0 | 94.5 | .9 | 9.5 | 2.3 | .912 | None | |
| 181.8-182.7 | 5.2 | 7.3 | 85.0 | 2.5 | 13.5 | 17.5 | .916 | None | |
| 182.7-183.6 | 4.3 | 2.6 | 91.5 | 1.6 | 11.5 | 6.2 | .893 | None | |
| 183.6-184.0 | 2.5 | 1.8 | 94.9 | .8 | 6.8 | 4.3 | .887 | None | |
| 184.0-185.0 | 5.8 | 5.5 | 86.0 | 2.7 | 15.5 | 13.2 | .896 | None | |
| 185.0-186.1 | 4.2 | 6.0 | 87.3 | 2.5 | 11.3 | 14.4 | .897 | None | |
| 186.1-186.3 | 4.1 | 1.9 | 92.9 | 1.1 | 11.2 | 4.6 | .877 | None | |
| 186.3-186.6 | 6.6 | 5.1 | 86.1 | 2.2 | 17.4 | 12.2 | .903 | None | |
| 186.6-186.7 | 7.4 | 1.4 | 88.7 | 2.5 | 19.4 | 3.3 | .910 | None | |
| 186.7-187.1 | 1.9 | 5.0 | 91.7 | 1.4 | 5.0a | 12.0 | | None | |
| 187.1-187.4 | 5.0 | 4.2 | 89.2 | 1.6 | 13.4 | 10.1 | .888 | None | |
| 187.4-187.7 | 1.5 | .8 | 97.4 | .3 | 4.0a | 1.8 | | None | |
| 187.7-188.7 | 3.0 | 7.0 | 88.2 | 1.8 | 8.1 | 16.8 | .893 | None | |
| 188.7-189.7 | 3.9 | 7.0 | 87.2 | 1.9 | 10.5 | 16.8 | .891 | None | |
| 42.7- 43.6 | 7.6 | 2.1 | 88.1 | 2.2 | 20.0 | 5.0 | .910 | None | |
| 189.8-190.5 | 1.3 | 7.8 | 89.7 | 1.2 | 3.3a | 18.7 | | None | |
| 190.5-190.7 | 1.4 | .5 | 97.7 | .4 | 3.7a | 1.2 | | None | |
| 190.7-190.8 | 6.4 | 6.9 | 83.8 | 2.9 | 16.7a | 16.5 | | None | |
| 190.8-191.8 | .1 | 2.4 | 97.0 | .5 | .3a | 5.8 | | None | |
| 191.8-192.3 | .1 | 1.3 | 98.1 | .5 | .2a | 3.1 | | None | |
| 192.3-193.1 | 1.3 | 2.0 | 95.4 | 1.3 | 3.4a | 4.8 | | None | |

See footnotes at end of table.

Core samples received December 1966; assays made on as-received basis

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4366P Sheet No. 8 of 9 sheets, March 6, 1967

OIL-SHALE ASSAYS BY MODIFIED FISCHER RETORT METHOD

Samples from USBM Rock Springs Well No. 5-3 (con.)

| Sample number | Yield of Product: Weight percent: Oil | Water | Spent shale | Gas + loss | Gal per ton: Oil[1/] | Water | Specific gravity of oil at 60°/60°F | Properties of spent shale: Tendency to coke | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 193.1-193.2 | 1.1 | 1.3 | 96.3 | 1.3 | 2.9a | 3.1 | | None | |
| 193.2-193.7 | 1.6 | .7 | 96.6 | 1.1 | 4.2a | 1.6 | | None | |
| 193.7-193.9 | .4 | .4 | 98.6 | .6 | 1.0a | .8 | | None | |
| 193.9-194.2 | 1.2 | 2.0 | 95.9 | .9 | 3.0a | 4.8 | | None | |
| 194.2-194.3 | .9 | 5.2 | 91.7 | 2.2 | 2.3a | 12.5 | | None | |
| 194.3-194.4 | .2 | 1.0 | 97.9 | .9 | .6a | 2.4 | | None | |
| 194.4-194.5 | .1 | .4 | 99.1 | .4 | .3a | .8 | | None | |
| 194.5-195.1 | .7 | .9 | 97.4 | 1.0 | 1.7a | 2.2 | | None | |
| 195.1-195.9 | .5 | .7 | 98.0 | .8 | 1.4a | 1.6 | | None | |
| 195.9-196.6 | 1.0 | 1.5 | 96.3 | 1.2 | 2.7a | 3.6 | | None | |
| 196.6-197.3 | 1.8 | 1.5 | 95.5 | 1.2 | 4.7a | 3.6 | | None | |
| 197.3-197.6 | .6 | .5 | 98.8 | .1 | 1.4a | 1.2 | | None | |
| 197.6-198.6 | 1.3 | 1.8 | 95.9 | 1.0 | 3.5a | 4.3 | | None | |
| 198.6-199.6 | 1.4 | 1.7 | 96.0 | .9 | 3.6a | 4.1 | | None | |
| 199.6-200.0 | 1.4 | 1.7 | 95.7 | 1.2 | 3.8a | 4.1 | | None | |
| 200.0-201.0 | 1.9 | 1.7 | 95.3 | 1.1 | 5.1a | 4.1 | | None | |
| 201.0-202.0 | 2.0 | 1.5 | 95.1 | 1.4 | 5.2a | 3.6 | | None | |
| 202.0-202.7 | 2.2 | 1.2 | 95.4 | 1.2 | 5.7 | 2.9 | | None | |
| 202.7-203.3 | .6 | .5 | 98.1 | .8 | 1.7a | 1.2 | | None | |
| 203.3-204.4 | .4 | .2 | 99.0 | .4 | 1.0a | .4 | | None | |
| 204.4-205.4 | 1.9 | 1.3 | 96.1 | .7 | 4.8a | 3.1 | | None | |
| 205.4-205.7 | 2.4 | 1.3 | 95.2 | 1.1 | 6.2a | 3.1 | | None | |
| 205.7-206.1 | .4 | .7 | 98.5 | .4 | 1.1a | 1.6 | | None | |
| 206.1-207.0 | .0 | 2.7 | 96.9 | .4 | No oil | 6.5 | | None | |

1/ "a"--indicates specific gravity estimated as 0.92. "No Oil","Trace"--less than 1 gal oil/ton.

Core samples received December 1966; assays made on as-received basis

Laramie Petroleum Research Center, Laramie, Wyoming, Illustration No. SBR-4366F Sheet No. 9 of 9 sheets, March 6, 1967