

LITHOLOGIC DESCRIPTION OF USRM ROCK SPRINGS PROJECT WELL NO. 5-2

SESENW Sec 15 T18N R106W SWEETWATER COUNTY, WYOMING

January 4, 1967

by

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Footage	Description
40.2-40.8	Shale, oil, medium to dark gray to sooty black, some brown from 40.7 to 40.8 feet, containing black carbonaceous material.
40.8-41.4	Shale, oil, light to medium greenish-gray, darker bands have abundant carbonate (?) crystals, lighter layers have rare crystals
41.4-41.6	Shale, oil, light gray, dense, silty in part slightly calcareous.
41.6-43.5	Shale, oil, medium greenish-gray with occasional zones of dark greenish-gray, abundant crystals.
43.5-43.9	Shale, oil, medium gray, occasional concentrations of crystals.
43.9-44.6	Shale, oil, medium gray with zones of greenish-gray, abundant individual crystals.
44.6-47.8	Shale, oil, medium to dark gray, finely banded in zones with dark brown, some thin black layers.
47.8-48.1	Shale, oil, as in 43.9-44.6 feet.
48.1-48.8	Shale, oil, broadly banded medium to dark greenish-gray with dark gray to black, some crystals.
48.8-50.1	Shale, oil, medium greenish-gray, olive drab abundant crystals.
50.1-50.8	Shale, oil, medium greenish-gray to dark gray some fine lamination some crystals.
50.8-53.4	Shale, oil, medium to dark gray and black, some greenish-gray, distinctly laminated 51.5-51.9 feet.
53.4-53.7	Sandstone, ash, siltstone, buff to gray to brown, very fine to fine-grained, fractures filled with gray shale, porous, zone of very finely crystalline pyrite at 53.4 feet, slight oil stain.
53.7-55.3	Shale, oil, olive drab, greenish-gray, dark gray, carbonate (?) crystals associated with the olive and greenish-gray.
55.3-56.6	Shale, oil, medium to dark gray, rare crystals minor vafves.
56.6-60.9	Shale, oil, dark gray to black, light brown zone at 57.6 feet.
60.9-61.0	Sandstone, buff to gray, salt and pepper appearance, very fine-grained, silty slight porosity, injected into medium to dark shale, contorted.
61.0-62.2	Shale, oil, banded, medium greenish-gray, tannish-gray, dark gray, abundant crystals in greenish-gray bands and rare in dark gray to black bands.
62.2-62.4	Limestone and/or dolomite, brownish-purple to tan, finely to medium crystalline, vuggy porosity, oil stain in fractures.
62.4-63.0	Shale, oil, dark gray, banded and injected with grayish-green, some crystals, pods of tan dolomitic shale at 62.7-62.8 feet.
63.0-63.1	Limestone, as in 62.2-62.4, probably as concretion.
63.1-64.8	Shale, oil, banded tannish-gray-green and medium to dark gray, scattered individual crystals abundant, diagonal fracture from 64.2-64.3 feet filled with pyritic-like deposit, several thin layers and pods of buff to tan dolomitic and silty shale.

Footage	Description
64.8-66.1	Shale, oil, medium to dark gray, some black, brown zones at 64.9 and 65.5 feet.
66.1-66.2	Sandstone, reddish-brown, maroon, gray, fine-grained some gray shale-filled fractures, abundant oil stain, partly injected into underlying shale.
66.2-66.6	Shale, oil, dark gray to black, finely and distinctly varved with tan to brown dolomitic shale, thin sandstone layer (as in 66.1-66.2 feet) at 66.3 feet.
66.6-67.4	Shale, oil, black, with injected zones and inclusions of brown to gray shale.
67.4-68.1	Shale, oil, banded dark gray and brown, dolomitic.
68.1-68.9	Shale, oil, medium to dark gray, scattered carbonate (?) crystals below 68.7 feet.
68.9-69.5	Shale, oil, medium to dark gray banded with thin light gray shale layers and thicker tan dolomitic and silty shale.
69.5-70.8	Shale, oil, dark gray to sooty black, brown shale streaks at 69.9 and 70.6 feet.
70.8-71.2	Sandstone, pink-buff-reddish brown, fine-grained, slight porosity, some black shale partings, trace oil stain. M-bed.
71.2-71.6	Shale, oil, as 69.5 to 70.8 feet.
71.6-73.2	Shale, oil, banded with varying shades of dark tan to dark gray, and buff dolomitic shale from 72.9-73.0.
73.2-73.3	Limestone, brownish-purple, very finely crystalline, dense, hard, minor fractures containing crystalline tan limestone.
73.3-73.4	Shale, oil, greenish-brown with medium gray layers, some pods tan dolomitic shale.
73.4-73.5	Sandstone, gray, salt and pepper appearance and some tan, very fine-grained, injected into brown shale, some dark shale partings, partly pyritic, slight porosity.
73.5-74.2	Shale, oil, greenish-gray to medium and dark gray, zones of crystals, some layers of tan dolomitic shale which also shows varvy effect from 74.0-74.2 feet.
74.2-74.8	Shale, oil, dark gray to black, strikingly banded with tan to brown dolomitic shale layers, irregular pods, some thin and contorted layers of crystals.
74.8-74.9	Sandstone, bluish-gray to maroon, very fine to fine-grained, porous, interbedded with greenish-tan shale at base of sandstone.
74.9-75.9	Shale, oil, dark brownish-gray to black, laminated.
75.9-77.0	Shale, oil, broadly banded medium gray, dark gray, brownish-gray.
77.0-77.2	Ash, siltstone, sandstone, light to dark gray, salt and pepper appearance, fine-grained, very porous, highly fractured with shale filling, oil residue, trace iron staining, tuffaceous (?), injected into underlying shale.
77.2-78.1	Shale, oil, thickly banded medium to light gray with tan and buff dolomitic shale, some greenish-gray shades.