Lithographic description of skeletonized core samples from 8 holes received at the GMC (1 box, holes N1 through N8) of the INEXCO Mining Company Nikolai Project, McCarthy, Alaska that consist of core samples of the Nikolai Greenstone and the basal Chitistone Limestone.
30 Sept., 1972

Mr. Jim Murphy:

Enclosed are several representative samples of the core from the Nikolai Project, McCarthy, Alaska. These samples include the Nikolai Greenstone (2), basal bed Chitistone Limestone (1), and the fault Zone (2) found near the contact of the Chitistone Limestone and the Nikolai Greenstone in hole N7. The rest of the samples are representative of the major rock types found above the basal bed of the Chitistone Limestone. They were selected because they showed evidence of faulting, mineralization, graphite like carbon material, or mineralized mudstone or sandstone. While these rocks do represent a large portion of the core, they are not a complete sampling. Also enclosed is a brief description of rock type, its position in relation to the Chitistone-Nikolai contact, and what I believe the samples represent. I hope these samples will be helpful to you.

Sincerely,

Barry Hoffmann

GMC Data Report No. 273
N1, 940': 20' above the contact of the Chitistone-Nikolai. A dark gray limestone with large pyrite crystals. This is part of the basal bed of the Chitistone Limestone.

N1, 994': 10' below the Nikolai-Chitistone contact. An altered basalt with calcite and epidote veinlets and ammudual fillings.

N3, 425': 440' above the Chitistone-Nikolai contact. Large white crystals of calcite found in a fracture zone. This zone was 10' long in the drill core.

N3, 8855': 440' above the Chitistone-Nikolai contact. Blue gray mudstone with 2-10% pyrite and a small amount of chalcopyrite.

N3, 483': 440' above the Chitistone-Nikolai contact. A fractured fine grained dolomite with crystals of calcite filling the space between dolomite fragments. Black carbon material and pyrite is found along fractures and crystal faces.

N3, 35': 440' above the Chitistone-Nikolai contact. A fault zone with dolomite fragments, clay gauge and large calcite crystals. Vugs and unfilled fractures are common.

N2, 889': 220' above the Chitistone-Nikolai contact. Fine grained dolomite with small fractured areas. The angular fragments are dolomite and the matrix is small calcite crystals.

N3, 793': 440' above the Chitistone-Nikolai contact. A fine grained limestone and a blue gray mudstone. Pyrite is concentrated at the limestone-mudstone contact. The limestone shows irregular bedding.

N2, 832': 230' above the Chitistone-Nikolai contact. Dolomite with black carbon material and pyrite along fractures.

N5, 445': 530' above the Chitistone-Nikolai contact. A fractured dolomite with black carbon material and calcite making up the filling between the fragments.

N6, 858': greater than 160' above the Chitistone-Nikolai contact. Typical dolomite with black carbon material and pyrite. Copper staining (chalcopyrite and bornite) is found on some surfaces.

N4, 200': 650' above the Chitistone-Nikolai contact. A fractured dolomite with calcite filling. Relagar and pyrite are found on fracture surfaces.

N7, 828': 9' above the Chitistone-Nikolai contact. A fractured altered basalt with 10% pyrite. This is part of the intense fault zone found at the base of the limestone.

N7, 840': 3' below the Nikolai-Chitistone contact. A basalt with calcite filling ammuduals.
N4, 406': ~640' above the Chitistone-Nikolai contact. A fine to coarse grained chert and limestone-dolomite sandstone from the dolomite portion of N4. Minor pyrite is present.

N7, 836': 38' above the Chitistone-Nikolai contact. Part of the intense breccia zone at the base of N7. Fragments of the basal bed of the Chitistone Limestone and Nikolai Greenstone are in a matrix of ground limestone and greenstone. 10% or more pyrite can be present.

N6, 897': greater than 130' above the Chitistone-Nikolai contact. Dolomite with black carbon material and calcite.

N6, 833': greater than 150' above the Chitistone-Nikolai contact. A fine grained dolomite with black graphite like carbon material.

N8, 222': ~400' above the Chitistone-Nikolai contact. Fractured dolomite with calcite and black carbon matrix.

N4, 304': 680' above the Chitistone-Nikolai contact. Bedded fine grained sandstone and shale from the limestone portion of N4. 5% pyrite is found in the sandstone.

N8, 235': 380' above the Chitistone-Nikolai contact. Fractured dolomite with calcite matrix. Pyrite is present as is evidence of alteration and mineralization.

N4, 572': ~660' above the Chitistone-Nikolai contact. Black limestone and chert from the ammonite zone of the Chitistone Limestone.

N4, 204': ~650' above the Chitistone-Nikolai contact. Fractured dolomite with calcite similar to N4, 200 except pyrite is common.
CRC CORE TRANSMITTAL

File Number: 1345
Patron ID: 871  Code: I
Req. By: MILTON WILTSE
Company: ALASKA GEOLOGICAL SURVEY
Ship To: DR. JOHN REEDER, CURATOR
ALASKA GEOLOGIC MATERIALS CTR. 
DIV. GEOL. & GEOPHYS. SURVEYS
STATE DEPT. NATURAL RESOURCES
18205 FISH HATCHERY ROAD
City: EAGLE RIVER, AK 99577-2805
Phone: 907-696-0073 ext

Date Requested: 03-jul-1996
Date Needed: 15-aug-1996
Date Due: N/A
Destination: SHIPPING
Other Services Requested: N/A
Charges: N/A

Special Comments:

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| Total Boxes: 47 |

Received by: John W. REEDER  Date: 5 Sept 96
Curator's Signature: John W. Reeder  Date: 5 Sept 96

Please return a signed copy of this transmittal to:

Bureau of Economic Geology
Core Research Center
J.J. Pickle Research Campus
10100 Burnet Road
Bldg #131
Austin, Texas 78758-4497
(512) 471-0402
ATTN: James Donnelly

Received in good shape.

GMC Data Report No. 273 Page 4/4