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.





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 wasal 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 enchosed is a brief discription 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

Barry Hoffmann

- 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.
- N5,8855': 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, 36': 440' above the Chitistone-Nikolai contact. A fault zone with dolomite fragments, clay gauge and large cald te 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 facture 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-Chisistone 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 Chitsistone-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, 223': ~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. NARURAL RESOURCES

18205 FISH HATCHERY ROAD

City:

EAGLE RIVER, AK 99577-2805

907-696-0079 ext Phone:

Special Comments:

-		+		+	+		
	•	•	Operator		Boxes	Top	Bottom
•	, B00941			KSSD #3	1	1490.0	5330.0
	B00942	KODIAK SHE	SUN OIL CO.	KSSD #2	1	1500.0	10460.0
North Hope	C01816	KENAI, AK	ASHLAND PETR	WEST CHANNEL #1-03	7	9235.0	9273.0
	C02378	MCCARTHY,	INEXCO	NIKOLAI PROJECT	1	200.0	994.0
North Slope	R48370	KENAI, AK	ASHLAND EXPL	WEST CHANNEL 1-03	6	3013.0	9540.0
	R48484	KENAI, AK	TENNECO OIL	STATE #36465-1	13	2550.0	13960.0
	R57008	OFFSHORE,	UNKNOWN	E.C. 100	5	610.0	16046.0
	R57012	OFFSHORE,	ARCO	COST #1	4	1500.0	5150.0
	R57013	KODIAK SHE	ARCO	KODIAK STRAT. TEST #2	2	1290.0	4307.0
	R57022	UNKNOWN, A	COLORADO OIL	YAKUTAT #2 (X-5896)	4	50.0	11750.0
	R57023	UNKNOWN, A	COLORADO OIL	YAKUTAT #1	1	110.0	9315.0
	R57028	OFFSHORE,	SUN OIL CO.	COST #2-B (E C-100)	2	9430.0	13454.0
-	 			+	+		

|Total Boxes: 47|

Received by: John W. REEDER

Curator's Signature:

Date Requested: 03-jul-1996 Date Needed: 15-aug-1996

Date Due: N/A

Charges: N/A

Destination: SHIPPING Other Services Requested: N/A

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 for