

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
0	0.5	Siltstone, tan and light gray, massive. Iron stained.
0.5	9.0	Marlstone, light brown and dark brown, poorly defined to well defined bedding. Core badly fractured and broken. Approximately 2/3 of this interval represented.
9.0	9.7	Siltstone, tan and light gray, massive. Vertical fracture with yellow and brown iron-stained fracture faces.
9.7	12.0	Marlstone, light brown and dark brown, well defined bedding. Approximately 1/2 of this interval represented. Core badly fractured and broken.
12.0	20.0	Marlstone, light brown and dark brown, massive to well defined bedding. Interbedded with siltstone, tan, massive, iron stained. Only 1.6 feet of this interval represented. Core badly fractured and broken.
20.0	21.0	Limestone, brownish-gray, massive. Common thin stringers of dark brown marlstone.
21.0	24.7	Marlstone, light brown and dark brown, massive to well defined bedding.
24.7	28.8	Marlstone, tan, light brown, and greenish brown, massive to well defined bedding.
28.8	30.5	Sandstone, fine grained, tan and light gray, massive to poorly defined bedding, calcareous. Grades to a siltstone in the upper 0.5 foot. Multiple vertical fracture with fracture faces lightly coated with reddish-brown bitumen.
30.5	37.3	Marlstone, light brown, dark brown, and greenish brown, massive to well defined bedding. Rare 0.3 foot and less vertical fracture with fracture faces lightly coated with crystalline quartz and reddish-brown bitumen.
37.3	39.7	Marlstone, greenish gray and brownish gray, massive to well defined bedding.
39.7	42.5	Marlstone, tan and light brown, poorly defined to well defined bedding.
42.5	1/47.0	Marlstone, greenish gray grading to greenish brown in lower half, poorly defined to well defined bedding.
47.0 ^{1/}	52.4	Marlstone, light gray, massive. Interbedded with bands and stringers of quartz and dolomite coated with illite, 1/4 inch and less of dark brown marlstone containing cast of worm tracks. Low grade to barren.

1/ A "42 foot depth" did not appear on core, but two "50" foot depths appeared on core. Depth numbers between 43 feet and 5.0 feet were shifted back one number to make consecutive numbering. This adjustment was made within one 10-foot core box.

Illustration No. SBR-2725P

Laramie Petroleum Research Center, Laramie, Wyoming

April 27, 1959

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah (Con.)

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
52.4	56.0	Marlstone, light brown and dark brown, massive to well defined bedding. Rare bands 1 inch and less of dark gray marlstone.
56.0	61.2	Marlstone, greenish brown and greenish gray, poorly defined to well defined bedding.
61.2	62.0	Marlstone, light brown, dark brown, and dark gray, well defined bedding. Common bands 1/4 inch and less of light brown and blue-gray analcite.
62.0	64.8	Marlstone, light brown, greenish brown and greenish gray, massive to well defined bedding.
64.8	68.7	Marlstone, light brown and dark brown, well defined bedding. Rare 2-inch and less inclusions of blue-gray analcite.
68.7	70.1	Marlstone, light brown, dark brown, and dark gray, well defined bedding. Common bands 1/4 inch and less of blue-gray and light brown analcite.
70.1	72.5	Marlstone, light brown and dark brown, well defined bedding.
72.5	73.8	Marlstone, dark brown and dark gray, well defined bedding. A 1/4-inch band of blue-gray analcite occurs at 73.1 feet.
73.8	75.1	Marlstone, greenish brown and greenish gray, poorly defined to well defined bedding.
75.1	81.0	Marlstone (?), blue-gray, calcareous, massive to poorly defined bedding. (Does not appear to be oil shale.) Barren to low grade.
81.0	82.4	Limestone, tan and light gray, massive. Common stringers 1/4 inch and less of dark brown marlstone. A 0.1-foot band of light brown, medium-grained sandstone occurs at 82.0 feet.
82.4	83.6	Sandstone, medium-grained, light brown, massive. Grades to tan siltstone in lower 3 inches. Siltstone is vertically fractured with calcite coated fracture faces.
83.6	85.1	Marlstone, light brown and greenish brown, massive to well defined bedding.
85.1	91.7	Marlstone, light gray, massive. Common bands 1/2 inch and less of light brown and brownish gray marlstone. Low grade to barren.
91.7	97.0	Marlstone, tan, light brown, and greenish brown, massive to well defined bedding. Common thin layers of light gray marlstone. Rare vertical fracture. Low grade.

Illustration No. SBR-2726P

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah (Con.)

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
97.0	98.0	Marlstone, light brown and greenish brown, well defined bedding.
98.0	99.3	Marlstone, dark brown and dark gray, well defined bedding. Common bands 1 inch and less of light brown analcite. Common lenses 2 inches and less in length of clear calcite.
99.3	103.6	Marlstone, greenish gray and brownish gray, massive to well defined bedding. Common bands 1 inch and less and inclusions of blue-gray analcite.
103.6	107.3	Marlstone, tan and light brown, well defined bedding. Common inclusions 1 inch and less of blue-gray and tan analcite. Low grade.
107.3	108.6	Marlstone, dark brown and dark gray, well defined bedding. Common bands 1 inch and less of dark brown and blue-gray analcite. A 0.2-foot band of dark brown bitumen impregnated analcite occurs at 107.7 feet.
108.6	114.0	Marlstone, greenish brown, dark brown, and dark gray, massive to well defined bedding. Common bands 1 inch and less of dark brown and blue-gray analcite.
114.0	127.3	Marlstone, greenish gray and brownish gray, massive to well defined bedding. Low grade.
127.3	137.2	Marlstone, tan, light gray, and brownish gray, massive to well defined bedding. A 0.3-foot band of light brown slightly bitumen impregnated analcite occurs at 132.5 feet. Low grade.
137.2	149.6	Shale, blue-gray and dark gray, calcareous, massive. Barren. This contains illite and montmorillonite in appreciable amounts.
149.6	156.3	Shale, blue-gray and dark gray, calcareous, generally massive to well defined bedding. (Does not appear to be oil shale.) Rare bands 2 inches and less of tan calcite enriched marlstone. Common scattered pyrite or pyrrhotite grains. Barren. Freshly broken surfaces of this core are tan in color; after a brief exposure to the air, color turns to dark gray.
156.3	157.7	Marlstone, light brown and dark brown, well defined bedding.
157.7	158.8	Marlstone, dark brown and dark gray, massive. Rare inclusions of dark brown analcite. Medium to good grade.

Illustration No. SBR-2727P

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah (Con.)

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
158.8	162.3	Marlstone, light brown, dark brown, and greenish brown, massive to well defined bedding.
162.3	164.7	Marlstone, light brown and dark brown, massive to well defined bedding. Medium to good grade.
164.7	167.5	Marlstone, dark brown and dark gray, massive to well defined bedding. One-inch and less fractures ranging from horizontal to a 45° angle and filled with clear crystals of searlesite occur between 166.0 feet and 167.2 feet. Good grade to rich. A 1-inch band of light brown analcite occurs at 166.3 feet.
167.5	172.0	Marlstone, light brown and dark brown, well defined bedding.
172.0	172.7	Marlstone, dark gray, massive. Rich.
172.7	175.4	Marlstone, light brown and dark brown, well defined bedding.
175.4	177.0	Marlstone, dark gray, dark brown, and greenish brown, massive to well defined bedding. Good grade.
177.0	179.4	Marlstone, dark brown, greenish brown, and greenish gray, well defined bedding.
179.4	180.1	Marlstone, dark brown and dark gray, well defined bedding. Good grade.
180.1	180.9	Marlstone, light brown and dark brown, well defined bedding.
180.9	182.1	Marlstone, tan and light gray, well defined bedding. Low grade.
182.1	183.0	Marlstone, light brown and dark brown, well defined bedding.
183.0	184.8	Marlstone, dark brown and dark gray, massive to well defined bedding. A 1/2-inch band of blue-gray analcite occurs at 184.3 feet.
184.8	187.0	Marlstone, greenish brown and greenish gray, well defined bedding. Rare 1/2 inch and less inclusions of blue-gray analcite. Low grade.
187.0	189.7	Marlstone, tan and light brown, well defined bedding. Common vertical fracture with fracture faces lightly coated with reddish-brown bitumen. Low grade.
189.7	191.0	Marlstone, dark brown and dark gray, massive to well defined bedding. Good grade.
191.0	196.2	Marlstone, light brown and dark brown, well defined bedding. A 1-inch band of blue-gray analcite occurs at 192.7 feet.
Illustration No. SBR-2728p		

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah (Con.)

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
196.2	197.6	Marlstone, greenish brown and greenish gray, poorly defined to well defined bedding.
197.6	202.9	Marlstone, light gray, light brown, and greenish brown, well defined bedding. Low grade to barren.
202.9	203.9	Marlstone, dark brown and dark gray, massive to well defined bedding. A 1/2-inch band of blue-gray analcite occurs at 203.8 feet. Good grade to rich.
203.9	205.2	Marlstone, greenish brown, well defined bedding.
205.2	207.0	Marlstone, light gray, light brown, and dark brown, well defined bedding. Low grade.
207.0	208.6	Sandstone, dark brown, massive. Rare stringers of light brown and light gray marlstone. Dark color due to bitumen impregnation.
208.6	212.3	Marlstone, tan, light brown, and dark brown, massive to well defined bedding.
212.3	224.7	Shale, blue-gray, calcareous, massive to well defined bedding. (Does not appear to be oil shale.) Pyrite grains scattered throughout. Rare vertical fracture with fracture faces lightly coated with black bitumen. Low grade. 2.0 feet of this interval not represented.
224.7	226.0	Marlstone, dark brown and dark gray, massive to well defined bedding. Good grade.
226.0 ^{1/}	230.5	Marlstone, brownish gray and greenish gray, well defined bedding. Low grade.
230.5	231.4	Marlstone, dark brown and dark gray, well defined bedding. Good grade.
231.4	232.8	Marlstone, light brown and light gray, massive to poorly defined and contorted bedding. Interbedded with siltstone, light gray, massive, containing numerous clear analcite crystals.

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

	Identified
20.6	Calcite with quartz, feldspar, and dolomite.
32	Quartz with calcite and dolomite.

49 (coating) Illite with quartz, feldspar, and dolomite.
1/ Two "226 foot" depths were marked on core, 1 foot apart. First mark was used and succeeding numbers were increased by 1 foot.

Illustration No. SBR- 2729P

Laramie Petroleum Research Center, Laramie, Wyoming

April 27, 1959

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Samples from H. M. Byllesby and Company, Incorporated's Green Canyon
corehole drilled 22 feet S. 30° E. of W. 1/4 corner of sec. 8,
T. 13 S., R. 20 E., Uintah County, Utah (Con.)

Surface elevation 5,964 feet

Sampled section 0 to 232.8 feet

From	To	Description
50.5		Quartz and dolomite with illite and feldspar.
101		Analcite with calcite and feldspar.
106		Analcite with dolomite, quartz, and feldspar.
145		Illite, montmorillonite, analcite, calcite, and feldspar.
166.3		Searlesite.

Illustration No. SBR-2730P

Laramie Petroleum Research Center, Laramie, Wyoming

April 27, 1959