

LITHOLOGIC DESCRIPTION OF USBM ROCK SPRINGS SITE 4 WELL PBC-12
SWSWNE SEC 15 T 18 N R 106 W SWEETWATER COUNTY, WYOMING

by
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Footage	Description
60.0-60.8	Oil shale, gray, some dark gray, upper 0.2 ft firm, remainder soft and parts easily horizontally, thin inclusion gray dolomite 60.7 ft.
60.8-62.9	Oil shale, dark gray to black, platy fracturing.
62.9-63.0	Tuff, gray to dark brown, with some dolomite, gray, sandy in part, oil saturated.
63.0-64.2	Oil shale as in 60.8-62.9 ft.
64.2-64.3	Siltstone, yellow, gray, laminated with thin gray shale, considerable pyrite.
64.3-64.5	Ash, siltstone, white, yellow, gray, slightly friable, few gray shale partings, minor vertical fractures filled with light gray siltstone, good permeability.
64.5-64.8	Oil shale, black, faintly laminated.
64.8-65.6	Oil shale, gray, greenish-gray, some dark gray, abundant crystal faces, blocky fracturing.
65.6-70.0	Oil shale, dark gray to black, breaks easily horizontally and badly broken below 67.5 ft.
70.0-70.7	Oil shale as above, very badly broken, strong heat affect but no actual burn.
70.7-72.0	Oil shale, dark gray to black, parts easily horizontally.
72.0-72.1	Ash, white, gray, thin layer, silty, chalky, permeable.
72.1-72.6	Oil shale, tannish-gray, black, dark brown in three distinct bands, firm, hard.
72.6-74.1	Oil shale, dark gray, black, greenish-gray, some tannish-gray, abundant crystals, some as veinlets, several inclusions of tan and/or purple dolomite, micro-crystalline, very hard at 72.9, 73.5, and 73.8 ft.
74.1-74.3	Dolomite, tan, brown, purple, fractured and brecciated microcrystalline, slight oil stain.
74.3-76.5	Oil shale as in 72.6-74.1 ft with dolomite, tan-purple inclusions at 75.2, 75.5, and 76.1 ft.
76.5-77.1	Oil shale, dark gray to black, blocky fracturing.
77.1-77.3	Tuff, ash, dark brown interbedded with dolomite, gray microcrystalline and brown crystalline, hard, some oil stain. Several layers of dark gray oil shale between the upper and lower zones of dolomite.
77.3-77.8	Oil shale, black with laminae of brown to dark brown dolomitic shale.
77.8-78.8	Oil shale, black, sooty but not burned, parts easily horizontally.
78.8-79.7	Oil shale, brown, brownish-gray, tannish-gray, some dark gray, clayey in part.
79.7-79.9	Tuff, with dolomite, brown, gray, fractured, dead oil stain, gray shale partings.
79.9-80.2	Oil shale, gray and black laminated, parts easily horizontally.
80.2-80.5	Oil shale, dark gray, abundant crystals.
80.5-80.8	Missing.
80.8-81.2	Oil shale, brown, gray with two dolomitic shale zones, one tan, one brown, dense, hard, possibly algal (?).

Footage	Description
81.2-82.2	Oil shale, dark gray, black, dark brown, faintly laminated in part.
82.2-82.6	Sandstone, buff, brown, maroon, tuffaceous (?), very fine-grained, hard, some oil stain, rare vertical fractures filled with gray dolomitic siltstone. <u>M-Bed</u>
82.6-82.8	Oil shale, black, distinctly varved with brown dolomitic shale.
82.8-84.7	Oil shale, brown, brownish-gray, gray, some dark gray, broadly banded, clayey in part, algal zone (?) or shale, tan, very dense at 84.1 and 84.6 ft, purple to brown dolomite inclusion at 84.6 ft, microcrystalline, very hard.
84.7-85.0	Oil shale, brownish-gray, injected with numerous stringers of silty dolomite, gray, pyritic.
85.0-85.6	Oil shale, greenish gray, dark gray, rare tan, scattered crystals, parts easily when wet.
85.6-86.0	Oil shale, dark greenish-gray to black, abundant crystals, firm.
86.0-88.1	Oil shale, black with brown laminae, gray, olive drab, broadly banded, clayey in part.
88.1-88.3	Ash, tuff, sandstone, white, light gray, some dark gray, very fine-grained, silty to chalky, black shale partings, permeable, trace iron stain.
88.3-90.3	Oil shale (?) or mudstone, tan to brown, light to some dark gray, greenish-gray, clayey, soft when wet.