

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Core samples from National Farmers Union Exploration Company's Corehole
No. 5 drilled in the S. 1/2 of sec. 2, T. 12 S., R. 24 E.,
Uintah County, Utah

Surface elevation 6,130 feet Mahogany marker 170 feet Total depth 280 feet

From	To	Description
0	150	Air drilled. (No recovery.)
150	153.4	Marlstone, light gray and brownish gray, well defined bedding. Low grade.
153.4	159.0	Marlstone, light brown, dark brown, and greenish brown, well defined bedding. Common bands 1-1/2 inch and less of light brown and blue-gray analcite.
159.0	160.2	Marlstone, light brown and dark brown, well defined bedding. Common 1/4-inch stringers of light brown and blue-gray analcite. A 0.3-foot band of tan, fine-grained sandstone containing vertical fractures with fracture faces lightly coated with reddish-brown bitumen occurs at 159.9 feet.
160.2	163.5	Marlstone, light brown, dark brown, and dark gray, massive to well defined bedding. Common bands 0.1 foot and less of light brown analcite.
163.5	170.0	Marlstone, light brown and dark brown, poorly defined to well defined bedding. A 1-1/2 inch long inclusion of an unknown black material in a calcite and dolomite matrix occurs at 164.5 feet.
170.0	170.5	Analcite, light brown, slightly impregnated with bitumen. Some vertical fracture with fracture faces lightly coated with reddish-brown bitumen. (Mahogany marker.)
170.5	173.8	Marlstone, light brown and greenish brown, well defined bedding.
173.8	175.4	Marlstone, dark brown and dark gray, massive to well defined bedding. Good grade.
175.4	177.5	Marlstone, light gray, light brown and dark brown, well defined bedding.
177.5	184.4	Marlstone, light brown, dark brown and dark gray, massive to well defined bedding. Good grade. A 1-inch band of light brown analcite occurs at 178.3 feet.
184.4	185.4	Marlstone, dark gray and black, massive to poorly defined bedding. Rich.
185.4	186.4	Marlstone, light brown, dark brown, and dark gray, poorly defined to well defined bedding. A 0.2-inch irregular band of light gray analcite occurs at 185.4 feet.
186.4	187.5	Marlstone, dark brown and dark gray, satiny luster, massive to poorly defined bedding. Rich.
187.5	188.5	Marlstone, light brown and dark brown, well defined bedding.

Illustration No. SBR-2648P

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From	To	Description
188.5	189.5	Marlstone, dark brown and dark gray, massive to poorly defined bedding. Good grade.
189.5	190.0	Marlstone, light brown and dark brown, massive to well defined bedding. A 1-inch band of light brown analcite occurs at 189.6 feet.
190.0	190.8	Marlstone, dark brown and dark gray, well defined bedding. Good grade.
190.8	192.0	Marlstone, light brown, well defined bedding.
192.0	192.8	Marlstone, dark brown and dark gray, massive to well defined bedding. Good grade to rich.
192.8	194.9	Marlstone, tan, light brown, and dark brown, massive to well defined bedding.
194.9	196.0	Marlstone, dark brown and dark gray, massive to poorly defined bedding. Good grade.
196.0	199.2	Marlstone, light gray, light brown, and dark brown, massive to well defined bedding.
199.2	205.0	Marlstone, light brown and dark brown, massive to well defined bedding.
205.0	208.0	Marlstone, light gray, tan, and light brown, well defined bedding.
208.0	209.2	Marlstone, light brown, dark brown, and dark gray, massive to poorly defined bedding. Common 1/4-inch stringers of light brown and blue-gray analcite.
209.2	211.8	Marlstone, tan and light gray, well defined bedding. Rare inclusions 1/2 inch and less of blue-gray analcite. Low grade.
211.8	214.0	Marlstone, light brown, dark brown, and greenish brown, well defined bedding. A 1/4-inch band of blue-gray analcite occurs at 212.8 feet. A 0.4-foot band of blue-gray analcite containing vertical fracture with fracture faces lightly coated with dark brown bitumen occurs at 213.0 feet.
214.0	214.9	Marlstone, dark brown and dark gray, well defined bedding.
214.9	217.2	Marlstone, dark brown and greenish brown, well defined bedding. Quarter-inch bands of blue-gray analcite occur at 215.0 and at 216.2 feet.
217.2	218.8	Marlstone, light gray, tan, and light brown, massive to well defined bedding. Low grade to barren.
218.8	219.8	Marlstone, light brown, dark brown, and dark gray, well defined bedding.

Illustration No. SBR-2649P

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From	To	Description
219.8	221.5	Analcite tuff, dirty white, massive. Top 0.5 foot contains numerous contorted stringers of light brown and dark gray marlstone. (Probable lower wavy bed.)
221.5	223.0	Marlstone, light gray, dark gray, and greenish brown, well defined bedding.
223.0	224.9	Marlstone, light gray, tan, and light brown, massive to well defined bedding. Low grade and barren.
224.9	228.4	Marlstone, light gray and blue-gray, massive to well defined bedding. Common scattered stringers of pyrite. A 0.1-foot band of light brown analcite occurs at 227.0 feet and a 0.2-foot band of same occurs at 228.2 feet.
228.4	230.0	Marlstone, tan and light gray, poorly defined to well defined bedding, interbedded with sandstone, fine grained, containing numerous randomly oriented fragments of the surrounding marlstone. Sandstone beds are saturated with heavy black oil.
230.0	231.7	Marlstone, light gray and blue-gray, well defined bedding. Common tiny flakes of feathery pyrite scattered throughout. Low grade.
231.7	233.1	Marlstone, tan, light brown and greenish brown, well defined bedding. Vertical fractures between 232.5 and 233.1 feet.
233.1	234.0	Marlstone, dark brown and dark gray, well defined bedding.
234.0	236.0	Marlstone, tan, light gray and blue-gray, well defined bedding. A 1/2-inch band of blue-gray siltstone occurs at 235.9 feet.
236.0	240.0	Marlstone, light gray, light brown, and dark brown, well defined bedding. Rare vertical fracture with fracture faces lightly coated with reddish-brown bitumen. Common bands 0.2 foot and less of tan massive siltstone.
240.0	250.0	Marlstone, tan, light brown, dark brown, and greenish brown, well defined bedding. A 0.2-foot band of blue-gray siltstone occurs at 244.1 feet and a 0.5-foot band of blue-gray siltstone occurs at 248.6 feet.
250.0	253.6	Marlstone, light gray, light brown, dark brown, and dark gray, well defined and slightly contorted bedding. A 2-inch band of blue-gray siltstone occurs at 250.9 feet.

Illustration No. SBR-2650P

Laramie Petroleum Research Center, Laramie, Wyoming

March 18, 1959

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From	To	Description
253.6	255.2	Marlstone, light brown and dark brown, massive to well defined bedding. A 0.3-foot band of blue-gray oolitic dolomite occurs at 254.3 feet.
255.2	256.2	Marlstone, light gray, light brown, dark brown, and dark gray, massive to well defined and contorted bedding.
256.2	258.0	Marlstone, tan and light gray, well defined and highly contorted bedding, interbedded with sandstone, fine-grained. Core is stained with dark brown oil. Rare bands 0.1 foot and less of light gray unstained marlstone.
258.0	260.0	Sandstone, very fine grained, light gray, massive. A 0.3-foot band of bedded and oil-stained sandstone occurs at 260.0 feet and a 0.1-foot band of crossbedded oil-stained sandstone occurs at 259.5 feet.
260.0	261.3	Sandstone, very fine grained, light gray, massive. A 0.4-foot band of bedded, oil-stained sandstone occurs at 260.4 feet.
261.3	263.6	Sandstone, fine grained, light gray, massive to well defined bedding. Oil-stained. Rare stringers of light gray, massive, unstained siltstone. Cross-bedded from 261.3 to 262.4 feet.
263.6	264.8	Sandstone, very fine grained, light gray, massive. A 0.1-foot irregular band of oil-stained sandstone occurs at 264.0 feet.
264.8	268.0	Sandstone, very fine grained, massive to well defined bedding. Oil-stained. A 0.2-foot band of light gray, massive, unstained sandstone occurs at 265.9 feet.
268.0	270.0	Sandstone, very fine grained, light gray, massive.
270.0	280	Box containing oil impregnated sandstone removed by N. F. U. representative.
280		Bottom of hole.

X-ray diffraction patterns were obtained on the following samples:

164.5	Found to be an unidentified black material in a calcite-dolomite matrix.
248.8	Found to be quartz, analcite, and feldspar.
254.4	Found to be dolomite.

Illustration No. SBR-2651P