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COMINCO LTD.

EXPLORATION
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EASTERN DISTRICT

KARRAT Ni GREENLAND PROJECT
GEOLOGY AND PROSPECTING
ASSESSMENT REPORT

LATITUDE: 70° 30' - 71°54' N
LONGITUDE: 51°30; - 51°40' W

March 30, 1995

John G. Pearson
M. Colin Joudrie

DBnr.
1401

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1. INTRODUCTION

1.0 Objectives

The objective of the Karrat Ni Greenland Project was to explore the Proterozoic age Karrat Group (Figure 1) of northwest Greenland for Thompson Nickel Belt (TNB) or Kambalda/Cape Smith Style Ni/Cu mineralization.

Allen and Harris (1979) and Allen (1993) recognized that the Karrat Gp was deposited in an early Proterozoic rift environment and has many similarities to the Ospwagan Gp in the TNB (Bleeker, 1990) and the Povungnituk/Chukotat/Watts/ Spartan Gps of the Cape Smith Belt (St. Onge and Lucas, 1993). Within these groups Archean crust has undergone extension and the resulting basin is filled with basal clastic sediments, chemical sediments (carbonates, sulfide and silicate facies iron formation), pelites, mafic and ultramafic volcanics. Ultramafic magmas, either intrusive, as at Thompson, or extrusive, as at Cape Smith, intrude into or flow onto the sulfidic iron formations, incorporate sedimentary sulfur and deposit Ni/Cu sulfides at the base of the intrusion/flow.

The Karrat Group (Figure 2) represents an early Proterozoic Basin, formed by the rifting of the Archean Umanak Gneiss, with a platform and shelf to deep basin sedimentary transition. The Marmorilik Fm, dominated by marbles and thin pelite bands formed in a pericratonic setting. The deeper basin is represented by a thick basal quartzite and pelite (the Qeqertarssuaq Fm), an extensive agglomeratic and pillow breccia volcanic sheet (informally named the Kangigdleq Fm), overlain by a thick sequence of greywacke, turbidite, calcareous turbidite, siltstone and shale (Nukavsak Fm.).

The 1979 program also found that the Kangigdleq Fm. is a differentiated sequence extending from basaltic komatiites through magnesium tholeiites to limited amounts of andesitic or spilitic material. As well the stream and silt geochem program identified Ni +/- Cu +/- Zn anomalies in these areas.

In April 1994, Cominco Ltd. and Cominco Resources International were granted a Permit which was divided into five areas which covered the mapped outcrops of the Kangigdleq Fm. The 1994 mapping and prospecting program examined the volcanic stratigraphy of the Kangigdleq and prospected scree slopes for base metal mineralization.

2.0 OWNERSHIP AND LOCATION

The Karrat Ni Project area consists of an Exploration License in west Greenland granted to Cominco Ltd. and Cominco Resources International Ltd. with five subareas delineated by the following corner co-ordinates given as longitudes and latitudes as follows (see also Figure 3):

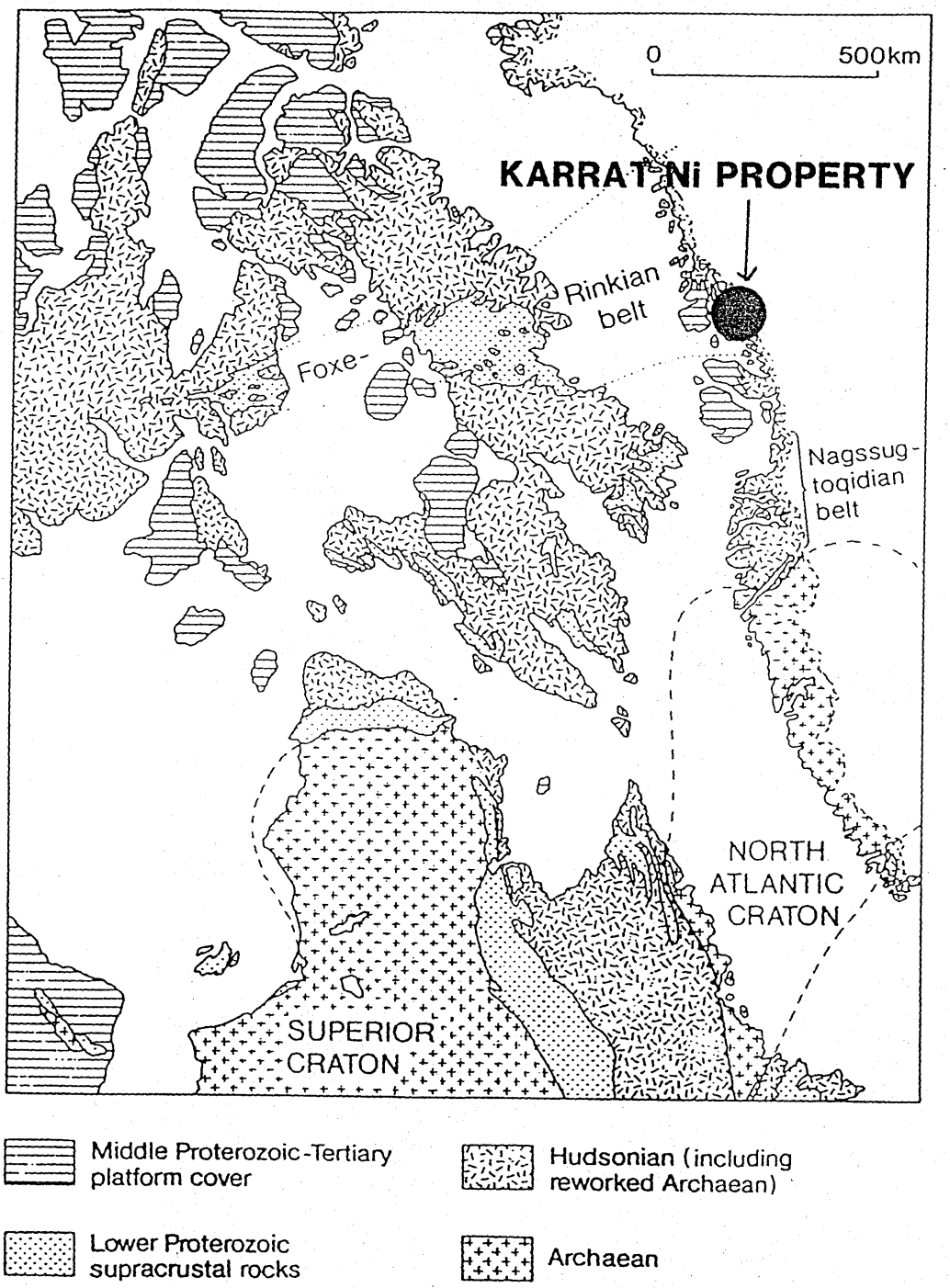

Figure 1: Location map of the Property and it's relationship to the Rinkian Belt (from Crocott and Pulvertaft, 1990).

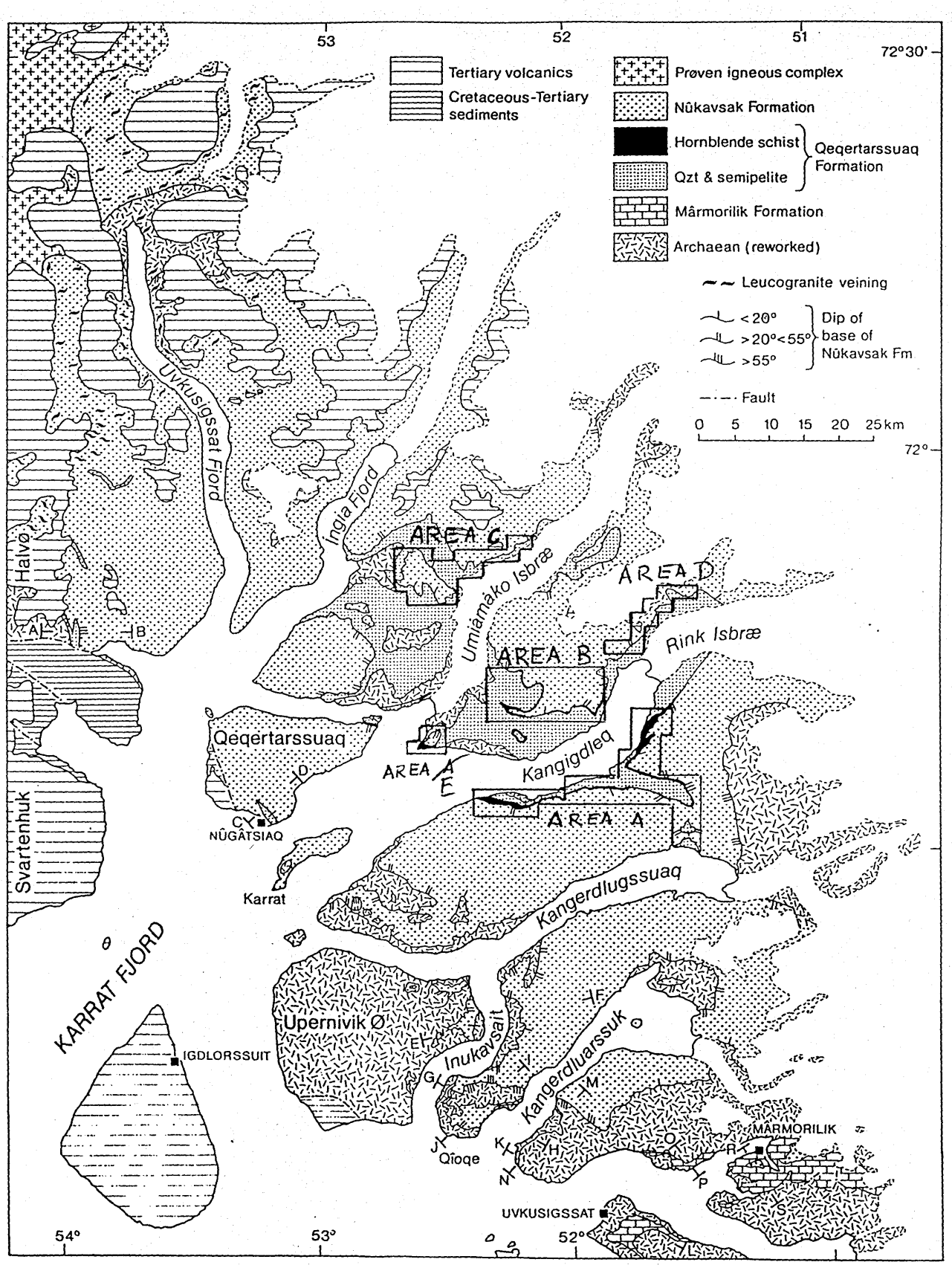

Figure 2: Geological map of the Rinkian belt between Marmorilik and Pangnertoq showing the area of the Permit.

Subarea 1 (Area A):

A:	71° 41'N	51°45W	J:	71°34'N	52°06'W
B:	71°41'N	51°36'W	K:	71°33'N	52°06'W
C:	71° 39'N	51°36'W	L:	71°33'N	51°21'W
D:	71° 39'N	51°39'W	M:	71°35'N	52°21'W
E:	71° 36'N	51°39'W	N:	71°35'N	52°00'W
F:	71° 36'N	51°30'W	O:	71°36'N	52°00'W
G:	71°30'N	51°30'W	P:	71°36'N	51°48'W
H:	71°30'N	51°36'W	Q:	71°38'N	51°48'W
I:	71°34'N	51°36'W	R:	71°38'N	51°45'W

Subarea 2 (Area B):

A:	71°44'N	52 18'W	C:	71°40'N	51°51'W
B:	71°44'N	51 51'W	D:	71°40'N	52°18'W

Subarea 3 (Area C):

A:	71°54'N	52°15'W	J:	71°49'N	52°39'W
B:	71°54'N	52°09'W	K:	71°50'N	52°39'W
C:	71°53'N	52°09'W	L:	71°50'N	52°42'W
D:	71°53'N	52°12'W	M:	71°53'N	52°42'W
E:	71°52'N	52°12'W	N:	71°53'N	52°33'W
F:	71°52'N	52°21'W	O:	71°52'N	52°33'W
G:	71°51'N	52°21'W	P:	71°52'N	52°27'W
H:	71°51'N	52°27'W	Q:	71°53'N	52°27'W
I:	71°49'N	52°27'W	R:	71°53'N	52°15'W

Subarea 4 (Area D):

A:	71°50'N	51°39'W	I:	71°45'N	51°42'W
B:	71°50N	51°30'W	J:	71°45'N	51°51'W
C:	71°49'N	51°30'W	K:	71°46'N	51°51'W
D:	71°49'N	51°36'W	L:	71°46'N	51°45'W
E:	71°48'N	51°36'W	M:	71°48'N	51°45'W
F:	71°48'N	51°39'W	N:	71°48'N	51°42'W
G:	71°47'N	51°39'W	O:	71°49'N	51°42'W
H:	71°47'N	51°42'W	P:	71°49'N	51°39'W

Subarea 5 (Area E):

A:	71°40'N	52°36'W	D:	71°38'N	52°39'W
B:	71°40'N	52°30'W	E:	71°39'N	52°39'W
C:	71°38'N	52°30'W	F:	71°39'N	52°36'W

2.1 Access and Topography

The area of the Permit includes selected areas in the peninsulas of Karrat Isfjord. The Permit is bound on the south by Kangerdlugssuaq Fjord and to the north by Ingia Fjord (Figure 2). Kangigdleq Fjord occupies the central part of the area. Two main glaciers, Rinks Isbrae and Umiamako Isbrae, flowing from the Inland Ice, occupy the heads of the fjords. As well, several local ice caps on the peninsulas and give rise to smaller glaciers. Kangigdleq and Karrat Isfjord are choked with icebergs which commonly occupy up to 20% of their surface area. The icebergs can be up to 1 km X 2 km and up to 200 m high but are more commonly 600 m X 1 km and 110m high . Rinks Isbrae is one of the most productive glaciers in Greenland. The fjords to the north and south (Ingia and Kangerdlugssuaq) are largely ice free.

Access to the five areas of the Permit is by helicopter, while shorelines would be accessible by boat. The very rugged topography however makes work without helicopter support impractical.

Nuugaatsiaq is the only village in the area and is located on the south tip of Qeqertarssuaq (Figure 2). It is a village of about 100 people and is serviced by a KNI store. A rented house in the village served as accommodation for the field work. A regularly scheduled boat services the village from Umanak.

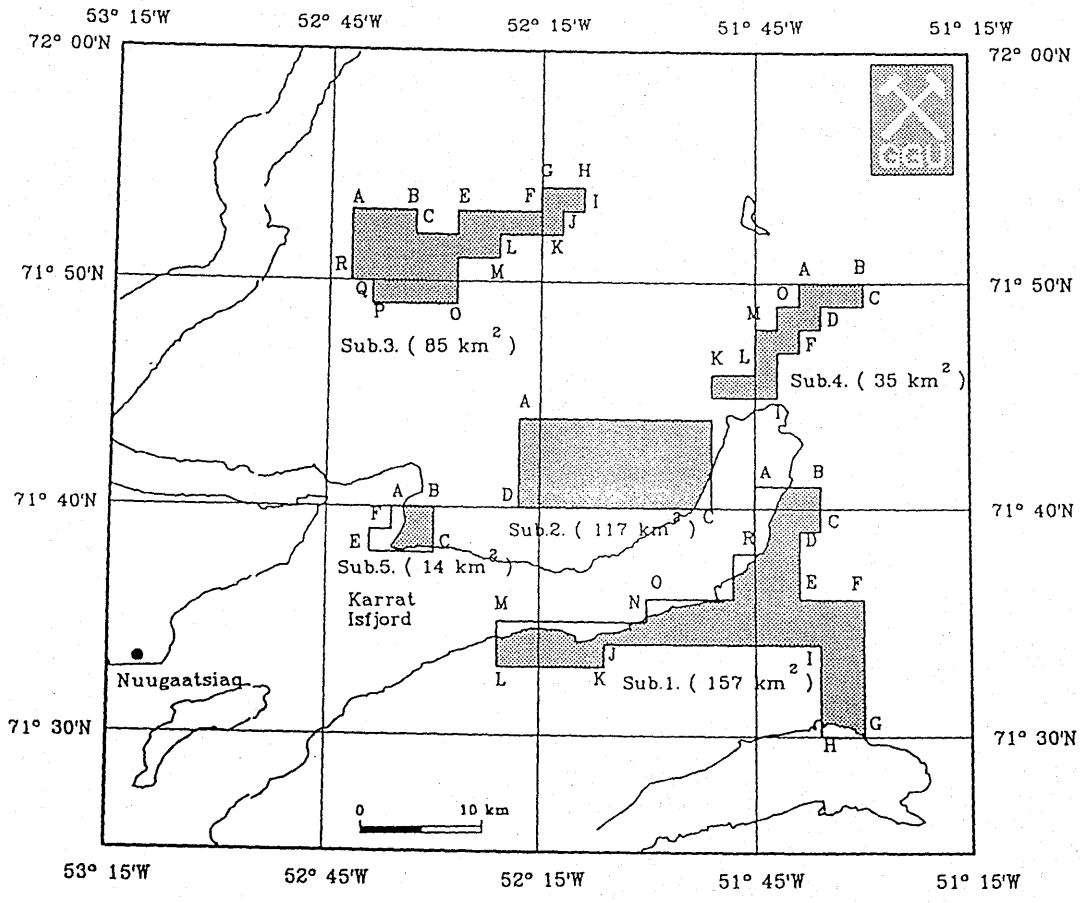

Figure 3: Location map of the Subareas of the Permit in the Karrat Isfjord area.

3.0 EXPLORATION HISTORY AND DEVELOPMENT

1962-1963: Mapping at a scale of 1:100,000 was carried out by Henderson and Pulvertaft of the GGU.

1970: J.C. Sproule and Associates Ltd. made a photogeological study of the area north of Marmorilik between latitudes 71°00' and 72°10' N and longitudes 53°00W and the Inland Ice.

1971: Niels Anderson, prospecting for Gronlands Efterforsknings Minecompagni A/S - (GEMCO) located some Marmorilik type mineralization in glacial float at the foot of Kangerdlugssuaq Glacier.

A concession between 71°00N and 72°12'N was granted to GEMCO for a period expiring on Dec. 31, 1975.

1972: J.C. Sproule updated the 1970 photogeological study for Ponderay Exploration Ltd. stressing the Marmorilik Pb/Zn occurrences. A reconnaissance program was also carried out by J.C. Sproule over the whole area.

1977: Development of the shale basin exploration model in basins of similar age worldwide led to a re-appraisal of this area and a brief Cominco examination was made during Sept. 1977.

1978: A reconnaissance trip in the Karrat Group was carried out by Cominco Ltd.

1979: Charter Consolidated carried out a helicopter supported kimberlite reconnaissance in the Karrat area and to the north and west on the Svartenhuk Peninsula for the Diapros syndicate.

Cominco carried out a two month field program of geological mapping, a geochemical heavy mineral and stream silt sampling program (Allen and Harris, 1979).

1980: Limited follow-up work was carried out on some of the geochemical anomalies outlined in 1979 (King, 1981).

1986: A field trip to the Karrat Group was carried out by Greenex A/S and identified some weak Pb and Zn mineralization (Thomassen & Lind, 1987);

1990: A three week follow up of the 1986 work was carried out by Intergeo-Exploration in the Ingia area on anomalies outlined by the GGU in 1986;

1991: GGU carried out an assessment of the mineral potential of the Umanak district

which included stream sediment, chip samples and rocks samples (Thomassen, 1991);

1993: GGU carried out further stream sediment sampling and heavy mineral sampling programs in the area bounding Ingia and Uvkusigssat Fjord area (Thomassen, 1993).

4.0 EXPLORATION

4.1 Exploration Setting

The 1979 Cominco Ltd program (Allen and Harris, 1979) sampled every available drainage (outwash fans and cones, talus gullies, glacier outwash) along the shorelines of Kangerdluarssuk, Kangerdlugssuaq, Kangigdleq, Ingia Fjord, Qeqertarssuaq, Karrat Island and Upernivikoas well a carrying out extensive rock sampling of sulfidic, sedimentary and mafic igneous rocks.

The sediment sampling program identified several anomalous areas of Co, Ni, As, Cu, Pb and Zn.

The geological mapping program further refined the stratigraphy of the Karrat Group and identified a mafic breccia band which persistently occurs at the contact of the Qeqertarssuaq and Nukavsak Fm. which they termed the Kangigdleq Fm. and identified it as being mafic to ultramafic in composition.

Bleeker (1990) and St. Onge and Lucas (1990) recognized the relationship of Ni deposits in Proterozoic age rift related supracrustal rocks in ages and settings similar to the Karrat Gp. The stratigraphy of the Ospwagan Gp at Thompson, Manitoba, and of the Povungnituk and Chukotat Gps in the Cape Smith Belt of northern Quebec is similar to that described by Allen and Harris. The major element geochemistry of the Kangigdleq Gp. also appeared to be similar to that of the mafic and ultramafic intrusive and extrusive rocks of the Ospwagan and Chukotat Gps.

The low sampling density of the Allen and Harris survey as well as the limited access available to them from shorelines, but with indications of stratigraphy prospective for Ni/Cu deposits of the Thompson or Katiniq types, lead Cominco Ltd and Cominco Resources International to evaluate the inland areas of the Karrat Gp. for Ni/ Cu deposits. This was done by scree sampling of mafic and UM lithologies and sulphide rich boulders as well as mapping and sampling of the Kangigdleq Fm. wherever it was accessible.

4.2 Exploration Method

The program was based at a rented house in Nuugaatsiaq and the crews helicoptered to the Permit areas each day. One crew traversed scree slopes and mapped lithologies,where available , while the other geologist utilized the helicopter to make spot checks of scree and lithologies.

Samples were taken of mafic igneous rocks and of any sulphide bearing rocks. The igneous rocks were analyzed for a standard suite of major and trace elements while sulfidic samples were analyzed for base metals and precious metals (see Appendices B to G). The major and trace elements analyzed for are: Na2O, MgO, Al2O3, SiO2, P2O5, K2O, CaO, TiO2, Cr2O3, MnO, Fe2O3, Rb, Sr, Y, Zr, Nb, Ba, LOI, As, S, Se, Pd, Pt, Cu, Pb, Zn, Ag, Co, Ni, Au, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Th, U. The original assay reports are included as Appendix H. The major and trace element analysis were carried out by XRAL Laboratories of Toronto, Canada while the base and precious metals were analyzed at the Cominco Eastern District Laboratory, also in Toronto.

The procedure followed was to traverse the areas of scree at the base of cliffs which were mapped as mafic volcanics by Henderson and Pulvertaft (1987). Representative samples were taken of all igneous lithologies in order to establish differentiation trends through the use of major and trace element geochemistry (Appendix A). Boulders and outcrops containing sulfides were also extensively sampled in this area and analyzed for base metals. Sample locations were determined by GPS.

4.3 Project Chronology:

The staffing consisted of two geologist, one technician, a helicopter pilot and an engineer.

May - June: Review of previous work, geochemistry etc. Preparation of field equipment, maps, shipping of field equipment, selecting a helicopter contractor.

July 17: Travel from Flin Flon, Manitoba to Saskatoon, Saskatchewan
July 18: Travel from Saskatoon, Saskatchewan to Montreal
July 19: Travel from Montreal to Nuuk, Greenland
July 20: Travel from Nuuk to Ilulissat
July 21: In Nuuk, met with expeditor (Platinova A/S), collected equipment and shipped it to Ilulissat
July 22: Travelled from Nuuk to Ilulissat. Weather out, stayed in Ilulissat
July 23: Weathered out, stayed in Ilulissat
July 24: Helicopter from Ilulissat to Nuugaatsiaq
July 25: Travel to Umanak for supplies, pick up D. Belisle, set up house, prepare for field work
July 26: Traversing and prospecting on Area A (Subarea 1)
July 27: Traversing and prospecting on Area D and Area B
July 28: Traversing and prospecting on Area D and Area B
July 29: Traversing and prospecting on Area E, Area C and on Qeqertarssuaq Isl.
July 30: High winds, could not fly, plotting data and preparing sample spreadsheet
July 31: Traversing and prospecting on Area C
August 1: Traversing and prospecting on Qeqertarssuaq Isl., Permit E and Karrat Isl.
August 2: Fog and low ceiling, could not fly.
August 3: Traversing and Prospecting on Area A, near Kangerdlugssuaq and along the south

E & Feltdage / 3 maand

shore of Kangigdleq

August 4: Examining southern part of Area A, Pack gear and deliver samples etc. to Umanak, Helicopter to Ilulissat

August 5: Travel from Ilulissat to Nuuk

August 6: Travel from Nuuk to Montreal

August 7: Travel from Montreal to Flin Flon, Manitoba

5.0 GEOLOGY

5.1 Regional Geology

The Precambrian stratigraphy in this part of West Greenland is relatively simple inasmuch as the number of major constituent lithostratigraphic units is not large. The rocks can be subdivided into two main units: a lower basement complex - the Umanak gneiss and a metasedimentary cover group - the Karrat Group, which consists of well preserved metasediments.

The predominant rock type is a medium-grained, light grey biotite gneiss of mainly tonalitic-granodioritic composition. Other lithologies encountered in the Umanak Gneiss are porphyroblastic granodiorite/augen gneiss, 'small-augen' tonalite gneiss, fine grained leucocratic granite, pelitic gneiss and ultrabasic rocks. A Rb-Sr isochron age of 2570 +/- Ma has been reported (Kalsbeek, 1981 in Henderson and Pulvertaft, 1987) and a more controversial Rb-SR isochron age of 3087 +/- 139 Ma has also been obtained (Anderson 1981 in Henderson and Pulvertaft, 1987).

The Karrat Gp. lies unconformably on the Umanak Gneiss. Henderson and Pulvertaft identify three formations within the Group, the basal Qeqertarssauq Fm. and it's age equivalent Marmorilik Fm and the overlying Nukavsak Fm.

Allen and Harris (1979) invoke an alternate model for the development of the Karrat Gp. They identify four formations, illustrating a platform and shelf to deep basin sedimentary basin transition. They believe that the Marmorilik Fm formed in a pericratonic setting. The deeper basin is represented by a thick basal quartzite and pelite (the Qeqertarssuaq Fm), an extensive agglomeratic and pillow breccia volcanic sheet of tholeiite to komatiite composition (the informally named Kangigdleq Fm), overlain by a thick sequence (+/- 5,000 m) of greywacke, turbidite, calcareous turbidite, siltstone and shale (the Nukavsak Fm.).

The metamorphic grade is lower to mid amphibolite grade.

The Marmorilik Fm. lies south of the Permit area and hosts the Black Angel orebody. Henderson and Pulvertaft (1987) suggest that it is the lateral equivalent to the Qeqertarssuaq Fm but the two were deposited simultaneously in separate basins. The Marmorilik Fm lies unconformably on the Umanak Gn. has a basal Quartzite member, but is dominated by dolomite and calcite marble. It is overlain by the Nukavsak Fm.

The Qeqertarssuaq Fm. is a unit of undifferentiated quartzite and semi pelite with rare local calc-silicate or marble bands. Its thickness varies from 50 m to as much as 2,000 m. Allen and Harris identified sulphide bearing schists along Kangigdleq Fjord within the formation. These occur as pyrrhotite bearing black shales, pyrrhotitic cherty siltstones and pyritic quartz biotite schists, cherty pyritic limestone and rare 1-1.5 m beds of pyrrhotite rich graphitic cherts.

The Kangigdleq Fm consists of basic to intermediate volcanics which outcrop extensively in the area of the Permit. The volcanics form a sheet varying from 25 to 75 m thick (along Ingia Fjord) to an estimated 400 to 600 m in Kangigdleq Fjord. Allen and Harris suggest a multiple vent eruption. In outcrop, the volcanics are dominantly agglomeratic, tuffaceous or pillow flow breccias. In the area of Ingia Fjord, a section of picritic basalt pillowed flows, flow breccias and agglomerates was mapped. The only other evidence of non-fragmental basalts identified were large boulders of pillow lavas on the scree on the north edge of Area C and on the north side of Johannes Brae in Area A. The volcanic sequence must be locally quite highly differentiated as evidenced by the presence of quartz phyric rhyolite boulders also found on Area C. Most commonly these volcanics have been metamorphosed and are recognizable only as amphibolites. Allen and Harris also identified a persistent gossan band which seems to follow the Kangigdleq - Nukavsak Fm contact. Access to this contact is nearly impossible due to the extreme topography.

Allen and Harris identified a second amphibolite band in the area between Kangerdlugssuaq Fjord and Johannes Isbrae. This second unit is part of the overturned limb of a large south verging recumbent fold.

The Nukavsak Fm. consists of greywackes, proximal turbidites, siltstones and shales with lesser platform limestones and black shales. Pyrrhotite -chert, pyrrhotite-graphite-chert and pyrrhotite bearing black shales are common throughout the formation.

6.0 PROPERTY GEOLOGY

6.1 Area A

Area A covers almost the entire mapped area of the Kangigdleq Fm. between Kangigdleq Fjord and Kangerdlugssuaq Fjord including Johannes Brae encompassing 157 km^2. It follows the south shore of Kangigdleq Fjord and extends up the valley which is occupied by Johannes Brae and flanks a col which extends from Johannes Brae to Kangerdlugssuaq Fjord. Forty five samples were collected for whole rock and trace element analysis (see Appendix B and Map 1).

Traverses were carried out along accessible areas of the south shore of Kangigdleq Fjord, along the north side of Johannes Brae, as well as spot checks along the south side of Johannes Brae and in the alpine areas south of Johannes Brae. As well, examinations were made of the talus cones along Kangerdlugssuaq were Allen and Harris obtained silt sample anomalies of greater than 269 ppm Ni, 610 ppm Zn, 600 ppm Cu and 69 ppm Co.

A traverse along the North side of Johannes Brae identified a 200 m thick band of amphibolite and amphibolitic breccia. Locally present are zones in which strongly attenuated pillow lavas can be identified. Where the rock is fragmental the fragments have a 4:1 aspect ratio. Where observed the contact between the volcanics and the metasediments is tectonic. In the area of sample M-0726-02, a thin band of pyrite-pyrrhotite-graphite rich sediment is overlain by a coarse debris flow. The sample of the sulfidic sediment contains highly anomalous Ni (500 ppm) and Co (160 ppm) for a sulphidic sediment. The volcanic rocks along this horizon (Sample M-0726-06 and 07) vary from tholeiitic (MgO 8.81%) to komatiitic (MgO 15.5%). It would appear therefore that the sulphidic sediment is somewhat contaminated and that the processes similar to that encountered at Thompson may have been active.

Viewing this face from the distance indicates that this horizon may be the bottom limb of a south verging recumbent fold. Facing directions are therefore suspect.

A traverse along the Tinumanikavsa area on the south shore of Kangigdleq Fjord failed to identify any ultramafic rocks (Samples M-0803-02, M-0801-02,03) but rather tholeiitic basalt (MgO contents of 4.26 to 10.9%).

The southeast part of the area contains a number of interesting lithologies. In the southernmost part of Permit area A, a nearly complete section through the Kangigdleq Fm. is present. The lowest part of the sequence examined in this area are Qeqertarssuaq Fm. quartzite. This is overlain by black to dark green, strongly banded hornblende-biotite carbonate rock which has good compositional banding and a fragmental aspect. The rock is basaltic in composition with MgO content ranging from 11.0 to 13.6% and SiO2 ranging from 43.2 to 46.9% (Samples P-260794-06 and P-030894-02 respectively). Boulders in the scree below this exposure are locally carbonatized, contain magnetite, some appear to be oikiocrystic (P-260794-06). Immediately overlying the volcanic horizon is a rusty weathering jarositic sulfide horizon which weathers recessively. This is in turn overlain by an olive green, pyroxene/carbonate bearing silicate facies? iron formation which is in turn overlain by massive magnetite and/or chert-magnetite oxide facies iron formation. The Fe_2O_3 content of this iron formation ranges from 35 to 65% (Samples P-030894-2A,3,3B; P-040894-06,08,09).

An examination of the talus cones on Kangerdlugssuaq Fjord where Allen and Harris (1980) obtained anomalous base metal values failed to indicate any mafic boulders. However samples of the sulphidic black shale boulders contained 3200 to 4500 ppm Zn, 666 to 826 ppm Ni and up to 5 ppm Ag (Samples 3439-3441, 3448).

6.2 Area B

Area B was selected to cover the exposure of the Kangigdleq Fm on the north side of Kangigdleq Fjord and extends across Umiamako Nuna to Umiamako Isbrae. One sample collected in 1979 was a basalt (6.46% MgO). Two days were spent carrying out spot checks along the scree slopes below the presumed outcrop of these volcanics. Thirty three samples were collected for whole rock and trace element analysis (Appendix C).

On the south side of Area B, the ridges facing Kangigdleq Fjord, only one volcanic boulder was sampled (M0727-05) and is basalt in composition (MgO-7.3%, SiO2-49.2%). As in Area D, most of the dark colored rocks mapped by Henderson and Pulvertaft may have been volcaniclastic sediments.

On the north side of the Area, that is those glaciers flowing into Umiamako Isbrae, several volcanic boulders were identified. In a small tributary glacier several amphibolite boulders were found, some reminiscent of VMS style alteration. Samples P27-07-94-5 to 7 and M0727-07 have MgO contents of 7.3 to 15.4. with SiO2 contents of 42.6% to 49.2% and are likely basalt to komatiitic basalt in composition. Sample M0727-07 is a picrite. Samples P-270794-5A and 5D are unusual in that they have greater than 22% Fe2O3. Sample P-270794-5A is described as a strongly foliated, hornblende-plagioclase, altered mafic volcanic rock while 5D is described as a fine grained, olive green, massive amphibolite.

One sample of ultramafic rock was located in this area as well. Sample M0728-03 contains 29.7% MgO, 42.7% SiO2, 4090 ppm Cr and 1180 ppm Ni.

6.3 Area C

Area C was selected to cover the exposure of the Kangigdleq Fm. between Umiamako Isbrae and Ingia Fjord and includes the south side of Puatdlarsiviup Qorua. It encompasses 85 km^2 . Fifty nine samples were collected for geochemical analysis (Appendix D).

Allen and Harris identified several UM boulders, picritic basalts on Ingia Fjord and several base metal stream and silt geochem anomalies. There was some concern that some of the boulders may be derived from the Tertiary Picritic Basalts present in the highest areas of the Peninusla so several areas of this were examine both on Qeqertassuaq (sample M018-01) and to the east of the Area were the Basalts were sampled (Samples M0729-08,09,10).

In the eastern part of the Area (flanking Umiamako Isbrae), the Kangigdleq Fm. includes >100 m of mafic basaltic breccia with flattened amygdaloidal basalt fragments up to 30 cm long. The bottom contact of this zone appears to be tectonic. To the west, this formation is boudinaged and eventually pinches out. In the central part of the Area, scree prospecting identified mafic volcanic breccias, pillow lavas and ultramafic rock as well as quartz prophyritic rhyolite.

This Permit area has the largest variety of lithologies and was certainly the most interesting for Ni deposit potential. This is the only area where basaltic flow rocks were identified, both in outcrop (on Ingia Fjord, Samples M-0729-13, M-0731-06) and as boulders in scree (near P-310794-2). Also present along the north side of the Permit area are several boulders of talc-carbonate ultramafic rock which have MgO contents of 28 to 28.7% (Samples DB-0731-04, P-31-794-01) and several other ultramafic amphibolite boulders with MgO contents ranging from 14 to 20% (ie. Samples M-0731-04 to 07). The volcanic suite is bimodal in that several boulders of blue quartz phyric rhyolite, variably silicified, were identified on the north side of the Area C (Samples P-310794-1A,2A, SiO2 contents of 73.1 and 87.3% respectively).

Several samples were collected of sulphidic black shales etc. which are anomalous in Zn, Cu and Ni. Zinc values from these samples range up to 5500 ppm (Sample DB-0729-14), Cu values up to 1280 ppm (Sample DB-0729-04) and Ni values up to 904 ppm (Sample DB -0729-14). 7282

6.4 Area D

Area D is located on Umiamako Nuna, on the north flank of Rinks Isbrae and Kangigdleq Fjord and encompasses 35 km^2. Five samples were collected for geochemical analysis (see Appendix E). The original interpretation of the mafic bands in this area was that the rocks were entirely mafic volcaniclastics. An examination of the geochemistry of the two samples indicates that one (Sample M0727-01) may be derived from a komatiitic basalt. Although the sample is chlorite-talc-hornblende magnetite schist, it's high MgO content (16.6%) and Cr content (1260 ppm) indicates that some parts of the horizon are volcanic. In the area of Sample P27-07-94-1, massive mafic volcanics? were present overlying thickly bedded, black wacke which locally has possible concretions preserved. This sample also has high CaO and LOI contents indicating that at least some of these rocks are strongly carbonatized.

6.5 Area E

This Permit area is located on the western tip of Umiamako Nuna and encompasses 14 km^2. Both the eastern tip of Qeqertarssuaq and Umiamako Nuna were examined as both were mapped as thick mafic to ultramafic sequences. Nine samples were collected for analysis (Appendix F).

The exposure on Umiamako Nuna probably has a true thickness of about 50 m but appears much thicker because it lies on a dip slope. The rocks encountered here are strongly attenuated biotite-hornblende +/- carbonate schists, and probably include mafic volcanics, wackes and debris flows. Cross cutting the volcanics are mafic dykes and a narrow (2 m) wide quartz carbonate stockwork which contains minor sulfides and possibly tourmaline (Sample P-010894-10C). 310794? Other samples from this area include a 'rusty red jasper like' boulder, a schistose mafic dyke and a brecciated sulphidic mudstone boulder (Samples P-010994-10,10B and 10D respectively).

On the eastern tip of Qeqertarssuaq, mapping defined a NW to NNW gently plunging open fold in which the base of the stratigraphy ifs orthoquartzite which grades upwards into wackes and pelite. Overlying the sequence is an ultramafic rock termed pryoxenite in the field. Three samples of this rock (Samples M0729-02, 04, 05) have MgO contents of 29.8 to 31.2%, SiO2 contents of 29.8 to 31.2% and Cr contents of 3410 to 4060 ppm.

6.6 Nuugaatsiaq Gossan

In travelling to the mainland from Nuugaatsiaq, a yellow and rusty weathering gossan located 2 km northeast of Nuugaatsiaq was identified. An examination of this area indicates that the horizon is a 100 m wide chert-graphite zone lying between siltstones and wackes of the Nukavsak Fm. Assays of 9 samples from the gossan indicate that there are no base metals associated with it (Appendix G).

7.0 FINANCE

Expenditures to Dec. 31, 1994:

DETAILS	$C	TOTAL $C	D KRONA
15 days @ $ 350/day	$5,250.00		
15 days @ $ 200/day	$2,400.00		
15 days @ $125/day	$1,875.00	$9,525.00	
100% (Section 606, Standard Terms for			
Exploration Licenses)	$9,525.00	$9,525.00	
AIR FARE - J. PEARSON	$2,184.91		
AIR FARE - M. C. JOUDRIE	$2,973.00		
AIR FARE - D. BELISLE	$2,274.00		
AIR FARE - D.B. - ILULISAT-UMANAK	$368.83	$7,800.74	
INCLUDES HOTELS, MEALS, SUPPLIES			
ETC. PURCHASED AND SHOWN ON			
EXPENSE ACCOUNTS	$9,843.08	$9,843.08	4,024.00
Rental of Sven Moeller's house, Nuugaatsiaq			
90 DKr/man/day, 59 man days			5,310.00
Platinova: includes shipping charges, supplie			
at KNI stores, airport service charges etc.			27,191.38
UNIVERSAL HELICOPTERS	$62,989.43	$62,989.43	
Platinova/Texaco: 6400 l Jet A-1 Fuel			20,064.00
XRAL LABS	$3,279.33		
COMINCO EASTERN DISTRICT LAB	$6,030.00	$9,309.33	
NEVILLE CROSBY	$1,368.52		
NORSEMAN SUPPLIES	$426.68		
JOHNNIES SPORTING GOODS	$752.38		
CENTRAL GRAPHICS	$312.52		
A.G. REIMER	$157.37	$3,017.47	
CANADIAN AIR	$1,387.68		
GRONLANDSFLY			9,797.80
REIMER EXPRESS	372.73	1760.41	
	113770.46	113770.46	66,387.18
EXCHANGE RATE $C 1 = 4:71 D KRONA			**535,858.87**
			602,246.05
			301,123.02
			903,369.07
			524,764.00
			378,605.07

8.0 CONCLUSIONS AND RECOMMENDATIONS

The potential for Thompson or Kambalda style Ni/Cu mineralization is most promising on the northern most Permit areas. The glaciers flowing north from Area B to Umiamako Isbrae and the lithologies encountered in Area C are the most interesting in that ultramafic rocks of greater that 25% MgO were encountered in these areas. Further work with the geochemistry in order to identify differentiation trends and crustal contamination of the basalts, komatiites and intrusive ultramafic rocks will determine if further work is warranted.

Area C, in the area adjacent to Puatdlarsiviup Quora, also contains interesting quartz porphyritic rhyolite which in one sample has been strongly silicified. Also, one sample appears to be similar to VMS style alteration (Sample M0731-12) as well as some possible high level tonalite intrusives (Samples DB-0731-9, 10) which locally contain albite, quartz, garnet, biotite, hornblende and pyrite.

Area A does not contain any UM rocks with MgO contents of > 20% so it's nickel potential is considered to be low. However the presence of silicate and oxide facies iron formation is interesting and further work on the geochemistry of these samples is warranted.

The eastern most tip of Qeqertarssuaq has an intersting UM sill which does have a composition mafic enough to be associated with an Ni/Cu body. Further work with the geochemistry of this sill is warranted.

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John G. Pearson
Senior Geologist

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APPENDIX A: SAMPLE LIST, DESCRIPTION AND LOCATION

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	CO-ORDINATES WEST LONG.	ELEVATION	COMMENTS
P26/7/94-1		A	71 34 40.2	51 32 26.2	690	Crenulated biotite-sillimanite-plagioclase gneiss
P 26/7/94-2	3332	A	71 34 16.3	51 33 22.5	690	S. side of Johannes Brae - amphibolite, suspect UM
P 26/7/94/2A	3333.	A				Probably not mafic volcanic, massive, fine grained
P 26/7/94-3		A	71 34 22.4	51 33 45.1	690	equigraular, may contain olivine?? amphibolite
P 26/7/94/3B	3334	A				Black amphibolite, fine grained amphbolite, non-magnetic
P 26/7/94-4	3335	A	71 34 21.6	51 34 00.3	690	biotite on foliation planes, chlorite schist, magnetic mafic rock
P 26/7/94-4A		A				pitted, amhibolite as above; rusty fragments of ?
P 26/7/94-5A	3336	A	71 31 59.9	51 32 39.7	840	py-po-gf and Qtz-py-po with rare cpy - could break
P 26/7/94-5B	3337	A				this sample up into (2) pieces; one is strongly
P 26/7/94-5C	3338	A				carbonatized while the other is coarse grained but
P 26/7/94-5C	3339	A				somewhat rounded amphibolite; massive, blocky
		A				amphibolite
P26/7/94-5D	3340	A				Pale greenish grey plag-actinolitewith diss py/po + tr cpy, <2% sulfides
P 26/7/94-6	3341	A	71 32 01.1	51 32 47.5	990	looks oikiocrystic in places; black, vfg and blocky
P 27/7/94-1	3342	D	71 50 18.0	51 31 27.6	1200	meta-volcanic/sed? Rusty metasediment Rusty
P27/7/94-1A		D	71 50 18.0	51 31 27.6		sulfidic samples No sample Chlorite schist? Narrow
P 27/7/94-2	3343	D	71 50 04.8	51 30 53.6	1200	Tributary glacier - coarse grained amphibolie-chlorite
P 27-794-02A	3344					rock, second sample is 80% CO3
P 27/7/94-3		B	71 40 37.5	51 58 32.1	1110	with hornblende crystals - looks like a VMS alteration rock; strongly ?
P 27/7/94-4		B	71 40 40.3	51 58 24.7	1140	foliated hornblende(75%)-plagioclase(25%) rock; pale green
P 27/7/94-5	3345	B	71 42 22.0	52 16 48.5	960	actinolitic schist - MCJ says looks like Chisel FW
P 27/7/94-5A	3346	B	71 42 22.0	52 16 48.5	960	Strongly foliated amphibolite rock with boudinaged
P 27/7/94-5B	3347	B	71 42 22.0	52 16 48.5	960	quartz veinlets; Md-f grained, olive green, massive
P 27/7/94-5C			71 42 22.0	52 16 48.5	960	amphibolite with tr. py; Po-qz-mica rock; Dark
P 27/7/94-5D	3348	B	71 42 22.0	52 16 48.5	960	green-black, fine grained amphibolite, >3% py; Green
P 27/7/94-5E	3349	B	71 42 22.0	52 16 48.5	960	chlorite schist; Fine grained amphibolite with trace
		74 ppb Au	71 42 22.0	52 16 48.5	960	sulphides and magnetite, strongly magnetic

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
P 28/7/94-1	3350	B	71 43 18.0	52 12 10.2	1320	highly magnetic amphibolite - green f.gr., 3-5% magnetite
P 28/7/94-2		B	71 43 16.9	52 12 02.8	1200	schistose talc?-chlorite schist Massive to weakly
P 28/7/94-3		B	71 43 19.9	52 11 42.7	1170	foliated strongly magnetic amphibolite Massive ,
P 28/7/94-4	3351	B	71 42 59.9	52 12 10.5	1170	green to olive green actinolite? - chlorite rock;
P 28/7/94-4A		B	71 42 59.9	52 12 10.5	1170	Volcanic breccia, basalt, vesicular fragments,
P 28/7/94-4B	3352	B	71 42 59.9	52 12 10.5	1170	relatively unstrained; Carbonate-chlorite rock - breccia
			71 42 59.9	52 12 10.5	1170	with ?
P 28/7/94-5A	3353	C	71 51 48.6	52 24 01.3	1170	brown weathering carbonate and delicate
P 28/7/94-5B	3354	C	71 51 48.6	52 24 01.3	1170	chlorite/actinolite grains which weather postively
P 28/7/94-5C			71 51 48.6	52 24 01.3	1170	
P 28/7/94-6		C	71 51 46.4	52 24 15	990	
P 29/7/94-1	3355	E	71 38 28.1	52 33 53	30	Black vfg, biotite-carbonate schist
P 29/7/94-2		E	71 38 32.4	52 33 32.3	150	Biotite schist with boudinaged qfb bands
P 29/7/94-3	3356	C	71 53.08	52 38 29.2	330	Massive dark green amphibolite
P 29/7/94-4	3357	C	71 53 08.7	52 38 14.7	330	Amphibole(actinolite?)-epidote?-sillimanite? po with minor cpy
P 29/7/94-5		C	71 53 20.5	52 38 20.6	300	Amphibolite with CO3 veins and abundant magnetite
DB 07 29-2	N.S.	C				Sulphidic sample
P 29/7/94-6		C	71 53 13.0	52 35 34.3	300	No sample
P 290794-7A	3358	C	71 53 02.1	52 35 08.1	330	Two pieces-chlorite-biotite-carbonate schist with py
P 290794-7B	3359	C	71 53 02.1	52 35 08.1	330	and cpy, and blue qtz phyric rock
DB 29/07-3	3323	C				Sulfidic argillite sample with 40% po, gf, tr cpy
P 29/7/94-8		C	71 52 56.8	52 34 56.5	390	Amphibolite
DB 29/07-4	3324					Po-gf rock

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
P 29/7/94-9	3360	C	71 51 49	52 32 55.7	390	Dark green amphibolite with dark brown pxene and possible olivine
DB 07 29-5	3325					Sulfidic argillite
M-0726-02	3321	A	71 35 55	51 42 00	480	3-10 metre thick band of py(15-20%) -po(2-5%) -gf(10-30%) bearing quartzite(chert?) with minor cc+qz+chl+mt overlain by med.-dark green volcanic breccia/debris flow
M-0726-05	HS	A	71 35 28	51 39 32	240	Strongly foliated hbld+plag+qz+cc metavolcanic; located at faulted contact with porphyroblastic quartzite unit
M-0726-06	3322	A	71 35 28	51 39 32	240	50 metres up-section from flow breccia; massive, dark black amphibolite (35 cm wide) bands/pillows; chl+bt rich margins (sediment), <80% hbld. centres.
M-0727-01	3316	D	71 45 54	51 44 34	240	Boulder of chl+talc+hbld+mt in massive augen schist
M-0727-02	HS	D	71 46 06	51 43 59	240	Fine grained hbld+bt+qz phyllite (pelitic wacke)
M-0727-03	3317	D	71 46 08	51 43 23	570	Str. deformed, kink-banded, py-bearing shales/phyllites; <5% py
M-0727-05	3318	B	71 40 00	52 02 35	1050	Mafic hbld+bt+qz metasediment; qz-lozenges concentrated along foliation
M-0727-05A	HS	B	71 40 00	52 02 35	1050	Rusty coloured bt+hbld+qz+plag rock; pelitic sediment or a mafic volcanic sediment
M-0727-05B	HS	B	71 40 00	52 02 35	1050	Strongly pitted and rusty brown flat boulders of dolomite (marble); massive, no visible sulphides
M-0727-06	3319	B	71 41 19	52 18 59	1020	Dark grey-black pyritic amphibolite; qz+hbld+bt+py; massive and blocky - possibly metavolcanic.
M-0727-07	3320	B	71 41 19	52 18 59	1020	Rounded, massive, v.f.g. olivine-phyric basalt; 5-15%, 1-3 mm, equant olivine phenocrysts
M-0727-07A	HS	B	71 41 19	52 18 59	1020	As described above
M-0727-07B	HS	B	71 41 19	52 18 59	1020	Weakly amygdaloidal, vesicular basalt; f.g. to aphanitic ground mass with 20-30%, 1mm circular qz-filled vesicles

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
M-0728-01	HS		71 35 49	53 26 39	270	Variably textured Tertiary basalts; aphanitic, black pyx-rich to grey coloured ophitic pyx-plag intrusives; (1) sample of vesicular basalts.
M-0728-03	3306	B	71 43 28	52 13 03	1080	Massive hbld+qz metavolcanic; weakly pitted, dark brown to black weathered surface.
M-0728-04	3307	B	71 40 01	52 46 38	150	Rounded to sub-rounded, str. rusted po(10-15%) +gf(20-25%) bearing mudstone
M-0728-04A	3308	B	71 40 01	52 46 38	150	As above
M-0728-05	3309	B	71 40 01	52 46 38	150	Amphibole+biotite+quartz boulders; trace po+py+/-cp
M-0728-06	HS	B	71 40 01	52 46 38	150	Weakly banded, alternating amphibole and biotite layers; metasediment
M-0728-07	3310	B	71 40 01	52 46 38	150	Massive, slightly schistose chlorite+amphibole metavolcanic
M-0728-08	3311	~92 ppb Au B	71 40 01	52 46 38	150	5-30% po in a fine grained, graphitic mudstone
M-0728-09			71 43 23	52 15 43	930	
M-0728-10	N/S	N. of C				
M-0728-11	3312	C	71 53 04	52 11 10	960	Vesicular cc-rich fragment from a coarse basaltic flow breccia boulder
M-0728-12	3313	C	71 53 04	52 11 10	960	Massive, slightly rounded po-rich (80-95%) graphitic (5-20%) mudstone boulder
M-0728-13	3314	C	71 53 04	52 11 10	960	Olivine-phyric basalt (Tertiary ?); 1-4 mm olivine in a f.g. groundmass of amphibole and cc-filled vesicles
M-0728-14	HS	C	71 53 04	52 11 10	960	Weakly ol-phyric Tertiary basalt boulder with qz+cc filled vesicles
M-0728-15	3315	C	71 53 04	52 11 10	960	Str. magnetic, chlorite+amphibole+mt boulder; light green- to olive-green pitted weathered surface; potentially a meta-UM of some sort
M-0729-02	3301	Qeqertarssuaq	71 40 07	52 45 58	0	Massive, undeformed dark green-brown weathered surface, topographically high; x-cut by 1-4 cm cc+tremolite+/-talc+/-serp veinlets; aphanitic fresh surface; looks intermediate.
M-0729-04	3302	Qeqertarssuaq	71 40 07	52 45 58	0	As above; plagioclase+pyroxene+hornblende bearing sill; Tertiary??
M-0729-05	3303	Qeqertarssuaq	71 40 07	52 45 58	0	Pyx+plag dominated mafic rock at margin of intrusive sill; marginal pegmatoidal phase of Tertiary intrusive
M-0729-06	HS	Qeqertarssuaq	71 40 07	52 45 58	0	As for M-0729-05

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
M-0729-07	HS	E	71 38 24	52 34 00	30	Massive, heterogeneous gabbro/diorite; coarse plag+hbld+pyx in pegmatiodal phase; 2-5% diss. po, mod.-str. magnetic
M-0729-08	HS	C - Tertiary province	71 55 31	52 24 06	1900	Highly vesicular, aphanitic, weakly ol-phyric columnar jointed (?) and massive flow basalts of Tertiary age; undeformed.
M-0729-09	3304	C - Tertiary province	71 55 31	52 24 06	1900	As for M-0729-08
M-0729-10	HS	C - Tertiary province	71 55 31	52 24 06	1900	As for M-0729-08
M-0729-11	3305	C- U-valley	71 52 53	52 46 56	330	Ol(10-15%) -plag(10-15%) - pyx(60-70%) Tertiary basaltic dyke; modestly magnetic; homogeneous and equigranular
M-0729-12	HS	C - U-valley	71 52 53	52 46 56	330	Chilled margin of above dyke; aphanitic margin, weakly vesicular 50 cm in from outer contact with country rock
M-0729-13	N/S	C - Ingia Fjord	71 53 00	52 54 22	0	Extremely well preserved sequence of Proterozoic aged flow breccia/debris flow basalts; wkly. ol-phyric in ground mass and in fragments to sediment.
DB-0728-05	3326	B				20-40% net-textured po in a graphitic sediment
DB-0728-06	3327	B – 83 ppb Au				20-40% net-textured po in a graphitic sediment
DB-0728-08	3328	B				60-85% po in qz-flooded sediment; graphite+biotite
DB-0728-09	3329	N. of C				2-5% po in weakly planar amphibolite
DB-0728-14	3330	C				20-50% po-rich graphitic mudstone; fine grained net-textured and cm-scale masses
DB-0728-15	3331	C				1-10% laminar po in fine grained mudstone sediment and tr. mm-scale fractures with <1% cp.
DB-0729-03	3323	C				Po-bearing graphitic mudstone
DB-0729-04	3324	C				10-40% po-bearing graphitic mudstone
DB-0729-05	3325	C				1-5% po, in biotite-rich semi-pelite (qz-flooded)
DB-0731-01	3361	C	71 51 33.7	52 31 18.9	690	Black, fgr suphidic argillite-shale, - 15-20% py minor cyp
DB-0731-02	3362	C	71 51 33.7	52 31 18.9	690	Black, f.gr laminated arg.-sufidic with up to 10% py
DB-0731-03	3363	C	71 51 33.7	52 31 18.9	690	Black, laminated shale with 2-5% po plus gamet
DB-0731-04	3364	C	71 51 30.8	52 31 08.1	570	Mauve coored talc-chlorite-carbonate rock UM? magnetic
DB-0731-05	3365	C	71 51 30.8	52 31 08.1	570	Granular textured bio-garnet rock with py(<5%) + tr

KARRAT Ni PROJECT
SAMPLE LIST

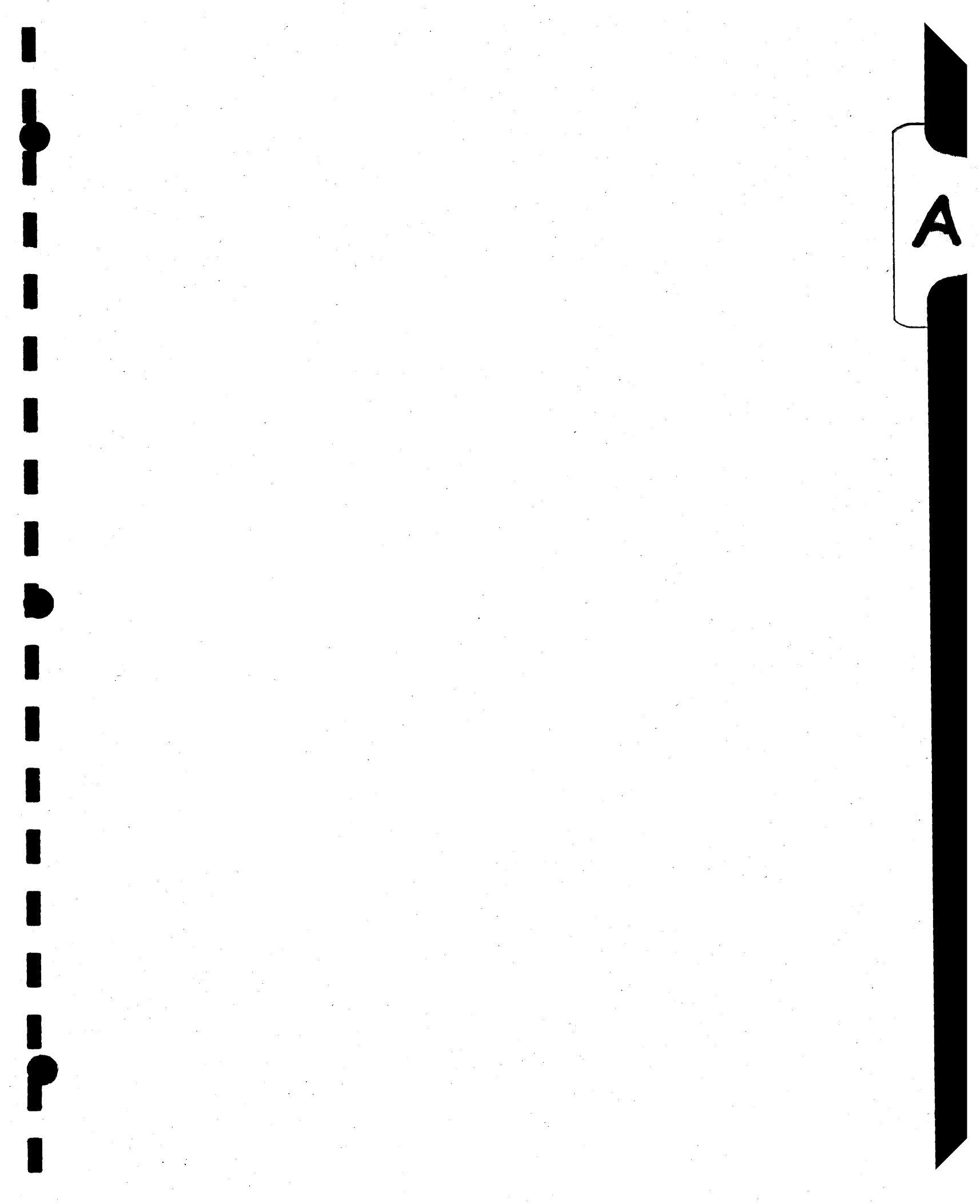
FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
						cpy
DB-0731-06	3366	C	71 50 29.2	52 27 55.8	570	D. green, hbde or pxene phyric amphibolite
DB-0731-07	3367	C	71 48 58.0	52 37 19.6	750	Sulfidic rock-bio.qtz lozenges
DB-0731-08	3368	C	71 51 54.0	52 45 30.8	180	White tonalitic rock albite-qtz with blebs of py
DB-0731-10	3369	C				Plag-hbde diorite
DB-0731-11	3370	C	71 52 42.8	52 38 45.6	300	Plag-bio sulfide rock
P31/7/94-0	3371	C	71 51 32.2	52 31 05.4	690	Mauve-grey coarse gr. talc-carbonate rk.UM?
P31/7/94-1A	3372	C				Blue qtz phyric dacite/diorite?
P31/7/94-2	3373	C	71 51 33.7	52 31 18.9	690	Olive gn amphibolite with pss. pxene/more probably bio
P31/7/94-2A	3374	C	71 51 33.7	52 31 18.9	690	Massively silicified blue tz phyric dacite/diorite
P31/7/94-2B	3375	C	71 51 33.7	52 31 18.9	690	Black sufidic arg. with 10% po and minor (tr) cpy
P31/7/94-3	3376	C	71 51 30.8	52 31 08.1	570	Talc/CO3 UM?rx
M-0731-01		C	71 53 24	52 54 30	0	
M-0731-02	3398	C	71 53 24	52 54 30	0	Olivine bearing(5-15%) massive pyroxenite avalanche boulder with 2-5% disseminated magnetite; minor (<10%) plag. oikiocrysts; potentially >15% MgO
M-0731-03	N/S		71 53 24	52 54 30	0	
M-0731-04	3399		71 53 24	52 54 30	0	Massive dm-scale amphibolite volcanic breccia fragment in massive debris flow/bx. unit
M-0731-05	3400		71 53 24	52 54 30	0	Aphanitic, amphibole-rich, tightly packed pillow buds; weakly magnetic.
M-0731-06	3401		71 53 24	52 54 30	0	Coarsely recrystallized fine grained bx. matrix to coarse fragmental breccia/debris flow volcanic unit.
M-0731-07	3402		71 51 07	52 30 03	510	Angular to sub-angular boulder of chl(50-60%) -bt(5-10%) -plag(10-20%) -qz(10-20%) -mt(2%); a massive pillowed metavolcanic.
M-0731-08	3403		71 50 49	52 28 58	510	Chlorite+amphibole+po bearing metavolcanic boulder; weakly magnetic.
M-0731-09	3404		71 50 49	52 28 58		Rusty, blocky-angular, po-bearing (10-25%) boulder; po as fine grained net texture.
M-0731-10A	HS		71 49 06.3	52 26 54.3	510	Moderately to strongly foliated dark brown, biotite+amph+cc rock; metavolcanic protolith.
M-0731-10B	3405		71 49 06.3	52 26 54.3	510	Strongly foliated amph-bt-qz-cc-po-cp bearing metavolcanic boulder.
M-0731-10C	3406		71 49 06.3	52 26 54.3	510	Olivine-bearing (phenocrysts ?) in a strongly deformed

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
						metavolcanic
M-0731-12	3407					Dark red-brown, sub-angular to sub-rounded anthophyllite+bt+po+py+/-cp; metamorphosed VMS alteration FW.
M-0731-13	3408		71 48 02	52 32 55	1290	Massive, aphanitic mg-basalt flow or flow breccia boulder.
M-0731-15	3409		71 52 16	52 40 03	1290	Vesicular basalt fragments in a coarse debris flow; a boulder.
M-0801-01A	3393	KARRAT ISL	71 28 30	53 08 34	330	Pyroxenite, 24-40% euhedral plag,40% mag, 5% mag
M-0801-01B	HS	KARRAT ISL				kimberlite??
M-0801-01C	3394	KARRAT ISL	71 28 30	53 08 34	330	rusty, olivine bearing(15%) pyroxenite (pyx-60-70%)magnetic
M-0801-01D	HS	KARRAT ISL				kimberlite??
M-0801-01E	HS	KARRAT ISL				kimberlite??
M-0801-01F	HS	KARRAT ISL				kimberlite??
M-0801-02	3395	A	71 34 23	52 19 28	210	Carbonatized amphibolite, 65-80%hbd+/-pyx+5% calcite
M-0801-03	3396	E				Coarse plag lathes in an hbd matrix/gabbro
M-0728-16	3397	C	?	?	?	Massive, qtz-py veined boulder
P-010894-01	3384	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Vuggy, sugary textued quartz coated with graphite
P-010894-02	3385	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Vuggy, coarse grained vein quartz
P-010894-03	3386	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Psammite with pyrite
P-010894-04	3387	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	black fissile graphitic rubble
P-010894-05	3388	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Red, rusty goassan rubble
P-010894-06	3389	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Red siliceous rock with disseminated py
P-010894-07	3390	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Yellow silstone
P-010894-08	3391	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Black, graphite coated recrystalized chert
P-010894-09	3392	NUUG. GOSSN	71 32 54.2	53 10 57.8	630	Red coating on massive white quartz
P-010894-10A	3427	E	71 38'14.5"	52 35'24.9	90	Jasper red granular textured rock
P-0108-94-10	3428	E				Dark green massive amphibolite, olivine?
P-010894-10C	3429	E				Qtz/C03 stockwork which brecciates the country rock and contains minor pyrite and possible tourmaline
P-01084-10B	3430	E				Early dyke has become schistose
P-010894-10D	3431	E				Rusty brecciated sulfidic mudstone, matrix is CO3, qtz, py and rare cpy
DB-0803-02	3439	A	71 29'54.0"	51 45'07.7"	60	Black sulfidic argillite with up to 30% po matrix to argillaceous mud chips

KARRAT Ni PROJECT
SAMPLE LIST

FIELD NUMBER	SAMPLE NUMBER	PERMIT	CO-ORDINATES NORTH LAT.	WEST LONG.	ELEVATION	COMMENTS
DB-0803-03	3440	A				Po sulfidic mudstone with x-cutting py veinlets
DB-0803-04	3441	A				Black sulfidic mudtone with po as matrix-rare cpy
DB-0803-05	3442	A	71 32'07.1	51 31'48.8"	1110	Grey brown rusty weathering granular siltstone/wacke; trace sulfides
DB-0803-06	3443	A				Rusty coating on tzo-feldspathic dirty ss +blebs of py
DB-0803-07	3444	A				Grey qtzo-feldspathic rk with diss magnetite and py
DB-0803-08	3445	A				Rusty partings on qtzo-feldspathic rk with 2-4% diss. euhedral to subhedral py
P-030894-1A	3446	A	71 29'54.0	51 45'07.7	60	Qtz vein material with minor diss. py (<1%)
P-030894-1B	3447	A				Grey qtzo-feldspathic schist with tr-2% diss po
P-030894-1C	3448	A				Black gfitic sulfidic mudstone with 30% po and tr cpy, breccia
P-030894-1D	3449	A				Sulfidic gfitic material bounding a qtz vein
P-030894-02	3450	A	71 32'07.1"	51 31'48.8	1110	Black/dk gn, compositional banded hbde/CO3/biotite rk
P-030894-1E	3451	A	71 29'54.0	51 45'07.7	60	Sufide (po) diss in argillite and in veins associated narrow quartz vein
P-030894-2A	3452	A	71 32'07.1"	51 31'48.8	1110	Massive magnetite
P-030894-03	3453	A				Magnetite rich rock with minor grunerite?
P-030894-3A	3454	A	71 32'06.6	51 31'23.0"	1110	Grey qtz-feldspar biotite rk-metagwke
P-030894-3B	3455	A	71 32'06.6	51 31'23.0"	1110	Oxide Fe form'n with qtz feldspar and grunerite
P-040894-01	3460	A	71 32'06.6	51 31'23.0"	1110	Magntite-qtz rock
P-040894-02	3461	A	71 32'06.6	51 31'23.0"	1110	Qtz-magnetite rk with minor olive green pxene?
P-040894-06	3462	A	71 32'06.6	51 31'23.0"	1110	CO3/pxene (grunerite?) with minor phlogopite-carbonate/silicatge Fe formation?
P-040894-07	3463	A	71 32'06.6	51 31'23.0"	1110	Qtz/magnetite rock
P-040894-08	3464	A	71 32'06.6	51 31'23.0"	1110	Qtz/mgnetite rock
P040894-09	3465	A	71 32'06.6	51 31'23.0"	1110	Rusty chert mudstone-Po gossan
DB-0728-03	3466					?


A

APPENDIX B: GEOCHEMISTRY OF SAMPLES FROM AREA A

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3462	3463	3464	3465	3466
FIELD NUMBER		P-040894-06	P-040894-07	P-040894-08	P-040894-09	DB-0728-
NA20	%	0.75				
MGO	%	13.5				
AL2O3	%	7.67				
SIO2	%	35.5				
P2O5	%	0.97				
K2O	%	1.49				
CAO	%	20.1				
TIO2	%	2.37				
CR2O3	PPM	10				
MNO	%	0.15				
FE2O3	%	7.02				
RB	PPM	30				
SR	PPM	167				
Y	PPM	30				
ZR	PPM	187				
NB	PPM	61				
BA	PPM	254				
LOI	%	9.6				
SUM	%	99.2				
AS	PPM	<5	<5	<5	<5	<5
S	PPM					
SE	PPM					
Pd	PPB					
Pt	PPB					
Cu	PPM	116	6	2	1	300
Pb	PPM	<1	<1	<1	9	32
Zn	PPM	86	30	34	30	600
Ag	PPM	<1	<1	<1	<1	1
Co	PPM	24	20	6	8	22
Ni	PPM	24	2	8	12	836
Au	PPB	10	<10	10	<10	12
Y	PPM	29	6	7	6	
LA	PPM	49.4	1.2	4.1	1.3	
CE	PPM	99.7	1.8	7	2	
PR	PPM	12.1	0.2	1	0.3	
ND	PPM	47.6	1	4	1.2	
SM	PPM	9.4	0.2	1.1	0.3	
EU	PPM	2.91	0.08	0.29	0.09	
GD	PPM	8.2	0.3	1.2	0.4	
TB	PPM	1	-0.1	0.2	-0.1	
DY	PPM	6	0.6	1.4	0.5	
HO	PPM	1.05	0.15	0.3	0.15	
ER	PPM	3	0.5	0.9	0.5	
TM	PPM	0.4	-0.1	0.1	-0.1	
YB	PPM	2.4	0.6	1	0.5	
LU	PPM	0.33	0.1	0.16	0.07	
TH	PPM	5.8	0.2	0.6	-0.1	
U	PPM	1.2	0.3	0.4	0.7	

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3322	3332	3333	3334	3335	3336
FIELD NUMBER		M-0726-06	P26-07-94-02	P26-07-94-2A	P26-07-94-3B	P26-07-94-4	P26-7-94-5A
NA20	%		1.68	1.87	0.38	1.89	
MGO	%		15.3	14.1	19.1	14	
AL2O3	%		8.18	10	2.92	10.2	
SIO2	%		45.7	43.7	53.2	43.6	
P2O5	%		0.04	0.22	0.03	0.21	
K2O	%		0.26	1.13	0.04	1.17	
CAO	%		10.2	9.58	10.4	9.57	
TIO2	%		1.55	2.19	0.501	2.22	
CR2O3	PPM		967	1020	1820	1000	
MNO	%		0.19	0.17	0.15	0.17	
FE2O3	%		13.5	15.1	10.6	15.1	
RB	PPM		-10	27	-10	40	
SR	PPM		243	213	47	218	
Y	PPM		11	14	-10	14	
ZR	PPM		103	147	38	146	
NB	PPM		22	35	10	33	
BA	PPM		97	340	-50	348	
LOI	%		1.4	0.7	0.5	0.55	
SUM	%		98.2	99	98.1	98.9	
AS	PPM						
S	PPM	3.6	0.3	0.01	0.004	0.02	0.16
SE	PPM		0.4	0.3	<.1	<.1	
Pd	PPB						
Pt	PPB						
Cu	PPM	308	128	200	12	244	124
Pb	PPM	22	30	20	18	32	22
Zn	PPM	116	122	132	86	132	124
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	140	62	68	86	70	76
Ni	PPM	500	518	506	1200	504	760
Au	PPB	36	12	<10	<10	<10	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3337	3338	3339	3340	3341	3395
FIELD	NUMBER	P26-07-94-5B	P26-7-94-5C	P26-7-94-5C	P26-07-94-5D	P26-07-94-6	M-0801-02
NA20	%	1.14			0.73	2.02	2.36
MGO	%	19			12.8	13.6	10.9
AL2O3	%	8.01			8.05	9.39	8.49
SIO2	%	43.1			26.8	43.2	43.1
P2O5	%	0.12			0.59	0.19	0.17
K2O	%	0.09			2.01	0.32	1.05
CAO	%	9.7			21.7	11.9	12.5
TIO2	%	1.71			2.56	1.97	1.93
CR2O3	PPM	1250			58	925	1350
MNO	%	0.19			0.28	0.19	0.16
FE2O3	%	14.2			10.3	14.3	14.5
RB	PPM	11			63	-10	36
SR	PPM	342			192	341	230
Y	PPM	-10			20	12	11
ZR	PPM	113			206	135	126
NB	PPM	25			73	32	26
BA	PPM	-50			321	96	350
LOI	%	1.1			14.4	1.7	4.35
SUM	%	98.6			100.3	99	99.8
AS	PPM						
S	PPM	0.07	15.8	10.4	0.23	0.001	0.04
SE	PPM	0.1			0.1	0.2	2
Pd	PPB						
Pt	PPB						
Cu	PPM	142	124	1280	88	68	110
Pb	PPM	26	46	22	42	28	22
Zn	PPM	82	38	44	140	136	116
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	76	240	140	28	72	72
Ni	PPM	922	1300	264	62	506	580
Au	PPB	<10	<10	<10	<10	<10	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA G

SAMPLE NUMBER		3452	3453	3454	3455	3460	3461
FIELD NUMBER		P03-08-94-2A	P03-08-94-03	P03-08-94-3A	P03-08-94-3B	P-040894-01	P-040894-02
NA20	%	0.05	0.06	0.02	0.04		
MGO	%	0.45	1.84	1.74	0.35		
AL2O3	%	0.32	0.25	0.17	0.01		
SIO2	%	45.6	34.5	74.9	35		
P2O5	%	0.2	0.66	0.24	0.35		
K2O	%	0.03	0.02	-0.01	-0.01		
CAO	%	0.38	1.3	0.88	0.62		
TIO2	%	0.017	0.025	0.016	0.007		
CR2O3	PPM	10	10	10	10		
MNO	%	0.53	7.59	2.2	0.71		
FE2O3	%	54.2	52.9	16.7	65.1		
RB	PPM	15	-10	-10	-10		
SR	PPM	47	45	26	24		
Y	PPM	16	17	-10	22		
ZR	PPM	14	15	-10	-10		
NB	PPM	-10	17	-10	-10		
BA	PPM	-50	-50	-50	-50		
LOI	%	-1.55	0.9	3.3	-2.2		
SUM	%	100.2	100.1	100.2	100		
AS	PPM					<5	<5
S	PPM						
SE	PPM	0.6	0.6	0.4	0.5		
Pd	PPB						
Pt	PPB						
Cu	PPM					<1	<1
Pb	PPM					<1	<1
Zn	PPM					40	40
Ag	PPM					<1	<1
Co	PPM					10	6
Ni	PPM					10	<1
Au	PPB					<10	12
Y	PPM			5	9	5	3
LA	PPM			2	1.4	1.6	0.5
CE	PPM			1.8	1.2	2.6	0.9
PR	PPM			0.4	0.2	0.3	0.1
ND	PPM	1.5	1.3	1.5	1	1.2	0.5
SM	PPM	0.4	0.3	0.3	0.2	0.3	0.1
EU	PPM	0.09	0.12	0.09	0.1	0.1	-0.05
GD	PPM	0.6	0.3	0.4	0.4	0.4	0.2
TB	PPM	0.1	-0.1	-0.1	-0.1	-0.1	-0.1
DY	PPM	0.9	0.3	0.5	0.5	0.7	0.3
HO	PPM	0.28	0.09	0.15	0.16	0.19	0.1
ER	PPM	1	0.3	0.5	0.6	0.7	0.3
TM	PPM	0.2	-0.1	-0.1	-0.1	0.1	-0.1
YB	PPM	1.1	0.3	0.6	0.7	1	0.3
LU	PPM	0.19	0.05	0.11	0.11	0.17	0.06
TH	PPM	0.1	0.2	-0.1	-0.1	-0.1	0.1
U	PPM	0.6	1.1	0.4	0.6	0.6	0.3

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3396	3435	3436	3437	3438	3439
FIELD NUMBER		M-0801-03	M-0803-02	M-08-03-03	M-08-03-04	M-08-03-05	DB-08-03-02
NA20	%	2.78	1.91				
MGO	%	4.26	3.4				
AL2O3	%	15.1	14.5				
SIO2	%	47.5	65.2				
P2O5	%	0.38	0.13				
K2O	%	0.53	3.53				
CAO	%	10	2.12				
TIO2	%	3.41	0.657				
CR2O3	PPM	92	137				
MNO	%	0.21	0.05				
FE2O3	%	14.6	6.11				
RB	PPM	-10	115				
SR	PPM	222	122				
Y	PPM	46	17				
ZR	PPM	233	122				
NB	PPM	17	-10				
BA	PPM	130	578				
LOI	%	0.6	2.1				
SUM	%	99.5	99.8				
AS	PPM						
S	PPM	0.04		0.98	0.148	4.6	20.8
SE	PPM	2.1	1.8				
Pd	PPB						
Pt	PPB						
Cu	PPM	404		16	12	114	342
Pb	PPM	10		46	50	10	126
Zn	PPM	130		36	22	94	3500
Ag	PPM	<1		<1	<1	<1	<1
Co	PPM	32		12	4	4	48
Ni	PPM	78		28	8	52	826
Au	PPB	<10		<10	<10	12	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3446	3447	3448	3449	3450	3451
FIELD NUMBER		P03-08-94-1A	P03-08-94-1B	P03-08-94-1C	P03-08-94-1D	P030894-02	P03-08-94-1E
NA20	%					1.48	
MGO	%					11	
AL2O3	%					10.7	
SIO2	%					46.9	
P2O5	%					0.91	
K2O	%					1.58	
CAO	%					11.3	
TIO2	%					2.6	
CR2O3	PPM					0.04	
MNO	%					0.19	
FE2O3	%					10.8	
RB	PPM					18	
SR	PPM					175	
Y	PPM					18	
ZR	PPM					194	
NB	PPM					51	
BA	PPM					1480	
LOI	%					0.65	
SUM	%					98.4	
AS	PPM						
S	PPM	0.24	1.28	17.6	1.96		1.36
SE	PPM					0.4	
Pd	PPB						
Pt	PPB						
Cu	PPM	12	38	250	100		122
Pb	PPM	10	28	82	46		38
Zn	PPM	30	70	3200	134		140
Ag	PPM	<1	<1	1	<1		<1
Co	PPM	6	12	42	26		20
Ni	PPM	24	40	700	136		94
Au	PPB	<10	<10	<10	<10		<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3440	3441	3442	3443	3444	3445
FIELD NUMBER		DB-08-03-03	DB-08-03-04	DB-08-03-05	DB-0803-06	DB-080394-07	DB-08-03-08
NA20	%						
MGO	%						
AL2O3	%						
SIO2	%						
P2O5	%						
K2O	%						
CAO	%						
TIO2	%						
CR2O3	PPM						
MNO	%						
FE2O3	%						
RB	PPM						
SR	PPM						
Y	PPM						
ZR	PPM						
NB	PPM						
BA	PPM						
LOI	%						
SUM	%						
AS	PPM						
S	PPM	18	18.4	0.47	0.34	0.36	2
SE	PPM						
Pd	PPB						
Pt	PPB						
Cu	PPM	280	256	54	34	32	26
Pb	PPM	230	214	32	42	20	8
Zn	PPM	4200	4200	114	114	56	66
Ag	PPM	5	4	<1	<1	<1	<1
Co	PPM	40	38	8	14	2	4
Ni	PPM	720	666	24	56	18	48
Au	PPB	<10	<10	10	<10	<10	10
Y	PPM			17	20	9	1
LA	PPM			25.6	33.4	7.2	1.1
CE	PPM			50.9	66.6	13.1	1.5
PR	PPM			5.9	7.8	1.5	0.3
ND	PPM			22.5	28.7	5.7	1.1
SM	PPM			4.6	5.8	1.3	0.2
EU	PPM			1.03	1.41	0.47	0.05
GD	PPM			3.9	4.9	1.3	0.2
TB	PPM			0.5	0.7	0.2	-0.1
DY	PPM			3.2	4.1	1.4	0.2
HO	PPM			0.65	0.82	0.31	-0.05
ER	PPM			1.9	2.3	1	0.2
TM	PPM			0.3	0.4	0.2	-0.1
YB	PPM			1.9	2.3	1.1	0.2
LU	PPM			0.29	0.35	0.17	-0.05
TH	PPM			14	21.5	6.3	0.6
U	PPM			3.2	5.5	1.9	4.8

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3440	3441	3442	3443	3444	3445
FIELD NUMBER		DB-08-03-03	DB-08-03-04	DB-08-03-05	DB-0803-06	DB-080394-07	DB-08-03-08
NA20	%						
MGO	%						
AL2O3	%						
SIO2	%						
P2O5	%						
K2O	%						
CAO	%						
TIO2	%						
CR2O3	PPM						
MNO	%						
FE2O3	%						
RB	PPM						
SR	PPM						
Y	PPM						
ZR	PPM						
NB	PPM						
BA	PPM						
LOI	%						
SUM	%						
AS	PPM						
S	PPM	18	18.4	0.47	0.34	0.36	2
SE	PPM						
Pd	PPB						
Pt	PPB						
Cu	PPM	280	256	54	34	32	26
Pb	PPM	230	214	32	42	20	8
Zn	PPM	4200	4200	114	114	56	66
Ag	PPM	5	4	<1	<1	<1	<1
Co	PPM	40	38	8	14	2	4
Ni	PPM	720	666	24	56	18	48
Au	PPB	<10	<10	10	<10	<10	10
Y	PPM			17	20	9	1
LA	PPM			25.6	33.4	7.2	1.1
CE	PPM			50.9	66.6	13.1	1.5
PR	PPM			5.9	7.8	1.5	0.3
ND	PPM			22.5	28.7	5.7	1.1
SM	PPM			4.6	5.8	1.3	0.2
EU	PPM			1.03	1.41	0.47	0.05
GD	PPM			3.9	4.9	1.3	0.2
TB	PPM			0.5	0.7	0.2	-0.1
DY	PPM			3.2	4.1	1.4	0.2
HO	PPM			0.65	0.82	0.31	-0.05
ER	PPM			1.9	2.3	1	0.2
TM	PPM			0.3	0.4	0.2	-0.1
YB	PPM			1.9	2.3	1.1	0.2
LU	PPM			0.29	0.35	0.17	-0.05
TH	PPM			14	21.5	6.3	0.6
U	PPM			3.2	5.5	1.9	4.8

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3446	3447	3448	3449	3450	3451
FIELD NUMBER		P03-08-94-1A	P03-08-94-1B	P03-08-94-1C	P03-08-94-1D	P030894-02	P03-08-94-1E
NA20	%					1.48	
MGO	%					11	
AL2O3	%					10.7	
SIO2	%					46.9	
P2O5	%					0.91	
K2O	%					1.58	
CAO	%					11.3	
TIO2	%					2.6	
CR2O3	PPM					0.04	
MNO	%					0.19	
FE2O3	%					10.8	
RB	PPM					18	
SR	PPM					175	
Y	PPM					18	
ZR	PPM					194	
NB	PPM					51	
BA	PPM					1480	
LOI	%					0.65	
SUM	%					98.4	
AS	PPM						
S	PPM	0.24	1.28	17.6	1.96		1.36
SE	PPM					0.4	
Pd	PPB						
Pt	PPB						
Cu	PPM	12	38	250	100		122
Pb	PPM	10	28	82	46		38
Zn	PPM	30	70	3200	134		140
Ag	PPM	<1	<1	1	<1		<1
Co	PPM	6	12	42	26		20
Ni	PPM	24	40	700	136		94
Au	PPB	<10	<10	<10	<10		<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3396	3435	3436	3437	3438	3439
FIELD	NUMBER	M-0801-03	M-0803-02	M-08-03-03	M-08-03-04	M-08-03-05	DB-08-03-02
NA20	%	2.78	1.91				
MGO	%	4.26	3.4				
AL2O3	%	15.1	14.5				
SIO2	%	47.5	65.2				
P2O5	%	0.38	0.13				
K2O	%	0.53	3.53				
CAO	%	10	2.12				
TIO2	%	3.41	0.657				
CR2O3	PPM	92	137				
MNO	%	0.21	0.05				
FE2O3	%	14.6	6.11				
RB	PPM	-10	115				
SR	PPM	222	122				
Y	PPM	46	17				
ZR	PPM	233	122				
NB	PPM	17	-10				
BA	PPM	130	578				
LOI	%	0.6	2.1				
SUM	%	99.5	99.8				
AS	PPM						
S	PPM	0.04		0.98	0.148	4.6	20.8
SE	PPM	2.1	1.8				
Pd	PPB						
Pt	PPB						
Cu	PPM	404		16	12	114	342
Pb	PPM	10		46	50	10	126
Zn	PPM	130		36	22	94	3500
Ag	PPM	<1		<1	<1	<1	<1
Co	PPM	32		12	4	4	48
Ni	PPM	78		28	8	52	826
Au	PPB	<10		<10	<10	12	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3452	3453	3454	3455	3460	3461
FIELD	NUMBER	P03-08-94-2A	P03-08-94-03	P03-08-94-3A	P03-08-94-3B	P-040894-01	P-040894-02
NA20	%	0.05	0.06	0.02	0.04		
MGO	%	0.45	1.84	1.74	0.35		
AL2O3	%	0.32	0.25	0.17	0.01		
SIO2	%	45.6	34.5	74.9	35		
P2O5	%	0.2	0.66	0.24	0.35		
K2O	%	0.03	0.02	-0.01	-0.01		
CAO	%	0.38	1.3	0.88	0.62		
TIO2	%	0.017	0.025	0.016	0.007		
CR2O3	PPM	10	10	10	10		
MNO	%	0.53	7.59	2.2	0.71		
FE2O3	%	54.2	52.9	16.7	65.1		
RB	PPM	15	-10	-10	-10		
SR	PPM	47	45	26	24		
Y	PPM	16	17	-10	22		
ZR	PPM	14	15	-10	-10		
NB	PPM	-10	17	-10	-10		
BA	PPM	-50	-50	-50	-50		
LOI	%	-1.55	0.9	3.3	-2.2		
SUM	%	100.2	100.1	100.2	100		
AS	PPM					<5	<5
S	PPM						
SE	PPM	0.6	0.6	0.4	0.5		
Pd	PPB						
Pt	PPB						
Cu	PPM					<1	<1
Pb	PPM					<1	<1
Zn	PPM					40	40
Ag	PPM					<1	<1
Co	PPM					10	6
Ni	PPM					10	<1
Au	PPB					<10	12
Y	PPM			5	9	5	3
LA	PPM			2	1.4	1.6	0.5
CE	PPM			1.8	1.2	2.6	0.9
PR	PPM			0.4	0.2	0.3	0.1
ND	PPM	1.5	1.3	1.5	1	1.2	0.5
SM	PPM	0.4	0.3	0.3	0.2	0.3	0.1
EU	PPM	0.09	0.12	0.09	0.1	0.1	-0.05
GD	PPM	0.6	0.3	0.4	0.4	0.4	0.2
TB	PPM	0.1	-0.1	-0.1	-0.1	-0.1	-0.1
DY	PPM	0.9	0.3	0.5	0.5	0.7	0.3
HO	PPM	0.28	0.09	0.15	0.16	0.19	0.1
ER	PPM	1	0.3	0.5	0.6	0.7	0.3
TM	PPM	0.2	-0.1	-0.1	-0.1	0.1	-0.1
YB	PPM	1.1	0.3	0.6	0.7	1	0.3
LU	PPM	0.19	0.05	0.11	0.11	0.17	0.06
TH	PPM	0.1	0.2	-0.1	-0.1	-0.1	0.1
U	PPM	0.6	1.1	0.4	0.6	0.6	0.3

GEOCHEMISTRY OF SAMPLES FROM AREA 4

SAMPLE NUMBER		3337	3338	3339	3340	3341	3395
FIELD NUMBER		P26-07-94-5B	P26-7-94-5C	P26-7-94-5C	P26-07-94-5D	P26-07-94-6	M-0801-02
NA20	%	1.14			0.73	2.02	2.36
MGO	%	19			12.8	13.6	10.9
AL2O3	%	8.01			8.05	9.39	8.49
SIO2	%	43.1			26.8	43.2	43.1
P2O5	%	0.12			0.59	0.19	0.17
K2O	%	0.09			2.01	0.32	1.05
CAO	%	9.7			21.7	11.9	12.5
TIO2	%	1.71			2.56	1.97	1.93
CR2O3	PPM	1250			58	925	1350
MNO	%	0.19			0.28	0.19	0.16
FE2O3	%	14.2			10.3	14.3	14.5
RB	PPM	11			63	-10	36
SR	PPM	342			192	341	230
Y	PPM	-10			20	12	11
ZR	PPM	113			206	135	126
NB	PPM	25			73	32	26
BA	PPM	-50			321	96	350
LOI	%	1.1			14.4	1.7	4.35
SUM	%	98.6			100.3	99	99.8
AS	PPM						
S	PPM	0.07	15.8	10.4	0.23	0.001	0.04
SE	PPM	0.1			0.1	0.2	2
Pd	PPB						
Pt	PPB						
Cu	PPM	142	124	1280	88	68	110
Pb	PPM	26	46	22	42	28	22
Zn	PPM	82	38	44	140	136	116
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	76	240	140	28	72	72
Ni	PPM	922	1300	264	62	506	580
Au	PPB	<10	<10	<10	<10	<10	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

GEOCHEMISTRY OF SAMPLES FROM AREA A

SAMPLE NUMBER		3462	3463	3464	3465	3466
FIELD	NUMBER	P-040894-06	P-040894-07	P-040894-08	P-040894-09	DB-0728-
NA20	%	0.75				
MGO	%	13.5				
AL2O3	%	7.67				
SIO2	%	35.5				
P2O5	%	0.97				
K2O	%	1.49				
CAO	%	20.1				
TIO2	%	2.37				
CR2O3	PPM	10				
MNO	%	0.15				
FE2O3	%	7.02				
RB	PPM	30				
SR	PPM	167				
Y	PPM	30				
ZR	PPM	187				
NB	PPM	61				
BA	PPM	254				
LOI	%	9.6				
SUM	%	99.2				
AS	PPM	<5	<5	<5	<5	<5
S	PPM					
SE	PPM					
Pd	PPB					
Pt	PPB					
Cu	PPM	116	6	2	1	300
Pb	PPM	<1	<1	<1	9	32
Zn	PPM	86	30	34	30	600
Ag	PPM	<1	<1	<1	<1	1
Co	PPM	24	20	6	8	22
Ni	PPM	24	2	8	12	836
Au	PPB	10	<10	10	<10	12
Y	PPM	29	6	7	6	
LA	PPM	49.4	1.2	4.1	1.3	
CE	PPM	99.7	1.8	7	2	
PR	PPM	12.1	0.2	1	0.3	
ND	PPM	47.6	1	4	1.2	
SM	PPM	9.4	0.2	1.1	0.3	
EU	PPM	2.91	0.08	0.29	0.09	
GD	PPM	8.2	0.3	1.2	0.4	
TB	PPM	1	-0.1	0.2	-0.1	
DY	PPM	6	0.6	1.4	0.5	
HO	PPM	1.05	0.15	0.3	0.15	
ER	PPM	3	0.5	0.9	0.5	
TM	PPM	0.4	-0.1	0.1	-0.1	
YB	PPM	2.4	0.6	1	0.5	
LU	PPM	0.33	0.1	0.16	0.07	
TH	PPM	5.8	0.2	0.6	-0.1	
U	PPM	1.2	0.3	0.4	0.7	

GEOCHEMISTRY OF SAMPLES FROM AREA 4

SAMPLE NUMBER		3322	3332	3333	3334	3335	3336
FIELD NUMBER		M-0726-06	P26-07-94-02	P26-07-94-2A	P26-07-94-3B	P26-07-94-4	P26-7-94-5A
NA20	%		1.68	1.87	0.38	1.89	
MGO	%		15.3	14.1	19.1	14	
AL2O3	%		8.18	10	2.92	10.2	
SIO2	%		45.7	43.7	53.2	43.6	
P2O5	%		0.04	0.22	0.03	0.21	
K2O	%		0.26	1.13	0.04	1.17	
CAO	%		10.2	9.58	10.4	9.57	
TIO2	%		1.55	2.19	0.501	2.22	
CR2O3	PPM		967	1020	1820	1000	
MNO	%		0.19	0.17	0.15	0.17	
FE2O3	%		13.5	15.1	10.6	15.1	
RB	PPM		-10	27	-10	40	
SR	PPM		243	213	47	218	
Y	PPM		11	14	-10	14	
ZR	PPM		103	147	38	146	
NB	PPM		22	35	10	33	
BA	PPM		97	340	-50	348	
LOI	%		1.4	0.7	0.5	0.55	
SUM	%		98.2	99	98.1	98.9	
AS	PPM						
S	PPM	3.6	0.3	0.01	0.004	0.02	0.16
SE	PPM		0.4	0.3	<.1	<.1	
Pd	PPB						
Pt	PPB						
Cu	PPM	308	128	200	12	244	124
Pb	PPM	22	30	20	18	32	22
Zn	PPM	116	122	132	86	132	124
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	140	62	68	86	70	76
Ni	PPM	500	518	506	1200	504	760
Au	PPB	36	12	<10	<10	<10	<10
Y	PPM						
LA	PPM						
CE	PPM						
PR	PPM						
ND	PPM						
SM	PPM						
EU	PPM						
GD	PPM						
TB	PPM						
DY	PPM						
HO	PPM						
ER	PPM						
TM	PPM						
YB	PPM						
LU	PPM						
TH	PPM						
U	PPM						

APPENDIX C: GEOCHEMISTRY OF SAMPLES FROM AREA B

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE NUMBER		3306	3307	3308	3309	3310	3311
FIELD NUMBER		M0728-03	MO728-04	MO728-04A	M0728-05	M0728-07	MO728-08
ELEMENT							
NA2O	%	0.11			4.13	1.35	
MGO	%	29.7			6.32	12.1	
AL2O3	%	4.66			12.8	9.1	
SIO2	%	42.7			42.2	42.8	
P2O5	%	0.03			0.47	0.28	
K2O	%	-0.01			1.07	0.65	
CAO	%	3.37			7.16	11.5	
TIO2	%	0.183			4.22	2.84	
CR2O3	PPM	4080			97	899	
MNO	%	0.18			0.27	0.21	
FE2O3	%	11.6			18.6	15.8	
RB	PPM	-10			24	-10	
SR	PPM	44			268	194	
Y	PPM	-10			30	17	
ZR	PPM	27			286	181	
NB	PPM	-10			80	44	
BA	PPM	54			303	193	
LOI	%	7.4			2.8	3.3	
SUM	%	100.5			100.2	100.1	
AS	PPM						
S	PPM	0.06	22	16.4	0.05	<.001	17.6
SE	PPM	0.1			0.3	0.2	
Pd	PPB						
Pt	PPB						
Cu	PPM	40	80	206	232	74	302
Pb	PPM	106	84	44	40	48	42
Zn	PPM	104	1280	730	164	162	360
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	102	26	24	58	70	56
Ni	PPM	1180	508	260	120	320	516
Au	PPB	<10	10	<10	<10	<10	92

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE	NUMBER	3306	3307	3308	3309	3310	3311
FIELD	NUMBER	M0728-03	MO728-04	MO728-04A	M0728-05	M0728-07	MO728-08
NA2O	%	0.11			4.13	1.35	
MGO	%	29.7			6.32	12.1	
AL2O3	%	4.66			12.8	9.1	
SIO2	%	42.7			42.2	42.8	
P2O5	%	0.03			0.47	0.28	
K2O	%	-0.01			1.07	0.65	
CAO	%	3.37			7.16	11.5	
TIO2	%	0.183			4.22	2.84	
CR2O3	~~%~~ PPM	4080			97	899	
MNO	%	0.18			0.27	0.21	
FE2O3	%	11.6			18.6	15.8	
RB	PPM	-10			24	-10	
SR	PPM	44			268	194	
Y	PPM	-10			30	17	
ZR	PPM	27			286	181	
NB	PPM	-10			80	44	
BA	PPM	54			303	193	
LOI	%	7.4			2.8	3.3	
SUM	%	100.5			100.2	100.1	
AS	PPM						
S	PPM	0.06	22	16.4	0.05	<.001	17.6
SE	PPM	0.1			0.3	0.2	
Pd	PPB						
Pt	PPB						
Cu	PPM	40	80	206	232	74	302
Pb	PPM	106	84	44	40	48	42
Zn	PPM	104	1280	730	164	162	360
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	102	26	24	58	70	56
Ni	PPM	1180	508	260	120	320	516
Au	PPB	<10	10	<10	<10	<10	92

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE NUMBER		3318	3319	3320	3326	3327	3328
FIELD NUMBER		M0727-05	MO727-06	M0727-07	DB-0728-05	DB-0728-06	DB-0728-08
ELEMENT							
NA2O	%	0.36		2.07			
MGO	%	7.3		8.81			
AL2O3	%	14		14			
SIO2	%	49.2		47.4			
P2O5	%	0.1		0.2			
K2O	%	1.88		0.23			
CAO	%	9.91		11.4			
TIO2	%	1.16		1.71			
CR2O3	PPM	110		348			
MNO	%	0.23		0.19			
FE2O3	%	14		12.9			
RB	PPM	104		-10			
SR	PPM	175		321			
Y	PPM	20		22			
ZR	PPM	80		109			
NB	PPM	-10		26			
BA	PPM	193		198			
LOI	%	1.8		1.15			
SUM	%	100		100.2			
AS	PPM						
S	PPM	0.01	0.2	0.004	16.8	21.2	16
SE	PPM	<.1		0.3			
Pd	PPB						
Pt	PPB						
Cu	PPM	4	80	172	136	172	1200
Pb	PPM	48	104	28	94	52	22
Zn	PPM	100	136	112	1160	52	2100
Ag	PPM	<1	<1	<1	<1	2	2
Co	PPM	44	46	46	7	10	208
Ni	PPM	68	78	210	572	1000	476
Au	PPB	<10	<10	<10	<10	83	18

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE	NUMBER	3318	3319	3320	3326	3327	3328
FIELD	NUMBER	M0727-05	MO727-06	M0727-07	DB-0728-05	DB-0728-06	DB-0728-08
NA2O	%	0.36		2.07			
MGO	%	7.3		8.81			
AL2O3	%	14		14			
SIO2	%	49.2		47.4			
P2O5	%	0.1		0.2			
K2O	%	1.88		0.23			
CAO	%	9.91		11.4			
TIO2	%	1.16		1.71			
CR2O3	~~%~~ PPM	110		348			
MNO	%	0.23		0.19			
FE2O3	%	14		12.9			
RB	PPM	104		-10			
SR	PPM	175		321			
Y	PPM	20		22			
ZR	PPM	80		109			
NB	PPM	-10		26			
BA	PPM	193		198			
LOI	%	1.8		1.15			
SUM	%	100		100.2			
AS	PPM						
S	PPM	0.01	0.2	0.004	16.8	21.2	16
SE	PPM	<.1		0.3			
Pd	PPB						
Pt	PPB						
Cu	PPM	4	80	172	136	172	1200
Pb	PPM	48	104	28	94	52	22
Zn	PPM	100	136	112	1160	52	2100
Ag	PPM	<1	<1	<1	<1	2	2
Co	PPM	44	46	46	7	10	208
Ni	PPM	68	78	210	572	1000	476
Au	PPB	<10	<10	<10	<10	83	18

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE NUMBER		3329	3345	3346	3347	3348
FIELD NUMBER		DB-0728-09	P27-07-94-5	P27-07-94-5A	P27-07-94-5B	P27-07-94-5D
ELEMENT						
NA2O	%	2.1	2	0.99	0.28	0.99
MGO	%	8.69	13.6	7.48	15.4	7.46
AL2O3	%	13.9	9.38	13.4	5.59	13.2
SIO2	%	46.8	43.4	42.6	48.6	42.7
P2O5	%	0.2	0.19	0.19	1.94	0.2
K2O	%	0.24	0.32	0.3	0.09	0.32
CAO	%	11.2	11.9	9.13	12.9	9.12
TIO2	%	1.72	1.98	2.18	0.094	2.18
CR2O3	PPM	334	932	79	22	84
MNO	%	0.19	0.19	0.32	0.22	0.32
FE2O3	%	12.6	14.2	22.3	12.8	22.2
RB	PPM	-10	-10	12	12	-10
SR	PPM	313	338	52	27	48
Y	PPM	19	11	35	33	32
ZR	PPM	106	134	150	16	145
NB	PPM	24	33	-10	-10	13
BA	PPM	234	85	-50	-50	56
LOI	%	1.25	1.7	1.35	1.3	1.32
SUM	%	99	99.1	100.3	99.2	100.1
AS	PPM					
S	PPM	0.01	0.004	0.54	0.004	0.53
SE	PPM	0.2	<.1	0.3	<.1	0.9
Pd	PPB					
Pt	PPB					
Cu	PPM	160	64	72	2	78
Pb	PPM	34	32	20	22	34
Zn	PPM	106	132	168	218	184
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	44	66	38	18	40
Ni	PPM	206	500	68	72	76
Au	PPB	<10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE	NUMBER	3329	3345	3346	3347	3348
FIELD	NUMBER	DB-0728-09	P27-07-94-5	P27-07-94-5A	P27-07-94-5B	P27-07-94-5D
NA2O	%	2.1	2	0.99	0.28	0.99
MGO	%	8.69	13.6	7.48	15.4	7.46
AL2O3	%	13.9	9.38	13.4	5.59	13.2
SIO2	%	46.8	43.4	42.6	48.6	42.7
P2O5	%	0.2	0.19	0.19	1.94	0.2
K2O	%	0.24	0.32	0.3	0.09	0.32
CAO	%	11.2	11.9	9.13	12.9	9.12
TIO2	%	1.72	1.98	2.18	0.094	2.18
CR2O3	~~%~~ PPM	334	932	79	22	84
MNO	%	0.19	0.19	0.32	0.22	0.32
FE2O3	%	12.6	14.2	22.3	12.8	22.2
RB	PPM	-10	-10	12	12	-10
SR	PPM	313	338	52	27	48
Y	PPM	19	11	35	33	32
ZR	PPM	106	134	150	16	145
NB	PPM	24	33	-10	-10	13
BA	PPM	234	85	-50	-50	56
LOI	%	1.25	1.7	1.35	1.3	1.32
SUM	%	99	99.1	100.3	99.2	100.1
AS	PPM					
S	PPM	0.01	0.004	0.54	0.004	0.53
SE	PPM	0.2	<.1	0.3	<.1	0.9
Pd	PPB					
Pt	PPB					
Cu	PPM	160	64	72	2	78
Pb	PPM	34	32	20	22	34
Zn	PPM	106	132	168	218	184
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	44	66	38	18	40
Ni	PPM	206	500	68	72	76
Au	PPB	<10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE NUMBER		3349	3350	3351	3352	3466
FIELD NUMBER		P27-7-94-5E	P28-07-94-1	P28-07-94-4	P28-07-94-4B	DB-0728-03
ELEMENT						
NA2O	%		3.28	3.25	3.68	0.64
MGO	%		5.57	5.6	7.13	13.6
AL2O3	%		12.9	13	10.9	4.51
SIO2	%		43	43.5	46.8	42.5
P2O5	%		0.4	0.39	0.3	0.08
K2O	%		0.7	0.69	0.26	0.14
CAO	%		10.3	10.3	11.5	4.22
TIO2	%		4.2	4.2	3.01	0.358
CR2O3	PPM		65	72	392	0.1
MNO	%		0.22	0.22	0.17	0.36
FE2O3	%		17.3	17.3	14.1	33.7
RB	PPM		24	24	-10	-10
SR	PPM		533	529	368	21
Y	PPM		24	24	18	-10
ZR	PPM		256	252	202	16
NB	PPM		61	60	45	-10
BA	PPM		542	498	82	53
LOI	%		1.4	1.45	2.3	0
SUM	%		99.5	100.1	100.3	100.2
AS	PPM					2.4
S	PPM	10.8	0.37	0.42	0.005	
SE	PPM		1.1	1	0.1	0.7
Pd	PPB					6
Pt	PPB					-10
Cu	PPM	552	300	322	94	300
Pb	PPM	36	32	6	18	32
Zn	PPM	202	146	154	114	600
Ag	PPM	<1	<1	<1	<1	1
Co	PPM	70	54	56	46	22
Ni	PPM	534	90	100	182	836
Au	PPB	74	<10	<10	<10	12

GEOCHEMISTRY OF SAMPLES FROM AREA B

SAMPLE	NUMBER	3349	3350	3351	3352	3466
FIELD	NUMBER	P27-7-94-5E	P28-07-94-1	P28-07-94-4	P28-07-94-4B	DB-0728-03
NA2O	%		3.28	3.25	3.68	0.64
MGO	%		5.57	5.6	7.13	13.6
AL2O3	%		12.9	13	10.9	4.51
SIO2	%		43	43.5	46.8	42.5
P2O5	%		0.4	0.39	0.3	0.08
K2O	%		0.7	0.69	0.26	0.14
CAO	%		10.3	10.3	11.5	4.22
TIO2	%		4.2	4.2	3.01	0.358
CR2O3	% PPM		65	72	392	0.1
MNO	%		0.22	0.22	0.17	0.36
FE2O3	%		17.3	17.3	14.1	33.7
RB	PPM		24	24	-10	-10
SR	PPM		533	529	368	21
Y	PPM		24	24	18	-10
ZR	PPM		256	252	202	16
NB	PPM		61	60	45	-10
BA	PPM		542	498	82	53
LOI	%		1.4	1.45	2.3	0
SUM	%		99.5	100.1	100.3	100.2
AS	PPM					2.4
S	PPM	10.8	0.37	0.42	0.005	
SE	PPM		1.1	1	0.1	0.7
Pd	PPB					6
Pt	PPB					-10
Cu	PPM	552	300	322	94	300
Pb	PPM	36	32	6	18	32
Zn	PPM	202	146	154	114	600
Ag	PPM	<1	<1	<1	<1	1
Co	PPM	70	54	56	46	22
Ni	PPM	534	90	100	182	836
Au	PPB	74	<10	<10	<10	12

This may be %

APPENDIX D: GEOCHEMISTRY OF SAMPLES FROM AREA C

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3301	3302	3303	3304	3305	3312	3313
FIELD NUMBER		M0729-02	M0729-04	M0729-05	M0729-09	M0729-11	M0728-11	MO728-12
NA2O	%	0.1	0.1	0.12	2.33	2.46	3.85	
MGO	%	31.2	29.8	31.1	6.12	6.78	7.71	
AL2O3	%	4.74	4.61	4.81	13.6	13.7	10.4	
SIO2	%	42	42.7	42.3	47	47.7	45.5	
P2O5	%	0.02	0.03	0.02	0.19	0.26	0.28	
K2O	%	-0.01	-0.01	-0.01	0.23	0.38	0.16	
CAO	%	3.46	3.3	3.54	10.6	10.6	12.8	
TIO2	%	0.184	0.183	0.181	2.08	2.3	1.98	
CR2O3	PPM	3450	4060	3410	124	270	269	
MNO	%	0.17	0.17	0.17	0.22	0.2	0.19	
FE2O3	%	11.8	11.6	11.9	14.6	13.8	12.4	
RB	PPM	-10	-10	-10	-10	-10	-10	
SR	PPM	33	46	30	169	226	318	
Y	PPM	-10	-10	-10	30	31	13	
ZR	PPM	28	28	25	123	147	125	
NB	PPM	-10	-10	-10	-10	18	27	
BA	PPM	-50	50	-50	83	149	-50	
LOI	%	6	7.35	6.05	2.55	1.45	4.85	
SUM	%	100.2	100.5	100.7	99.6	99.7	100.2	
AS	PPM							
S	PPM	0.06	0.04	0.05	0.005	0.03	0.4	22.4
SE	PPM	0.4	0.4	0.2	0.1	0.3	0.1	0.2
Pd	PPB							
Pt	PPB							
Cu	PPM	48	50	46	244	248	76	444
Pb	PPM	130	122	384	40	42	28	46
Zn	PPM	142	112	130	132	142	106	4600
Ag	PPM	<1	<1	<1	<1	<1	<1	1
Co	PPM	112	108	108	48	42	46	8
Ni	PPM	1380	1300	1300	94	140	160	672
Au	PPB	<10	<10	<10	<10	<10	<10	<10

Have to add 3353, 3354, 3329

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3301	3302	3303	3304	3305
FIELD NUMBER		M0729-02	M0729-04	M0729-05	M0729-09	M0729-11
ELEMENT						
NA2O	%	0.1	0.1	0.12	2.33	2.46
MGO	%	31.2	29.8	31.1	6.12	6.78
AL2O3	%	4.74	4.61	4.81	13.6	13.7
SIO2	%	42	42.7	42.3	47	47.7
P2O5	%	0.02	0.03	0.02	0.19	0.26
K2O	%	-0.01	-0.01	-0.01	0.23	0.38
CAO	%	3.46	3.3	3.54	10.6	10.6
TIO2	%	0.184	0.183	0.181	2.08	2.3
CR2O3	PPM	3450	4060	3410	124	270
MNO	%	0.17	0.17	0.17	0.22	0.2
FE2O3	%	11.8	11.6	11.9	14.6	13.8
RB	PPM	-10	-10	-10	-10	-10
SR	PPM	33	46	30	169	226
Y	PPM	-10	-10	-10	30	31
ZR	PPM	28	28	25	123	147
NB	PPM	-10	-10	-10	-10	18
BA	PPM	-50	50	-50	83	149
LOI	%	6	7.35	6.05	2.55	1.45
SUM	%	100.2	100.5	100.7	99.6	99.7
AS	PPM					
S	PPM	0.06	0.04	0.05	0.005	0.03
SE	PPM	0.4	0.4	0.2	0.1	0.3
Pd	PPB					
Pt	PPB					
Cu	PPM	48	50	46	244	248
Pb	PPM	130	122	384	40	42
Zn	PPM	142	112	130	132	142
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	112	108	108	48	42
Ni	PPM	1380	1300	1300	94	140
Au	PPB	<10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3312	3313	3314	3315	3323
FIELD NUMBER		M0728-11	MO728-12	M0728-13	M0728-15	DB-0729-03
ELEMENT						
NA2O	%	3.85		1.66	1.7	
MGO	%	7.71		8.63	14.2	
AL2O3	%	10.4		13	8.62	
SIO2	%	45.5		44.7	39.8	
P2O5	%	0.28		0.22	0.22	
K2O	%	0.16		0.26	1.82	
CAO	%	12.8		10	10.6	
TIO2	%	1.98		2.12	2.24	
CR2O3	PPM	269		347	602	
MNO	%	0.19		0.21	0.21	
FE2O3	%	12.4		13.9	14.6	
RB	PPM	-10		-10	26	
SR	PPM	318		224	335	
Y	PPM	13		28	17	
ZR	PPM	125		124	137	
NB	PPM	27		11	30	
BA	PPM	-50		127	446	
LOI	%	4.85		5.25	5.55	
SUM	%	100.2		100.1	99.8	
AS	PPM					
S	PPM	0.4	22.4	<.001	<.001	11.2
SE	PPM	0.1	0.2		0.3	
Pd	PPB					
Pt	PPB					
Cu	PPM	76	444	228	36	1000
Pb	PPM	28	46	20	22	50
Zn	PPM	106	4600	122	90	2500
Ag	PPM	<1	1	<1	<1	<1
Co	PPM	46	8	42	64	66
Ni	PPM	160	672	194	280	484
Au	PPB	<10	<10	<10	<10	34

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3314	3315	3323	3324	3325	3330
FIELD NUMBER		M0728-13	M0728-15	DB-0729-03	DB-0729-04	DB-0729-05	DB-0729-14
NA2O	%	1.66	1.7				
MGO	%	8.63	14.2				
AL2O3	%	13	8.62				
SIO2	%	44.7	39.8				
P2O5	%	0.22	0.22				
K2O	%	0.26	1.82				
CAO	%	10	10.6				
TIO2	%	2.12	2.24				
CR2O3	PPM	347	602				
MNO	%	0.21	0.21				
FE2O3	%	13.9	14.6				
RB	PPM	-10	26				
SR	PPM	224	335				
Y	PPM	28	17				
ZR	PPM	124	137				
NB	PPM	11	30				
BA	PPM	127	446				
LOI	%	5.25	5.55				
SUM	%	100.1	99.8				
AS	PPM						
S	PPM	<.001	<.001	11.2	18.4	8.8	20.8
SE	PPM		0.3				
Pd	PPB						
Pt	PPB						
Cu	PPM	228	36	1000	1280	422	300
Pb	PPM	20	22	50	82	34	382
Zn	PPM	122	90	2500	3800	660	5500
Ag	PPM	<1	<1	<1	4	<1	7
Co	PPM	42	64	66	46	72	64
Ni	PPM	194	280	484	566	550	904
Au	PPB	<10	<10	34	18	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3331	3355	3356	3357	3358	3359
FIELD NUMBER		DB-0729-15	P29-07-94-1	P29-07-94-3	P29-7-94-04	P29-07-94-7A	P29-07-94-7B
NA2O	%		2.66	1.41		0.93	0.95
MGO	%		11.1	15		7.6	7.65
AL2O3	%		10.1	7.87		16.3	16.3
SIO2	%		45	45.7		39.4	39.6
P2O5	%		0.18	0.17		0.16	0.15
K2O	%		1.31	0.4		6.16	6.04
CAO	%		9.95	11.3		7.57	7.67
TIO2	%		2.18	1.82		1.86	1.87
CR2O3	PPM		868	919		290	263
MNO	%		0.15	0.19		0.18	0.18
FE2O3	%		14.8	13.4		14.7	14.7
RB	PPM		30	-10		253	254
SR	PPM		270	236		139	140
Y	PPM		13	13		38	36
ZR	PPM		145	121		139	137
NB	PPM		31	24		28	14
BA	PPM		752	179		757	739
LOI	%		2.3	0.95		5.35	5
SUM	%		100	98.4		100.4	100.3
AS	PPM						
S	PPM	2	0.05	0.02	6.8	0.172	0.2
SE	PPM		0.2	0.1		0.3	0.3
Pd	PPB						
Pt	PPB						
Cu	PPM	362	160	68	340	250	226
Pb	PPM	50	22	20	30	38	36
Zn	PPM	468	122	120	162	142	140
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	24	64	76	14	48	46
Ni	PPM	128	374	650	82	100	92
Au	PPB	<10	<10	<10	12	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3324	3325	3329	3330
FIELD NUMBER		DB-0729-04	DB-0729-05	DB-0728-09	DB-0729-14
ELEMENT					
NA2O	%			2.1	
MGO	%			8.69	
AL2O3	%			13.9	
SIO2	%			46.8	
P2O5	%			0.2	
K2O	%			0.24	
CAO	%			11.2	
TIO2	%			1.72	
CR2O3	PPM			334	
MNO	%			0.19	
FE2O3	%			12.6	
RB	PPM			<10	
SR	PPM			313	
Y	PPM			19	
ZR	PPM			106	
NB	PPM			24	
BA	PPM			234	
LOI	%			1.24	
SUM	%			99	
AS	PPM				
S	PPM	18.4	8.8	0.01	20.8
SE	PPM			0.2	
Pd	PPB				
Pt	PPB				
Cu	PPM	1280	422	160	300
Pb	PPM	82	34	34	382
Zn	PPM	3800	660	106	5500
Ag	PPM	4	<1	<1	7
Co	PPM	46	72	44	64
Ni	PPM	566	550	206	904
Au	PPB	18	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3360	3361	3362	3363	3364	3365
FIELD NUMBER		P29-07-94-9	DB-07-31-01	DB-07-31-02	DB-07-31-03	DB-07-31-04	DB-07-31-05
NA2O	%	1.84				0.08	
MGO	%	10.2				28.8	
AL2O3	%	8.87				2.81	
SIO2	%	41.7				32.3	
P2O5	%	0.24				0.07	
K2O	%	1.54				-0.01	
CAO	%	13.4				3.12	
TIO2	%	2.27				0.725	
CR2O3	PPM	898				3410	
MNO	%	0.19				0.26	
FE2O3	%	14.2				14.4	
RB	PPM	39				-10	
SR	PPM	270				94	
Y	PPM	14				-10	
ZR	PPM	145				50	
NB	PPM	35				10	
BA	PPM	373				94	
LOI	%	5.05				17.7	
SUM	%	99.7				100.8	
AS	PPM						
S	PPM	0.04	5.6	5	2	0.055	1.88
SE	PPM	0.1				0.8	
Pd	PPB						
Pt	PPB						
Cu	PPM	200	212	240	518	26	454
Pb	PPM	32	28	16	22	22	38
Zn	PPM	108	124	158	362	48	172
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	62	52	56	20	112	24
Ni	PPM	264	160	164	66	1200	66
Au	PPB	10	10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3331	3353	3354	3355
FIELD NUMBER		DB-0729-15	P-280794-5A	P-280794-5B	P29-07-94-1
ELEMENT					
NA2O	%		0.82	2.61	2.66
MGO	%		15.4	11	11.1
AL2O3	%		10.1	10.1	10.1
SIO2	%		42.6	44.6	45
P2O5	%		0.26	0.19	0.18
K2O	%		3.5	1.32	1.31
CAO	%		7.24	9.96	9.95
TIO2	%		2.09	2.17	2.18
CR2O3	PPM		1580	870	868
MNO	%		0.19	0.15	0.15
FE2O3	%		15.1	14.7	14.8
RB	PPM		105	23	30
SR	PPM		96	267	270
Y	PPM		14	13	13
ZR	PPM		142	146	145
NB	PPM		30	31	31
BA	PPM		957	753	752
LOI	%		2.3	1.45	2.3
SUM	%		100.3	99.1	100
AS	PPM				
S	PPM	2	0.014	0.05	0.05
SE	PPM		0.1	0.3	0.2
Pd	PPB				
Pt	PPB				
Cu	PPM	362	82	182	160
Pb	PPM	50	18	30	22
Zn	PPM	468	132	130	122
Ag	PPM	<1	<1	<1	<1
Co	PPM	24	82	62	64
Ni	PPM	128	666	368	374
Au	PPB	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3366	3367	3368	3369	3370	3371
FIELD NUMBER		DB-07-31-06	DB-07-31-07	DB-07-31-08	DB-07-31-10	DB-07-31-11	P31-07-94-01
NA2O	%	1.84					0.07
MGO	%	10.2					28.7
AL2O3	%	8.96					2.81
SIO2	%	42					32.4
P2O5	%	0.25					0.06
K2O	%	1.53					-0.01
CAO	%	13.4					3.15
TIO2	%	2.27					0.729
CR2O3	PPM	878					3480
MNO	%	0.19					0.26
FE2O3	%	14.2					14.3
RB	PPM	35					-10
SR	PPM	269					98
Y	PPM	11					-10
ZR	PPM	144					55
NB	PPM	35					-10
BA	PPM	398					76
LOI	%	5.05					17.7
SUM	%	100.1					100.7
AS	PPM						
S	PPM	0.02	2	0.4	0.064	0.56	0.05
SE	PPM	0.3					0.3
Pd	PPB						
Pt	PPB						
Cu	PPM	140	182	14	48	30	30
Pb	PPM	36	34	56	26	28	26
Zn	PPM	104	68	58	112	20	40
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	62	30	1	32	4	108
Ni	PPM	260	48	16	104	12	1160
Au	PPB	<10	<10	<10	<10	10	20

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3356	3357	3358	3359
FIELD NUMBER		P29-07-94-3	P29-7-94-04	P29-07-94-7A	P29-07-94-7B
ELEMENT					
NA2O	%	1.41		0.93	0.95
MGO	%	15		7.6	7.65
AL2O3	%	7.87		16.3	16.3
SIO2	%	45.7		39.4	39.6
P2O5	%	0.17		0.16	0.15
K2O	%	0.4		6.16	6.04
CAO	%	11.3		7.57	7.67
TIO2	%	1.82		1.86	1.87
CR2O3	PPM	919		290	263
MNO	%	0.19		0.18	0.18
FE2O3	%	13.4		14.7	14.7
RB	PPM	-10		253	254
SR	PPM	236		139	140
Y	PPM	13		38	36
ZR	PPM	121		139	137
NB	PPM	24		28	14
BA	PPM	179		757	739
LOI	%	0.95		5.35	5
SUM	%	98.4		100.4	100.3
AS	PPM				
S	PPM	0.02	6.8	0.172	0.2
SE	PPM	0.1		0.3	0.3
Pd	PPB				
Pt	PPB				
Cu	PPM	68	340	250	226
Pb	PPM	20	30	38	36
Zn	PPM	120	162	142	140
Ag	PPM	<1	<1	<1	<1
Co	PPM	76	14	48	46
Ni	PPM	650	82	100	92
Au	PPB	<10	12	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3372	3373	3374	3375	3376
FIELD NUMBER		P31-07-94-01A	P31-07-94-02	P31-07-94-02A	P31-07-94-2B	P31-07-94-03
NA2O	%	3.16	0.75	0.06		0.06
MGO	%	1.59	15.3	1.9		1.9
AL2O3	%	12.5	8.38	2.72		2.76
SIO2	%	73.1	43.3	87.3		87
P2O5	%	0.1	0.21	0.09		0.09
K2O	%	2.93	2.62	1.32		1.36
CAO	%	2.16	9.54	3.13		3.14
TIO2	%	0.326	2.02	0.088		0.092
CR2O3	PPM	131	1350	110		114
MNO	%	0.04	0.2	0.03		0.03
FE2O3	%	2.95	14.7	1.07		1.1
RB	PPM	116	57	44		36
SR	PPM	175	48	61		56
Y	PPM	13	10	-10		-10
ZR	PPM	132	137	79		75
NB	PPM	-10	29	-10		-10
BA	PPM	577	286	113		154
LOI	%	1.3	1.95	2.7		2.7
SUM	%	100.3	99.2	100.5		100.3
AS	PPM					
S	PPM	0.09	0.1	0.01	4.8	0.001
SE	PPM	0.2	0.5	<.1		1.2
Pd	PPB					
Pt	PPB					
Cu	PPM	4	92	2	442	2
Pb	PPM	34	26	18	30	18
Zn	PPM	62	120	20	150	20
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	8	82	4	46	4
Ni	PPM	54	520	16	144	16
Au	PPB	<10	<10	<10	10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3360	3361	3362	3363
FIELD NUMBER		P29-07-94-9	DB-07-31-01	DB-07-31-02	DB-07-31-03
ELEMENT					
NA2O	%	1.84			
MGO	%	10.2			
AL2O3	%	8.87			
SIO2	%	41.7			
P2O5	%	0.24			
K2O	%	1.54			
CAO	%	13.4			
TIO2	%	2.27			
CR2O3	PPM	898			
MNO	%	0.19			
FE2O3	%	14.2			
RB	PPM	39			
SR	PPM	270			
Y	PPM	14			
ZR	PPM	145			
NB	PPM	35			
BA	PPM	373			
LOI	%	5.05			
SUM	%	99.7			
AS	PPM				
S	PPM	0.04	5.6	5	2
SE	PPM	0.1			
Pd	PPB				
Pt	PPB				
Cu	PPM	200	212	240	518
Pb	PPM	32	28	16	22
Zn	PPM	108	124	158	362
Ag	PPM	<1	<1	<1	<1
Co	PPM	62	52	56	20
Ni	PPM	264	160	164	66
Au	PPB	10	10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3364	3365	3366	3367
FIELD NUMBER		DB-07-31-04	DB-07-31-05	DB-07-31-06	DB-07-31-07
ELEMENT					
NA2O	%	0.08		1.84	
MGO	%	28.8		10.2	
AL2O3	%	2.81		8.96	
SIO2	%	32.3		42	
P2O5	%	0.07		0.25	
K2O	%	-0.01		1.53	
CAO	%	3.12		13.4	
TIO2	%	0.725		2.27	
CR2O3	PPM	3410		878	
MNO	%	0.26		0.19	
FE2O3	%	14.4		14.2	
RB	PPM	-10		35	
SR	PPM	94		269	
Y	PPM	-10		11	
ZR	PPM	50		144	
NB	PPM	10		35	
BA	PPM	94		398	
LOI	%	17.7		5.05	
SUM	%	100.8		100.1	
AS	PPM				
S	PPM	0.055	1.88	0.02	2
SE	PPM	0.8		0.3	
Pd	PPB				
Pt	PPB				
Cu	PPM	26	454	140	182
Pb	PPM	22	38	36	34
Zn	PPM	48	172	104	68
Ag	PPM	<1	<1	<1	<1
Co	PPM	112	24	62	30
Ni	PPM	1200	66	260	48
Au	PPB	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

Not on Sample List

SAMPLE NUMBER		3377	3378	3379	3380	3381
FIELD NUMBER		P31-07-94-08	P31-07-94-8A	P31-07-94-8C	P31-07094-8D	DB-0731-09
NA2O	%	1.13		2.96		
MGO	%	2.08		5.38		
AL2O3	%	25		16.4		
SIO2	%	35.6		47.8		
P2O5	%	0.58		0.4		
K2O	%	5.34		1.7		
CAO	%	1.61		7.7		
TIO2	%	3.05		1.92		
CR2O3	PPM	113		100		
MNO	%	0.17		0.18		
FE2O3	%	22.6		15.2		
RB	PPM	116		29		
SR	PPM	49		367		
Y	PPM	59		26		
ZR	PPM	259		136		
NB	PPM	20		-10		
BA	PPM	1620		703		
LOI	%	3		0.5		
SUM	%	100.4		100.3		
AS	PPM					
S	PPM	0.01	0.61	0.05	5.2	0.63
SE	PPM	0.5		1.3		
Pd	PPB					
Pt	PPB					
Cu	PPM	2	168	52	432	152
Pb	PPM	32	28	36	22	26
Zn	PPM	106	106	152	158	116
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	42	46	50	48	52
Ni	PPM	84	60	96	148	62
Au	PPB	<10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3368	3369	3370	3371
FIELD NUMBER		DB-07-31-08	DB-07-31-10	DB-07-31-11	P31-07-94-01
ELEMENT					
NA2O	%				0.07
MGO	%				28.7
AL2O3	%				2.81
SIO2	%				32.4
P2O5	%				0.06
K2O	%				-0.01
CAO	%				3.15
TIO2	%				0.729
CR2O3	PPM				3480
MNO	%				0.26
FE2O3	%				14.3
RB	PPM				-10
SR	PPM				98
Y	PPM				-10
ZR	PPM				55
NB	PPM				-10
BA	PPM				76
LOI	%				17.7
SUM	%				100.7
AS	PPM				
S	PPM	0.4	0.064	0.56	0.05
SE	PPM				0.3
Pd	PPB				
Pt	PPB				
Cu	PPM	14	48	30	30
Pb	PPM	56	26	28	26
Zn	PPM	58	112	20	40
Ag	PPM	<1	<1	<1	<1
Co	PPM	1	32	4	108
Ni	PPM	16	104	12	1160
Au	PPB	<10	<10	10	20

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3382	3383	3397	3398	3399	3400
FIELD NUMBER		P31-07-94-11`	P31-07-94-12	M-0728-16	M-0731-02	M-0731-04	M-0731-05
NA2O	%	0.93			2.3	1.33	1.37
MGO	%	16.5			7.79	17.9	17.9
AL2O3	%	11			14.4	7.61	7.57
SIO2	%	42.4			47.9	45.6	45.3
P2O5	%	0.13			0.15	0.2	0.19
K2O	%	4.29			0.22	0.39	0.25
CAO	%	5.13			11.1	9.95	9.71
TIO2	%	1.61			1.84	1.42	1.52
CR2O3	PPM	1150			342	1120	1160
MNO	%	0.19			0.19	0.19	0.19
FE2O3	%	15.1			12.9	13.5	14
RB	PPM	111			-10	12	-10
SR	PPM	87			169	298	285
Y	PPM	12			20	10	-10
ZR	PPM	102			104	89	106
NB	PPM	19			-10	19	22
BA	PPM	952			52	185	164
LOI	%	1.6			1.45	0.3	0.5
SUM	%	99.2			100.3	98.6	98.7
AS	PPM						
S	PPM	0.28	17.2	17.4	0.02	0.03	0.02
SE	PPM	3.8			0.3	0.1	0.5
Pd	PPB						
Pt	PPB						
Cu	PPM	32	490	12	266	132	34
Pb	PPM	34	38	26	28	34	28
Zn	PPM	380	2560	18	112	120	114
Ag	PPM	<1	1	<1	<1	<1	<1
Co	PPM	72	52	1	48	74	76
Ni	PPM	740	610	16	176	774	700
Au	PPB	<10	18	36	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3401	3402	3403	3404	3405	3406
FIELD NUMBER		M-0731-06	M-0731-07	M-0731-08	M-0731-09	M-0731-10B	M-0731-10C
NA2O	%	1.09	0.68	0.79			2.01
MGO	%	18.9	19.6	15.2			8.55
AL2O3	%	8.34	5.97	9.52			11
SIO2	%	43.9	42.5	40.7			42.4
P2O5	%	0.2	0.06	0.2			0.29
K2O	%	0.71	0.14	3.28			2.15
CAO	%	7.78	9.56	10			12.2
TIO2	%	1.96	1.14	2.09			2.55
CR2O3	PPM	1110	1940	906			838
MNO	%	0.17	0.16	0.19			0.16
FE2O3	%	14.1	13.6	13.7			14.9
RB	PPM	25	-10	63			62
SR	PPM	255	235	89			316
Y	PPM	-10	-10	-10			15
ZR	PPM	126	72	128			176
NB	PPM	23	16	30			36
BA	PPM	225	81	487			370
LOI	%	1.7	5.8	2.95			3.6
SUM	%	99.1	99.5	98.9			100
AS	PPM						
S	PPM	0.02	0.1	0.01	10.4	0.06	0.01
SE	PPM	0.5	0.1	0.5			0.2
Pd	PPB						
Pt	PPB						
Cu	PPM	40	68	140	228	234	92
Pb	PPM	20	24	42	56	32	36
Zn	PPM	126	96	104	2500	130	132
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	80	90	64	42	62	62
Ni	PPM	650	1140	388	614	286	320
Au	PPB	<10	<10	<10	29	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3372	3373	3374	3375
FIELD NUMBER		P31-07-94-01A	P31-07-94-02	P31-07-94-02	P31-07-94-2B
ELEMENT					
NA2O	%	3.16	0.75	0.06	
MGO	%	1.59	15.3	1.9	
AL2O3	%	12.5	8.38	2.72	
SIO2	%	73.1	43.3	87.3	
P2O5	%	0.1	0.21	0.09	
K2O	%	2.93	2.62	1.32	
CAO	%	2.16	9.54	3.13	
TIO2	%	0.326	2.02	0.088	
CR2O3	PPM	131	1350	110	
MNO	%	0.04	0.2	0.03	
FE2O3	%	2.95	14.7	1.07	
RB	PPM	116	57	44	
SR	PPM	175	48	61	
Y	PPM	13	10	-10	
ZR	PPM	132	137	79	
NB	PPM	-10	29	-10	
BA	PPM	577	286	113	
LOI	%	1.3	1.95	2.7	
SUM	%	100.3	99.2	100.5	
AS	PPM				
S	PPM	0.09	0.1	0.01	4.8
SE	PPM	0.2	0.5	<.1	
Pd	PPB				
Pt	PPB				
Cu	PPM	4	92	2	442
Pb	PPM	34	26	18	30
Zn	PPM	62	120	20	150
Ag	PPM	<1	<1	<1	<1
Co	PPM	8	82	4	46
Ni	PPM	54	520	16	144
Au	PPB	<10	<10	<10	10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3376	3377	3378	3379
FIELD NUMBER		P31-07-94-03	P31-07-94-08	P31-07-94-8A	P31-07-94-8C
ELEMENT					
NA2O	%	0.06	1.13		2.96
MGO	%	1.9	2.08		5.38
AL2O3	%	2.76	25		16.4
SIO2	%	87	35.6		47.8
P2O5	%	0.09	0.58		0.4
K2O	%	1.36	5.34		1.7
CAO	%	3.14	1.61		7.7
TIO2	%	0.092	3.05		1.92
CR2O3	PPM	114	113		100
MNO	%	0.03	0.17		0.18
FE2O3	%	1.1	22.6		15.2
RB	PPM	36	116		29
SR	PPM	56	49		367
Y	PPM	-10	59		26
ZR	PPM	75	259		136
NB	PPM	-10	20		-10
BA	PPM	154	1620		703
LOI	%	2.7	3		0.5
SUM	%	100.3	100.4		100.3
AS	PPM				
S	PPM	0.001	0.01	0.61	0.05
SE	PPM	1.2	0.5		1.3
Pd	PPB				
Pt	PPB				
Cu	PPM	2	2	168	52
Pb	PPM	18	32	28	36
Zn	PPM	20	106	106	152
Ag	PPM	<1	<1	<1	<1
Co	PPM	4	42	46	50
Ni	PPM	16	84	60	96
Au	PPB	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3407	3408	3409
FIELD	NUMBER	M-0731-12	M-0731-13	M-0731-15
NA2O	%		1.79	1.5
MGO	%		11.9	15.3
AL2O3	%		9.85	8.99
SIO2	%		43.7	44.2
P2O5	%		0.25	0.2
K2O	%		1.39	1.16
CAO	%		9.82	9.31
TIO2	%		2.55	2.43
CR2O3	PPM		661	815
MNO	%		0.2	0.18
FE2O3	%		16.3	14.1
RB	PPM		31	27
SR	PPM		128	168
Y	PPM		15	-10
ZR	PPM		178	148
NB	PPM		40	34
BA	PPM		271	283
LOI	%		1.1	0.8
SUM	%		99	98.4
AS	PPM			
S	PPM	3.8	0.01	0.03
SE	PPM		0.2	0.8
Pd	PPB			
Pt	PPB			
Cu	PPM	290	114	6
Pb	PPM	10	40	26
Zn	PPM	70	142	122
Ag	PPM	<1	<1	<1
Co	PPM	64	54	66
Ni	PPM	58	230	340
Au	PPB	32	<10	10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3380	3381	3382	3383	3397
FIELD NUMBER		P31-07094-8D	DB-0731-09	P31-07-94-1	P31-07-94-1	M-0728-16
ELEMENT						
NA2O	%			0.93		
MGO	%			16.5		
AL2O3	%			11		
SIO2	%			42.4		
P2O5	%			0.13		
K2O	%			4.29		
CAO	%			5.13		
TIO2	%			1.61		
CR2O3	PPM			1150		
MNO	%			0.19		
FE2O3	%			15.1		
RB	PPM			111		
SR	PPM			87		
Y	PPM			12		
ZR	PPM			102		
NB	PPM			19		
BA	PPM			952		
LOI	%			1.6		
SUM	%			99.2		
AS	PPM					
S	PPM	5.2	0.63	0.28	17.2	17.4
SE	PPM			3.8		
Pd	PPB					
Pt	PPB					
Cu	PPM	432	152	32	490	12
Pb	PPM	22	26	34	38	26
Zn	PPM	158	116	380	2560	18
Ag	PPM	<1	<1	<1	1	<1
Co	PPM	48	52	72	52	1
Ni	PPM	148	62	740	610	16
Au	PPB	<10	<10	<10	18	36

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3398	3399	3400	3401	3402
FIELD NUMBER		M-0731-02	M-0731-04	M-0731-05	M-0731-06	M-0731-07
ELEMENT						
NA2O	%	2.3	1.33	1.37	1.09	0.68
MGO	%	7.79	17.9	17.9	18.9	19.6
AL2O3	%	14.4	7.61	7.57	8.34	5.97
SIO2	%	47.9	45.6	45.3	43.9	42.5
P2O5	%	0.15	0.2	0.19	0.2	0.06
K2O	%	0.22	0.39	0.25	0.71	0.14
CAO	%	11.1	9.95	9.71	7.78	9.56
TIO2	%	1.84	1.42	1.52	1.96	1.14
CR2O3	PPM	342	1120	1160	1110	1940
MNO	%	0.19	0.19	0.19	0.17	0.16
FE2O3	%	12.9	13.5	14	14.1	13.6
RB	PPM	-10	12	-10	25	-10
SR	PPM	169	298	285	255	235
Y	PPM	20	10	-10	-10	-10
ZR	PPM	104	89	106	126	72
NB	PPM	-10	19	22	23	16
BA	PPM	52	185	164	225	81
LOI	%	1.45	0.3	0.5	1.7	5.8
SUM	%	100.3	98.6	98.7	99.1	99.5
AS	PPM					
S	PPM	0.02	0.03	0.02	0.02	0.1
SE	PPM	0.3	0.1	0.5	0.5	0.1
Pd	PPB					
Pt	PPB					
Cu	PPM	266	132	34	40	68
Pb	PPM	28	34	28	20	24
Zn	PPM	112	120	114	126	96
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	48	74	76	80	90
Ni	PPM	176	774	700	650	1140
Au	PPB	<10	<10	<10	<10	<10

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3403	3404	3405	3406	3407
FIELD NUMBER		M-0731-08	M-0731-09	M-0731-10B	M-0731-10C	M-0731-1
ELEMENT						
NA2O	%	0.79			2.01	
MGO	%	15.2			8.55	
AL2O3	%	9.52			11	
SIO2	%	40.7			42.4	
P2O5	%	0.2			0.29	
K2O	%	3.28			2.15	
CAO	%	10			12.2	
TIO2	%	2.09			2.55	
CR2O3	PPM	906			838	
MNO	%	0.19			0.16	
FE2O3	%	13.7			14.9	
RB	PPM	63			62	
SR	PPM	89			316	
Y	PPM	-10			15	
ZR	PPM	128			176	
NB	PPM	30			36	
BA	PPM	487			370	
LOI	%	2.95			3.6	
SUM	%	98.9			100	
AS	PPM					
S	PPM	0.01	10.4	0.06	0.01	3.8
SE	PPM	0.5			0.2	
Pd	PPB					
Pt	PPB					
Cu	PPM	140	228	234	92	290
Pb	PPM	42	56	32	36	10
Zn	PPM	104	2500	130	132	70
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	64	42	62	62	64
Ni	PPM	388	614	286	320	58
Au	PPB	<10	29	<10	<10	32

GEOCHEMISTRY OF SAMPLES FROM AREA C

SAMPLE NUMBER		3408	3409
FIELD NUMBER		M-0731-	M-0731-
ELEMENT		13	
NA2O	%	1.79	1.5
MGO	%	11.9	15.3
AL2O3	%	9.85	8.99
SIO2	%	43.7	44.2
P2O5	%	0.25	0.2
K2O	%	1.39	1.16
CAO	%	9.82	9.31
TIO2	%	2.55	2.43
CR2O3	PPM	661	815
MNO	%	0.2	0.18
FE2O3	%	16.3	14.1
RB	PPM	31	27
SR	PPM	128	168
Y	PPM	15	-10
ZR	PPM	178	148
NB	PPM	40	34
BA	PPM	271	283
LOI	%	1.1	0.8
SUM	%	99	98.4
AS	PPM		
S	PPM	0.01	0.03
SE	PPM	0.2	0.8
Pd	PPB		
Pt	PPB		
Cu	PPM	114	6
Pb	PPM	40	26
Zn	PPM	142	122
Ag	PPM	<1	<1
Co	PPM	54	66
Ni	PPM	230	340
Au	PPB	<10	10

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APPENDIX E: GEOCHEMISTRY OF SAMPLES FROM AREA D

GEOCHEMISTRY OF SAMPLES FROM AREA D

SAMPLE NUMBER		3316	3317	3342	3343	3344
FIELD NUMBER		M0727-01	MO727-03	P27-07-94-1	P27-7-94-2A	P27-7-94-2B
ELEMENT						
NA2O	%	0.17		0.73		
MGO	%	16.6		12.9		
AL2O3	%	5.68		8.13		
SIO2	%	41.4		26.7		
P2O5	%	0.14		0.59		
K2O	%	0.04		1.95		
CAO	%	13.4		21.6		
TIO2	%	1.9		2.53		
CR2O3	PPM	1260		56		
MNO	%	0.2		0.28		
FE2O3	%	13.2		10.4		
RB	PPM	-10		62		
SR	PPM	290		191		
Y	PPM	-10		17		
ZR	PPM	119		208		
NB	PPM	28		76		
BA	PPM	55		295		
LOI	%	7.3		14.4		
SUM	%	100.3		100.3		
AS						
S	%	0.06	2.8	0.18	8.4	0.9
SE	PPM	0.1		0.3	0.1	0.3
Pd	PPB					
Pt	PPB					
Cu	PPM	104	72	100	526	8
Pb	PPM	22	22	40	15	6
Zn	PPM	102	306	102	380	12
Ag	PPM	<1	<1	<1	<1	<1
Co	PPM	66	24	28	66	1
Ni	PPM	432	104	64	218	10
Au	PPB	<10	<10	10	<10	<10

APPENDIX F: GEOCHEMISTRY OF SAMPLES FROM AREA E

GEOCHEMISTRY OF SAMPLES FROM AREA E

SAMPLE NUMBER		3301	3302	3303	3355	3427	3428
FIELD NUMBER		M0729-02	M0729-04	M0729-05	P29-07-94-1	P01-08-94-10A	P-01-08-94-10
ELEMENT							
NA2O	%	0.1	0.1	0.12	2.66		3.63
MGO	%	31.2	29.8	31.1	11.1		8.72
AL2O3	%	4.74	4.61	4.81	10.1		11.7
SIO2	%	42	42.7	42.3	45		48
P2O5	%	0.02	0.03	0.02	0.18		0.34
K2O	%	-0.01	-0.01	-0.01	1.31		0.32
CAO	%	3.46	3.3	3.54	9.95		9.88
TIO2	%	0.184	0.183	0.181	2.18		2.98
CR2O3	PPM	3450	4060	3410	868		436
MNO	%	0.17	0.17	0.17	0.15		0.15
FE2O3	%	11.8	11.6	11.9	14.8		12.7
RB	PPM	-10	-10	-10	30		-10
SR	PPM	33	46	30	270		566
Y	PPM	-10	-10	-10	13		21
ZR	PPM	28	28	25	145		228
NB	PPM	-10	-10	-10	31		42
BA	PPM	-50	50	-50	752		114
LOI	%	6	7.35	6.05	2.3		1.05
SUM	%	100.2	100.5	100.7	100		99.7
AS	PPM						
S	%	0.06	0.04	0.05	0.05	0.056	0.01
SE	PPM	0.4	0.4	0.2	0.2		0.5
Pd	PPB						
Pt	PPB						
Cu	PPM	48	50	46	160	8	18
Pb	PPM	130	122	384	22	44	28
Zn	PPM	142	112	130	122	132	110
Ag	PPM	<1	<1	<1	<1	<1	<1
Co	PPM	112	108	108	64	20	44
Ni	PPM	1380	1300	1300	374	46	222
Au	PPB	<10	<10	<10	<10	10	<10

SAMPLE NUMBER		3301	3302	3303	3355	3427	3428	3429	3430	3431
FIELD NUMBER		M0729-02	M0729-04	M0729-05	P29-07-94-1	P01-08-94-10A	P-01-08-94-10	P01-08-94-10C	P01-08-94-10B	P01-08-94-10D
ELEMENT										
NA2O	%	0.1	0.1	0.12	2.66		3.63			
MGO	%	31.2	29.8	31.1	11.1		8.72			
AL2O3	%	4.74	4.61	4.81	10.1		11.7			
SIO2	%	42	42.7	42.3	45		48			
P2O5	%	0.02	0.03	0.02	0.18		0.34			
K2O	%	-0.01	-0.01	-0.01	1.31		0.32			
CAO	%	3.46	3.3	3.54	9.95		9.88			
TIO2	%	0.184	0.183	0.181	2.18		2.98			
CR2O3	PPM	3450	4060	3410	868		436			
MNO	%	0.17	0.17	0.17	0.15		0.15			
FE2O3	%	11.8	11.6	11.9	14.8		12.7			
RB	PPM	-10	-10	-10	30		-10			
SR	PPM	33	46	30	270		566			
Y	PPM	-10	-10	-10	13		21			
ZR	PPM	28	28	25	145		228			
NB	PPM	-10	-10	-10	31		42			
BA	PPM	-50	50	-50	752		114			
LOI	%	6	7.35	6.05	2.3		1.05			
SUM	%	100.2	100.5	100.7	100		99.7			
AS	PPM									
S	%	0.06	0.04	0.05	0.05	0.056	0.01	0.24	0.02	23.6
SE	PPM	0.4	0.4	0.2	0.2		0.5			
Pd	PPB									
Pt	PPB									
Cu	PPM	48	50	46	160	8	18	4	2	159
Pb	PPM	130	122	384	22	44	28	32	46	84
Zn	PPM	142	112	130	122	132	110	68	112	2600
Ag	PPM	<1	<1	<1	<1	<1	<1	<1	<1	<1
Co	PPM	112	108	108	64	20	44	32	42	30
Ni	PPM	1380	1300	1300	374	46	222	102	116	348
Au	PPB	<10	<10	<10	<10	10	<10	<10	15	<10

GEOCHEMISTRY OF SAMPLES FROM AREA E

SAMPLE NUMBER		3429	3430	3431
FIELD NUMBER		P01-08-94-10C	P01-08-94-10B	P01-08-94-10D
ELEMENT				
NA2O	%			
MGO	%			
AL2O3	%			
SIO2	%			
P2O5	%			
K2O	%			
CAO	%			
TIO2	%			
CR2O3	PPM			
MNO	%			
FE2O3	%			
RB	PPM			
SR	PPM			
Y	PPM			
ZR	PPM			
NB	PPM			
BA	PPM			
LOI	%			
SUM	%			
AS	PPM			
S	%	0.24	0.02	23.6
SE	PPM			
Pd	PPB			
Pt	PPB			
Cu	PPM	4	2	159
Pb	PPM	32	46	84
Zn	PPM	68	112	2600
Ag	PPM	<1	<1	<1
Co	PPM	32	42	30
Ni	PPM	102	116	348
Au	PPB	<10	15	<10

APPENDIX G: GEOCHEMISTRY OF SAMPLES FROM THE NUUGAATSIAQ GOSSAN

GEOCHEMISTRY OF SAMPLES FROM THE NUUGAATSIAQ GOSSAN

SAMPLE NUMBER	3384	3385	3386	3387	3388	3389
FIELD NUMBER	P01-08-94-01	P01-08-94-02	P01-08-94-03	P01-08-94-04	P01-08-94-05	P01-08-94-06
ELEMENT						
NA2O%						
MGO%						
AL2O3%						
SIO2%						
P2O5%						
K2O%						
CAO%						
TIO2%						
CR2O3%						
MNO%						
FE2O3%						
RB PPM						
SR PPM						
Y PPM						
ZR PPM						
NB PPM						
BA PPM						
LOI %						
SUM %						
AS PPM						
S PPM	0.2	0.12	1.15	0.49	0.5	1.98
SE PPM						
Pd PPB						
Pt PPB						
Cu PPM	4	4	48	2	108	50
Pb PPM	8	2	10	26	36	18
Zn PPM	22	14	62	14	150	102
Ag PPM	<1	<1	<1	<1	<1	<1
Co PPM	3	3	16	1	10	12
Ni PPM	12	12	30	4	50	50
Au PPB	36	<10	<10	123	<10	10

GEOCHEMISTRY OF SAMPLES FROM THE NUUGAATSIAQ GOSSAN

SAMPLE UMBER	3384	3385	3386	3387	3388
FIELD N MBER	P01-08-94-01	P01-08-94-02	P01-08-94-03	P01-08-94-04	P01-08-94-05
ELEMEN					
NA2O%					
MGO%					
AL2O3%					
SIO2%					
P2O5%					
K2O%					
CAO%					
TIO2%					
CR2O3%					
MNO%					
FE2O3%					
RB PPM					
SR PPM					
Y PPM					
ZR PPM					
NB PPM					
BA PPM					
LOI %					
SUM %					
AS PPM					
S PPM	0.2	0.12	1.15	0.49	0.5
SE PPM					
Pd PPB					
Pt PPB					
Cu PPM	4	4	48	2	108
Pb PPM	8	2	10	26	36
Zn PPM	22	14	62	14	150
Ag PPM	<1	<1	<1	<1	<1
Co PPM	3	3	16	1	10
Ni PPM	12	12	30	4	50
Au PPB	36	<10	<10	123	<10

GEOCHEMISTRY OF SAMPLES FROM THE NUUGAATSIAQ GOSSAN

SAMPLE NUMBER	3390	3391	3392
FIELD NUMBER	P01-08-94-07	P01-08-94-08	P01-08-94-09
ELEMENT			
NA2O%			
MGO%			
AL2O3%			
SIO2%			
P2O5%			
K2O%			
CAO%			
TIO2%			
CR2O3%			
MNO%			
FE2O3%			
RB PPM			
SR PPM			
Y PPM			
ZR PPM			
NB PPM			
BA PPM			
LOI %			
SUM %			
AS PPM			
S PPM	1.79	1	0.18
SE PPM			
Pd PPB			
Pt PPB			
Cu PPM	4	2	8
Pb PPM	12	12	2
Zn PPM	38	14	12
Ag PPM	<1	<1	<1
Co PPM	1	1	<1
Ni PPM	8	6	10
Au PPB	<10	10	<10

GEOCHEMISTRY OF SAMPLES FROM THE NUUGAATSIAQ GOSSAN

SAMPLE	3389	3390	3391	3392
FIELD N	P01-08-94-06	P01-08-94-07	P01-08-94-08	P01-08-94-09
ELEMEN				
NA2O%				
MGO%				
AL2O3%				
SIO2%				
P2O5%				
K2O%				
CAO%				
TIO2%				
CR2O3%				
MNO%				
FE2O3%				
RB PPM				
SR PPM				
Y PPM				
ZR PPM				
NB PPM				
BA PPM				
LOI %				
SUM %				
AS PPM				
S PPM	1.98	1.79	1	0.18
SE PPM				
Pd PPB				
Pt PPB				
Cu PPM	50	4	2	8
Pb PPM	18	12	12	2
Zn PPM	102	38	14	12
Ag PPM	<1	<1	<1	<1
Co PPM	12	1	1	<1
Ni PPM	50	8	6	10
Au PPB	10	<10	10	<10

APPENDIX H: ORIGINAL GEOCHEMICAL ANALYSIS DATA REPORTS

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont.
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152
Telex 06986947

CERTIFICATE OF ANALYSIS
REPORT 29809

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
28-Sep-94

WORKORDER 1348-M1

TOTAL PAGES 10

62 PULPS Proj. TL94-101

	METHOD	DETECTION LIMIT	METHOD CODE
NA2O %	XRF-F	.01	100
MGO %	XRF-F	.01	100
AL2O3 %	XRF-F	.01	100
SIO2 %	XRF-F	.01	100
P2O5 %	XRF-F	.01	100
K2O %	XRF-F	.01	100
CAO %	XRF-F	.01	100
TIO2 %	XRF-F	.001	100
CR PPM	XRF-F	10.	
MNO %	XRF-F	.01	100
FE2O3 %	XRF-F	.01	100
RB PPM	XRF-F	10.	100-1
SR PPM	XRF-F	10.	100-1
Y PPM	XRF-F	10.	100-1
ZR PPM	XRF-F	10.	100-1
NB PPM	XRF-F	10.	100-1
BA PPM	XRF-F	50.	100-1
LOI %	XRF-F	.01	100

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 21-OCT-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

ELEMENT	METHOD	METHOD CODE	3301	3302	3303	3304	3305	3306	3309
SIO2 %	XRF-F	100	42.0	42.7	42.3	47.0	47.7	42.7	42.2
AL2O3 %	XRF-F	100	4.74	4.61	4.81	13.6	13.7	4.66	12.8
CAO %	XRF-F	100	3.46	3.30	3.54	10.6	10.6	3.37	7.16
MGO %	XRF-F	100	31.2	29.8	31.1	6.12	6.78	29.7	6.32
NA2O %	XRF-F	100	.10	.10	.12	2.33	2.46	.11	4.13
K2O %	XRF-F	100	<.01	<.01	<.01	.23	.38	<.01	1.07
FE2O3 %	XRF-F	100	11.8	11.6	11.9	14.6	13.8	11.6	18.6
MNO %	XRF-F	100	.17	.17	.17	.22	.20	.18	.27
TIO2 %	XRF-F	100	.184	.183	.181	2.08	2.30	.183	4.22
P2O5 %	XRF-F	100	.02	.03	.02	.19	.26	.03	.47
LOI %	XRF-F	100	6.00	7.35	6.05	2.55	1.45	7.40	2.80
CR PPM	XRF-F		3450	4060	3410	124	270	4080	97
RB PPM	XRF-F	100-1	<10	<10	<10	<10	<10	<10	24
SR PPM	XRF-F	100-1	33	46	30	169	226	44	268
Y PPM	XRF-F	100-1	<10	<10	<10	30	31	<10	30
ZR PPM	XRF-F	100-1	28	28	25	123	147	27	286
NB PPM	XRF-F	100-1	<10	<10	<10	<10	18	<10	80
BA PPM	XRF-F	100-1	<50	50	<50	83	149	54	303
SUM %			100.2	100.5	100.7	99.6	99.7	100.5	100.2

ELEMENT	METHOD	METHOD CODE	3310	3312	3314	3315	3316	3318	3320
SIO2 %	XRF-F	100	42.8	45.5	44.7	39.8	41.4	49.2	47.4
AL2O3 %	XRF-F	100	9.10	10.4	13.0	8.62	5.68	14.0	14.0
CAO %	XRF-F	100	11.5	12.8	10.0	10.6	13.4	9.91	11.4
MGO %	XRF-F	100	12.1	7.71	8.63	14.2	16.6	7.30	8.81
NA2O %	XRF-F	100	1.35	3.85	1.66	1.70	.17	.36	2.07
K2O %	XRF-F	100	.65	.16	.26	1.82	.04	1.88	.23
FE2O3 %	XRF-F	100	15.8	12.4	13.9	14.6	13.2	14.0	12.9
MNO %	XRF-F	100	.21	.19	.21	.21	.20	.23	.19
TIO2 %	XRF-F	100	2.84	1.98	2.12	2.24	1.90	1.16	1.71
P2O5 %	XRF-F	100	.28	.28	.22	.22	.14	.10	.20
LOI %	XRF-F	100	3.30	4.85	5.25	5.55	7.30	1.80	1.15
CR PPM	XRF-F		899	269	347	602	1260	110	348
RB PPM	XRF-F	100-1	<10	<10	<10	26	<10	104	<10
SR PPM	XRF-F	100-1	194	318	224	335	290	175	321
Y PPM	XRF-F	100-1	17	13	28	17	<10	20	22
ZR PPM	XRF-F	100-1	181	125	124	137	119	80	109
NB PPM	XRF-F	100-1	44	27	11	30	28	<10	26
BA PPM	XRF-F	100-1	193	<50	127	446	55	193	198
SUM %			100.1	100.2	100.1	99.8	100.3	100.0	100.2

ELEMENT	METHOD	METHOD CODE	3322	3329	3332	3333	3334	3335	3337
SIO2 %	XRF-F	100	45.6	46.8	45.7	43.7	53.2	43.6	43.1
AL2O3 %	XRF-F	100	8.34	13.9	8.18	10.0	2.92	10.2	8.01
CAO %	XRF-F	100	10.3	11.2	10.2	9.58	10.4	9.57	9.70
MGO %	XRF-F	100	15.5	8.69	15.3	14.1	19.1	14.0	19.0
NA2O %	XRF-F	100	1.64	2.10	1.68	1.87	.38	1.89	1.14
K2O %	XRF-F	100	.24	.24	.26	1.13	.04	1.17	.09
FE2O3 %	XRF-F	100	13.6	12.6	13.5	15.1	10.6	15.1	14.2
MNO %	XRF-F	100	.19	.19	.19	.17	.15	.17	.19
TIO2 %	XRF-F	100	1.54	1.72	1.55	2.19	.501	2.22	1.71
P2O5 %	XRF-F	100	.04	.20	.04	.22	.03	.21	.12
LOI %	XRF-F	100	1.40	1.25	1.40	.70	.50	.55	1.10
CR PPM	XRF-F		963	334	967	1020	1820	1000	1250
RB PPM	XRF-F	100-1	<10	<10	<10	27	<10	40	11
SR PPM	XRF-F	100-1	239	313	243	213	47	218	342
Y PPM	XRF-F	100-1	10	19	11	14	<10	14	<10
ZR PPM	XRF-F	100-1	104	106	103	147	38	146	113
NB PPM	XRF-F	100-1	24	24	22	35	10	33	25
BA PPM	XRF-F	100-1	91	234	97	340	<50	348	<50
SUM %			98.6	99.0	98.2	99.0	98.1	98.9	98

ELEMENT	METHOD	METHOD CODE	3340	3341	3342	3345	3346	3347	3348
SIO2 %	XRF-F	100	26.8	43.2	26.7	43.4	42.6	48.6	42.7
AL2O3 %	XRF-F	100	8.05	9.39	8.13	9.38	13.4	5.59	13.2
CAO %	XRF-F	100	21.7	11.9	21.6	11.9	9.13	12.9	9.12
MGO %	XRF-F	100	12.8	13.6	12.9	13.6	7.48	15.4	7.46
NA2O %	XRF-F	100	.73	2.02	.73	2.00	.99	.28	.99
K2O %	XRF-F	100	2.01	.32	1.95	.32	.30	.09	.32
FE2O3 %	XRF-F	100	10.3	14.3	10.4	14.2	22.3	12.8	22.2
MNO %	XRF-F	100	.28	.19	.28	.19	.32	.22	.32
TIO2 %	XRF-F	100	2.56	1.97	2.53	1.98	2.18	.094	2.18
P2O5 %	XRF-F	100	.59	.19	.59	.19	.19	1.94	.20
LOI %	XRF-F	100	14.4	1.70	14.4	1.70	1.35	1.30	1.32
CR PPM	XRF-F		58	925	56	932	79	22	84
RB PPM	XRF-F	100-1	63	<10	62	<10	12	12	<10
SR PPM	XRF-F	100-1	192	341	191	338	52	27	48
Y PPM	XRF-F	100-1	20	12	17	11	35	33	32
ZR PPM	XRF-F	100-1	206	135	208	134	150	16	145
NB PPM	XRF-F	100-1	73	32	76	33	<10	<10	13
BA PPM	XRF-F	100-1	321	96	295	85	<50	<50	56
SUM %			100.3	99.0	100.3	99.1	100.3	99.2	100.1

ELEMENT	METHOD	METHOD CODE	3358	3359	3360	3364	3366	3371	3372
SIO2 %	XRF-F	100	39.4	39.6	41.7	32.3	42.0	32.4	73.1
AL2O3 %	XRF-F	100	16.3	16.3	8.87	2.81	8.96	2.81	12.5
CAO %	XRF-F	100	7.57	7.67	13.4	3.12	13.4	3.15	2.16
MGO %	XRF-F	100	7.60	7.65	10.2	28.8	10.2	28.7	1.59
NA2O %	XRF-F	100	.93	.95	1.84	.08	1.84	.07	3.16
K2O %	XRF-F	100	6.16	6.04	1.54	<.01	1.53	<.01	2.93
FE2O3 %	XRF-F	100	14.7	14.7	14.2	14.4	14.2	14.3	2.95
MNO %	XRF-F	100	.18	.18	.19	.26	.19	.26	.04
TIO2 %	XRF-F	100	1.86	1.87	2.27	.725	2.27	.729	.326
P2O5 %	XRF-F	100	.16	.15	.24	.07	.25	.06	.10
LOI %	XRF-F	100	5.35	5.00	5.05	17.7	5.05	17.7	1.30
CR PPM	XRF-F		290	263	898	3410	878	3480	131
RB PPM	XRF-F	100-1	253	254	39	<10	35	<10	116
SR PPM	XRF-F	100-1	139	140	270	94	269	98	175
Y PPM	XRF-F	100-1	38	36	14	<10	11	<10	13
ZR PPM	XRF-F	100-1	139	137	145	50	144	55	132
NB PPM	XRF-F	100-1	28	14	35	10	35	<10	<10
BA PPM	XRF-F	100-1	757	739	373	94	398	76	577
SUM %			100.4	100.3	99.7	100.8	100.1	100.7	100.3

ELEMENT	METHOD	METHOD CODE	3373	3374	3376	3377	3379	3382	3393
SIO2 %	XRF-F	100	43.3	87.3	87.0	35.6	47.8	42.4	47.5
AL2O3 %	XRF-F	100	8.38	2.72	2.76	25.0	16.4	11.0	12.0
CAO %	XRF-F	100	9.54	3.13	3.14	1.61	7.70	5.13	9.70
MGO %	XRF-F	100	15.3	1.90	1.90	2.08	5.38	16.5	5.23
NA2O %	XRF-F	100	.75	.06	.06	1.13	2.96	.93	2.50
K2O %	XRF-F	100	2.62	1.32	1.36	5.34	1.70	4.29	.68
FE2O3 %	XRF-F	100	14.7	1.07	1.10	22.6	15.2	15.1	17.6
MNO %	XRF-F	100	.20	.03	.03	.17	.18	.19	.26
TIO2 %	XRF-F	100	2.02	.088	.092	3.05	1.92	1.61	3.51
P2O5 %	XRF-F	100	.21	.09	.09	.58	.40	.13	.47
LOI %	XRF-F	100	1.95	2.70	2.70	3.00	.50	1.60	.50
CR PPM	XRF-F		1350	110	114	113	100	1150	79
RB PPM	XRF-F	100-1	57	44	36	116	29	111	12
SR PPM	XRF-F	100-1	48	61	56	49	367	87	189
Y PPM	XRF-F	100-1	10	<10	<10	59	26	12	56
ZR PPM	XRF-F	100-1	137	79	75	259	136	102	277
NB PPM	XRF-F	100-1	29	<10	<10	20	<10	19	26
BA PPM	XRF-F	100-1	286	113	154	1620	703	952	148
SUM %			99.2	100.5	100.3	100.4	100.3	99.2	100.

ELEMENT	METHOD	METHOD CODE	3394	3395	3396	3398	3399	3400	3401
SIO2 %	XRF-F	100	47.0	43.1	47.5	47.9	45.6	45.3	43.9
AL2O3 %	XRF-F	100	12.2	8.49	15.1	14.4	7.61	7.57	8.34
CAO %	XRF-F	100	9.72	12.5	10.0	11.1	9.95	9.71	7.78
MGO %	XRF-F	100	5.25	10.9	4.26	7.79	17.9	17.9	18.9
NA2O %	XRF-F	100	2.46	2.36	2.78	2.30	1.33	1.37	1.09
K2O %	XRF-F	100	.66	1.05	.53	.22	.39	.25	.71
FE2O3 %	XRF-F	100	17.6	14.5	14.6	12.9	13.5	14.0	14.1
MNO %	XRF-F	100	.26	.16	.21	.19	.19	.19	.17
TIO2 %	XRF-F	100	3.67	1.93	3.41	1.84	1.42	1.52	1.96
P2O5 %	XRF-F	100	.46	.17	.38	.15	.20	.19	.20
LOI %	XRF-F	100	.90	4.35	.60	1.45	.30	.50	1.70
CR PPM	XRF-F		74	1350	92	342	1120	1160	1110
RB PPM	XRF-F	100-1	10	36	<10	<10	12	<10	25
SR PPM	XRF-F	100-1	178	230	222	169	298	285	255
Y PPM	XRF-F	100-1	53	11	46	20	10	<10	<10
ZR PPM	XRF-F	100-1	276	126	233	104	89	106	126
NB PPM	XRF-F	100-1	23	26	17	<10	19	22	23
BA PPM	XRF-F	100-1	148	350	130	52	185	164	225
SUM %			100.3	99.8	99.5	100.3	98.6	98.7	99.1

ELEMENT	METHOD	METHOD CODE	3402	3403	3406	3408	3409	3428	3301-D
SIO2 %	XRF-F	100	42.5	40.7	42.4	43.7	44.2	48.0	41.8
AL2O3 %	XRF-F	100	5.97	9.52	11.0	9.85	8.99	11.7	4.71
CAO %	XRF-F	100	9.56	10.0	12.2	9.82	9.31	9.88	3.46
MGO %	XRF-F	100	19.6	15.2	8.55	11.9	15.3	8.72	31.3
NA2O %	XRF-F	100	.68	.79	2.01	1.79	1.50	3.63	.08
K2O %	XRF-F	100	.14	3.28	2.15	1.39	1.16	.32	<.01
FE2O3 %	XRF-F	100	13.6	13.7	14.9	16.3	14.1	12.7	11.8
MNO %	XRF-F	100	.16	.19	.16	.20	.18	.15	.17
TIO2 %	XRF-F	100	1.14	2.09	2.55	2.55	2.43	2.98	.189
P2O5 %	XRF-F	100	.06	.20	.29	.25	.20	.34	.02
LOI %	XRF-F	100	5.80	2.95	3.60	1.10	.80	1.05	6.05
CR PPM	XRF-F		1940	906	838	661	815	436	3460
RB PPM	XRF-F	100-1	<10	63	62	31	27	<10	<10
SR PPM	XRF-F	100-1	235	89	316	128	168	566	31
Y PPM	XRF-F	100-1	<10	<10	15	15	<10	21	<10
ZR PPM	XRF-F	100-1	72	128	176	178	148	228	23
NB PPM	XRF-F	100-1	16	30	36	40	34	42	<10
BA PPM	XRF-F	100-1	81	487	370	271	283	114	<50
SUM %			99.5	98.8	100.0	99.0	98.4	99.7	100

D - QUALITY CONTROL DUPLICATE

ELEMENT	METHOD	METHOD CODE	3320-D	3348-D	3372-D	3401-D
SIO2 %	XRF-F	100	47.1	42.9	72.8	43.8
AL2O3 %	XRF-F	100	14.0	13.2	12.4	8.36
CAO %	XRF-F	100	11.3	9.09	2.16	7.75
MGO %	XRF-F	100	8.79	7.49	1.59	18.9
NA2O %	XRF-F	100	2.09	.98	3.15	1.08
K2O %	XRF-F	100	.24	.32	2.91	.71
FE2O3 %	XRF-F	100	12.8	22.2	2.92	14.1
MNO %	XRF-F	100	.19	.32	.04	.17
TIO2 %	XRF-F	100	1.71	2.18	.324	1.94
P2O5 %	XRF-F	100	.20	.20	.10	.19
LOI %	XRF-F	100	1.20	1.25	1.50	1.70
CR PPM	XRF-F		344	91	124	1090
RB PPM	XRF-F	100-1	<10	<10	115	21
SR PPM	XRF-F	100-1	314	49	176	258
Y PPM	XRF-F	100-1	20	29	14	10
ZR PPM	XRF-F	100-1	108	148	131	124
NB PPM	XRF-F	100-1	24	17	<10	26
BA PPM	XRF-F	100-1	202	64	562	244
SUM %			99.7	100.2	100.0	98.9

D - QUALITY CONTROL DUPLICATE

ELEMENT	METHOD	METHOD CODE	3350	3351	3352	3353	3354	3355	3356
SIO2 %	XRF-F	100	43.0	43.5	46.8	42.6	44.6	45.0	45.7
AL2O3 %	XRF-F	100	12.9	13.0	10.9	10.1	10.1	10.1	7.87
CAO %	XRF-F	100	10.3	10.3	11.5	7.24	9.96	9.95	11.3
MGO %	XRF-F	100	5.57	5.60	7.13	15.4	11.0	11.1	15.0
NA2O %	XRF-F	100	3.28	3.25	3.68	.82	2.61	2.66	1.41
K2O %	XRF-F	100	.70	.69	.26	3.50	1.32	1.31	.40
FE2O3 %	XRF-F	100	17.3	17.3	14.1	15.1	14.7	14.8	13.4
MNO %	XRF-F	100	.22	.22	.17	.19	.15	.15	.19
TIO2 %	XRF-F	100	4.20	4.20	3.01	2.09	2.17	2.18	1.82
P2O5 %	XRF-F	100	.40	.39	.30	.26	.19	.18	.17
LOI %	XRF-F	100	1.40	1.45	2.30	1.45	2.25	2.30	.95
CR PPM	XRF-F		65	72	392	1580	870	868	919
RB PPM	XRF-F	100-1	24	24	<10	105	23	30	<10
SR PPM	XRF-F	100-1	533	529	368	96	267	270	236
Y PPM	XRF-F	100-1	24	24	18	14	13	13	13
ZR PPM	XRF-F	100-1	256	252	202	142	146	145	121
NB PPM	XRF-F	100-1	61	60	45	30	31	31	24
BA PPM	XRF-F	100-1	542	498	82	957	753	752	179
SUM %			99.4	100.1	100.3	99.1	99.3	100.0	98.4

XRAL Laboratories
A Division of SGS Canada Inc.

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CERTIFICATE OF ANALYSIS
REPORT 29073

O: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
2-Sep-94

WORKORDER 19928-T7

TOTAL PAGES 1

5 PULPS Proj. KAR TL94-087

	METHOD	DETECTION LIMIT	METHOD CODE
NA2O %	XRF-F	.01	100-1
MGO %	XRF-F	.01	100-1
AL2O3 %	XRF-F	.01	100-1
SIO2 %	XRF-F	.01	100-1
P2O5 %	XRF-F	.01	100-1
K2O %	XRF-F	.01	100-1
CAO %	XRF-F	.01	100-1
TIO2 %	XRF-F	.001	100-1
CR2O3 %	XRF-F	.01	100-1
MNO %	XRF-F	.01	100-1
FE2O3 %	XRF-F	.01	100-1
RB PPM	XRF-F	10.	100-1
SR PPM	XRF-F	10.	100-1
Y PPM	XRF-F	10.	100-1
ZR PPM	XRF-F	10.	100-1
NB PPM	XRF-F	10.	100-1
BA PPM	XRF-F	50.	100-1
LOI %	XRF-F	.01	100-1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

ATE 16-SEP-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

XRAL 16-SEP-94 REPORT 29073 WORKORDER 19928-T7 PAGE 1 of 1

ELEMENT	METHOD	METHOD CODE	3435	3450	3452	3453	3454	3455	3435-D
SIO2 %	XRF-F	100-1	65.2	46.9	45.6	34.5	74.9	SMP MISS	65.1
AL2O3 %	XRF-F	100-1	14.5	10.7	.32	.25	.17	SMP MISS	14.6
CAO %	XRF-F	100-1	2.12	11.3	.38	1.30	.88	SMP MISS	2.12
MGO %	XRF-F	100-1	3.40	11.0	.45	1.84	1.74	SMP MISS	3.37
NA2O %	XRF-F	100-1	1.91	1.48	.05	.06	.02	SMP MISS	1.93
K2O %	XRF-F	100-1	3.53	1.58	.03	.02	<.01	SMP MISS	3.52
FE2O3 %	XRF-F	100-1	6.11	10.8	54.2	52.9	16.7	SMP MISS	6.10
MNO %	XRF-F	100-1	.05	.19	.53	7.59	2.20	SMP MISS	.06
TIO2 %	XRF-F	100-1	.657	2.60	.017	.025	.016	SMP MISS	.664
P2O5 %	XRF-F	100-1	.13	.91	.20	.66	.24	SMP MISS	.13
CR2O3 %	XRF-F	100-1	.02	.04	<.01	<.01	<.01	SMP MISS	.02
LOI %	XRF-F	100-1	2.10	.65	-1.55	.90	3.30	SMP MISS	2.15
RB PPM	XRF-F	100-1	115	18	15	<10	<10	SMP MISS	115
SR PPM	XRF-F	100-1	122	175	47	45	26	SMP MISS	127
Y PPM	XRF-F	100-1	17	18	16	17	<10	SMP MISS	16
ZR PPM	XRF-F	100-1	122	194	14	15	<10	SMP MISS	125
NB PPM	XRF-F	100-1	<10	51	<10	17	<10	SMP MISS	<10
BA PPM	XRF-F	100-1	578	1480	<50	<50	<50	SMP MISS	563
SUM %			99.8	98.4	100.2	100.1	100.2	SMP MISS	99.9

D - QUALITY CONTROL DUPLICATE
SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAL

XRAL Laboratories
A Division of SGS Canada Inc.

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CERTIFICATE OF ANALYSIS
REPORT 29264

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
8-Sep-94

WORKORDER 1027-D7 TL94-086 KARRAT Ni

TOTAL PAGES 1

1 PULP

	METHOD	DETECTION LIMIT	METHOD CODE
NA2O %	XRF-F	.01	100-1
MGO %	XRF-F	.01	100-1
AL2O3 %	XRF-F	.01	100-1
SIO2 %	XRF-F	.01	100-1
P2O5 %	XRF-F	.01	100-1
K2O %	XRF-F	.01	100-1
CAO %	XRF-F	.01	100-1
TIO2 %	XRF-F	.001	100-1
CR2O3 %	XRF-F	.01	100-1
MNO %	XRF-F	.01	100-1
FE2O3 %	XRF-F	.01	100-1
RB PPM	XRF-F	10.	100-1
SR PPM	XRF-F	10.	100-1
Y PPM	XRF-F	10.	100-1
ZR PPM	XRF-F	10.	100-1
NB PPM	XRF-F	10.	100-1
TE PPM	GFAA	.02	1-7
BA PPM	XRF-F	50.	100-1
LOI %	XRF-F	.01	100-1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 27-SEP-94

CERTIFIED BY

for Jean H. Opdebeeck, General Manager

ELEMENT	METHOD	METHOD CODE	3462	3462-D
TE PPM	GFAA	1-7	<.02	<.02
SIO2 %	XRF-F	100-1	35.5	35.3
AL2O3 %	XRF-F	100-1	7.67	7.65
CAO %	XRF-F	100-1	20.1	20.0
MGO %	XRF-F	100-1	13.5	13.5
NA2O %	XRF-F	100-1	.75	.77
K2O %	XRF-F	100-1	1.49	1.50
FE2O3 %	XRF-F	100-1	7.02	7.01
MNO %	XRF-F	100-1	.15	.15
TIO2 %	XRF-F	100-1	2.37	2.38
P2O5 %	XRF-F	100-1	.97	.97
CR2O3 %	XRF-F	100-1	<.01	<.01
LOI %	XRF-F	100-1	9.60	9.50
RB PPM	XRF-F	100-1	30	29
SR PPM	XRF-F	100-1	167	166
Y PPM	XRF-F	100-1	30	31
ZR PPM	XRF-F	100-1	187	181
NB PPM	XRF-F	100-1	61	60
BA PPM	XRF-F	100-1	254	240
SUM %			99.2	98.8

D - QUALITY CONTROL DUPLICATE

XRAL Laboratories
A Division of SGS Canada Inc.

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Telex 06986947

CERTIFICATE OF ANALYSIS
REPORT 29877

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
19-Oct-94

WORKORDER 1613- J. PEARSON

TOTAL PAGES 3

14 PULPS Proj. KARROY

	METHOD	DETECTION LIMIT	METHOD CODE
Y PPM	ICPMS	1.	11-2
LA PPM	ICPMS	.1	11-2
CE PPM	ICPMS	.1	11-2
PR PPM	ICPMS	.1	11-2
ND PPM	ICPMS	.1	11-2
SM PPM	ICPMS	.1	11-2
EU PPM	ICPMS	.05	11-2
GD PPM	ICPMS	.1	11-2
TB PPM	ICPMS	.1	11-2
DY PPM	ICPMS	.1	11-2
HO PPM	ICPMS	.05	11-2
ER PPM	ICPMS	.1	11-2
TM PPM	ICPMS	.1	11-2
YB PPM	ICPMS	.1	11-2
LU PPM	ICPMS	.05	11-2
TH PPM	ICPMS	.1	11-2
U PPM	ICPMS	.1	11-2

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 27-OCT-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

ELEMENT	METHOD	METHOD CODE	3442	3443	3444	3445	3452	3453	3454
Y PPM	ICPMS	11-2	17	20	9	1	10	7	5
LA PPM	ICPMS	11-2	25.6	33.4	7.2	1.1	2.5	2.1	2.0
CE PPM	ICPMS	11-2	50.9	66.6	13.1	1.5	3.2	2.0	1.8
PR PPM	ICPMS	11-2	5.9	7.8	1.5	.3	.4	.3	.4
ND PPM	ICPMS	11-2	22.5	28.7	5.7	1.1	1.5	1.3	1.5
SM PPM	ICPMS	11-2	4.6	5.8	1.3	.2	.4	.3	.3
EU PPM	ICPMS	11-2	1.03	1.41	.47	.05	.09	.12	.09
GD PPM	ICPMS	11-2	3.9	4.9	1.3	.2	.6	.3	.4
TB PPM	ICPMS	11-2	.5	.7	.2	<.1	.1	<.1	<.1
DY PPM	ICPMS	11-2	3.2	4.1	1.4	.2	.9	.3	.5
HO PPM	ICPMS	11-2	.65	.82	.31	<.05	.28	.09	.15
ER PPM	ICPMS	11-2	1.9	2.3	1.0	.2	1.0	.3	.5
TM PPM	ICPMS	11-2	.3	.4	.2	<.1	.2	<.1	<.1
YB PPM	ICPMS	11-2	1.9	2.3	1.1	.2	1.1	.3	.6
LU PPM	ICPMS	11-2	.29	.35	.17	<.05	.19	.05	.11
TH PPM	ICPMS	11-2	14.0	21.5	6.3	.6	.1	.2	<.1
U PPM	ICPMS	11-2	3.2	5.5	1.9	4.8	.6	1.1	.4

ELEMENT	METHOD	METHOD CODE	3455	3460	3461	3462	3463	3464	3465
Y PPM	ICPMS	11-2	9	5	3	29	6	7	6
LA PPM	ICPMS	11-2	1.4	1.6	.5	49.4	1.2	4.1	1.3
CE PPM	ICPMS	11-2	1.2	2.6	.9	99.7	1.8	7.0	2.0
PR PPM	ICPMS	11-2	.2	.3	.1	12.1	.2	1.0	.3
ND PPM	ICPMS	11-2	1.0	1.2	.5	47.6	1.0	4.0	1.2
SM PPM	ICPMS	11-2	.2	.3	.1	9.4	.2	1.1	.3
EU PPM	ICPMS	11-2	.10	.10	<.05	2.91	.08	.29	.09
GD PPM	ICPMS	11-2	.4	.4	.2	8.2	.3	1.2	.4
TB PPM	ICPMS	11-2	<.1	<.1	<.1	1.0	<.1	.2	<.1
DY PPM	ICPMS	11-2	.5	.7	.3	6.0	.6	1.4	.5
HO PPM	ICPMS	11-2	.16	.19	.10	1.05	.15	.30	.15
ER PPM	ICPMS	11-2	.6	.7	.3	3.0	.5	.9	.5
TM PPM	ICPMS	11-2	<.1	.1	<.1	.4	<.1	.1	<.1
YB PPM	ICPMS	11-2	.7	1.0	.3	2.4	.6	1.0	.5
LU PPM	ICPMS	11-2	.11	.17	.06	.33	.10	.16	.07
TH PPM	ICPMS	11-2	<.1	<.1	.1	5.8	.2	.6	<.1
U PPM	ICPMS	11-2	.6	.6	.3	1.2	.3	.4	.7

ELEMENT	METHOD	METHOD CODE	3442-D	3464-D
Y PPM	ICPMS	11-2	16	7
LA PPM	ICPMS	11-2	24.0	4.1
CE PPM	ICPMS	11-2	48.3	7.1
PR PPM	ICPMS	11-2	5.7	1.0
ND PPM	ICPMS	11-2	21.1	4.3
SM PPM	ICPMS	11-2	4.5	1.1
EU PPM	ICPMS	11-2	1.05	.25
GD PPM	ICPMS	11-2	3.8	1.1
TB PPM	ICPMS	11-2	.5	.2
DY PPM	ICPMS	11-2	3.3	1.3
HO PPM	ICPMS	11-2	.64	.29
ER PPM	ICPMS	11-2	1.9	.8
TM PPM	ICPMS	11-2	.3	.1
YB PPM	ICPMS	11-2	1.9	.9
LU PPM	ICPMS	11-2	.29	.16
TH PPM	ICPMS	11-2	13.4	.6
U PPM	ICPMS	11-2	3.1	.5

D - QUALITY CONTROL DUPLICATE

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont.
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS
REPORT 30637

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
6-Dec-94
KARAT

WORKORDER 2135-

TOTAL PAGES 2

62 PULPS RE: WO# 1348

	METHOD	DETECTION LIMIT	METHOD CODE
SE PPM	GFAA	.1	1-7

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 14-DEC-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

XRAL

14-DEC-94 REPORT 30637 WORKORDER 2135-

SAMPLE	SE PPM GFAA 1-7
3301	.4
3302	.4
3303	.2
3304	.1
3305	.3
3306	.1
3309	.3
3310	.2
3312	.1
3314	.2
3315	.3
3316	.1
3318	<.1
3320	.3
3322	.3
3329	.2
3332	.4
3333	.2
3334	<.1
3335	<.1
3337	.1
3340	.1
3341	.2
3342	.3
3345	.1
3346	.3
3347	<.1
3348	.9
3350	1.1
3351	1.0
3352	.1
3353	<.1
3354	.3
3355	.2
3356	<.1
3358	.3
3359	.3
3360	.1
3364	.8
3366	.3

XRAL

14-DEC-94 REPORT 30637 WORKORDER 2135-

SAMPLE	SE PPM GFAA 1-7
3371	.3
3372	.2
3373	.5
3374	<.1
3376	1.2
3377	.5
3379	1.3
3382	3.8
3393	1.4
3394	1.1
3395	2.0
3396	2.1
3398	.3
3399	.1
3400	.5
3401	.5
3402	.1
3403	.5
3406	.2
3408	.2
3409	.8
3428	.5
D 3301	.3
D 3318	.1
D 3345	.2
D 3359	.5
D 3379	1.1
D 3406	.4

D - QUALITY CONTROL DUPLICATE

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont.
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS
REPORT 30719

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
7-Dec-94

WORKORDER 2153-T7

TOTAL PAGES 1

6 PULPS Proj. KAR 94

	METHOD	DETECTION LIMIT	METHOD CODE
SE PPM	GFAA	.1	1-7

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 20-DEC-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

XRAL

20-DEC-94 REPORT 30719 WORKORDER 2153-T7

SAMPLE	SE PPM GFAA 1-7
3435	1.8
3450	.4
3452	.6
3453	.6
3454	.4
3455	.5
D 3435	1.8

D - QUALITY CONTROL DUPLICATE

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont.
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152
Telex 06986947

CERTIFICATE OF ANALYSIS
REPORT 29810

TO: COMINCO LIMITED
ATTN: W.T. KATO
145 CITYVIEW DRIVE
REXDALE, ONTARIO
M9W 5B1

CUSTOMER No. 953

DATE SUBMITTED
5-Oct-94

WORKORDER 1438-D7

TOTAL PAGES 1

1 PULP Proj. KARRAT

	METHOD	DETECTION LIMIT	METHOD CODE
NA2O %	XRF-F	.01	100-1
MGO %	XRF-F	.01	100-1
AL2O3 %	XRF-F	.01	100-1
SIO2 %	XRF-F	.01	100-1
P2O5 %	XRF-F	.01	100-1
K2O %	XRF-F	.01	100-1
CAO %	XRF-F	.01	100-1
TIO2 %	XRF-F	.001	100-1
CR2O3 %	XRF-F	.01	100-1
MNO %	XRF-F	.01	100-1
FE2O3 %	XRF-F	.01	100-1
RB PPM	XRF-F	10.	100-1
SR PPM	XRF-F	10.	100-1
Y PPM	XRF-F	10.	100-1
ZR PPM	XRF-F	10.	100-1
NB PPM	XRF-F	10.	100-1
BA PPM	XRF-F	50.	100-1
LOI %	XRF-F	.01	100-1

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 21-OCT-94

CERTIFIED BY

Jean H. Opdebeeck, General Manager

ELEMENT	METHOD	METHOD CODE	3455	3455-D
SIO2 %	XRF-F	100-1	35.0	34.9
AL2O3 %	XRF-F	100-1	.01	<.01
CAO %	XRF-F	100-1	.62	.61
MGO %	XRF-F	100-1	.35	.33
NA2O %	XRF-F	100-1	.04	.03
K2O %	XRF-F	100-1	<.01	<.01
FE2O3 %	XRF-F	100-1	65.1	65.4
MNO %	XRF-F	100-1	.71	.71
TIO2 %	XRF-F	100-1	.007	.001
P2O5 %	XRF-F	100-1	.35	.35
CR2O3 %	XRF-F	100-1	<.01	<.01
LOI %	XRF-F	100-1	-2.20	-2.30
RB PPM	XRF-F	100-1	<10	<10
SR PPM	XRF-F	100-1	24	24
Y PPM	XRF-F	100-1	22	21
ZR PPM	XRF-F	100-1	<10	<10
NB PPM	XRF-F	100-1	<10	<10
BA PPM	XRF-F	100-1	<50	<50
SUM %			100.0	100.0

D - QUALITY CONTROL DUPLICATE

COMINCO LTD. TOR. KARRAT TL94-101 OCT 3/94

ROCKS

	SAMPLE #		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Ni ppm	Au ppb
1	3301	M0729-02	48	130	142	<1	112	1380	<10
2	3302	M0729-04	50	122	112	<1	108	1300	<10
3	3303	M0729-05	46	384	130	<1	108	1300	<10
4	3304	M0729-09	244	40	132	<1	48	94	<10
5	3305	M0729-11	248	42	142	<1	42	140	<10
6	3306	M0728-03	40	106	104	<1	102	1180	<10
7	3307	MISSING		MISSING					
8	3308	MISSING		MISSING					
9	3309	M0728-05	232	40	164	<1	58	120	<10
10	3310	M0728-07	74	48	162	<1	70	320	<10
11	3312	M0728-11	76	28	106	<1	46	160	<10
12	3314	M0728-13	228	20	122	<1	42	194	<10
13	3315	M0728-15	36	22	90	<1	64	280	<10
14	3316	M0727-01	104	22	102	<1	66	432	<10
15	3318	M0727-05	4	48	100	<1	44	68	<10
16	3320	M0727-07	172	28	112	<1	46	210	<10
17	3322	M0726-06	154	32	118	<1	66	526	15
18	3329	M0728-09	160	34	106	<1	44	206	<10
19	3332	P26-07-94-02	128	30	122	<1	62	518	12
20	3333	P26-07-94-2A	200	20	132	<1	68	506	<10
21	3334	P26-07-94-3B	12	18	86	<1	86	1200	<10
22	3335	P26-07-94-4	244	32	132	<1	70	504	<10
23	3337	P26-07-94-5B	142	26	82	<1	76	922	<10
24	3340	P26-07-94-5D	88	42	140	<1	28	62	<10
25	3341	P26-07-94-6	68	28	136	<1	72	506	<10
26	3342	P27-07-94-1	100	40	102	<1	28	64	10
27	3345	P27-07-94-5	64	32	132	<1	66	500	<10
28	3346	P27-07-94-5A	72	20	168	<1	38	68	<10
29	3347	P27-07-94-5B	2	22	218	<1	18	72	<10
30	3348	P27-07-94-5D	78	34	184	<1	40	76	<10
31	3350	P28-07-94-1	300	32	146	<1	54	90	<10
32	3351	P28-07-94-4	322	6	154	<1	56	100	<10
33	3352	P28-07-94-4B	94	18	114	<1	46	182	<10
34	3353	P28-07-94-5A	82	18	132	<1	82	666	<10
35	3354	P28-07-94-5B	182	30	130	<1	62	368	<10
36	3355	P29-07-94-1	160	22	122	<1	64	374	<10
37	3356	P29-07-94-3	68	20	120	<1	76	650	<10
38	3358	P29-07-94-7A	250	38	142	<1	48	100	<10
39	3359	P29-07-94-7B	226	36	140	<1	46	92	<10
40	3360	P29-07-94-9	200	32	108	<1	62	264	10
41	3364	DB-07-31-04	26	22	48	<1	112	1200	<10
42	3366	DB-07-31-06	140	36	104	<1	62	260	<10
43	3371	P31-07-94-01	30	26	40	<1	108	1160	20
44	3372	P31-07-94-01A	4	34	62	<1	8	54	<10
45	3373	P31-07-94-02	92	26	120	<1	82	520	<10
46	3374	P31-07-94-02A	2	18	20	<1	4	16	<10
47	3376	P31-07-94-03	2	18	20	<1	4	16	<10
48	3377	P31-07-94-08	2	32	106	<1	42	84	<10

COMINCO LTD. TOR. KARRAT TL94-101 OCT 3/94

ROCKS

	SAMPLE #		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Ni ppm	Au ppb
49	3379	P31-07-94-8C	52	36	152	<1	50	96	<10
50	3382	P31-07-94-11	32	34	380	<1	72	740	<10
51	3393	M-0801-01A	458	8	178	<1	46	70	<10
52	3394	M-0801-01C	430	30	168	<1	44	70	10
53	3395	M-0801-02	110	22	116	<1	72	580	<10
54	3396	M-0801-03	404	10	130	<1	32	78	<10
55	3398	M-0731-02	266	28	112	<1	48	176	<10
56	3399	M-0731-04	132	34	120	<1	74	774	<10
57	3400	M-0731-05	34	28	114	<1	76	700	<10
58	3401	M-0731-06	40	20	126	<1	80	650	<10
59	3402	M-0731-07	68	24	96	<1	90	1140	<10
60	3403	M-0731-08	140	42	104	<1	64	388	<10
61	3406	M-0731-10C	92	36	132	<1	62	320	<10
62	3408	M-0731-13	114	40	142	<1	54	230	<10
63	3409	M-0731-15	6	26	122	<1	66	340	10
64	3428	P-01-08-94-10	18	28	110	<1	44	222	<10

Cu, Pb, Zn, Ag, Co, Ni TOTAL EXTRACTION A.A. finish
Au HOT BROMINE EXTRACTION A.A. finish

COMINCO LTD. TOR. KARRAT TL94-109 OCT 3/94

ROCKS

	SAMPLE #		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Ni ppm	Au ppb
1	3307	M0728-04	80	84	1280	<1	26	508	10
2	3308	M0728-04A	206	44	730	<1	24	260	<10
3	3311	M0728-08	302	42	360	<1	56	516	92
4	3313	M0728-12	444	46	4600	1	8	672	<10
5	3317	M0727-03	72	22	306	<1	24	104	<10
6	3319	M0727-06	80	104	136	<1	46	78	<10
7	3321	M0726-02	308	22	116	<1	140	500	36
8	3323	DB-0729-03	1000	50	2500	<1	66	484	34
9	3324	DB-0729-04	1280	82	3800	4	46	566	18
10	3325	DB-0729-05	422	34	660	<1	72	550	<10
11	3326	DB-0728-05	136	94	1160	<1	7	572	<10
12	3327	DB-0728-06	172	52	52	2	10	1000	83
13	3328	DB-0728-08	1200	22	2100	2	208	476	18
14	3330	DB-0729-14	300	382	5500	7	64	904	<10
15	3331	DB-0729-15	362	50	468	<1	24	128	<10
16	3336	P26-7-94-5A	124	22	124	<1	76	760	<10
17	3338	P26-7-94-5C	124	46	38	<1	240	1300	<10
18	3339	P26-7-94-5C	1280	22	44	<1	140	264	<10
19	3343	P27-7-94-2A	526	15	380	<1	66	218	<10
20	3344	P27-7-94-2B	8	6	12	<1	1	10	<10
21	3349	P27-7-94-5E	552	36	202	<1	70	534	74
22	3357	P29-7-94-04	340	30	162	<1	14	82	12
23	3361	DB-07-31-01	212	28	124	<1	52	160	10
24	3362	DB-07-31-02	240	16	158	<1	56	164	<10
25	3363	DB-07-31-03	518	22	362	<1	20	66	<10
26	3365	DB-07-31-05	454	38	172	<1	24	66	<10
27	3367	DB-07-31-07	182	34	68	<1	30	48	<10
28	3368	DB-07-31-08	14	56	58	<1	1	16	<10
29	3369	DB-07-31-10	48	26	112	<1	32	104	<10
30	3370	DB-07-31-11	30	28	20	<1	4	12	10
31	3375	P31-07-94-2B	442	30	150	<1	46	144	10
32	3378	P31-07-94-8A	168	28	106	<1	46	60	<10
33	3380	P31-07094-8D	432	22	158	<1	48	148	<10
34	3381	DB-0731-09	152	26	116	<1	52	62	<10
35	3383	P31-07-94-12	490	38	2560	1	52	610	18
36	3384	P01-08-94-01	4	8	22	<1	3	12	36
37	3385	P01-08-94-02	4	2	14	<1	3	12	<10
38	3386	P01-08-94-03	48	10	62	<1	16	30	<10
39	3387	P01-08-94-04	2	26	14	<1	1	4	123
40	3388	P01-08-94-05	108	36	150	<1	10	50	<10
41	3389	P01-08-94-06	50	18	102	<1	12	50	10
42	3390	P01-08-94-07	4	12	38	<1	1	8	<10
43	3391	P01-08-94-08	2	12	14	<1	1	6	10
44	3392	P01-08-94-09	8	2	12	<1	<1	10	<10
45	3397	M-0728-16	12	26	18	<1	1	16	36
46	3404	M-0731-09	228	56	2500	<1	42	614	29

COMINCO LTD. TOR. KARRAT TL94-109 OCT 3/94

ROCKS

= Lokalität ent. 801

	SAMPLE #		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Co ppm	Ni ppm	Au ppb
47	3405	M-0731-10B	234	32	130	<1	62	286	<10
48	3407	M-0731-12	290	10	70	<1	64	58	32
49	3410	MAW-0802-01A	18	36	72	<1	10	14	<10
50	3411	MAW-0802-01B	14	42	30	<1	6	10	<10
51	3412	MAW-0802-01D	4	60	150	<1	4	78	10
52	3413	MAW-802-01D2	10	56	384	<1	6	186	10
53	3414	MAW-802-01D3	60	42	32	<1	34	100	<10
54	3415	MAW-802-01E4	412	46	224	<1	200	220	10
55	3416	MAW-802-01E	52	30	50	<1	6	18	<10
56	3417	MAW-0802-01E2	64	20	1400	<1	20	160	<10
57	3118	MAW-0802-01E3	6	10	20	<1	2	10	<10
58	3419	MAW-0802-02	60	42	162	<1	4	68	10
59	3420	MAW-0802-03	284	2800	1200	23	18	1800	<10 ←
60	3421	DB-0802-01	50	40	180	<1	6	60	<10
61	3422	DB-0802-02	56	26	24	<1	2	96	<10
62	3423	DB-0802-03	18	22	20	<1	8	20	<10
63	3424	DB-0802-04	2	8	16	<1	2	10	10
64	3425	DB-0802-06	24	130	1000	<1	2	60	<10
65	3426	DB-0802-07	28	10	1200	<1	2	76	<10
66	3427	P01-08-94-10A	8	44	132	<1	20	46	10
67	3429	P01-08-94-10C	4	32	68	<1	32	102	<10
68	3430	P01-08-94-10B	2	46	112	<1	42	116	15
69	3431	P01-08-94-10D	159	84	2600	<1	30	348	<10
70	3432	P02-08-94-01	360	112	1600	4	36	416	<10
71	3433	P02-08-94-07	374	112	1800	3	40	408	10
72	3434	P02-08-94-08	350	108	2060	2	38	408	12
73	3436	M-08-03-03	16	46	36	<1	12	28	<10
74	3437	M-08-03-04	12	50	22	<1	4	8	<10
75	3438	M-08-03-05	114	10	94	<1	4	52	12
76	3439	DB-08-03-02	342	126	3500	<1	48	826	<10
77	3440	DB-08-03-03	280	230	4200	5	40	720	<10
78	3441	DB-08-03-04	256	214	4200	4	38	666	<10
79	3442	DB-08-03-05	54	32	114	<1	8	24	10
80	3443	DB-08-03-06	34	42	114	<1	14	56	<10
81	3444	DB-08-03-07	32	20	56	<1	2	18	<10
82	3445	DB-08-03-08	26	8	66	<1	4	48	10
83	3446	P03-08-94-1A	12	10	30	<1	6	24	<10
84	3447	P03-08-94-1B	38	28	70	<1	12	40	<10
85	3448	P03-08-94-1C	250	82	3200	1	42	700	<10
86	3449	P03-08-94-1D	100	46	134	<1	26	136	<10
87	3451	P03-08-94-1E	122	38	140	<1	20	94	<10

Cu, Pb, Zn, Ag, Co, Ni TOTAL EXTRACTION A.A. finish

Au HOT BROMINE EXTRACTION A.A. finish

COMINCO LTD KARRAT TL94-125 NOV.21/94

ROCKS

	SAMPLE #		S %
1	3307	M-0728-04	22.00
2	3308	M-0728-04A	16.40
3	3311	M-0728-08	17.60
4	3313	M-0728-12	22.40
5	3317	M-0727-03	2.80
6	3319	M-0727-06	0.20
7	3321	M-0727-02	3.60
8	3323	DB-0729-03	11.20
9	3324	DB-0729-04	18.40
10	3325	DB-0729-05	8.80
11	3326	DB-0728-05	16.80
12	3327	DB-0728-06	21.20
13	3328	DB-0728-08	16.00
14	3330	DB-0729-14	20.80
15	3331	DB-0729-15	2.00
16	3336	P-26-7-94-5A	0.16
17	3338	P-26-7-94-5C	15.80
18	3339	P-26-7-94-5C	10.40
19	3343	P-27-7-94-2A	8.40
20	3344	P-27-7-94-2B	0.90
21	3349	P-27-7-94-5E	10.80
22	3357	P-29-7-94-04	6.80
23	3361	DB-0731-01	5.60
24	3362	DB-0731-02	5.00
25	3363	DB-0731-03	2.00
26	3365	DB-0731-05	1.88
27	3367	DB-0731-07	2.00
28	3368	DB-0731-08	0.40
29	3369	DB-0731-10	0.064
30	3370	DB-0731-11	0.56
31	3375	P-31-7-94-2B	4.80
32	3378	P-31-7-94-8A	0.61
33	3380	P-31-7-94-8D	5.20
34	3381	DB-0731-09	0.63
35	3383	P-31-7-94-12	17.20
36	3384	P-01-8-94-01	0.20
37	3385	P-01-8-94-02	0.12
38	3386	P-01-8-94-03	1.15
39	3387	P-01-8-94-04	0.49
40	3388	P-01-8-94-05	0.50
41	3389	P-01-8-94-06	1.98
42	3390	P-01-8-94-07	1.79
43	3391	P-01-8-94-08	1.00
44	3392	P-01-8-94-09	0.18
45	3397	M-0728-16	17.40
46	3404	M-0731-09	10.40
47	3405	M-0731-10B	0.06
48	3407	M-0731-12	3.80

COMINCO LTD KARRAT TL94-125 NOV.21/94

ROCKS

	SAMPLE #		S %
49	3410	M-AW-0802-01A	0.08
50	3411	M-AW-0802-01B	0.15
51	3412	M-AW-0802-01D	0.192
52	3413	M-AW-0802-01D2	0.44
53	3414	M-AW-0802-01D3	1.82
54	3415	M-AW-0802-01E4	14.00
55	3416	M-AW-0802-01E	0.75
56	3417	M-AW-0802-01E2	1.15
57	3418	M-AW-0802-01E3	1.39
58	3419	M-AW-0802-02	0.23
59	3420	M-AW-0802-03	38.00
60	3421	DB-0802-01	0.56
61	3422	DB-0802-02	4.80
62	3423	DB-0802-03	10.00
63	3424	DB-0802-04	6.00
64	3425	DB-0802-06	0.55
65	3426	DB-0802-07	0.48
66	3427	P-01-8-94-10A	0.056
67	3429	P-01-8-94-10C	0.24
68	3430	P-01-8-94-10B	0.02
69	3431	P-01-8-94-10D	23.60
70	3432	P-02-8-94-01	17.20
71	3433	P-02-8-94-07	16.00
72	3434	P-02-8-94-08	19.20
73	3436	M-08-03-03	0.98
74	3437	M-08-03-04	0.148
75	3438	M-08-03-05	4.60
76	3439	DB-08-03-02	20.80
77	3440	DB-08-03-03	18.00
78	3441	DB-08-03-04	18.40
79	3442	DB-08-03-05	0.47
80	3443	DB-08-03-06	0.34
81	3444	DB-08-03-07	0.36
82	3445	DB-08-03-08	2.00
83	3446	P-03-08-94-1A	0.24
84	3447	P-03-08-94-1B	1.28
85	3448	P-03-08-94-1C	17.60
86	3449	P-03-08-94-1D	1.96
87	3451	P-03-08-94-1E	1.36

COMINCO LTD KARRAT TL94-124 NOV.21/94

ROCKS

	SAMPLE #		S %
1	3301		0.060
2	3302		0.040
3	3303		0.050
4	3304		0.005
5	3305		0.030
6	3306		0.060
7	3307	MISSING	
8	3308	MISSING	
9	3309		0.050
10	3310		<0.001
11	3312		0.040
12	3314		<0.001
13	3315		<0.001
14	3316		0.060
15	3318		0.010
16	3320		0.004
17	3322		0.300
18	3329		0.010
19	3332		0.300
20	3333		0.010
21	3334		0.004
22	3335		0.020
23	3337		0.070
24	3340		0.230
25	3341		<0.001
26	3342		0.180
27	3345		0.004
28	3346		0.540
29	3347		0.004
30	3348		0.530
31	3350		0.370
32	3351		0.420
33	3352		0.005
34	3353		0.014
35	3354		0.050
36	3355		0.050
37	3356		0.020
38	3358		0.172
39	3359		0.200
40	3360		0.040
41	3364		0.055
42	3366		0.020
43	3371		0.050
44	3372		0.080
45	3373		0.100
46	3374		0.010
47	3376		<0.001
48	3377		0.010

COMINCO LTD KARRAT T1.94-124 NOV.21/94

ROCKS

	SAMPLE #	S %
49	3379	0.050
50	3382	0.280
51	3393	0.030
52	3394	0.004
53	3395	0.040
54	3396	0.040
55	3398	0.020
56	3399	0.030
57	3400	0.020
58	3401	0.020
59	3402	0.100
60	3403	0.010
61	3406	0.010
62	3408	0.010
63	3409	0.030
64	3428	0.010

COMINCO LTD. TOR. KARRT NI TL94-086 SEPT 5/94

DRILL CORE

	SAMPLE #		Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Au ppb
1	3456	MAW-0804-02	472	24	2100	2	430	24	<10
2	3457	MAW-0804-03	36	2	52	<1	60	30	<10
3	3458	MAW-0804-04	2	1	164	<1	226	18	10
4	3459	MAW-0804-06	2	36	112	<1	14	14	12
5	3460	P04-08-94-01	<1	<1	40	<1	10	10	<10
6	3461	P04-08-94-02	<1	<1	40	<1	<1	6	12
7	3462	P04-08-94-06	116	<1	86	<1	24	24	10
8	3463	P-04-08-94-0	6	<1	30	<1	2	20	<10
9	3464	P-04-08-94-0	2	<1	34	<1	8	6	10
10	3465	P-040894-09	1	9	30	<1	12	8	<10
11	3466	DB-0728-03	300	32	600	1	836	22	12

Cu,Pb,Zn,Ag,Ni,Co TOTAL EXTRACTION A.A. finish
Au HOT BROMINE, SOLVENT EXTRACTION A.A. FINISH

COMINCO LTD. TOR. KARRAT TL94-114 (TL94-086) OCT 17/94

	SAMPLE #	As ppm
1	3456	200
2	3457	<5
3	3458	425
4	3459	<5
5	3460	<5
6	3461	<5
7	3462	<5
8	3463	<5
9	3464	<5
10	3465	<5
11	3466	<5

DB nr. 1401

DANMARK
GRØNLAND 1:100 000
GRØNLANDS GEOLOGISKE UNDERSØGELSE
THE GEOLOGICAL SURVEY OF GREENLAND
GEOLOGISK KORT OVER GRØNLAND
71 V 2 NORD NÛGÂTSIAQ
LEGEND
QUATERNARY
Ice and perennial snow banks.
Fluviatile deposits.
Alluvial fans and deltas.
Talus.
Rock glaciers and solifluction deposits.
Moraine
TERTIARY
BASALT
CRETACEOUS
Sandstone, locally pebbly to conglomeratic, with shale and silt bands. Carbonaceous bands present. Fossil plants in places.
PRECAMBRIAN
METAGREYWACKE. Interbanded granular semipelites and pelitic schists. Thin calc-silicate bands and lenses common. Occasional pyrrhotite-bearing graphitic schist bands.
SEMIPELITIC TO PELITIC SCHIST, and mixed schist/quartzite sections where schist predominates.
QUARTZITE, and mixed quartzite/schist sections where quartzite predominates.
Undifferentiated quartzite and semipelitic to pelitic schist.
MARBLE (north side of Kangigdleq).
HORNBLENDE SCHIST AND AMPHIBOLITE, largely of sedimentary origin.
ULTRABASIC ROCK.
GNEISS, mainly granodioritic. Veined gneiss is characteristic from Kangigdleq northwards
Garnet-bearing.
Staurolite-bearing.
Sillimanite-bearing.
Pegmatites.
Dolerite dykes and sheets.
Boundary, established (u = unconformity).
Boundary, inferred.
Strike and dip of lithological layering.
Horizontal
<20°
20°–55°
55°–85°
>85°
Trace and dip of lithological layering, from aerial photos.
Tight folds common.
Mineral lineation.
Fold axis.
Fault.
Discordance.
M 0831-04
P 310894-01
Sample Location
Permit Subarea Outline
ÎNGIA
ÎNGIA FJORD
UMIAMÂKO ISBRÆ
RINKS ISBRÆ
NÛGÂTSIAUP TUNUA
QEQERTARSSUAQ
KARRATS ISFJORD
KANGIGDLEQ
NÛGÂTSIAQ
KARRAT
KARRAT ISL.
A
B
C
D
E
M0801-01
-01A-F
M-0728-01
P-010894-1,2,3,4,5,6,3,8,9
DB-0803-02
-03
-04
P-030894-01A
-01B
-01C
-01D
-01E
1:100 000
Højdeforskellen mellem kurverne 100 m
Contour interval 100 m
Topography based on completed and uncompleted maps prepared photogrammetrically from oblique aerial photographs by the Geodetic Institute, Copenhagen, at an initial scale of 1:200 000.
Supplementary detail added after inspection of vertical aerial photographs.
Topography in uncompleted areas sketched from aerial photographs.
Geology based on field mapping by G. Henderson and T. C. R. Pulvertaft during 1962-1963 and photointerpretation by G. Henderson. Compilation by G. Henderson.
Kartografi: Britta Vestergaard og Liv Dangaard
Trykt ved Geodætisk Institut 1971
MAP 1
Cominco
Drawn by:
Traced by:
Revised by
Date
KARRAT NI PROJECT
Sample Location Map - modified from Henderson + Pulvertaft (1987)
Scale: 1:100,000.
Date: March 31, 1994
Plate:
210-0610
PANGNERTOQ 72 V2 SYD
SVARTENHUK 71 V1 NORD
NÛGÂTSIAQ 71 V2 NORD
IGDLORSSUIT 71 V1 SYD
MÂRMORILIK 71 V2 SYD