

JAN 23 1997
Gold Commissioner's Office
Vancouver, B.C.

**DIAMOND DRILLING REPORT
on the
J1 AND NMG 29 MINERAL CLAIMS**

**Keithley Creek Area
Cariboo Mining Division**

**93A, 14W
52° 47' N Latitude, 121° 29' W Longitude**

for

**Noble Metal Group Incorporated
801 — 409 Granville Street
Vancouver, British Columbia
V6C 1T2**

by

Bruce Schell, B.Sc., Geology

January, 1997

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

24,825

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SUMMARY AND RECOMMENDATIONS

During June, 1996 an induced polarization and resistivity survey was carried out over part of J1 and NMG claims by Pacific Geophysical of Vancouver, B.C. Several anomalous induced polarization zones were delineated, as well as numerous cross cutting faults.

The 1996 diamond drill program performed by Kendrick Diamond Drilling consisted of 4 thin wall BQ drill holes totaling 923 meters.

These holes tested three high induced polarization anomalies with correlating low to high magnetic signatures as well as one low resistivity zone thought to be a major fault.

The drilling intersected quartzites and phyllites and greywackes intruded by diorite, quartz-feldspar porphyry, ultramafic rocks, and numerous quartz veins and veinlets. The intrusive ultramafic zones are considered to emanate from a magmatic mass at depth, while the quartz diorites may be related to the occurrence of gold in the hydrothermal system.

Varying concentrations of pyrite, pyrrhotite, chalcopyrite, pentlandite, magnetite and hematite occur throughout the core.

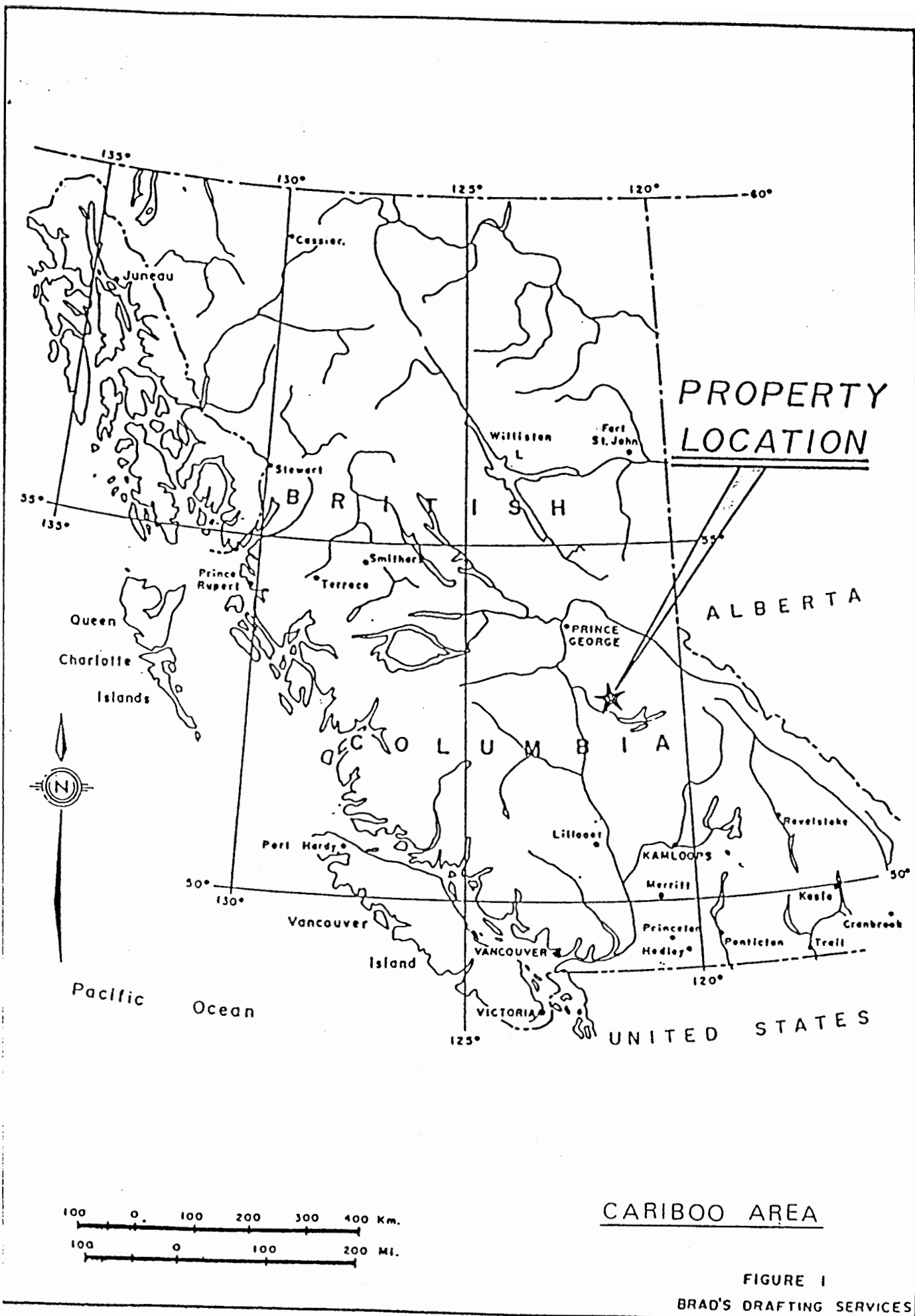
Anomalous values in gold, up to 0.07 oz/ton, nickel, up to 1.0%, chromium, up to 0.19% as well as elevated values in strontium, vanadium and platinum group and other metals related to hydrothermal events were obtained.

Current information suggests that source rocks providing gold, platinum group and other metals, as well as nickel and chromium mineralization lies north of the current working area.

The encouraging results of the 1996 Induced Polarization and magnetometer surveys and diamond drilling program warrant further exploration of the property.

An exploration program consisting of airborne electromagnetic, magnetometer and radiometric surveys followed by geological mapping, prospecting and diamond drilling of anomalous areas is recommended.

January 6, 1997



PROPERTY LOCATION

CARIBOO AREA

FIGURE I
BRAD'S DRAFTING SERVICES

1.0 INTRODUCTION

1.1 General

A diamond drill program was carried out on the Cariboo Gold Property from June 12 to October 7, 1996. Bruce Schell was retained to supervise the drilling and Kendrick Diamond Drilling of Vancouver conducted the drilling.

A John Deere 892 ELC excavator and a John Deere 744E loader were used to build roads and drill sites, reclaim the roads and drill sites, ditch and assist in setting up the drill.

1.2 Location and Access

The property (Figure 1) is located approximately 21 kilometers north-northeast of Likely, in the Cariboo region of central British Columbia. The property is centered at approximately 52 degrees 47 minutes north latitude and 121° 29' west longitude (NTS 93A-13E, 14W).

Access to the property is via the all weather, two wheel drive Keithley Creek logging road from Likely, B.C. At the old settlement of Keithley Creek, a logging road on the east side of Keithley Creek leads to the property.

The camp is located approximately 12 kilometers from the main road. A network of old logging roads provides good access to all areas of the property.

1.3 Physiography

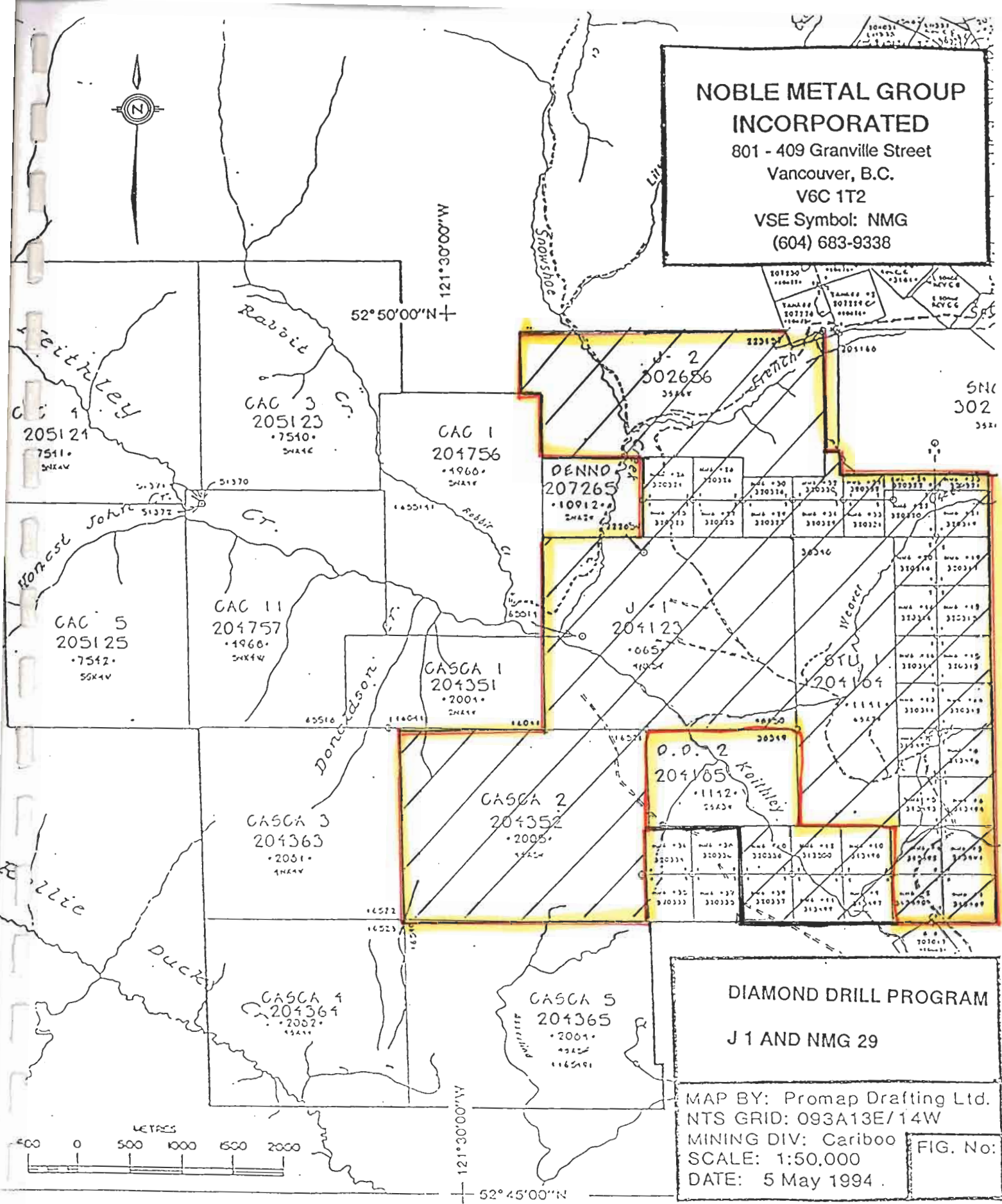
The property is located in the Quesnel Highlands of central British Columbia and the average elevation is approximately 1200 meters above sea level. Topography varies from steep along Keithley Creek to gentle at some higher elevations. Keithley Creek flows in a southeasterly direction through the center of the property with many tributaries such as Donaldson, Honest John, Rabbit, Snowshoe, French Snowshoe and Weaver Creeks flowing into Keithley Creek.

The Keithley Creek area receives significant precipitation throughout the year as both rain and snow. Accumulations of snow may reach three meters or more during the winter months with extremely cold temperatures.

The natural vegetation is predominantly coniferous forest consisting of spruce, firs and cedar. Large portions of the property have been logged by clear cutting and most of these areas have been replanted. Many of the replanted areas have second growth timber ranging from three to ten meters in height.



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INCORPORATED**
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Vancouver, B.C.
V6C 1T2
VSE Symbol: NMG
(604) 683-9338



CAC 4
205121
7511
SHX4V

CAC 3
205123
7540
SHX4C

CAC 5
205125
7512
SGX4V

52°50'00"N

121°30'00"W

CAC 1
204756
4966
SHX4F

DENNO
207265
10912
SHX4E

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204123
065
41004

CASCA 1
204351
2001
SHX4F

CASCA 3
204363
2031
4HX4V

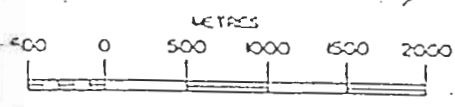
CASCA 2
204352
2005
4HX4V

D.D. 2
204105
1112
25424

CASCA 4
204364
2002
4SA4V

CASCA 5
204365
2001
4SA4V

DIAMOND DRILL PROGRAM
J 1 AND NMG 29



121°30'00"W

52°45'00"N

MAP BY: Promap Drafting Ltd.
NTS GRID: 093A13E/14W
MINING DIV: Cariboo
SCALE: 1:50,000
DATE: 5 May 1994

FIG. No:

1.4 Property and Claim Status

The Mineral claims and placer leases making up the Cariboo Gold Property (Figure 2) are owned by Noble Metal Group Incorporated, 801 – 409 Granville Street, Vancouver, B.C. V6C 1T2. The mineral claims are located in the Cariboo Mining Division and consist of 15 four post claims covering 240 units and 40 two post claims for a total of 280 units. The claims upon which the work from this program is being filed are listed below in Table I.

Table I

Claim	Units	Mining Division	Tenure No.	Expiry Date
J1	20	Cariboo	204123	12/10/2002
NMG	29	Cariboo	320327	9/8/2001

1.5 Area and Property History

The Cariboo region of British Columbia is very famous for the gold rush that began in 1860. Placer mining has continued throughout the Barkerville-Likely area from 1860 to present.

Prospecting for hard rock deposits started shortly after the Cariboo gold rush began. The three most significant gold producers have been the Mosquito Creek, Island Mountain and Cariboo Gold Quartz mines near Wells. Mining began in 1935 and has continued to the present with a few periods of inactivity. Production from the three mines has been in the order of 1.3 million ounces of gold.

Placer gold was discovered on Keithley Creek in 1860, and significant production occurred for the next few decades. Placer gold was also discovered on Snowshoe, Little Snowshoe and French Snowshoe Creeks in 1860. Approximately \$6 million in gold has been reported from Keithley Creek but the actual gold produced is probably much higher.

Prospecting for the lode gold deposits began shortly after the discovery of the placer gold on Keithley Creek in 1860. This resulted in the discovery of gold bearing quartz veins on the right bank of Little Snowshoe Creek in December of 1862. Additional discoveries were made in the area over the next year. These included the Douglas vein at the head of Luce Creek in April of 1863 and the showing upon which the Steele and Cunningham tunnel was driven in June of 1863.

In August, 1864, the first claims were located on Yank's Peak by Thomas Haywood and Associates. Additional discoveries were made around Yank's Peak over the next few years and Yank's Peak became the most prominent location for lode gold deposits in the Keithley Creek – Snowshoe Creek area. The recorded lode gold production from Yank's Peak is 5,204 ounces.

Intermittent exploration activity has taken place in the Keithley Creek area from the 1860's to present.

Noble Metal Group Incorporated and its predecessor company Cascadia Mines and Resources Ltd. have been carrying out exploration for both placer and lode gold deposits since 1979. The work carried out on the hardrock claims includes grid preparation, soil geochemical surveying, magnetic and electromagnetic surveying, induced polarization surveying and diamond drilling.

During the 1996 field season induced polarization, resistivity surveys and magnetic surveys were carried out by Pacific Geophysical Limited over part of the property defining new anomalous IP and magnetic zones, and extending known zones.

A four hole diamond drill program totaling 923 meters was carried out to test some of the anomalous zones.

2.0 GEOLOGY AND MINERALIZATION

2.1 Regional Geology

The Cariboo gold mining district is divided into four tectonically and stratigraphically unique terrains. The rocks of the four terrains range in age from Proterozoic to Jurassic and were deposited into an ocean environment. From east to west the terrains are Cariboo (continental shelf clastics and carbonates, Barkerville (continental shelf and slope clastics, carbonates and volcanoclastics), Slide Mountain (rift floor pillowed basalt and chert) and Quesnel (island arc volcanoclastics and fine grained clastics).

The Cariboo Terrain is of Precambrian to Permo Triassic age and is in fault contact with the western margin of the Precambrian North American Crater along the Rocky Mountain Trench. It can be divided into two successions, one Cambrian and older and the other Ordovician to Permo-Triassic. The older succession consists of grit, limestone, sandstone and shale and is unconformably overlain by the younger succession of basinal shale, dolostone, wacke, limestone and basalt.

The Barkerville Terrain consists of Precambrian and Paleozoic rocks ranging in composition from grit, quartzite, and black and green pelite to lesser limestone and volcanoclastic rocks. The contact between the Barkerville and Cariboo terrains is the northwest trending, east dipping Pleasant Valley Thrust.

The Barkerville and Cariboo terrains are overthrust (Pundata Thrust) by the Slide Mountain Terrain. The Slide Mountain Terrain consist of Mississippian to Permian basalt, in part pillowed, and chert pelite sequences intruded by diorite, gabbro and minor ultramafic rocks.

The Quesnel Terrain lies west of the Slide Mountain Terrain and consists of Upper Triassic and Lower Jurassic black shale and volcanoclastic greenstone.

2.2 Claim Geology

The rocks in the vicinity of Yank's Peak belong to the Barkerville Terrain and have been named the Snowshoe Group by Struik (1988). Struik has further divided the sedimentary and volcanic rocks of the Snowshoe Group into fourteen informal subdivisions, Ramos, Tregillus, Kee Khan, Keithley, Harvey's Ridge, Goose Peak, Agnes, Downey, Eaglenest, Bralco, Hardscrabble, unnamed carbonate, Island Mountain, and Tom. Igneous intrusions of the terrain consist mainly of diorite and gabbro sills with less quartz porphyry rhyolite. All rocks have been regionally metamorphosed to low and middle greenschist facies.

Table II summarizes the composition of each group, as well as the estimated thickness (from Struik, 1988).

Island Mountain Amphibolite (<150m)	Amphibolite, tuff siliceous mylonite
Hardscrabble Mountain (≤150m)	Black sulfide, argillite and muddy granule conglomerate
Bralco (<100m)	Grey limestone, locally pelletal, commonly marble, includes undifferentiated phyllite.
Eaglenest (≥150m)	Grey and olive micaceous feldspathic, poorly sorted quartzite and phyllite
Downey (≥150m)	Olive-grey micaceous feldspathic, poorly sorted quartzite and phyllite, marble, metabasaltic volcanoclastics
Agnes (<60m)	Light grey conglomerate in part with calcareous matrix
Goose Peak (<250m)	Light grey, poorly sorted quartzite, phyllite, minor black sulfide
Harvey's Ridge (<300m)	Black micaceous, poorly sorted quartzite, sulfide and phyllite, minor muddy conglomerate, limestone and basaltic metavolcanics
Keithley (<300m)	Light grey quartzite, olive micaceous, poorly sorted quartzite, sulfide and phyllite
Kee Khan (<75m)	Marble, olive phyllite, sandy marble
Tregillus (>400m)	Olive-grey micaceous, poorly sorted feldspathic quartzite and phyllite, conglomerate
Ramos (>300m)	Olive micaceous poorly sorted feldspathic quartzite and phyllite, black sulfide and phyllite, amphibolite, marble, minor basaltic and felsic volcanoclastics
Tom (<175m)	Olive-grey micaceous poorly sorted feldspathic quartzite, phyllite and schist; quartzose mylonite

2.3 Snowshoe Group Geology

The successions range in age from Hadrynian (Ramos through Keithley) to Paleozoic (Harvey's Ridge through Bralco) and Upper Paleozoic (Hardscrabble Mountain and Island Mountain Amphibolite).

The claims of the Cariboo Gold Property are underlain by rocks of the Ramos succession of which interbedded quartzite and phyllite are the most abundant. The age of the Ramos succession is believed to be Hadrynian.

The quartzite is olive to grey on fresh surfaces, is poorly sorted and generally medium to coarse grained. The quartz clasts are predominantly glass clear and grey with minor blue. The quartzite is usually micaceous and sericite, epidote, muscovite, chlorite and biotite occur along foliations. Some sections of the quartzite are weakly calcareous.

The phyllite varies from olive, grey to black with chlorite and accessory pyrite, and pyrrhotite. There is often rhythmic banding within the phyllite and contacts between the quartzite and pelite are sharp.

The main structure in the area is the Keithley Creek Thrust that runs from Shoal's Bay on Quesnel Lake north-west up Keithley Creek and crosses Lightning Creek in the Wingdam area. A north-south fault that may be a continuation of the Antler Fault continues from the southern end of Bowron Lake southwards to Snowshoe Creek, and the lower portion of Rabbit Creek, towards the Keithley Creek Thrust.

A study of the current diamond drill data, combined with results of thin section analysis confirms that the area of exploration is more complex than originally thought.

The quartzites, phyllites and greywackes are intruded by dioritic rocks and several zones of ultramafic and altered ultramafic rocks.

Mineralization is related to a hydrothermal system with gold possibly associated with the diorites and nickel, chromium, platinum group minerals as well as rare metals such as vanadium and strontium, related to the ultramafics.

The ultramafic zones are considered to emanate from a singular magmatic mass at depth.

2.4 Metallogeny of Ultramafic — Mafic Rocks in British Columbia

Chromite

Chromium is classed as a strategic metal since it is indispensable for many industrial purposes. Canada currently has no domestic production and supply is dominated by a few countries.

Chromite Deposit Model

Economic concentrations of chromite occur in two principal geologic environments: large ultramafic - mafic stratiform intrusions (e.g.: Bushveld, South Africa) and Alpine type peridotites. The stratiform chromites account for over 90% of the world chromite reserves. However, Alpine-type or podiform chromites currently comprise more than half of world production and have accounted for some 57% of all chromite produced. These ores are the sole source of high-grade metallurgical chrome and are important from an exploration point of view.

Phanerozoic podiform chromitites are the most viable exploration target in the Cordillera. They are hosted by the so-called Alpine-type ultramafic complexes of orogenic belts, the majority of which represent tectonically emplaced ophiolite slivers. The term "Alpine-type" is retained for intensely deformed and serpentized ultramafic bodies of questionable origin.

The structural and stratigraphic characteristics of podiform chromites are forged by processes at spreading centers in oceanic or back arc basins.

Chromite concentrations may be generated as partial melting residues or accumulations of crystals in relatively shallow magma chambers that migrate away from the ridge crest during the generation of ocean lithosphere.

2.5 Variance in Local Placer Gold Fineness

Reasons for significant differences in fineness of lode golds from the same vein or from different veins are not apparent from information available in the area. No explanation is apparent for the low fineness of placer gold from French Snowshoe Creek nor for the high fineness of placer gold from Keithley Creek.

The significance of the presence or absence of some of the trace elements is not fully known. The only consistent generalization is that all golds, both lode and placer, contain mercury and copper. The significance of the content of gold is not apparent, nor is that of titanium and chromium. The placer gold from French Snowshoe Creek has significant amounts of chromium which cannot have been introduced by contamination.

2.6 Mineralization

The Barkerville Terrain hosts the principal gold occurrences of the Cariboo area. These include the Mosquito Creek, Island Mountain, Cariboo Gold Quartz and Cariboo Hudson mines and the Snowshoe and Midas veins. Deposits of less economic importance include those of silver, tungsten, lead, zinc and copper.

The gold ore at the Mosquito Creek, Island Mountain and Cariboo Gold Quartz mines in the Cariboo Gold Belt occurs (1) auriferous pyrite in quartz veins and (2) stratabound, massive auriferous pyrite lenses, termed "replacement ore".

The location of the gold deposits correlates with elements of (1) stratigraphy, (2) structure and (3) metamorphism.

1. **Stratigraphic Controls:** Lode gold deposits are almost entirely confined to the Paleozoic section of the Snowshoe group. In the Keithley Creek-Snowshoe Creek area, the Paleozoic Harvey's Ridge succession contains a high density of auriferous quartz veins.
2. **Structural Controls:** The auriferous replacement pyrite in limestone lenses is located in the hinge zones and less commonly along the limbs of regional and minor folds. Orientation of quartz veins is in part controlled by the regional fault and fracture pattern.
3. **Metamorphic Controls:** Lode gold concentrations are confined to rocks in the chlorite grade of metamorphism. The auriferous quartz veins in the Yank's Peak area vary greatly in dimension, ranging in width from a few inches to tens of feet and in length from a few tens of feet to greater than 1000 feet. They can be grouped into three types based on their strike, northerly, northeasterly and easterly striking. The vein quartz is usually milky white in appearance and massive or slightly fractured with small crystal lined vugs. Ankerite is a common gangue mineral. The quartz is sparsely to moderately mineralized with sulphides. The highest gold values appear to be associated with the highest concentrations of pyrite. Gold assays are highly variable, ranging from nil to 2 ounces gold per ton or more.

Gold is present in the placer deposits tested by Noble Metal Group Incorporated as both bench gravels of Keithley Creek and buried gulch-type channels from Snowshoe Creek, and preparations are being made for processing of gravels in 1997.

The placer gravels are present to the south and southwest of the area being tested for lode gold mineralization. The gold in the placer gravels occurs from a source north and northeast of the placer operation.

Mineralization consisting of pyrite, chalcopyrite, pyrrhotite, pentlandite, magnetic and ilmenite are identified in varying concentrations throughout the drill core.

2.7 Assays

Fire assaying and I.C.P. analysis carried out by Loring Laboratories of Calgary show anomalous gold values as high as 0.07 oz/ton, nickel values up to .08% and chromium values up to .16%

Twenty-four samples were sent for neutron activation. Chromium values as high as 1900 ppm were encountered in sample 91237 from the ultramafics.

Nickel values as high as 960 ppm were encountered in sample 91239.

Platinum values of 100 ppb were encountered in sample 96893 with an average background of 30 ppb.

Fire Assay, I.C.P. and neutron activation analysis have confirmed the presence of gold associated with quartz vein structures related to a hydrothermal system, and nickel, chromium, vanadium, strontium and platinum group minerals associated with intrusive ultramafic and altered ultramafic zones related to a magmatic mass at depth.

3.0 DIAMOND DRILLING

The 1996 diamond drill program consisted of four thin walled BQ diamond drill holes totaling 3,029 feet (923.4 m). The drill hole locations are shown on Figure 3, the drill logs are listed in Appendix II. The core is stored at the Noble Metal Group Incorporated camp at Keithley Creek.

Core recovery was good ranging from 90% to 95%.

A summary of pertinent drill data is listed below in Table III.

Table III

Drill Hole No.	Coordinate	Bearing Degrees Az.	Inclination Degrees	Depth m	Elevation
96-1	L0+00, 110W	060° Az	- 65 °	260.4m	1300m
96-2	L3+00, 785W	065° Az	-50 °	204.8m	1280m
96-3	L500N, 660E	070° Az	-60 °	293.6m	1320m
96-4	L11+00N 400W	265° Az	-55 °	164.6m	1335m

Drill holes 96-1, 96-2, 96-3 were drilled to test highly anomalous IP values with lower than normal resistivity. Drill hole 96-3 had a correlating strong magnetic anomaly. Drill hole 96-4 tested a low IP anomaly.

All four drill holes intersected variable thicknesses of interbedded quartzites and green to black phyllites intruded by occasional dioritic dikes, quartz-feldspar porphyry and altered ultramafic sections.

Numerous intersections of weak to strong sulphide enrichment were intersected throughout the drill core. Sulphides consisted of pyrrhotite and pyrite on chloritic and graphitic lamella and shear planes, and disseminations.

Pyrite filled micro fractures crosscut the quartzites and phyllites in many sections of the core which may be pressure injection of sulphides from a recent hydrothermal episode. Sulphides also occur in quartz veins and veinlets.

Sections of altered ultramafic rocks were intersected in holes 1 to 4 with thicknesses varying from approximately 0.5 to 7 meters. Anomalous chromium, nickel, strontium and vanadium assay values were present as well as trace to anomalous platinum group elements.

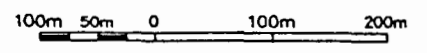
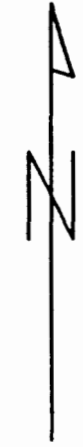
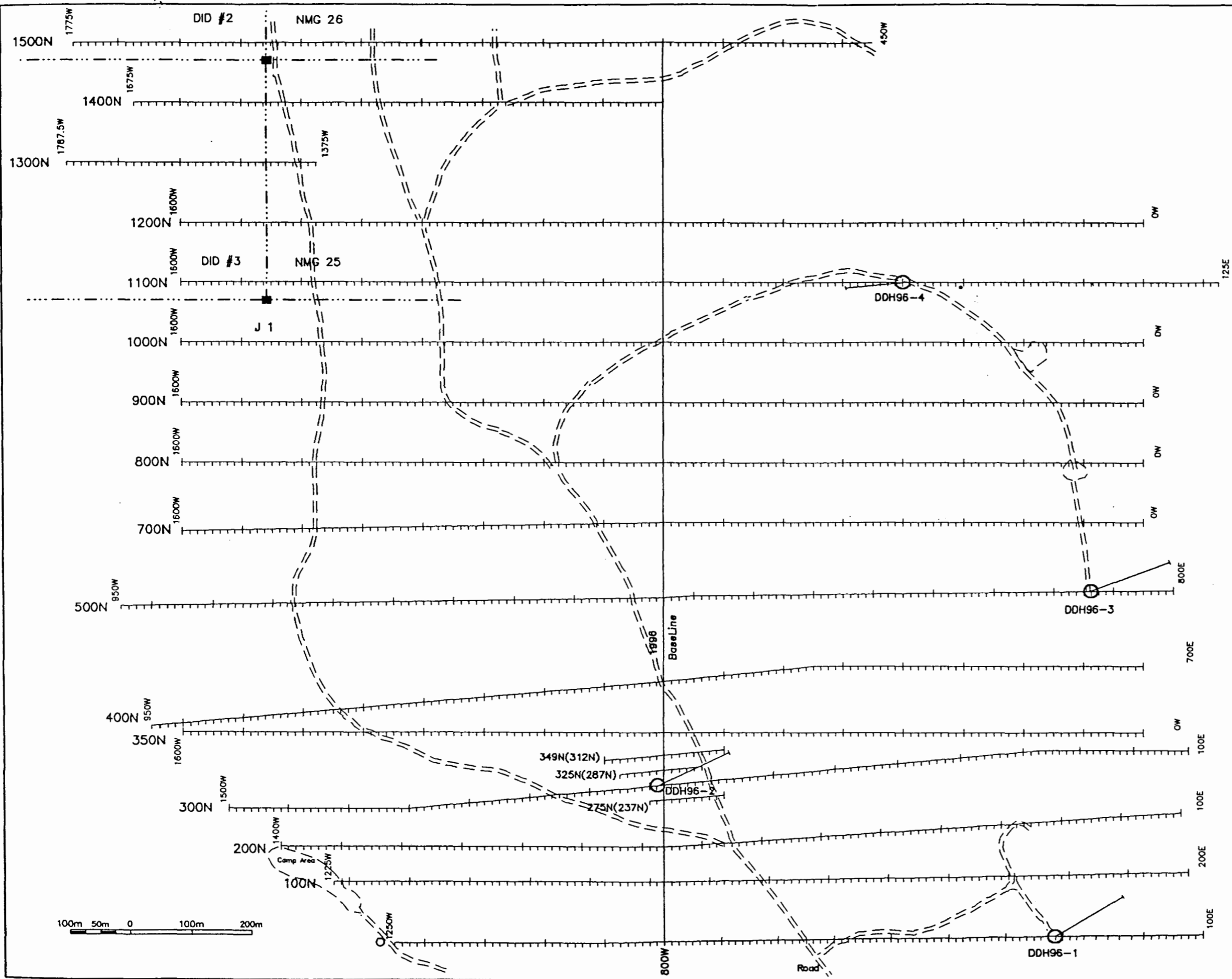
The altered ultramafics for the most part have been completely metamorphosed to an apple green, fine-grained matrix with black augen-like elipsoidal fine grained black phenocrysts at varying aligned orientations becoming mylonatized in parts.

Contorted micro folding was observed to be related to pressure injection of the ultramafic sills and other igneous intrusions. Phyllite xenoliths are incorporated

into the ultramafic matrix in sections. Many blue grey quartz veins and clots were encountered throughout the core defining a major hydrothermal event. The altered ultramafics contain minimal quartz and fractures.

It is postulated that the ultramafic sill-like zones emanate from a magmatic mass at depth, with the fault structures providing the necessary conduits.

Current information supports the theory that source rocks for the emplacement of gold mineralization and platinum group minerals, nickel and chromium are further to the north of the recent drill program.



NOBLE METAL GROUP INC.	
DIAMOND DRILL LOCATION MAP Cariboo Mineral Property Cariboo M.D., British Columbia	
Scale: 1:5,000	Date : June-Sept. 1996
Survey By : PAC	
NTS: 93A/13E/14W	File : c:\data\cariboo\ddhlocn\m96.vec
Pacific Geophysical	

4.0 CONCLUSIONS

The 1996 diamond drill program was successful in detecting the presence of at least two sulphidic enrichment episodes related to hydrothermal activity as a result of magmatic intrusion.

Anomalous values in gold up to .07 oz/ton, nickel up to 1.0%, chromium up to 0.19%, as well as anomalous values in strontium and vanadium and the presence of platinum group elements are confirmed.

Diamond drilling intersected quartzites, phyllites and greywackes intruded by dioritic rocks and zones of ultramafic and altered ultramafic rocks emanating from a magmatic mass at depth. Sulphides of pyrite, pyrrhotite and chalcopyrite were intersected as well as hematite, magnetite and pentlandite.

Several induced polarization and resistivity anomalies remain to be tested and, in view of the results to date, having confirmed encouraging values in gold, nickel, chromium, strontium, vanadium, platinum group and other metals related to hydrothermal events, further exploration of the property to delineate the source rocks of gold and of the nickel, chromium, platinum group mineralization is fully warranted and recommended.

An exploration program consisting of airborne electromagnetic, magnetometer and radiometric surveys over the entire property, followed by geological mapping, prospecting and diamond drilling of anomalous areas is recommended.

The diamond drilling may require some deep holes to penetrate the ultramafic magmatic intrusion.

Neutron activation analysis of twenty-four samples has indicated the presence of scandium, hafnium, tantalum, rubidium and samarium. The economic value and mineralogical associations of these elements can be further examined as part of the ongoing exploration programs.

Respectfully submitted,



Bruce C. Schell, B.Sc. Geo.
Schell Consulting

January 6, 1997

5.0 REFERENCES

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6.0 STATEMENT OF EXPENDITURES

Cariboo Mineral Claims Continuation of Diamond Drill Program Following
Event 3095732 and Misc. Doc. 3087926

Mob and demob	\$ 2,000.00
Drill Holes 96-1, 96-2, 96-3, 96-4 June 12 to October 7, 1996 Total footage 3,029 feet (923m)	46,900.00
Drill site Reclamation	1,500.00
Onsite Geologist	18,421.50
Assistant and Core Cutter	5,300.00
Supervising Geologist, 20 days @ \$300/day	6,000.00
Meals and Accommodation	
Geologist and assistant, 80 days @ \$75/day x 2	12,000.00
Drillers, 80 days @ \$75/day x 2	12,000.00
Supervisor, 20 days @ \$75/day	1,500.00
Assaying – Loring Laboratories	27,068.60
Neutron Activation – Bondar-Clegg	1,800.00
Truck Rental 600.00	
Field and Supplies	<u>500.00</u>
Total Exploration Expenditure	\$ <u><u>136,831.77</u></u>

7.0

CERTIFICATE OF QUALIFICATIONS

I, William G. Timmins, of the City of Vancouver, in the Province of British Columbia, do hereby certify that:

1. I am a consulting geologist, with offices at 407 – 455 Granville Street, Vancouver, British Columbia;
2. I have been practising my profession for the past 35 years, having been engaged in evaluation, exploration and development of mineral properties throughout Canada, the United States, Latin and South America, Australia and New Zealand. The projects focused mainly on gold, silver and base metals.
3. I am a registered Professional Engineer in the Province of British Columbia since 1969.
4. This report is based upon onsite core logging, sampling and drill related duties performed by Bruce Schell, B.Sc., field geologist under my supervision during June to October, 1996.
5. I have no interest, nor do I expect to receive any interest in the property or securities of Noble Metal Group Incorporated.

January 6, 1997

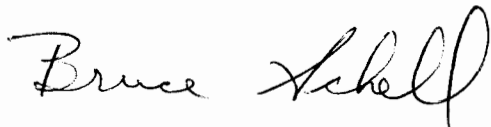


CERTIFICATE OF QUALIFICATIONS

I, Bruce C. Schell, of 3710 Signal Hill Road, Pender Island, in the Province of British Columbia, Canada, VON 2M2 do certify that:

1. I am a graduate (1978) of Brock University with a Bachelor of Science degree (B.Sc.) from the Faculty of Science having completed the major program in geology;
2. I have practised my profession as a geologist for over 15 years, and since 1980, I have been practising as a consulting geologist and, in this capacity, have examined and reported on numerous mineral properties in North America;
3. I have not received, directly or indirectly, nor do I expect to receive, any interest, direct or indirect, in the properties of Noble Metal Group Incorporated or any affiliate thereof, nor do I beneficially own, directly or indirectly, any securities of Noble Metal Group Incorporated or any affiliate thereof.

Respectfully submitted,



Bruce C. Schell, B.Sc. Geo.
Schell Consulting

January 6, 1997

Appendix I

Diamond Drill Logs

DDH 96-1

- 3.66-4.42 Quartzite, medium grained light grey with blue grey clots and occasional blue augens, slightly oxidized with occasional FeO
- 4.42-7.5 Quartzite, fine to medium grained, medium grey with remnant bedding planes at 5°, highly siliceous, with minor fractures, quartz filled, slightly calcareous.
- 7.5-7.62 Phyllite, very fine grained, dark grey, with folded laminations, chloritic shear planes at 5°.
- 7.62-10.33 Quartzite, fine to medium grained, minor quartz filled fractures, sheared at 8.7m with slickenside, voids, porosity at 10.2m with solution quartz, FeO
- 10.33-10.36 Phyllite, very fine grained, dark grey, lacy folding, with minor blue grey quartz veins
- 10.36-10.82 Quartzite, medium grained, medium grey with mafic grains and occasional blue quartz augens to 0.5 cm.
- 10.82-18.59 Phyllite, fine to medium grained, black to medium grey, interbedded, with numerous quartz clots, and folded blue grey quartz veins to 2 cm at 14.33m, moderately calcareous, occasional shears with sericite, calcareous in part
- 18.59-26.82 Quartzite, fine to medium grained, medium grey, interbedded with occasional phyllite sections to 2 cm at 40°, moderately calcareous, occasional quartz clots to 3 cm white to buff occasional coarse grained quartzite with 10% black quartz clots to 0.5 cm
- 26.82-31.09. Quartzite, medium grained, medium grey to green, interbedded with phyllite with chevron folding, chlorite shear planes at 40°, occasional quartz clots with FeO in fractures with trace pyrite.
- 31.09-33.19 Phyllite, very fine grained, black to medium green with pyrite filled fractures with pyrrhotite on graphitic shear planes at 40°, minor quartz filled fractures, interbedded with greywacke, fine grained with micro fractures, pyrite filled at 32m.
- 33.19-53.3 Quartzite, fine to medium grained, medium grey interbedded with phyllite and occasional coarse grained quartzite (34.44m), minor white quartz filled fractures, chloritic shear planes at 40°. Fractured zone 42.15-42.49m, trace pyrite, pyrrhotite disks on chloritic shear planes (45.35m)

- 53.3-60.08 Altered ultramafic, coarse grained, medium green with black phenocrysts stretched (mafics) at 40° - grading to medium grained wacke textured with occasional quartz filled fractures at 40°
- 60.08-64.22 Quartzite, coarse to fine grained, medium olive green, moderately fractured with quartz fill with coarse grained quartzite sections at 62.78-63.09m. Quartz clots blue grey at 63.97m brecciated quartz filled with FeO, pyrrhotite disks on fractures to 1 cm, and trace pyrite shear planes at 40° and 60°, chlorite sericite, pyrrhotite on shears
- 64.22-65.71 Phyllite, very fine grained, black, moderately fractured with occasional quartz clots with blue grey quartz filled fractures, chloritic shear planes at 40°, pyrrhotite, pyrite on shear planes, sericite, FeO Au 90 ppb at 63.5m (quartz clots)
- 65.17-70.01 Altered ultramafic, coarse grained, green, with black phenocrysts stretched (mafics) at 0 ° occasional quartz filled fractures to 1 cm.
- 70.01-73.61 Greywacke, fine grained, dark grey with interbedded phyllite bands, shear planes at 10° occasional quartz filled fractures and clots, sheared fractures with FeO, pyrrhotite, pyrite at 71.29m, 72.85m with solution cavities, calcareous in part
- 73.61-75.5 Altered ultramafic, coarse grained, dark to light green mottled with stretched black mafics phenocrysts mylonitic in part grading to greywacke at 74.68m with large solution cavities 3 cm, with porosity and fractured voids with FeO, trace pyrite at 75.13m.
- 75.5-81.9 Quartzite, fine to medium grained medium grey interbedded with phyllite with occasional fractured voids with FeO, occasional quartz filled fractures to 2 cm.
- 81.9-88.7 Quartzite, fine to medium grained, medium blue grey to olive green interbedded with quartzite, very coarse grained, dark grey with blue quartz augens, occasional quartz filled fractures to 2 cm. Fractured voids with FeO, trace pyrite at 84.89m with quartz crystals
- 88.7-100.77 Quartzite, very coarse to medium grained, dark blue to dark green with blue quartz augens to 0.5 cm, minor fractures, tight
- 100.77-102.47 Phyllite, fine grained, black to dark green, contorta with ultramafic and blue grey quartz injection at (101.5m), chlorite shear planes at 20° and 60° , minor fractures with pyrite at (101.74m)

- 102.47-112.72 Quartzite, very coarse grained, dark blue grey to medium green, moderately fractured with quartz fill with folding at (111.25m), tight
- 112.72-123.44 Greywacke, fine grained interbedded with phyllite, minor fractures with white quartz fill to 1 cm at (121.62m) (contorta) at (120.4m) in phyllite, with calcite in pyrite filled fractures at (122.07m) graphitic shear planes at 20°.
- 123.44-131.22 Altered ultramafic, coarse grained, light green, with black phenocrysts stretched at 20° , moderately fractured with white quartz, calcite fill
- 131.22-139.9 Greywacke, fine grained, olive green, highly fractured, brecciated (135.64m) with white quartz fill , slightly calcareous in part, with 10 cm blue grey quartz clots at (136.25m) with pyrrhotite on fracture planes
- 139.9-141.7 Altered ultramafic, coarse grained, light green with black phenocrysts stretched at 10° with occasional micro fractures quartz filled with occasional blue grey quartz clots at (140.67m) becoming interbedded with phyllite at (141.12m) xenolithic
- 141.7-168.04 Quartzite, fine grained, olive green interbedded with phyllite (contorta) black to olive green, moderately fractured in part with white quartz filled veins to 1 cm with pyrite blebs to 1 cm at (150.27m) with pyrite and pyrrhotite disks on graphitic shear planes at (150.11m) at 20°
- 168.04-162.31 Quartzite, very coarse grained, medium grey to blue, with white and blue quartz augens to 1 cm with minor fractures with pyrrhotite disks to 1 cm on fracture planes (158.65m) slightly calcareous quartz filled vein at (161.54m)
- 162.31-175.41 Quartzite, medium to coarse grained, dark grey to olive green, with occasional phyllite sections with pyrite blebs to 0.5 cm at (173.28m) minor fractures in part with white quartz and calcite fill, stretched blue quartz augens at (175.26m) becoming mylonitic
- 175.41-194.92 Quartzite, fine grained, dark olive green, interbedded with phyllite, black to olive green, moderately fractured with white quartz filled veins to 2 cm with occasional white quartz clots to 4 cm, chlorite shear planes at 20° , moderately calcareous in part at (194.77m), contorta with ultramafic injection at (192.63-193.24m)
- 194.92-201.23 Quartzite, very coarse to medium grained, medium grey to olive green with white quartz augens to 1 cm with minor fractures with quartz fill, brecciated in part (195.56m) with occasional graphitic

	phyllites sections with abundant pyrite filled micro fractures (202.54) moderately fractured with white quartz clots and veins
201.23-212.75	Phyllite, fine grained, black to dark grey green, highly fractured with quartz fill, with blue grey quartz clots, very graphitic in parts with abundant pyrite in micro fractures and foliations, calcareous in part with shear planes at 40°, interbedded with greywacke sections, fine grained
212.75-213.82	Altered ultramafic, very fine grained, light green, talcy, bleached
213.82-224.97	Phyllite, black to dark grey green, highly fractured with quartz fill, with blue grey quartz clots, graphitic in part with occasional pyrite in micro fractures, calcareous in part with graphitic shear planes at 40°, interbedded with greywacke sections, fine grained
224.97-234.09	Ultramafic, medium grained, light green, with minor fractures quartz filled at 40° with grey quartz clots at (239.93m)
234.09-258.23	Quartzite, fine to medium grained, light grey with occasional phyllite sections showing contorta (239.42m) with chloritic shear planes at 20° with occasional pyrite and pyrrhotite disks to 4 mm at (236.37m) and (245.94m)
258.23-260.3	Quartzite, very coarse grained, dark blue, with quartz augens to 1 cm, moderately fractured with pyrite fill at 258.32m, occasional blue grey quartz clots
	End hole
DDH 96-2	
0-11.28	Phyllite, oxidized light green to black, highly fractured trace pyrite
11.28-23.93	Phyllite, green to black highly deformed with numerous chlorite shear planes and scattered quartz clots.
23.93-42.52	Quartzite, medium green to medium grey to light green minor fractures, quartz filled with chlorite
42.52-51.97	Phyllite, fine grained, dark grey to black with numerous chloritic shear planes, with solution quartz (48.46m)
51.97-64.22	Quartzite, medium grained interbedded with black chlorite shear planes at 55° occasional pyrite stringers in black chlorite, pyrrhotite on laminations with occasional calcite with FeO

- 64.22-72.85 Phyllite, fine grained, dark grey to black, foliations at 60°, blue grey quartz clots to 10 cm minor fractures with fine grained pyrite filled micro fractures at 65.38m, pyrite at 72.24m, occasional pyrrhotite on chloritic shear planes
- 72.85-75.29 Quartzite, very fine to medium grained, medium green to grey with occasional chloritic bands to 1 cm at 10° with occasional shear planes, with quartz fill at 60° at (65.38m) with occasional blue black quartz veins at 40° at (75.1m). Mafic clasts becoming stretched at 40°.
- 75.29-81.99 Diorite, intrusive (thin section at contact 78.49m), medium grained, medium green with black and white speckle, interbedded with light olive green (79.25-80.44m), very fine grained, brecciated in part at 77.1m with occasional white to blue quartz clots with quartz filled fractured shear planes at 60°, pyrrhotite disks on chloritic shear planes at (78.64m)
- 81.99-85.47 Quartzite, medium grained, medium green grey with occasional chloritic bands to 1 cm at 10° with occasional shear planes, with white quartz fill, at 60°
- 85.47-86.32 Phyllite, contorta light green to black, with blue grey quartz injection at (85,47m 86,32m) to 2 cm with occasional quartz clots to 30 cm.
- 86.32-88.79 Altered ultramafic, coarse grained, green with white to black mottle (mylonitic) shear planes at 5°, occasional blue grey quartz vein 2 cm, talcy.
- 88.79-98.45 Greywacke interbedded with phyllite medium to fine grained dark grey to medium green, moderately fractured with quartz fill occasional white quartz clots, highly sheared and broken with minor pyrrhotite on chloritic shear planes, talcy in part.
- 98.45-109.64 Quartzite, fine to medium grained, medium grey to green, moderately fractured with quartz fill (cream) at 60° becoming argillaceous (107.29m) with blue grey quartz clots shear planes at 40° (contorta at 109.27m)
- 109.64-110.64 Altered ultramafic, coarse grained, light green with mafic phenocrysts stretched, at 40°
- 110.64-121.01 Interbedded fine grained greywacke, phyllite, with medium grained quartzite, medium green to grey moderately fractured with occasional blue quartz clots pyrite and pyrrhotite on fracture planes at (111.04, 112.47, 118.87m) slightly calcareous in part

- 121.01-129.84 Quartzite, fine to coarse grained, blue grey to green with fracture faulting at (128.47-125.58m) (128.47-125.58m), minor fractures, quartz filled with occasional argillaceous bands to 1 cm.
- 129.84-137.16 Quartzite, fine medium grained, medium grey green, moderately fractured with quartz fill interbedded with phyllite sections to 10 cm, shear planes at 5° with occasional blue grey quartz clots, pyrrhotite on chloritic shears at 50° (135.27m)
- 137.16-141.58 Greywacke, interbedded with phyllite, fine grained, medium grey, black with minor fractures quartz filled, phyllite gouge at (137.16-137.62m)
- 141.58-144.75 Quartzite very, coarse grained, dark blue grey to medium grey green, tight.
- 144.75-147.65 Greywacke, fine grained, dark grey with chloritic shear planes at 10° becoming very fractured (fault) with occasional blue grey quartz clots, minor quartz fill fractures, gouge (147.22-147.65m)
- * Bit sheared
- 147.65-159.56 Quartzite, medium to coarse grained, dark grey to grey green, minor fractures with blue grey quartz fill, occasional quartz veins to 2 cm with pyrrhotite, pyrite (153.38m)
- 159.56-161.73 Greywacke interbedded with Phyllite fine grained, medium grey - black, shear planes at 5°, occasional blue grey quartz clots, pyrrhotite on chloritic shear planes calcareous in part micro fractures with pyrite fill at (161.51m).
- 161.73-170.99 Quartzite, medium grained, dark grey interbedded with phyllite, micro fractures with occasional blue grey quartz, pyrrhotite on chloritic shear planes at 40°, stylonite at 165.51m. Foliation developing (165.2m) at 15 °
- 170.99-171.75 Quartzite, coarse grained, medium grey, fractured with quartz fill at 40° with blue grey quartz veins to 2 cm.
- 171.75-184.77 Quartzite, medium grained dark grey to green with foliation developing at 40°, with minor fractures with white quartz fill, occasional blue grey quartz clots, with chloritic shear planes at 40°, occasional argillaceous sections, very calcareous on quartz shear planes with pyrrhotite, pyrite at (175.63m) faulting at (177.39-178m)

- 184.77-192.63 Quartzite, medium to very coarse grained, medium grey green, interbedded with phyllite, foliated in part at 40°, quartz clots blue grey at (190.2m)
- 192.63-204.83 Quartzite interbedded with phyllite medium to coarse grained, minor fractures with quartz fill occasional pyrrhotite on argillaceous shear planes (198.73m) at 10°.
- End of Hole
- DDH 96-3**
- 3.35-14.84 Interbedded coarse grained quartzite and medium grained greyacke medium grey to green strongly oxidized FeO, with occasional blue grey quartz clots. Moderately fractured with quartz fill, very porous in part at (7.92m). Friable and fractured section to 1.52m with chloritic sections, calcareous in part.
- 14.84-24.93 Phyllite, dark black, very fine grained, moderately fractured with quartz carbonate fill, brecciated in part with cream to blue quartz fill, highly mineralized micro fractures with sulfide filled fractures to 1 cm pyrite throughout. 15-20% in part, moderately magnetic.
- 24.93-30.6 Greywacke, fine grained, medium grey to green with very calcareous white clots, moderately fractured in part with quartz fill. Moderately mineralized in part with pyrite fill. Becoming fractured (faulted) with argillaceous sections blue grey quartz clots (27.74m) with micro fractures, pyrite filled
- 30.6-33.28 Phyllite, very fine grained, black with pyrite filled fractures to 0.5 cm with calcite and quartz filled fractures at 90° foliation, pyrite blebs to 5% in parts at (31.39m), moderately magnetic.
- 33.28-37.16 Greywacke, fine to medium grained, medium grey to green, with argillaceous sections, moderately fractured with pyrite fill, very disseminated in part with pyrite blebs to 1 mm (32.61, 34.14m), minor quartz filled fractures, moderately magnetic.
- 37.16-48.92 Quartzite, fine grained, medium grey, moderately fractured in part with quartz fill, occasional argillaceous sections, with blue grey quartz clots with pyrite 2%, fault at (42.43-42.82m).
- 48.92-57.76 Interbedded phyllite with greywacke, very fine grained to fine grained, weakly fractured with quartz pyrite fill at 90° to foliation. with disseminated pyrite blebs to 3%. shear planes at 10°.

- 57.76-69.49 Quartzite, medium to coarse grained, medium grey to green with blue, white augens minor fractures quartz filled . FeO on fractures at (67.67-69.49m) shear planes at 60°
- 69.49-99.52 Greywacke, fine grained, dark grey to black, occasional quartz filled fractures, chloritic shear planes at 40°, black quartz clots at (69.49-69.96m), occasional quartzite sections, medium grained.
- 99.52-109.88 Quartzite, very coarse to medium grained, dark grey black, with clasts to 1 cm at (99.67m) minor fractures, quartz filled with occasional argillaceous sections..
- 109.88-113.93 Quartzite, interbedded with phyllite, very fine to medium grained, dark grey-black, minor fractures, very calcareous in part with minor pyrrhotite on argillaceous shear planes at 40° micro fractures with pyrite fill at (112.93, 116.28m) in phyllite.
- 113.93-116.13 Altered ultramafic medium grained, light green, with mafic phenocrysts, with blue grey quartz filled fractures to 2 cm, slightly magnetic, with very fine grained greywacke sections, medium grey with defined contacts (113.93, 116.28m) shear planes at 60°, moderately calcareous.
- 116.13-119.39 Quartzite, fine coarse grained, medium grey, with minor fractures, calcareous fill with argillaceous sections (117.5, 117.8m)
- 119.39-120.52 Diorite dike, medium grained, light green, speckled with mafics to 0.5 cm, minor fractures with calcareous fill.
- 120.52-123.9 Interbedded quartzite with phyllite, fine grained, medium green to grey with white bands at 0°, moderately calcareous, moderately fractured in part with calcareous argillaceous xenoliths to 3 cm
- 123.9-136.7 Quartzite, fine to coarse grained, dark grey, interbedded with occasional phyllite sections with contorta at (132.28m), minor fractures with pyrite, pyrrhotite disks to 2 cm, calcareous fractures with blue grey quartz clots with ultramafic injections at (135.03m) and phyllite xenoliths with pyrite filled micro fractures.
- 136.7-137.77 Quartzite, fine medium grained, dark grey with 10% medium grey clast, minor fractures with occasional quartz veins blue grey to 2 cm.
- 137.77-142.65 Phyllite, very fine grained, black to dark grey banding with occasional blue grey quartz vein, 1 cm, shear planes at 60° with abundant pyrrhotite disks on graphite shears. Well disseminated in part with abundant micro fractures with pyrite fill (140.51m).

- 142.65-144.17 Quartzite, fine to medium grained to medium grey interbedded with coarse grained quartzite sections with minor fractures, pyrite filled occasional blue grey quartz stringers to .5 cm.
- 144.17-147.28 Quartzite, fine to coarse grained, blue black with occasional phyllite bands, minor fractures.
- 147.28-164.96 Greywacke, interbedded with quartzite and phyllite, moderately fractured in part with micro fractures quartz filled with pyrite (156.24, 162.46m), pyrrhotite disks on fractured planes (157.55m).
- 164.96-170.69 Greywacke, interbedded with phyllite, fine to medium grained, black to dark grey, moderately to very fractured, with abundant pyrite in parts (165.51, 166.12, 167.03m) with shear planes at 40°, very calcareous in part with quartz calcite filled fractures to 1 cm (166.02m).
- 170.69-171.75 Altered ultramafic, coarse grained light green with black phenocrysts, slightly stretched at 10°, very calcareous with calcite filled fractures
- 171.75-193.55 Quartzite, fine coarse grained medium grey to green with occasional phyllite sections, moderately fractured in part with pyrite, occasional pyrrhotite disks to 2 cm (185.62m) black injection quartz with pyrite (195.83m).
- 193.55-198.79 Quartzite, very coarse to fine grained blue black to dark green with blue quartz augens at (197.36m) moderately fractured in part with quartz fill, calcareous in part with pyrite, pyrrhotite (194.31m) occasional shears at 40°.
- 198.79-210.19 Phyllite, (contorta), fine grained, black to green with minor fractures quartz filled, with occasional blue grey quartz clots, with ultramafic injection at (207.42m), chloritic shear planes at 20° with occasional pyrrhotite and calcite (204.89m).
- 210.19-223.75 Quartzite, fine to coarse grained, dark green to blue black with occasional phyllite sections moderately fractured in part with pyrite fill (219.21m), pyrrhotite disks to 2 cm in shear planes at 40° at(222.53m).
- 223.75-235.28 Quartzite fine to medium grained, medium grey green with occasional phyllite sections, minor fractures with quartz fill, occasional blue grey quartz clots, with graphitic shear planes at 50° with occasional pyrite, pyrrhotite disks on shear planes.
- 235.28-237.29 Altered ultramafic, coarse grained, light green with black phenocrysts, stretched at 10° with calcite filled stringers to 3 mm.

- 237.29-245.09 Graphitic phyllite, fine grained, black, moderately fractured with white calcite fill to 1 cm, with abundant pyrite in fractures (242.04m), very graphitic in part (241.55-242.32m) with shear planes at 40°, very friable.
- 245.09-248.2 Quartzite, medium grained, medium grey to green with occasional graphitic sections with abundant pyrite filled fractures (245.42m) with pyrrhotite on graphitic shear planes at 20°, minor fractures with quartz calcite fill
- 248.2-251.19 Altered ultramafic, coarse grained, light green with stretched brown phenocrysts, minor fractures with white quartz fill, very siliceous
- 251.19-258.53 Quartzite, fine to medium grained, medium grey, moderately fractured with quartz, calcite, pyrite filled fractures (255.57m) with occasional graphitic sections, shear planes at 20° brecciated in part, calcite with pyrite filled micro fractures (252.31m).
- 258.53-259.38 Quartz vein, intrusive quartz, fine grained, white to grey with pyrite filled fractures sheared at 50°
- 259.38-261.09 Diorite dike, medium green, medium grey with 40% mafics, minor fractures with disseminated pyrite, pyrrhotite and occasional quartz clots blue grey with pyrite fill fractures.
- 261.09-265.05 Graphitic phyllite, fine grained, black with (contorta), micro fractures with pyrite fill (262.13m), highly friable gouge (262.43-265.05m) shear planes at 20°
- 265.05-288.98 Quartzite, interbedded with phyllite, medium grained, medium grey green, minor fractures with quartz calcite fill with occasional pyrrhotite disks to 0.5 cm on quartz shears at 40° becoming (contorta) at (281.79m).
- 288.98-293.52 Quartzite, fine medium grained, light green, very siliceous, well fractured with quartz fill blue grey to buff, quartz veins with brecciation at (292.3m) with white and cream quartz fill, grading to ultramafic.

End Hole

DDH 96-4

- 0-7.89 Phyllite interbedded with coarse grained quartzite, highly sheared with medium grey to medium brown, with occasional blue grey quartz clots, brecciated in part with stretched quartz clasts at (5.94m) oxidized with FeO at (5.49m) with contorted

- laminations in phyllite, chloritic shear planes at 70° with gouge at (7.01-7.89m).
- 7.89-13.14 Quartzite, medium grained, dark grey, with occasional phyllite sections, highly fractured in part with calcite fill, with voids, and occasional FeO, chloritic shear planes at 70°.
- 13.14-24.02 Greywacke, medium to fine grained dark grey to medium green with occasional phyllite sections sheared and broken with occasional blue grey quartz filled fractures to 3 cm with contorted chloritic shear planes at 70°.
- 24.02-41.18 Quartzite, coarse grained, medium grey blue, sheared and broken, becoming mylonitic (28.04m) with foliations at 60 ° with stretched quartz clasts to (5 mm) with chloritic shear planes at 70°, moderately fractured with quartz fill , calcareous in part (40.09m)
- 41.18-43.95 Phyllite, fine grained, dark grey to black with fine grained greywacke sections with sheared and broken sections with FeO and trace pyrite at (43.43m) with occasional fractures with white quartz fill.
- 43.95-56.54 Quartzite, coarse to medium grained, medium grey to green, moderately fractured with quartz fill developing foliation in part (47.0m) with stretched quartz clasts with FeO in fractures, micro fractures with quartz fill at (55.81-56.54m).
- 56.54-60.62 Phyllite, fine grained, dark grey to black, highly sheared and fractured (contorta), slightly calcareous in part with occasional pyrite at (57.3m).
- 60.62-62.51 Quartzite, fine to medium grained, dark grey green, with minor fractures, quartz filled, slightly calcareous with occasional blue grey quartz clots, with chloritic shear planes at 40°.
- 62.51-66.9 Moderately altered ultramafic interbedded with a altered medium grained quartzite, medium to light green, contorta, developing foliations, moderately calcareous in part (65.38m), moderately fractured in part with calcite fill with blue grey quartz veins at (64.16m), brecciated in part.
- 66.9-71.17 Quartzite, fine to medium grained, black to dark grey, moderately fractured with quartz and calcite fill (68.28-68.73m) with occasional phyllite sections contorta fractured throughout.
- 71.17-71.66 Altered ultramafic, fine grained, medium grey with black stretched phenocrysts at 60°, very calcareous, with calcite smears on shear planes at 60°

- 71.66-86.75 Quartzite, coarse to fine grained, dark grey to olive green highly sheared at 65° with minor chlorite on fracture planes, graphitic in part with occasional white yellow quartz veins, occasional pyrite, pyrrhotite on fractured planes.
- 88.09-88.94 Quartzite, fine grained, light green with minor fractures, quartz filled, with minor foliation at 60° abundant calcite on chloritic shear planes at (80.83m).
- 88.09-88.94 Phyllite, interbedded with fine grained quartzite, black to olive green with chloritic shear planes at 65° with pyrrhotite with moderate contorta with abundant pyrite filled fractures at (88.54m)
- 88.94-93.76 Greywacke, fine grained, dark olive green, highly sheared with chloritic shear planes at 65° with occasional pyrrhotite on shears developing foliation at (92.66m) with minor fractures with white quartz fill, slightly calcareous in part.
- 93.76-95.86 Altered ultramafic coarse grained, light green with occasional white quartz calcite filled veins to 0.5 cm developing foliation at (94.06m) with blue grey quartz clots and calcite at (95.34m)
- 95.86-100.89 Quartzite, interbedded with phyllite fine grained, black to olive green with abundant blue grey quartz veins and clots. with occasional pyrrhotite and pyrite on chloritic shear planes at 60°, with pyrite stringers in quartz clots with phyllite contorta.
- 100.89-108.84 Greywacke interbedded with phyllite, moderately altered with contorta, grey to olive green, moderately fractured with blue grey quartz veins and graphitic shear planes with pyrrhotite and pyrite, occasional pyrite blebs to 0.5 cm at (105.61m), with white quartz veins to .5 cm, slightly calcareous in part.
- 108.84-110.37 Graphitic gouge with pyrite and calcite filled shear planes at 60°, very friable in part.
- 110.37-116.31 Quartzite, coarse grained, medium grey to blue, highly fractured in part with calcite veins to 1 cm, minor brecciation with calcite fill.
- 116.31-121.46 Altered ultramafic, coarse grained, medium grey to green with foliations at 60° with calcite filled fractures with minor blue grey quartz clots, very calcareous throughout
- 121/46-144.72 Highly altered graphitic phyllite interbedded with highly altered quartzite, fine grained, black to dark grey, very graphitic in parts moderately sheared with shear planes at 50°, moderately

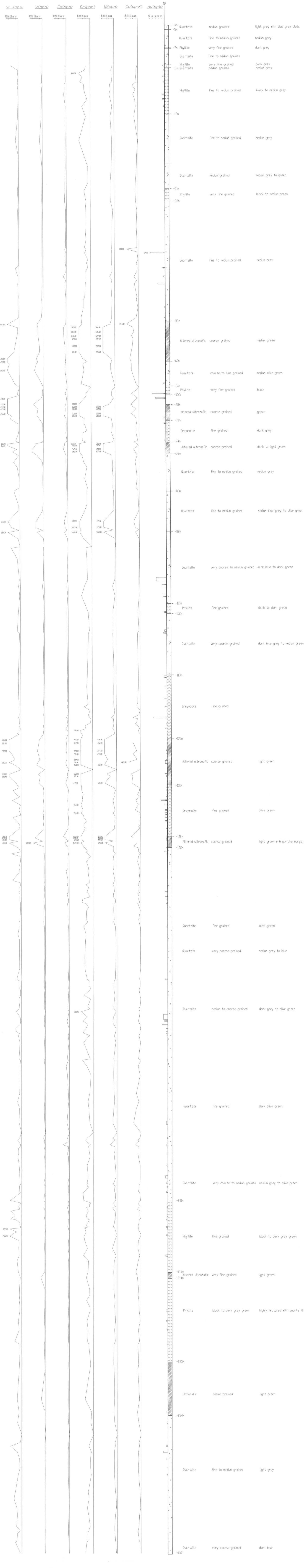
fractured with calcite filled veins to 0.5 cm and abundant pyrite filled fractures to 1.3 cm at 134.87m with disseminated blebs of pyrite throughout. Graphitic phyllite showing contorta. Abundant pyrite, pyrrhotite on graphitic shear planes at 137.01m. Occasional blue grey quartz clots, graphitic gouge from 138.84-139.63m.

- 144.72-148.35 Quartzite, fine to medium grained dark grey to olive green interbedded with graphitic phyllite showing contorta with graphitic shear planes at 60° with abundant pyrite in fractures and foliations with abundant pyrrhotite on graphitic shear planes, calcite filled fractures at 146.03m.
- 153.86-154.96 Altered ultramafic, coarse grained, light green with stretched black phenocrysts at 80°, moderately fractured with calcite filled fractures to 1 cm, very calcareous throughout
- 154.96-156.67 Quartzite, fine grained, olive green, moderately fractured with calcite fill, with blue grey quartz clots (10 cm) at (154.23-154.78m) with pyrite filled fractures and pyrite clots and calcite.
- 156.67-162.12 Graphitic phyllite, fine grained, black to olive green, contorta bands, highly sheared with abundant pyrite in fractures and foliations throughout, with occasional blue grey quartz clots with fractured pyrite fill, shear planes at 85° and 60°.
- 156.67-162.12 Quartzite interbedded with graphitic phyllite, fine grained, dark olive green to black, highly sheared and broken with graphitic shear planes at 65 ° with calcite (ankerite) filled fractures to 1.0 cm at (158.19m) with pyrite filled veins to 1.0 cm, with occasional pyrrhotite on graphitic shear planes.
- 162.12-164.58 Quartzite, fine medium grained, medium grey, with abundant fractures with blue grey quartz filled veins, moderately shear dev strain pattern, chloritic shear at 60° with pyrite, pyrrhotite and calcite filled fractures.

End Hole

DDH96-1

260.30



COMPANY:
NOBLE METAL GROUP INCORPORATED

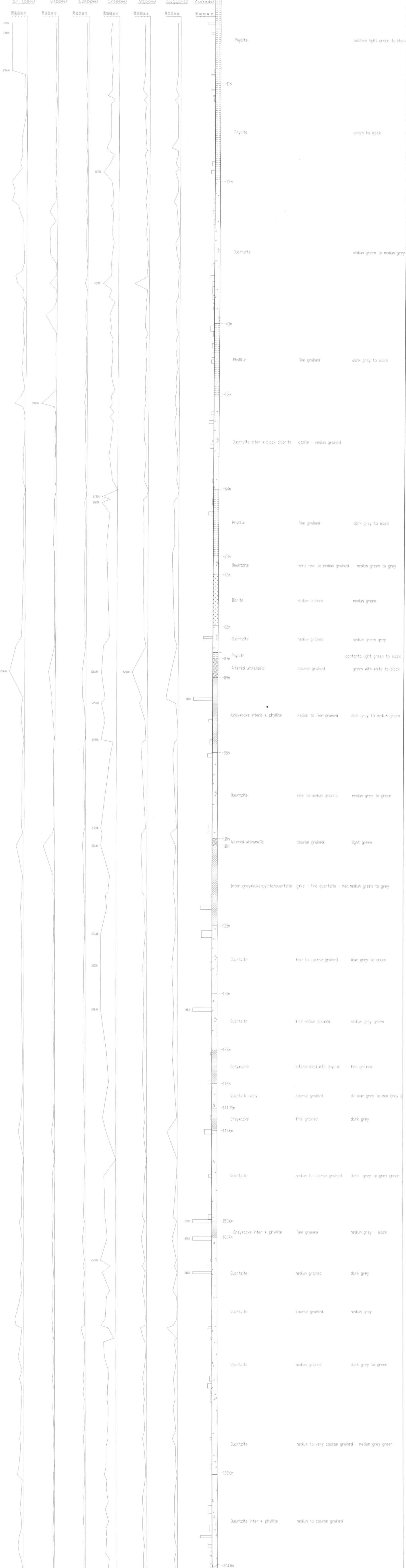
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DRILLHOLE DDH96-1
Geology and Selected Elements

LOCATION:
KEITHLEY CREEK, CARIBOO M.D.

DATE: JANUARY 1997 SCALE: 1:200

APPENDIX 1

DDH96-2
28255



COMPANY:
NOBLE METAL GROUP INCORPORATED

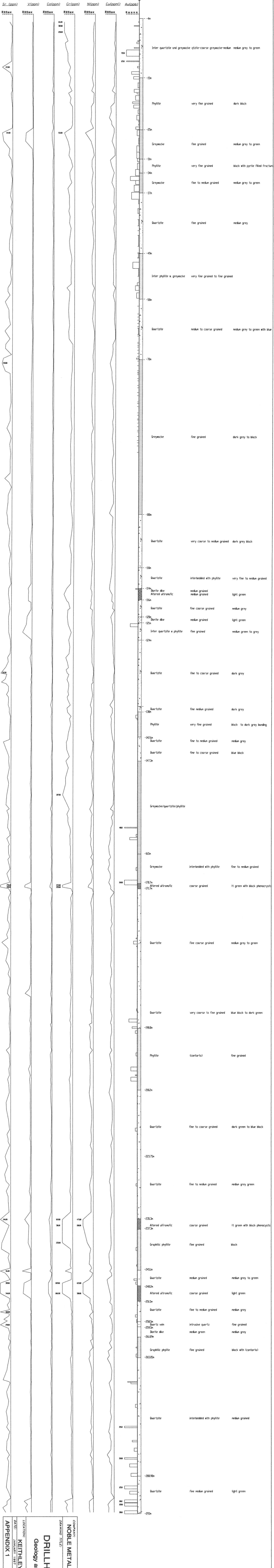
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DRILLHOLE DDH96-2
Geology and Selected Elements

LOCATION:
KEITHLEY CREEK, CARIBOO M.D.

DATE: JANUARY 1997 SCALE: 1:200

APPENDIX 1

DDH96-3
293.52



COMPANY:
NOBLE METAL GROUP INCORPORATED

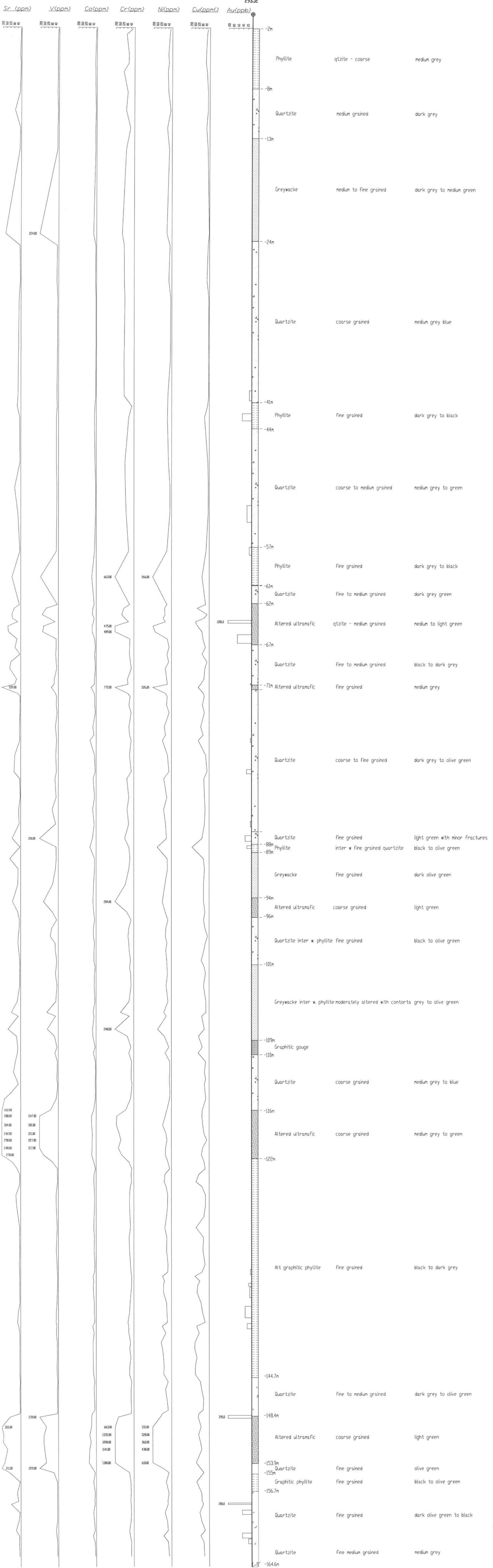
DRAWING TITLE:
DRILLHOLE DDH96-3
Geology and Selected Elements

LOCATION:
KEITHLEY CREEK, CARIBOO M.D.

DATE: JANUARY 1997
SCALE: 1:300

APPENDIX 1

DDH96-4
29352



COMPANY:
NOBLE METAL GROUP INCORPORATED

DRAWING TITLE:
DRILLHOLE DDH96-4
Geology and Selected Elements

LOCATION:
KEITHLEY CREEK, CARIBOO M.D.

DATE: JANUARY 1997 SCALE: 1:200

APPENDIX 1

Appendix II

Certificates of Analysis



Bondar Clegg

Inchcape Testing Services

Geochemical
Lab
Report

REPORT: V96-01565.0 (COMPLETE)

REFERENCE:

CLIENT: WGT CONSULTANTS LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: B. SCHELL
DATE PRINTED: 20-NOV-96

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	-150Wt Weight -150 Obtained	21	0.01 gms		
2	+150Wt Weight +150 obtained	21	0.01 gms		
3	Au-150 Gold -150 Fraction	21	0.01 PPM	FIRE ASSAY	30g Fire Assay - AA
4	Au+150 +150 fraction conc.	21	0.1 PPM	FIRE ASSAY	FIRE ASSAY-AA
5	Au Av Gold Weight Average	21	0.01 PPM		
6	Pd-150 Pd -150 Fraction	21	0.01 PPM	FIRE ASSAY	30g Fire Assay - AA
7	Pd+150 Pd +150 Fraction	21	0.1 PPM	FIRE ASSAY	FIRE ASSAY-AA
8	Pd Av Pd Weighted Average	21	0.01 PPM		
9	Pt-150 Pt -150 Fraction	21	0.02 PPM	FIRE ASSAY	30g Fire Assay - AA
10	Pt+150 Pt +150 Fraction	21	0.1 PPM	FIRE ASSAY	FIRE ASSAY-AA
11	Pt Av Pt Weighted Average	21	0.02 PPM		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK	21	W +150/-150	21	CRUSH/SPLIT & PULV.	21
				METALLICS SCREENING	21

REPORT COPIES TO: #407 - 455 GRANVILLE ST.

INVOICE TO: #407 - 455 GRANVILLE ST.



Bondar Clegg

Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01565.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 20-NOV-96 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	-150wt gms	+150wt gms	Au-150 PPM	Au+150 PPM	Au Av PPM	Pd-150 PPM	Pd+150 PPM	Pd Av PPM	Pt-150 PPM	Pt+150 PPM	Pt Av PPM
RW V137352		539.00	7.42	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137353		307.00	4.89	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137354		448.00	7.48	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137355		518.00	4.16	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137356		202.00	4.91	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137357		453.00	6.01	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137358		272.00	3.34	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	0.1	0.03
RW V137359		520.00	10.04	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137360		348.00	5.62	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137361		246.00	12.69	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137362		223.00	3.26	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137363		241.00	4.73	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03
RW V137364		558.00	5.76	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137366		625.00	12.46	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137369		1095.00	40.59	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137370		534.00	14.38	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137371		1013.00	16.70	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137372		901.00	10.64	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137373		859.00	22.48	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137374		568.00	12.13	<0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03
RW V137375		378.00	10.90	0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03

Am



Bondar Clegg

Inchcape Testing Services

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01565.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 20-NOV-96 PAGE 2

STANDARD NAME	ELEMENT UNITS	-150Wt gms	+150Wt gms	Au-150 PPM	Au+150 PPM	Au Av PPM	Pd-150 PPM	Pd+150 PPM	Pd Av PPM	Pt-150 PPM	Pt+150 PPM	Pt Av PPM
ANALYTICAL BLANK		-	-	<0.03	-	-	-	-	-	-	-	-
Number of Analyses		-	-	1	-	-	-	-	-	-	-	-
Mean Value		-	-	0.015	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.1	<0.01
Gannet Standard		-	-	0.17	-	-	-	-	-	-	-	-
Number of Analyses		-	-	1	-	-	-	-	-	-	-	-
Mean Value		-	-	0.170	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	0.21	-	-	-	-	-	-	-	-



Bondar Clegg Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01565.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 20-NOV-96 PAGE 3

SAMPLE NUMBER	ELEMENT UNITS	-150Wt gms	+150Wt gms	Au-150 PPM	Au+150 PPM	Au Av PPM	Pd-150 PPM	Pd+150 PPM	Pd Av PPM	Pt-150 PPM	Pt+150 PPM	Pt Av PPM
V137357 Duplicate		453.00	6.01	<0.03 <0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03 0.03	<0.1	0.03
V137372 Duplicate		901.00	10.64	<0.03 <0.03	<0.1	<0.03	<0.03	<0.1	<0.03	0.03	<0.1	0.03

Bondar-Clegg & Company Ltd.

130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5, Canada

Tel: (604) 985-0681, Fax: (604) 985-1071



Bondar Clegg Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01596.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 19-NOV-96 PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au	Ir	Ag	Zn	Mo	Ni	Co	Cd	As	Sb	Fe	Se	Te	Ba	Cr	Sn	W	Cs	La	Ce	Sm	Eu	Tb	Yb	Lu	Sc	Hf	Ta	Th	U	Na	Br	Rb	Zr
		PPB	PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM
V137352 -150	<5	<100	<5	<200	<2	47	20	<10	8	0.3	5.2	<10	<20	1500	200	<200	<2	3	45	87	7.8	<2	<1	<5	<.5	17.0	6	<1	13.0	2.4	1.30	<1	100	<500	
V137352 +150	<5	<100	<5	<200	<2	94	18	<10	6	0.3	5.3	<10	<20	1200	190	<200	<2	4	52	100	7.9	<2	1	<5	<.5	19.0	6	1	12.0	2.2	1.60	<1	110	<500	
V137353 -150	11	<100	<5	<200	<2	48	15	<10	3	0.4	4.8	<10	<20	830	270	<200	<2	6	64	110	8.0	2	1	<5	<.5	17.0	4	<1	17.0	3.9	0.60	<1	200	<500	
V137353 +150	5	<100	<5	<200	6	42	16	<10	2	0.4	4.9	<10	<20	630	310	<200	<2	5	47	83	6.0	<2	<1	<5	<.5	16.0	3	<1	14.0	3.1	0.49	<1	170	<500	
V137354 -150	<5	<100	<5	<200	<2	40	21	<10	2	0.4	5.6	<10	<20	750	130	<200	<2	5	75	130	11.0	<2	1	<5	<.5	16.0	7	2	22.0	4.4	0.76	<1	180	<500	
V137354 +150	<5	<100	<5	<200	<2	32	12	<10	2	0.4	5.0	<10	<20	590	100	<200	<2	4	70	120	8.8	<2	1	<5	<.5	16.0	4	2	19.0	3.9	0.66	<1	170	<500	
V137355 -150	<5	<100	<5	<200	<2	46	19	<10	<1	0.6	3.8	<10	<20	1200	150	<200	3	8	76	130	10.0	3	1	<5	<.5	17.0	3	2	21.0	5.4	0.30	<1	260	<500	
V137355 +150	<5	<100	<5	<200	3	<20	13	<10	<1	0.6	3.4	<10	<20	1100	140	<200	3	7	68	130	8.2	2	<1	<5	<.5	18.0	4	1	19.0	5.0	0.29	<1	240	<500	
V137356 -150	<5	<100	<5	<200	<2	54	12	<10	1	0.4	3.9	<10	<20	720	160	<200	<2	6	57	97	8.1	<2	<1	<5	<.5	13.0	5	1	17.0	4.3	0.74	<1	170	<500	
V137356 +150	15	<100	<5	<200	<2	30	15	<10	2	0.4	3.9	<10	<20	710	180	<200	<2	6	54	93	7.2	<2	2	<5	<.5	13.0	5	1	17.0	4.4	0.76	<1	180	<500	
V137357 -150	<5	<100	<5	<200	<2	33	11	<10	4	0.8	4.3	<10	<20	700	130	<200	<2	6	59	120	9.3	2	1	<5	<.5	12.0	5	1	18.0	4.6	1.20	<1	160	<500	
V137357 +150	<5	<100	<5	<200	<2	<20	12	<10	3	0.6	3.8	<10	<20	490	140	<200	<2	4	57	110	8.3	<2	1	<5	<.5	12.0	4	<1	17.0	3.8	1.20	<1	110	<500	
V137358 -150	<5	<100	<5	<200	<2	<20	<10	<10	<1	0.2	2.2	<10	<20	210	200	<200	<2	2	27	48	3.8	<2	<1	<5	<.5	6.0	4	<1	10.0	2.0	2.10	<1	53	<500	
V137358 +150	<5	<100	<5	<200	<2	<20	<10	<10	1	0.3	2.7	<10	<20	190	200	<200	3	2	22	55	3.4	<2	<1	<5	<.5	6.2	4	<1	9.1	1.6	2.20	<1	61	<500	
V137359 -150	<5	<100	<5	<200	2	<20	<10	<10	2	0.3	2.5	<10	<20	380	210	<200	<2	2	28	57	4.3	<2	<1	<5	<.5	6.5	6	<1	12.0	3.2	0.56	<1	80	<500	
V137359 +150	<5	<100	<5	<200	<2	<20	<10	<10	1	<.2	1.6	<10	<20	200	71	<200	<2	2	20	41	2.9	<2	<1	<5	<.5	4.6	3	<1	10.0	1.8	0.38	<1	48	<500	
V137360 -150	<5	<100	<5	<200	<2	33	16	<10	8	0.3	4.1	<10	<20	470	190	<200	<2	3	38	75	6.3	2	<1	<5	<.5	12.0	7	<1	13.0	2.7	1.00	<1	110	<500	
V137360 +150	6	<100	<5	<200	<2	<20	13	<10	7	0.4	4.1	<10	<20	390	180	<200	<2	2	36	62	5.6	<2	1	<5	<.5	13.0	5	1	12.0	2.5	1.00	<1	120	<500	
V137361 -150	<5	<100	6	<200	<2	170	39	<10	56	4.1	5.8	<10	<20	670	440	<200	<2	2	47	98	8.1	2	1	<5	<.5	24.0	6	1	12.0	2.8	0.71	<1	120	<500	
V137361 +150	10	<100	<5	<200	<2	140	30	<10	37	6.3	5.9	<10	<20	640	470	<200	4	2	39	74	6.5	3	1	<5	<.5	24.0	5	2	11.0	2.5	0.65	<1	95	<500	
V137362 -150	<5	<100	<5	<200	<2	52	17	<10	<1	0.7	4.7	<10	<20	770	150	<200	3	5	55	110	9.0	<2	1	<5	<.5	16.0	6	1	19.0	4.9	0.57	<1	210	<500	
V137362 +150	7	<100	<5	<200	<2	66	19	<10	1	0.7	4.4	<10	<20	750	150	<200	<2	6	47	87	7.8	<2	<1	<5	<.5	14.0	4	<1	17.0	4.4	0.52	<1	230	<500	
V137363 -150	<5	<100	<5	<200	<2	<20	10	<10	2	<.2	2.4	<10	<20	200	250	<200	<2	<1	17	33	2.4	<2	<1	<5	<.5	4.2	3	<1	7.2	1.4	1.70	<1	49	<500	
V137363 +150	<5	<100	<5	<200	<2	<20	<10	<10	2	0.3	2.9	<10	<20	200	280	<200	<2	1	17	33	2.4	<2	<1	<5	<.5	4.5	2	<1	6.8	1.2	1.70	<1	45	<500	
V137364 -150	<5	<100	<5	<200	<2	<20	<10	<10	5	0.3	1.9	<10	<20	390	180	<200	3	1	26	49	3.5	<2	<1	<5	<.5	4.7	7	<1	10.0	1.9	0.90	<1	65	<500	
V137364 +150	<5	<100	<5	<200	<2	<20	<10	<10	2	<.2	1.0	<10	<20	120	<50	<200	2	<1	17	29	2.0	<2	<1	<5	<.5	2.7	4	<1	7.1	1.2	0.78	<1	30	<500	
V137365 -150	<5	<100	<5	<200	3	24	<10	<10	2	0.3	3.1	<10	<20	330	240	<200	<2	2	28	62	5.0	<2	<1	<5	<.5	8.3	8	<1	13.0	2.6	1.30	<1	84	<500	
V137365 +150	<5	<100	<5	<200	<2	<20	<10	<10	2	0.2	3.0	<10	<20	270	210	<200	<2	3	26	48	4.0	<2	<1	<5	<.5	8.0	5	<1	11.0	2.0	1.10	<1	77	<500	
V137366 -150	<5	<100	<5	<200	<2	<20	11	<10	5	0.3	4.1	<10	<20	610	170	<200	<2	3	40	73	6.0	<2	<1	<5	<.5	13.0	9	<1	16.0	2.7	1.00	<1	130	<500	
V137366 +150	<5	<100	<5	<200	<2	<20	11	<10	4	0.2	2.5	<10	<20	360	54	<200	<2	2	24	54	3.7	<2	<1	<5	<.5	8.0	4	<1	11.0	1.7	1.00	<1	100	<500	



Bondar Clegg Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01596.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 19-NOV-96 PAGE 2

SAMPLE NUMBER	ELEMENT	Au	Ir	Ag	Zn	Mo	Ni	Co	Cd	As	Sb	Fe	Se	Te	Ba	Cr	Sn	W	Cs	La	Ce	Sm	Eu	Tb	Yb	Lu	Sc	Hf	Ta	Th	U	Na	Br	Rb	Zr
	UNITS	PPB	PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	
V137367	-150	<5	<100	<5	<200	<2	160	42	<10	115	0.8	8.0	<10	<20	720	580	<200	<2	3	41	82	7.4	<2	<1	<5	<.5	30.0	6	2	7.9	2.9	0.81	<1	76	<500
V137367	+150	<5	<100	<5	<200	<2	110	34	<10	86	0.9	7.6	<10	<20	650	620	<200	3	2	41	75	6.6	<2	1	<5	<.5	30.0	4	2	7.3	2.4	0.71	<1	61	<500
V137368	-150	<5	<100	<5	<200	<2	46	15	<10	3	0.4	4.2	<10	<20	860	150	<200	<2	5	73	140	12.0	8	1	<5	<.5	16.0	10	1	16.0	3.6	0.91	<1	190	790
V137368	+150	6	<100	6	<200	<2	<20	11	<10	3	0.4	3.9	<10	<20	710	140	<200	<2	5	64	130	10.0	5	1	<5	<.5	15.0	9	1	13.0	2.9	0.81	<1	180	780
V137369	-150	<5	<100	<5	<200	<2	68	39	<10	27	0.5	7.5	<10	<20	480	160	<200	<2	2	40	72	7.1	4	1	<5	<.5	28.0	6	2	8.4	2.4	1.90	<1	72	<500
V137369	+150	<5	<100	<5	<200	<2	30	19	<10	13	0.5	5.6	<10	<20	460	130	<200	<2	2	40	76	7.2	<2	1	<5	<.5	27.0	6	3	8.8	2.5	2.20	<1	66	<500
V137370	-150	<5	<100	<5	<200	<2	630	87	<10	2	1.0	8.2	<10	<20	<100	1400	<200	<2	<1	10	21	2.8	<2	<1	<5	<.5	31.0	<2	<1	0.9	<.5	0.22	<1	<10	<500
V137370	+150	<5	<100	<5	<200	<2	470	68	<10	<1	0.9	8.3	<10	<20	<100	1200	<200	<2	<1	9	23	3.0	<2	<1	<5	<.5	40.0	<2	1	1.2	<.5	0.24	<1	<10	<500
V137371	-150	<5	<100	<5	<200	<2	640	81	<10	19	1.1	8.0	<10	<20	<100	1300	<200	<2	<1	11	19	2.8	<2	<1	<5	<.5	33.0	3	<1	0.8	<.5	0.23	<1	<10	<500
V137371	+150	<5	<100	12	210	<2	470	68	<10	8	1.2	7.8	<10	<20	<100	1200	<200	<2	<1	11	<10	3.3	<2	1	<5	<.5	40.0	5	<1	0.9	<.5	0.27	<1	<10	<500
V137372	-150	7	<100	5	<200	<2	590	73	<10	48	1.9	8.1	<10	<20	<100	1200	<200	<2	<1	9	21	2.7	<2	<1	<5	<.5	30.0	3	<1	0.9	<.5	0.19	<1	<10	<500
V137372	+150	<5	<100	<5	<200	<2	490	52	<10	33	2.1	6.5	<10	<20	<100	960	<200	<2	1	12	28	3.6	<2	1	<5	<.5	30.0	3	1	0.9	<.5	0.17	<1	<10	<500
V137373	-150	<5	<100	<5	<200	<2	740	78	<10	49	0.4	7.7	<10	<20	<100	1300	<200	<2	<1	13	20	2.9	<2	<1	<5	<.5	26.0	2	<1	1.6	<.5	0.46	<1	<10	<500
V137373	+150	<5	<100	<5	<200	<2	460	70	<10	62	0.2	7.4	<10	<20	<100	1200	<200	<2	<1	20	35	4.8	<2	<1	<5	<.5	39.0	4	2	2.4	0.7	0.68	<1	<10	<500
V137374	-150	<5	<100	<5	<200	<2	800	86	<10	21	0.2	7.5	<10	<20	<100	1600	<200	<2	<1	10	22	2.6	<2	<1	<5	<.5	30.0	3	<1	1.3	<.5	0.18	<1	<10	<500
V137374	+150	<5	<100	<5	<200	<2	620	66	<10	12	<.2	8.2	<10	<20	<100	1900	<200	<2	<1	12	16	2.8	<2	<1	<5	<.5	37.0	<2	2	1.5	<.5	0.18	<1	<10	<500
V137375	-150	<5	<100	<5	<200	<2	960	96	<10	44	5.1	7.8	<10	<20	<100	1700	<200	<2	<1	9	17	2.4	<2	<1	<5	<.5	25.0	<2	<1	0.9	<.5	0.19	<1	<10	<500
V137375	+150	<5	<100	<5	<200	<2	730	73	<10	26	3.6	8.0	<10	<20	<100	1700	<200	<2	1	8	18	2.1	<2	<1	<5	<.5	25.0	<2	<1	1.2	<.5	0.21	<1	<10	<500



Bondar Clegg Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01596.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 19-NOV-96 PAGE 3

STANDARD NAME	ELEMENT UNITS	Au PPB	Ir PPB	Ag PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	As PPM	Sb PPM	Fe PCT	Se PPM	Te PPM	Ba PPM	Cr PPM	Sn PPM	W PPM	Cs PPM	La PPM	Ce PPM	Sm PPM	Eu PPM	Tb PPM	Yb PPM	Lu PPM	Sc PPM	Hf PPM	Ta PPM	Th PPM	U PPM	Na PCT	Br PPM	Rb PPM	Zr PPM		
BCC GEOCHEM STD 5		11	<100	<5	<200	<2	56	18	<10	9	0.9	5.1	<10	<20	660	110	<200	<2	1	14	20	3.0	<2	<1	<5	<.5	23.0	2	<1	1.9	1.1	1.90	<1	34	<500		
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mean Value		11	50	3	100	1	56	18	5	9	0.9	5.1	5	10	660	110	100	1	1	14	20	3.0	1	0.5	3	0.3	23.0	2	0.5	1.9	1.1	1.90	0.5	34	250		
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BCC GEOCHEM STD 6		230	<100	<5	<200	<2	130	38	<10	153	1.0	7.2	<10	<20	230	310	<200	31	<1	10	25	3.5	<2	<1	<5	<.5	28.0	4	<1	1.4	0.6	1.00	<1	27	<500		
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		230	50	3	100	1	130	38	5	153	1.0	7.2	5	10	230	310	100	31	0.5	10	25	3.5	1	0.5	3	0.3	28.0	4	0.5	1.4	0.6	1.00	0.5	27	250		
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Bondar Clegg Inchcape Testing Services

Geochemical Lab Report

CLIENT: WGT CONSULTANTS LTD.
REPORT: V96-01596.0 (COMPLETE)

PROJECT: NONE GIVEN
DATE PRINTED: 19-NOV-96 PAGE 4

SAMPLE NUMBER	ELEMENT UNITS	Au	Ir	Ag	Zn	Mo	Ni	Co	Cd	As	Sb	Fe	Se	Te	Ba	Cr	Sn	W	Cs	La	Ce	Sm	Eu	Tb	Yb	Lu	Sc	Hf	Ta	Th	U	Na	Br	Rb	Zr
		PPB	PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	
V137356 -150		<5	<100	<5	<200	<2	54	12	<10	1	0.4	3.9	<10	<20	720	160	<200	<2	6	57	97	8.1	<2	<1	<5	<.5	13.0	5	1	17.0	4.3	0.74	<1	170	<500
Duplicate		<5	<100	<5	<200	<2	42	14	<10	1	0.4	4.0	<10	<20	790	180	<200	<2	6	60	110	8.7	<2	<1	<5	<.5	13.0	6	1	19.0	4.8	0.80	<1	200	<500
V137366 -150		<5	<100	<5	<200	<2	<20	11	<10	5	0.3	4.1	<10	<20	610	170	<200	<2	3	40	73	6.0	<2	<1	<5	<.5	13.0	9	<1	16.0	2.7	1.00	<1	130	<500
Duplicate		<5	<100	<5	<200	<2	27	14	<10	5	0.3	4.6	<10	<20	650	190	<200	<2	4	41	80	6.0	<2	<1	<5	<.5	14.0	7	1	16.0	2.6	1.00	<1	140	<500

To : NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.,
 V6C 1T2
 Attn: W.G. Timmins



File No : 38372
 Date : July 29, 1996
 Samples : Sludge


Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	ppb GOLD
"Geochemical Analysis"	
682-687	27
687-692	27
692-697	13
697-702	15
702-707	10
707-712	11
712-717	12
717-722	6
722-727	6
727-732	14
732-737	<5
737-742	<5
742-747	10
747-752	5
752-757	6
757-762	20
762-767	8
767-772	8
772-777	10
777-782	10
782-787	13
787-792	14
792-797	11
797-802	37
802-807	12
807-812	18
812-817	7
817-822	11
822-827	8
827-832	10

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :



 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.,
V6C 1T2
Attn: W.G. Timmins



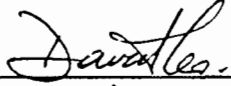
File No : 38372
Date : July 29, 1996
Samples : Sludge

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	ppb GOLD
832-837	13
837-842	16
842-847	8
847-854	9

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Assayer

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To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.,
V6C 1T2
Attn: W.G. Timmins



File No : 38372
Date : July 29, 1996
Samples : Core

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

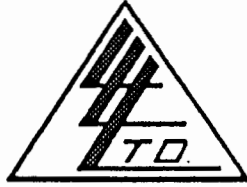
Sample No.	ppb GOLD
96276	<5
96277	<5
96278	5
96279	6
96280	<5
96281	<5
96282	6
96283	<5
96284	<5
96285	<5
96286	15
96287	13
96288	90
96289	69
96290	33
96291	<5
96292	18
96293	13
96294	<5
96295	<5
96296	<5
96297	11
96298	<5
96299	<5
96300	5
96326	<5
96327	7
96328	<5
96329	<5
96330	<5
96331	<5

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Vancouver, B.C.,
V6C 1T2
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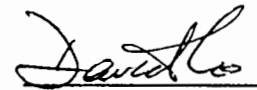
File No : 38372
Date : July 29, 1996
Samples : Core

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	ppb GOLD
96332	<5
96333	<5
96334	<5
96335	<5
96336	69
96337	31
96338	24
96339	19
96340	22
96341	16
96342	12
96343	5
96344	12
96345	13
96346	10
96347	<5
96348	16
96349	15
96350	7
96351	<5
96352	<5
96353	<5
96354	<5
96355	6
96356	6
96357	<5
96358	5
96359	241
96360	44
96361	21
96362	11

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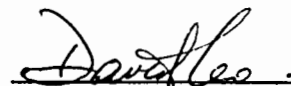
File No : 38372
Date : July 29, 1996
Samples : Core

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	ppb GOLD
96363	50
96364	16
96365	19
96366	12
96367	20
96368	12
96369	93
96370	7
96371	13
96372	11
96373	6
96374	<5
96375	5
96376	6
96377	<5
96378	<5
96379	8
96380	6
96381	<5
96382	34
96383	39
96384	14
96385	31
96386	12
96387	8
96388	6
96389	<5
96390	<5
96391	<5
96392	<5
96393	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

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To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.,
V6C 1T2
Attn: W.G. Timmins



File No : 38372
Date : July 29, 1996
Samples : Core

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	ppb GOLD
96394	<5
96395	<5
96396	<5
96397	<5
96398	<5
96399	<5
96400	<5
96401	<5
96402	5
96752	<5
96753	<5
96754	5
96755	<5
96756	<5
96757	<5
96758	<5
96759	<5
96760	<5
96888	<5
96889	<5
96890	10
96891	<5
96892	<5
96893	15
96894	<5
96895	<5
96896	<5
96897	<5
96898	<5
96899	<5
96900	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38372

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96276	< 1	26	4	102	0.4	48	18	577	4.74	3	< 5	< 2	15	11	< 2	< 2	< 2	19	0.30	0.018	20	100	1.42	67	0.16	< 3	2.55	0.02	0.28	< 2
96277	< 1	34	21	87	< .3	40	14	525	4.38	< 2	< 5	< 2	12	14	< 2	< 2	< 2	21	0.34	0.015	14	124	1.28	65	0.16	4	2.31	0.04	0.24	< 2
96278	< 1	9	12	79	0.3	48	14	333	3.36	4	< 5	< 2	18	14	< 2	< 2	2	13	0.25	0.030	43	124	1.13	100	0.07	7	2.05	0.01	0.35	< 2
96279	2	40	10	104	0.4	49	15	438	5.25	< 2	< 5	< 2	12	12	< 2	< 2	< 2	28	0.28	0.022	17	162	1.51	120	0.16	5	2.65	0.04	0.25	< 2
96280	< 1	264	< 3	45	< .3	77	22	1397	4.13	< 2	< 5	< 2	< 2	1087	< 2	4	< 2	101	17.94	< .001	5	151	2.95	76	0.29	< 3	2.51	0.03	0.06	< 2
96281	< 1	94	< 3	37	< .3	487	51	484	4.58	< 2	< 5	< 2	2	48	< 2	< 2	< 2	77	1.48	0.039	6	878	5.73	2	0.23	< 3	3.50	0.01	0.01	< 2
96282	< 1	45	< 3	33	< .3	201	29	612	3.37	2	< 5	< 2	< 2	304	< 2	< 2	< 2	56	6.34	0.027	5	339	3.23	70	0.28	< 3	2.52	0.03	0.05	< 2
96283	< 1	130	< 3	51	< .3	49	24	912	4.15	< 2	< 5	< 2	< 2	413	< 2	7	< 2	90	11.57	0.037	5	65	1.67	99	0.28	4	1.94	0.05	0.08	< 2
96284	< 1	124	< 3	60	< .3	74	30	741	5.21	< 2	< 5	< 2	< 2	167	< 2	3	< 2	114	4.65	0.087	8	136	2.25	240	0.44	3	2.70	0.07	0.15	< 2
96285	1	124	< 3	71	< .3	69	35	790	6.31	< 2	< 5	< 2	< 2	200	< 2	4	< 2	147	4.57	0.101	9	119	2.45	84	0.31	< 3	2.92	0.08	0.07	< 2
96286	1	48	8	33	< .3	13	6	320	2.30	3	< 5	< 2	11	75	0.2	< 2	2	26	1.02	0.018	16	165	0.61	53	0.05	< 3	1.06	0.06	0.09	< 2
96287	2	40	31	73	< .3	35	14	358	3.62	11	< 5	< 2	7	36	0.3	< 2	2	20	0.87	0.074	16	174	1.01	97	0.01	4	2.03	0.04	0.30	< 2
96288	3	123	59	100	< .3	58	33	413	4.87	42	< 5	< 2	14	37	< 2	< 2	3	16	0.81	0.028	28	89	1.32	111	0.03	8	2.38	0.02	0.39	< 2
96289	< 1	32	8	55	< .3	26	11	796	3.00	< 2	< 5	< 2	11	211	< 2	2	< 2	40	3.99	< .001	15	118	0.89	52	0.09	< 3	1.37	0.07	0.06	< 2
96290	< 1	105	4	67	< .3	100	33	1065	6.26	< 2	< 5	< 2	2	481	< 2	< 2	< 2	186	8.61	0.047	9	259	3.93	65	0.32	< 3	3.58	0.03	0.44	< 2
96291	< 1	48	< 3	38	< .3	254	32	928	4.00	< 2	< 5	< 2	< 2	645	< 2	< 2	< 2	93	8.66	< .001	5	503	4.85	15	0.27	3	3.29	0.02	0.08	< 2
RE 96291	< 1	49	< 3	41	< .3	266	34	968	4.17	< 2	< 5	< 2	< 2	677	< 2	< 2	< 2	98	9.03	< .001	6	521	5.05	16	0.28	< 3	3.42	0.02	0.08	< 2
96292	< 1	52	9	69	< .3	64	22	705	4.67	5	< 5	< 2	10	159	< 2	3	< 2	70	4.08	0.055	20	116	1.83	134	0.13	< 3	2.49	0.03	0.27	< 2
96293	< 1	41	10	86	< .3	46	17	343	4.23	3	< 5	< 2	13	25	< 2	< 2	2	15	0.26	0.021	26	122	1.22	106	0.05	< 3	2.29	0.03	0.35	< 2
96294	1	51	8	87	< .3	46	18	341	4.32	< 2	< 5	< 2	13	26	< 2	< 2	2	14	0.27	0.022	23	103	1.22	100	0.05	3	2.25	0.03	0.33	< 2
96295	< 1	47	5	98	< .3	53	18	459	4.93	< 2	< 5	< 2	14	22	< 2	< 2	2	12	0.40	0.030	19	74	1.35	77	0.01	10	2.41	0.02	0.29	< 2
96296	1	52	18	84	< .3	59	29	405	4.01	17	< 5	< 2	9	16	< 2	< 2	3	10	0.55	0.024	16	138	1.19	78	0.01	3	2.12	0.01	0.31	< 2
96297	3	23	86	35	< .3	17	8	647	2.08	4	< 5	< 2	7	65	0.3	< 2	< 2	7	1.26	0.008	14	145	0.54	51	0.01	3	0.94	0.02	0.17	< 2
96298	1	84	< 3	70	< .3	51	20	359	4.18	< 2	< 5	< 2	15	15	0.2	< 2	4	20	0.26	0.022	32	87	1.23	155	0.03	< 3	2.04	0.03	0.28	< 2
96299	< 1	10	7	57	< .3	305	51	1132	5.80	19	< 5	< 2	3	361	< 2	< 2	< 2	138	7.09	0.147	11	905	5.64	4	0.14	< 3	4.03	0.01	0.01	< 2
96300	< 1	94	< 3	90	0.4	451	67	1466	7.82	2	< 5	< 2	2	52	< 2	< 2	< 2	191	1.17	0.074	11	945	8.79	13	0.26	< 3	6.53	0.02	0.05	< 2
96326	< 1	35	6	82	< .3	58	25	629	5.43	< 2	< 5	< 2	8	21	< 2	< 2	< 2	106	0.56	0.053	19	159	2.63	127	0.32	3	3.25	0.05	0.18	< 2
96327	< 1	68	33	64	< .3	48	28	873	3.77	< 2	< 5	< 2	12	104	< 2	2	5	21	4.69	1.026	32	129	0.82	115	0.06	< 3	1.96	0.05	0.44	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
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 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38372

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96328	< 1	51	42	80	< .3	50	24	306	4.04	< 2	< 5	< 2	14	41	< 2	< 2	< 2	11	1.37	0.465	37	76	1.08	62	0.03	< 3	2.12	0.02	0.34	< 2
96329	< 1	36	8	87	< .3	40	15	384	4.61	5	< 5	< 2	17	11	< 2	< 2	< 2	17	0.15	0.038	40	114	1.36	52	0.04	< 3	2.48	0.02	0.33	2
96330	1	54	9	82	< .3	45	17	265	4.13	4	< 5	< 2	16	15	< 2	< 2	< 2	15	0.32	0.103	41	67	1.28	53	0.06	< 3	2.23	0.01	0.45	< 2
96331	< 1	23	22	57	< .3	33	13	763	2.61	12	6	< 2	14	100	< 2	< 2	< 2	11	2.46	0.053	30	80	0.86	60	0.04	< 3	1.54	0.02	0.35	< 2
96332	1	15	18	53	< .3	29	12	312	2.56	4	< 5	< 2	15	27	< 2	< 2	2	14	0.49	0.063	17	78	0.74	95	0.15	< 3	1.42	0.02	0.69	< 2
96333	2	7	19	58	< .3	27	10	468	3.07	< 2	< 5	< 2	11	29	< 2	< 2	< 2	22	1.14	0.007	13	113	0.89	42	0.16	< 3	1.55	0.04	0.23	< 2
96334	2	7	12	69	< .3	37	13	262	3.19	6	< 5	< 2	12	15	< 2	< 2	< 2	22	0.27	0.035	17	179	0.94	142	0.24	< 3	1.96	0.02	1.21	< 2
STANDARD C2	19	59	36	134	6.4	72	36	1156	3.98	45	21	7	35	50	20.6	18	17	71	0.53	0.097	39	61	1.03	204	0.08	25	2.03	0.08	0.17	12
96335	< 1	10	12	26	< .3	14	5	382	1.53	2	5	< 2	9	35	< 2	< 2	3	10	0.94	0.006	12	139	0.36	66	0.12	3	0.79	0.03	0.32	< 2
96336	2	16	19	36	< .3	17	6	278	1.96	2	< 5	< 2	11	16	< 2	< 2	2	11	0.34	0.016	13	74	0.49	86	0.16	< 3	0.98	0.01	0.58	< 2
96337	2	15	30	94	< .3	56	23	447	4.60	14	< 5	< 2	16	31	< 2	< 2	4	31	0.48	0.025	27	127	1.44	114	0.22	< 3	2.44	0.01	1.18	< 2
96338	3	11	17	31	< .3	16	7	311	1.89	6	< 5	< 2	10	12	< 2	< 2	3	14	0.16	0.016	15	176	0.50	49	0.05	< 3	0.96	0.04	0.20	< 2
96339	< 1	33	31	96	< .3	53	23	360	4.32	13	< 5	< 2	19	34	< 2	3	< 2	22	0.50	0.064	45	64	1.41	105	0.17	< 3	2.46	0.01	1.16	< 2
96340	< 1	43	< 3	109	< .3	56	21	366	5.02	4	< 5	< 2	18	18	< 2	< 2	4	22	0.40	0.046	43	62	1.56	87	0.19	< 3	2.74	0.01	0.90	< 2
96341	< 1	16	4	73	< .3	47	20	346	3.14	25	< 5	< 2	17	53	< 2	< 2	5	15	0.76	0.149	44	45	1.01	101	0.07	< 3	1.84	0.01	0.61	< 2
96342	3	12	15	35	0.4	27	10	1634	2.69	4	< 5	< 2	9	126	0.3	< 2	3	14	3.47	0.979	28	72	0.70	80	0.01	3	1.64	0.03	0.42	< 2
96343	< 1	30	19	99	0.3	50	20	357	4.41	9	< 5	< 2	13	7	< 2	3	2	15	0.10	0.028	22	89	1.48	49	0.02	< 3	2.37	0.02	0.28	< 2
96344	1	46	28	93	< .3	50	19	267	3.94	< 2	< 5	< 2	12	6	< 2	2	6	10	0.09	0.025	25	79	1.29	42	0.02	5	2.02	0.01	0.24	< 2
96345	< 1	34	16	85	< .3	42	11	271	3.77	< 2	< 5	< 2	15	20	< 2	< 2	5	9	0.25	0.027	33	128	1.27	56	0.03	< 3	2.04	0.01	0.32	< 2
96346	1	26	28	63	< .3	33	12	199	2.83	< 2	< 5	< 2	9	8	< 2	< 2	2	8	0.11	0.023	24	172	0.93	49	0.02	< 3	1.50	0.01	0.27	< 2
RE 96346	3	27	33	66	< .3	33	12	195	2.87	< 2	< 5	< 2	8	8	< 2	< 2	< 2	7	0.12	0.023	24	195	0.95	49	0.02	< 3	1.53	0.01	0.27	< 2
96347	< 1	44	16	111	< .3	59	28	290	4.31	< 2	< 5	< 2	18	8	< 2	< 2	6	10	0.11	0.029	46	103	1.38	43	0.03	< 3	2.08	0.01	0.25	< 2
96348	2	82	11	122	< .3	82	41	333	5.55	< 2	< 5	< 2	18	7	0.2	< 2	3	12	0.12	0.031	35	79	1.69	59	0.04	< 3	2.65	0.01	0.35	< 2
96349	< 1	52	63	98	0.4	60	30	299	5.05	< 2	< 5	< 2	15	6	< 2	< 2	< 2	13	0.14	0.032	21	50	1.52	25	0.05	< 3	2.31	0.01	0.15	< 2
96350	2	39	32	62	< .3	35	13	330	3.15	< 2	< 5	< 2	11	9	< 2	< 2	5	14	0.31	0.042	13	139	0.85	37	0.11	< 3	1.41	0.03	0.18	< 2
96351	1	66	9	127	< .3	64	19	463	5.93	< 2	< 5	< 2	14	13	< 2	< 2	4	18	0.31	0.041	17	76	1.87	52	0.05	< 3	3.03	0.02	0.31	< 2
96352	< 1	4	17	63	< .3	40	14	519	4.01	3	< 5	< 2	9	51	< 2	< 2	2	48	0.67	0.013	9	190	1.73	13	0.18	< 3	2.42	0.03	0.08	< 2
96353	1	22	7	72	< .3	45	19	387	3.86	11	< 5	2	12	5	< 2	2	2	23	0.20	0.013	10	105	1.24	39	0.14	< 3	1.94	0.01	0.18	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96354	1	26	18	90	< .3	47	17	434	4.24	< 2	< 5	< 2	18	6	< .2	3	4	10	0.22	0.035	27	41	1.30	26	0.10	< 3	2.02	0.01	0.15	< 2
96355	1	44	18	91	< .3	67	26	336	4.48	< 2	< 5	< 2	21	8	< .2	< 2	4	10	0.26	0.029	31	39	1.27	62	0.14	4	2.23	0.01	0.33	< 2
96356	2	50	12	83	< .3	66	26	463	4.42	< 2	< 5	< 2	18	21	< .2	< 2	7	13	0.87	0.021	35	106	1.15	57	0.09	5	2.02	0.02	0.28	< 2
96357	< 1	43	10	111	< .3	65	32	388	4.92	15	< 5	< 2	20	9	< .2	< 2	4	14	0.28	0.046	33	74	1.49	60	0.12	4	2.52	0.01	0.29	< 2
96358	1	22	28	39	< .3	26	14	462	2.26	< 2	< 5	< 2	10	18	< .2	< 2	2	11	0.70	0.009	12	85	0.60	44	0.12	< 3	1.16	0.02	0.20	< 2
96359	2	19	15	89	0.3	51	23	441	4.07	7	< 5	< 2	14	8	< .2	< 2	< 2	14	0.20	0.026	16	100	1.27	62	0.09	4	2.26	0.02	0.29	< 2
96360	1	7	4	88	< .3	47	17	381	3.45	< 2	< 5	< 2	15	8	< .2	< 2	2	10	0.31	0.024	22	48	1.17	69	0.20	< 3	2.11	0.02	0.32	< 2
96361	3	17	< 3	81	0.4	37	12	414	3.84	< 2	< 5	< 2	12	57	< .2	< 2	< 2	14	2.67	0.944	31	53	1.14	85	0.06	< 3	2.28	0.02	0.41	< 2
96362	4	76	16	83	< .3	80	57	523	6.13	< 2	< 5	< 2	17	14	< .2	< 2	4	15	0.37	0.023	20	78	1.22	57	0.14	4	2.16	0.02	0.27	< 2
96363	< 1	67	54	105	0.3	60	31	453	5.13	< 2	< 5	< 2	17	21	< .2	2	4	15	0.49	0.038	21	88	1.36	61	0.13	< 3	2.29	0.01	0.29	< 2
96364	2	11	27	46	< .3	19	8	462	2.30	< 2	< 5	< 2	8	68	< .2	< 2	2	10	1.37	0.007	13	116	0.66	44	0.04	< 3	1.14	0.02	0.19	< 2
96365	3	28	11	80	< .3	36	13	453	3.49	< 2	< 5	< 2	18	39	< .2	< 2	3	15	0.68	0.029	39	85	1.11	77	0.07	< 3	1.89	0.02	0.44	< 2
96366	2	30	89	100	0.3	45	18	391	4.51	2	< 5	< 2	17	38	< .2	< 2	3	14	0.54	0.040	34	97	1.44	67	0.05	< 3	2.41	0.02	0.40	< 2
96367	2	41	26	108	< .3	43	22	493	3.98	13	< 5	< 2	17	36	0.7	< 2	3	17	0.55	0.037	33	81	1.34	83	0.07	< 3	2.35	0.03	0.43	< 2
96368	4	57	19	89	< .3	43	21	441	4.45	4	< 5	< 2	13	34	< .2	< 2	< 2	17	0.57	0.029	26	143	1.34	66	0.04	< 3	2.28	0.03	0.36	< 2
STANDARD C2	21	61	40	132	6.2	71	37	1173	4.01	43	17	7	35	51	20.6	18	20	71	0.56	0.098	39	58	1.05	202	0.08	26	2.08	0.07	0.17	12
96369	5	122	41	89	0.3	88	38	405	5.12	254	9	< 2	11	42	< .2	< 2	4	10	0.67	0.022	23	46	1.14	71	0.02	4	1.78	0.01	0.33	< 2
96370	2	89	9	73	< .3	55	29	281	4.29	2	< 5	< 2	13	28	< .2	< 2	< 2	11	0.32	0.020	26	75	1.03	80	0.04	< 3	1.63	0.01	0.33	< 2
96371	< 1	32	13	95	< .3	38	16	348	4.18	< 2	< 5	< 2	17	30	< .2	< 2	< 2	16	0.53	0.054	61	52	1.48	39	0.10	< 3	2.17	0.02	0.19	< 2
96372	2	14	47	112	< .3	28	11	499	3.11	3	< 5	< 2	14	57	< .2	< 2	< 2	18	1.42	0.044	40	107	1.19	51	0.10	7	1.88	0.03	0.24	< 2
96373	< 1	44	30	107	< .3	45	19	373	4.39	< 2	< 5	< 2	18	41	< .2	< 2	< 2	13	0.68	0.046	70	87	1.38	54	0.03	< 3	2.15	0.02	0.28	< 2
96374	< 1	26	19	96	< .3	31	14	555	3.97	< 2	< 5	< 2	13	114	< .2	< 2	< 2	14	2.69	0.034	43	97	1.29	31	0.07	< 3	1.91	0.02	0.15	< 2
96375	< 1	53	13	131	< .3	56	25	531	6.00	< 2	< 5	< 2	21	25	< .2	< 2	< 2	19	0.44	0.065	68	77	1.84	52	0.08	< 3	2.75	0.02	0.28	< 2
96376	3	42	15	85	< .3	60	22	300	3.98	< 2	< 5	< 2	21	40	< .2	< 2	< 2	15	1.13	0.082	90	46	1.11	71	0.16	5	1.80	0.01	0.34	< 2
96377	2	55	16	76	< .3	51	23	282	3.77	< 2	< 5	< 2	16	43	< .2	< 2	< 2	10	1.37	0.037	62	60	0.83	51	0.09	< 3	1.38	0.01	0.24	< 2
96378	3	26	8	68	0.3	45	20	703	4.81	12	< 5	< 2	5	75	< .2	2	< 2	72	3.39	0.016	13	137	2.33	26	0.18	3	2.45	0.03	0.10	< 2
96379	< 1	61	34	74	0.4	57	24	211	4.34	< 2	< 5	< 2	17	44	0.3	< 2	< 2	8	0.69	0.050	47	28	0.92	49	0.06	< 3	1.34	0.01	0.25	< 2
96380	< 1	39	17	76	< .3	42	17	274	3.87	< 2	7	< 2	18	70	< .2	< 2	2	9	1.51	0.043	61	41	0.93	55	0.12	3	1.42	0.01	0.29	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
RE 96380	1	38	16	70	< 3	39	16	249	3.69	< 2	7	< 2	15	68	< 2	< 2	< 2	9	1.43	0.041	56	36	0.88	54	0.11	< 3	1.38	0.01	0.27	< 2
96381	< 1	35	8	67	< 3	36	14	217	2.86	< 2	< 5	< 2	17	26	< 2	< 2	< 2	8	0.48	0.049	62	55	0.88	54	0.13	< 3	1.36	0.01	0.27	< 2
96382	5	57	28	76	< 3	50	22	187	3.48	2	10	< 2	18	15	< 2	< 2	< 2	7	0.28	0.034	72	50	0.88	52	0.13	< 3	1.30	0.01	0.26	< 2
96383	1	43	11	83	< 3	44	17	280	4.16	< 2	< 5	< 2	17	55	< 2	< 2	< 2	10	1.31	0.044	53	84	1.05	54	0.08	< 3	1.64	0.02	0.30	< 2
96384	1	27	28	73	< 3	33	14	548	3.63	< 2	< 5	< 2	12	191	< 2	< 2	< 2	14	7.38	< .001	48	74	0.98	45	0.04	< 3	1.53	0.02	0.26	< 2
96385	< 1	46	18	75	< 3	50	21	228	4.03	23	< 5	< 2	17	74	< 2	< 2	< 2	7	1.00	0.045	64	34	1.01	32	0.07	3	1.34	0.01	0.16	< 2
96386	< 1	39	31	95	0.3	48	20	263	4.37	6	< 5	< 2	19	37	< 2	< 2	< 2	12	0.79	0.049	50	51	1.30	31	0.10	< 3	1.74	0.01	0.15	< 2
96387	< 1	48	33	97	< 3	50	20	263	4.07	5	< 5	< 2	18	28	< 2	< 2	< 2	8	0.67	0.047	65	47	1.15	34	0.12	< 3	1.52	0.01	0.17	< 2
96388	1	41	28	74	< 3	48	20	263	3.44	5	< 5	< 2	17	59	< 2	< 2	< 2	8	1.32	0.042	65	36	1.03	44	0.08	< 3	1.50	0.01	0.21	< 2
96389	< 1	20	26	65	< 3	30	13	440	2.80	2	< 5	< 2	15	108	< 2	< 2	< 2	13	3.08	0.023	42	86	0.89	96	0.05	< 3	1.44	0.03	0.21	< 2
96390	< 1	15	18	53	< 3	18	9	559	2.55	< 2	< 5	< 2	15	131	< 2	< 2	< 2	12	3.50	0.024	24	73	0.64	65	< .01	6	1.13	0.02	0.13	< 2
96391	< 1	10	12	46	< 3	16	6	346	1.98	< 2	< 5	< 2	13	81	< 2	< 2	< 2	10	1.63	0.032	26	101	0.57	35	0.02	< 3	0.99	0.04	0.15	< 2
96392	1	27	12	86	< 3	31	13	292	4.00	< 2	7	< 2	14	73	< 2	< 2	3	13	0.86	0.043	33	80	1.17	51	0.02	< 3	1.87	0.02	0.27	< 2
96393	< 1	36	6	67	< 3	45	18	309	3.00	7	< 5	< 2	18	87	< 2	< 2	< 2	12	1.16	0.042	65	55	0.89	57	0.01	< 3	1.44	0.01	0.27	< 2
96394	< 1	52	15	96	< 3	45	19	186	4.21	< 2	< 5	< 2	19	26	< 2	< 2	2	8	0.25	0.046	67	79	1.08	54	0.01	< 3	1.63	0.01	0.31	< 2
96395	3	50	33	68	< 3	40	19	260	3.65	< 2	< 5	< 2	15	71	< 2	< 2	< 2	9	0.92	0.057	61	97	0.82	47	0.01	5	1.37	0.01	0.26	< 2
96396	1	33	21	66	< 3	31	13	310	3.38	< 2	< 5	< 2	14	82	< 2	< 2	< 2	11	0.99	0.040	47	91	0.93	59	0.03	< 3	1.50	0.02	0.30	< 2
96397	< 1	20	29	59	0.4	26	11	429	2.44	5	< 5	< 2	15	107	< 2	< 2	< 2	11	1.32	0.036	35	112	0.68	64	0.03	3	1.19	0.02	0.25	< 2
96398	1	21	13	20	< 3	16	4	202	1.06	7	< 5	< 2	11	25	< 2	< 2	< 2	6	0.32	0.025	19	132	0.18	41	0.03	< 3	0.44	0.02	0.14	< 2
96399	3	40	21	12	0.6	35	11	193	1.75	6	6	< 2	4	89	< 2	< 2	2	16	2.61	0.001	24	224	0.06	48	0.05	11	0.30	0.01	0.17	< 2
96400	< 1	5	13	197	0.3	621	63	3108	7.03	271	< 5	< 2	< 2	421	0.6	< 2	< 2	35	13.62	< .001	3	879	7.90	9	0.01	4	1.78	0.02	0.04	< 2
96401	< 1	32	19	91	< 3	33	9	52	1.84	7	< 5	< 2	4	14	< 2	< 2	< 2	9	0.25	0.022	23	106	0.08	52	0.02	< 3	0.33	0.01	0.14	< 2
96402	2	22	< 3	102	0.4	63	23	461	4.49	< 2	< 5	< 2	10	15	< 2	< 2	< 2	100	0.38	0.054	26	181	2.19	247	0.17	< 3	3.22	0.04	1.48	< 2
STANDARD C2	18	60	38	136	6.7	71	36	1185	3.96	44	20	5	33	50	20.4	18	16	71	0.55	0.097	40	70	1.04	194	0.09	30	2.03	0.07	0.17	14
96752	1	19	3	111	< 3	70	19	334	4.71	21	< 5	< 2	14	8	0.3	< 2	< 2	20	0.09	0.023	39	125	1.40	92	0.01	3	2.71	0.02	0.43	< 2
96753	2	44	8	49	< 3	33	12	727	3.39	5	< 5	< 2	8	66	< 2	< 2	< 2	15	0.92	0.013	18	202	0.73	51	0.01	< 3	1.30	0.05	0.29	< 2
96754	2	32	8	85	< 3	38	15	452	3.97	7	< 5	< 2	9	18	< 2	< 2	< 2	16	0.29	0.019	23	173	1.18	64	0.01	3	2.13	0.03	0.28	< 2
96755	< 1	24	9	75	< 3	37	13	579	3.71	< 2	< 5	< 2	9	32	< 2	< 2	< 2	18	0.54	0.017	20	107	1.10	62	0.03	5	2.01	0.03	0.25	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38372

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96756	< 1	3	< 3	71	< .3	45	13	352	3.18	17	< 5	< 2	26	12	< .2	< 2	2	15	0.15	0.046	104	54	1.09	138	0.02	4	2.37	0.02	0.53	< 2
96757	3	52	407	68	1.7	53	17	269	3.84	< 2	< 5	< 2	20	9	0.3	< 2	4	19	0.09	0.026	39	169	1.12	103	0.03	3	2.28	0.02	0.50	< 2
96758	1	28	8	73	< .3	44	14	263	3.66	< 2	< 5	< 2	6	9	< .2	< 2	2	13	0.16	0.054	17	346	1.13	61	0.03	3	1.95	0.01	0.29	< 2
96759	1	55	17	94	< .3	64	26	271	4.42	< 2	< 5	< 2	16	9	< .2	< 2	< 2	15	0.11	0.024	44	114	1.32	94	0.05	7	2.37	0.02	0.45	< 2
RE 96759	2	54	18	93	< .3	65	26	273	4.41	< 2	< 5	< 2	17	10	< .2	< 2	< 2	15	0.10	0.025	46	114	1.32	94	0.05	4	2.38	0.02	0.46	< 2
96760	2	97	13	121	< .3	74	33	357	5.82	< 2	< 5	< 2	17	17	< .2	< 2	< 2	16	0.24	0.027	38	106	1.80	77	0.03	3	2.81	0.01	0.37	< 2
96888	< 1	36	53	102	< .3	43	12	611	4.34	4	< 5	< 2	12	68	< .2	< 2	< 2	15	0.91	0.036	34	88	1.43	69	0.02	< 3	2.31	0.01	0.29	< 2
96889	< 1	79	57	119	< .3	57	21	526	5.11	6	< 5	< 2	16	38	< .2	< 2	< 2	19	0.55	0.032	29	75	1.68	75	0.04	5	2.77	0.01	0.30	< 2
96890	3	124	47	98	< .3	74	41	469	6.13	< 2	< 5	< 2	12	41	0.2	< 2	< 2	14	0.53	0.024	12	58	1.25	72	0.01	< 3	2.20	0.01	0.32	< 2
96891	3	45	19	68	< .3	40	14	518	3.47	< 2	< 5	< 2	10	42	< .2	< 2	5	15	0.82	0.016	27	144	1.01	55	< .01	< 3	1.56	0.03	0.23	< 2
96892	1	53	11	84	< .3	80	21	814	4.33	< 2	< 5	< 2	14	50	< .2	< 2	3	16	1.15	0.035	45	99	1.28	64	< .01	< 3	1.91	0.02	0.25	< 2
96893	2	23	6	42	< .3	18	6	510	2.27	< 2	< 5	< 2	9	42	< .2	< 2	3	12	1.50	0.016	26	165	0.72	32	< .01	< 3	1.02	0.04	0.14	< 2
96894	1	47	13	80	< .3	48	17	441	4.31	< 2	< 5	< 2	17	76	0.4	< 2	< 2	13	3.25	1.125	84	80	1.04	94	0.01	< 3	1.92	0.02	0.35	< 2
96895	2	85	16	62	< .3	60	21	501	4.42	< 2	< 5	< 2	17	54	< .2	< 2	2	14	1.25	0.155	68	88	1.18	66	0.01	< 3	1.79	0.01	0.25	< 2
96896	1	62	53	90	< .3	54	20	768	4.94	11	< 5	< 2	10	22	0.2	< 2	2	77	0.70	0.053	35	117	2.87	58	0.22	< 3	3.08	0.01	0.21	< 2
96897	1	43	7	60	< .3	54	18	294	3.28	< 2	< 5	< 2	25	37	< .2	< 2	< 2	12	0.79	0.050	90	63	0.88	68	0.14	4	1.62	0.02	0.29	< 2
96898	1	50	58	99	< .3	47	17	270	3.67	< 2	< 5	< 2	21	34	< .2	< 2	3	12	0.74	0.045	74	60	0.94	63	0.11	3	1.61	0.02	0.26	< 2
96899	3	38	34	53	< .3	37	12	314	3.25	< 2	< 5	< 2	15	42	< .2	< 2	< 2	14	1.07	0.034	48	113	0.89	61	0.11	< 3	1.53	0.02	0.26	< 2
96900	1	33	11	90	< .3	43	13	357	4.04	< 2	< 5	< 2	21	30	< .2	< 2	5	14	0.56	0.047	70	60	1.46	65	0.12	4	2.21	0.02	0.25	< 2
STANDARD C2	21	62	37	135	6.5	74	35	1191	4.10	45	18	8	36	54	20.9	18	21	76	0.55	0.097	43	67	1.02	218	0.09	31	2.12	0.06	0.15	12
682-687	3	160	28	408	3	91	27	878	6.15	3	7	< 2	10	83	< .2	< 2	< 2	11	1.52	0.054	35	55	1.15	56	0.01	< 3	1.97	0.03	0.19	102
687-692	6	247	42	684	5	89	24	847	5.81	10	< 5	< 2	9	70	0.4	2	< 2	10	1.29	0.060	35	61	1.01	44	0.01	< 3	1.66	0.03	0.15	144
692-697	7	213	21	590	4.1	89	27	729	6.27	3	8	< 2	12	55	0.5	< 2	< 2	11	0.99	0.210	61	60	1.17	50	0.01	4	1.96	0.03	0.24	98
697-702	< 1	142	66	280	3.5	129	37	1099	6.68	33	< 5	< 2	7	57	0.2	< 2	< 2	86	1.49	0.092	33	198	3.28	213	0.13	< 3	3.57	0.03	0.16	91
702-707	1	142	71	289	4.5	131	35	1108	6.77	32	< 5	< 2	8	56	1	< 2	< 2	84	1.49	0.095	32	191	3.32	209	0.13	3	3.55	0.02	0.16	88
707-712	4	147	28	508	3.1	75	23	732	5.34	13	< 5	< 2	14	66	< .2	< 2	< 2	22	1.42	0.072	50	84	1.35	171	0.09	4	2.06	0.03	0.18	88
712-717	< 1	83	18	248	1.1	46	15	551	5.15	< 2	< 5	< 2	13	39	< .2	< 2	< 2	21	0.82	0.053	45	56	1.31	259	0.13	3	2.28	0.05	0.22	40
717-722	3	148	22	448	1.9	73	23	592	5.33	5	< 5	< 2	14	47	< .2	< 2	< 2	15	0.98	0.057	54	40	1.13	195	0.10	< 3	1.85	0.03	0.21	56



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
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TO: NOBLE METAL GROUP
 FILE # 38372

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
722-727	4	104	24	278	1.5	79	25	765	6.13	2	< 5	< 2	16	64	< 2	2	< 2	20	1.58	0.062	63	60	1.54	172	0.13	< 3	2.42	0.03	0.21	39
727-732	6	128	34	402	1.7	87	26	831	5.51	18	< 5	< 2	14	83	< 2	< 2	< 2	22	2.01	0.073	53	79	1.36	327	0.14	< 3	2.19	0.04	0.14	51
732-737	2	80	25	250	1.8	50	17	608	4.85	3	< 5	< 2	11	69	< 2	< 2	2	20	1.05	0.054	46	53	1.30	184	0.12	< 3	2.19	0.05	0.18	47
737-742	5	133	25	364	3.3	63	20	618	4.73	8	< 5	< 2	10	80	< 2	3	2	14	1.77	0.061	48	73	1.00	119	0.07	< 3	1.68	0.03	0.13	99
742-747	1	125	24	328	3.4	62	20	591	4.73	7	9	< 2	12	76	< 2	3	4	13	1.71	0.060	51	62	0.99	100	0.07	5	1.64	0.02	0.12	91
RE 742-747	3	128	19	339	3	64	19	584	4.76	7	< 5	< 2	11	74	< 2	< 2	2	12	1.66	0.060	48	50	0.98	110	0.07	< 3	1.60	0.02	0.12	93
747-752	3	186	35	351	4.7	72	21	552	4.77	6	19	< 2	12	68	1.2	3	< 2	16	1.67	0.059	55	44	1.02	170	0.13	< 3	1.71	0.03	0.15	86
752-757	4	116	36	290	2.6	67	21	572	4.88	4	< 5	< 2	14	68	< 2	< 2	< 2	16	1.71	0.060	57	60	1.04	168	0.13	3	1.70	0.03	0.15	85
757-762	4	97	22	250	1.7	72	23	568	4.74	4	< 5	< 2	13	71	< 2	2	4	14	2.13	0.050	50	46	0.89	153	0.11	< 3	1.46	0.03	0.13	47
762-767	6	102	28	191	1.9	65	27	629	5.14	9	< 5	< 2	8	83	< 2	< 2	< 2	37	2.61	0.040	34	68	1.25	131	0.14	< 3	1.82	0.04	0.13	54
767-772	5	103	21	196	2.5	67	27	586	4.97	14	< 5	< 2	10	78	0.4	< 2	< 2	37	2.36	0.042	34	72	1.21	137	0.14	< 3	1.72	0.03	0.12	53
772-777	5	109	24	320	2.3	70	25	552	4.86	7	< 5	< 2	13	77	0.2	< 2	2	18	1.95	0.049	43	59	0.95	190	0.09	< 3	1.58	0.03	0.17	62
777-782	4	109	30	312	3	72	25	545	4.97	10	< 5	< 2	12	77	0.5	< 2	2	18	1.94	0.048	43	66	0.95	161	0.09	< 3	1.56	0.03	0.16	66
782-787	8	101	28	324	1.2	75	27	529	5.25	4	< 5	< 2	15	86	0.2	< 2	< 2	13	2.27	0.046	56	59	0.84	93	0.09	< 3	1.50	0.03	0.19	35
787-792	4	95	28	314	1	69	25	526	4.94	3	10	< 2	13	84	0.2	< 2	< 2	13	2.24	0.042	55	66	0.82	125	0.09	< 3	1.44	0.03	0.19	35
792-797	6	116	27	387	1.3	75	27	772	6.16	5	< 5	< 2	13	134	< 2	< 2	< 2	14	4.49	0.037	42	74	0.93	84	0.08	< 3	1.61	0.03	0.18	32
797-802	4	89	24	287	1.1	68	25	702	5.60	3	< 5	2	13	129	< 2	< 2	2	13	4.50	0.032	45	70	0.92	126	0.08	< 3	1.58	0.03	0.19	26
802-807	6	121	23	397	1.1	69	24	644	5.43	4	< 5	< 2	13	94	< 2	< 2	< 2	12	2.43	0.046	49	56	1.03	85	0.08	< 3	1.77	0.03	0.22	41
807-812	2	99	21	348	1.6	64	23	618	5.17	5	< 5	< 2	16	91	0.2	< 2	2	12	2.38	0.045	49	54	1.03	131	0.09	9	1.72	0.03	0.22	42
812-817	5	119	32	447	4	58	19	570	4.49	7	< 5	< 2	14	96	1.4	< 2	< 2	12	2.50	0.046	40	49	0.94	186	0.08	7	1.59	0.03	0.17	65
817-822	6	116	26	425	4	58	20	590	4.63	9	< 5	< 2	13	96	1.3	< 2	< 2	13	2.49	0.044	41	52	0.94	171	0.08	< 3	1.55	0.03	0.17	72
822-827	8	119	25	396	5.3	53	16	579	4.46	6	8	< 2	15	106	1.4	< 2	< 2	12	2.72	0.044	28	79	0.80	116	0.02	< 3	1.36	0.03	0.11	126
827-832	6	122	32	384	7.6	51	16	570	4.40	7	< 5	< 2	15	104	3.2	3	< 2	12	2.65	0.044	30	85	0.78	112	0.02	< 3	1.33	0.03	0.10	124
832-837	11	122	29	398	3.2	61	20	549	5.12	8	20	< 2	15	94	0.5	< 2	< 2	12	1.46	0.053	44	91	0.99	125	0.02	< 3	1.73	0.02	0.19	84
837-842	14	116	28	365	5.3	57	19	514	4.79	6	< 5	< 2	17	87	1.8	< 2	3	10	1.45	0.050	41	64	0.90	113	0.01	6	1.57	0.02	0.17	84
842-847	8	100	21	254	2.8	59	18	492	4.47	4	< 5	< 2	17	71	0.7	< 2	2	11	1.05	0.045	53	64	0.76	137	0.02	< 3	1.34	0.02	0.17	71
847-854	8	105	22	255	2.1	57	18	494	4.52	3	8	< 2	18	70	< 2	< 2	2	9	1.04	0.044	54	74	0.76	117	0.01	< 3	1.33	0.02	0.17	72
STANDARD C2	19	59	43	132	6.1	70	36	1155	3.93	42	19	9	31	49	20.1	18	19	69	0.52	0.097	40	59	1.02	197	0.08	26	2.02	0.07	0.17	10

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38359
 Date : July 30, 1996
 Samples :

Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
<u>"ASSAY ANALYSIS"</u>	
96761	7
96762	10
96763	<5
96764	<5
96765	<5
96766	<5
96767	<5
96768	5
96769	7
96770	5
96771	13
96772	<5
96773	<5
96774	16
96775	7
96776	<5
96777	6
96778	5
96779	5
96780	5
96781	6
96782	44
96783	22
96784	16
96785	11
96786	4
96787	9
96788	18
96789	<5
96790	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :



 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins



File No : 38359
Date : July 30, 1996
Samples :

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96791	7
96792	10
96793	<5
96794	8
96795	<5
96796	<5
96797	<5
96798	10
96799	<5
96800	20
96801	5
96802	<5
96803	<5
96804	<5
96805	<5
96806	<5
96807	<5
96808	<5
96809	<5
96810	<5
96811	17
96812	22
96813	10
96814	5
96815	16
96816	9
96817	5
96818	8
96819	<5
96820	<5
96821	<5

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File No : 38359
Date : July 30, 1996
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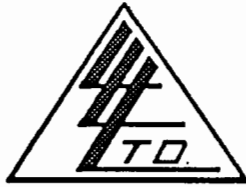
Sample No.	PPB Au
96822	<5
96823	11
96824	<5
96825	<5
96826	<5
96827	<5
96828	18
96829	<5
96830	<5
96831	<5
96832	<5
96833	<5
96834	<5
96835	<5
96836	<5
96837	<5
96838	30
96839	22
96840	38
96841	11
96842	10
96843	9
96844	13
96845	<5
96846	<5
96847	6
96848	<5
96849	<5
96850	<5
96851	<5
96852	5

I HEREBY CERTIFY that the above results are those assays
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Assayer

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801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins



File No : 38359
Date : July 30, 1996
Samples :

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96853	<5
96854	<5
96855	8
96856	<5
96857	<5
96858	<5
96859	6
96860	<5
96861	8
96862	16
96863	11
96864	<5
96865	<5
96866	6
96867	10
96868	8
96869	6
96870	8
96871	<5
96872	<5
96873	5
96874	5
96875	5
96876	6
96877	<5
96878	10
96879	<5
96880	<5
96881	14
96882	6
96883	5

I HEREBY CERTIFY that the above results are those assays
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Assayer

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File No : 38359
Date : July 30, 1996
Samples :

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
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Sample No.	PPB Au
96884	<5
96885	<5
96886	11
96887	<5

I HEREBY CERTIFY that the above results are those assays
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Assayer

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 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38359

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96761	1	39	9	127	<.3	47	16	527	5.63	<2	<5	<2	19	29	<.2	<2	3	24	0.39	0.036	33	126	1.76	136	0.07	<3	2.88	0.01	0.43	<2
96762	2	11	11	70	<.3	63	43	266	2.99	60	<5	<2	18	8	<.2	<2	<2	15	0.11	0.031	29	110	1.00	245	0.05	3	1.79	0.01	0.50	<2
96763	4	31	4	95	<.3	42	17	428	4.09	3	6	<2	8	18	<.2	<2	<2	18	0.25	0.019	11	258	1.27	157	0.06	3	1.97	0.01	0.27	<2
96764	2	21	5	77	<.3	32	13	542	3.59	<2	<5	<2	17	64	<.2	2	<2	24	0.94	0.023	18	195	1.01	280	0.14	<3	1.89	0.04	0.40	<2
96765	2	16	11	79	<.3	31	12	487	3.56	<2	<5	<2	14	34	<.2	<2	<2	24	0.54	0.023	14	160	1.00	254	0.15	<3	1.80	0.03	0.36	<2
96766	2	<1	50	89	<.3	480	47	1269	5.79	23	<5	<2	2	356	0.3	6	<2	90	6.70	0.012	7	954	6.09	8	0.17	<3	4.54	<.01	0.03	<2
96767	1	120	48	61	<.3	352	38	893	4.75	<2	<5	<2	<2	321	0.3	4	<2	101	6.07	0.024	6	847	5.62	13	0.33	<3	3.99	<.01	0.13	<2
96768	1	64	4	60	<.3	297	44	861	4.87	5	<5	<2	<2	273	<.2	<2	<2	125	5.28	0.040	6	928	5.01	62	0.39	<3	3.82	0.01	0.23	<2
96769	1	119	3	53	<.3	241	32	671	4.44	<2	<5	<2	<2	150	<.2	<2	<2	109	2.82	0.058	6	790	4.97	70	0.38	<3	3.69	0.01	0.16	<2
96770	2	57	<3	66	<.3	148	31	676	5.10	<2	<5	<2	17	100	<.2	<2	2	87	1.72	0.032	26	329	5.15	133	0.27	<3	4.01	0.03	0.14	<2
96771	1	683	21	94	<.3	180	51	1148	7.45	<2	<5	<2	18	250	0.2	<2	2	115	4.48	0.006	29	231	8.62	27	0.18	<3	5.95	0.03	0.05	<2
96772	1	<1	<3	76	<.3	302	42	782	5.79	<2	<5	<2	<2	92	<.2	<2	<2	138	1.64	0.069	10	958	6.74	6	0.37	<3	4.70	<.01	0.03	<2
96773	1	45	3	54	<.3	558	50	556	4.04	34	<5	<2	<2	89	<.2	<2	3	70	1.80	0.032	5	1214	4.98	3	0.25	<3	3.31	<.01	0.02	<2
96774	1	153	11	44	<.3	161	27	940	3.87	2	<5	<2	<2	609	0.2	<2	<2	111	11.56	0.019	5	569	4.04	33	0.29	<3	2.96	0.02	0.25	<2
96775	1	129	9	33	<.3	105	17	891	2.87	<2	<5	<2	3	882	0.3	<2	4	78	14.03	0.002	6	371	2.85	29	0.26	3	2.13	0.02	0.17	<2
96776	1	144	<3	65	<.3	603	53	684	5.07	18	6	<2	<2	81	0.2	<2	<2	102	1.68	0.035	5	1415	6.56	3	0.33	<3	4.25	<.01	0.03	<2
96777	1	13	16	39	<.3	22	5	867	1.74	2	<5	<2	9	239	<.2	<2	2	35	12.55	<.001	18	137	0.51	30	0.14	<3	0.77	0.05	0.08	<2
96778	2	28	11	90	<.3	51	20	492	4.10	3	<5	<2	17	35	<.2	<2	<2	24	0.69	0.114	31	186	1.42	266	0.06	3	2.39	0.03	0.46	<2
96779	2	15	45	69	0.3	21	7	502	2.15	2	<5	<2	12	134	<.2	<2	3	29	5.36	<.001	21	187	0.53	77	0.15	<3	1.12	0.07	0.19	<2
96780	2	50	37	97	<.3	47	17	571	3.41	<2	6	<2	14	72	0.2	<2	2	30	3.83	0.004	19	159	0.93	125	0.21	<3	1.75	0.04	0.40	<2
96781	2	6	<3	94	<.3	39	14	566	4.24	<2	5	<2	19	17	<.2	<2	<2	33	0.47	0.031	26	176	1.30	176	0.28	<3	2.36	0.04	0.66	<2
96782	2	80	19	82	<.3	61	21	713	3.34	<2	<5	<2	12	147	0.3	<2	<2	28	2.97	0.010	21	169	0.96	123	0.16	3	1.81	0.05	0.35	<2
RE 96782	2	84	18	85	<.3	66	22	739	3.47	<2	<5	<2	13	152	<.2	<2	2	29	3.06	0.011	22	175	1.00	126	0.16	<3	1.88	0.05	0.35	<2
96783	3	40	27	73	<.3	49	19	468	3.56	4	<5	<2	19	13	<.2	<2	2	21	0.29	0.024	28	212	1.05	131	0.17	3	1.89	0.03	0.47	<2
96784	2	91	12	71	<.3	28	10	466	3.00	<2	<5	<2	20	37	<.2	<2	<2	23	0.59	0.063	31	162	0.87	125	0.13	4	1.70	0.04	0.43	<2
96785	2	14	20	122	0.3	59	21	684	5.59	<2	8	<2	18	16	<.2	4	2	40	0.38	0.026	25	216	1.78	179	0.30	3	3.08	0.03	0.79	<2
96786	2	14	35	100	<.3	39	14	605	4.54	<2	<5	<2	13	12	<.2	6	2	24	0.27	0.028	19	158	1.35	103	0.15	3	2.25	0.03	0.35	<2



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 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38359

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96787	2	5	44	70	<.3	25	7	523	2.39	<2	<5	<2	11	140	<.2	<2	2	30	2.92	0.368	36	151	0.62	134	0.10	4	1.45	0.06	0.45	<2
96788	1	15	26	64	<.3	35	12	469	2.72	9	<5	<2	15	71	<.2	<2	2	21	3.54	0.019	31	106	0.77	106	0.14	3	1.51	0.03	0.43	<2
96789	2	10	22	93	<.3	30	12	544	3.73	<2	<5	<2	15	26	<.2	<2	<2	29	0.51	0.024	21	152	1.17	86	0.11	<3	1.92	0.04	0.33	<2
96790	2	35	<3	74	<.3	41	16	484	3.63	2	<5	<2	21	22	<.2	<2	<2	21	0.40	0.041	39	149	1.10	142	0.15	<3	2.03	0.03	0.51	<2
96791	1	14	7	71	<.3	32	13	364	3.37	4	<5	<2	13	34	<.2	<2	5	19	0.55	0.021	21	128	1.18	180	0.05	<3	1.82	0.03	0.34	<2
96792	1	158	<3	69	<.3	719	95	1878	6.08	401	<5	<2	<2	356	0.7	<2	4	139	7.52	0.009	5	1522	8.08	8	0.10	<3	3.21	<.01	0.15	<2
96793	1	2	28	60	<.3	266	35	1931	4.73	43	<5	<2	3	826	0.8	<2	4	116	15.48	<.001	7	881	5.53	11	0.08	<3	3.22	<.01	0.05	<2
96794	2	<1	7	76	<.3	404	38	1349	5.37	32	<5	<2	3	311	0.3	<2	<2	101	8.65	<.001	6	870	5.62	14	0.11	<3	4.06	0.01	0.05	<2
STANDARD C2	20	56	43	144	6.5	75	37	1171	3.96	45	24	8	36	52	21.4	19	20	71	0.57	0.097	39	66	0.99	204	0.08	27	1.94	0.06	0.14	16
96795	2	<1	5	59	<.3	46	13	522	3.74	<2	<5	<2	18	56	<.2	<2	<2	38	1.10	0.022	25	148	2.85	151	0.04	4	2.92	0.03	0.36	<2
96796	1	63	82	136	0.3	575	72	2018	7.39	110	<5	<2	<2	404	1.6	<2	<2	206	10.04	0.018	6	1594	6.59	6	0.05	<3	5.14	<.01	<.01	<2
96797	2	116	11	72	<.3	57	26	590	4.25	<2	<5	<2	14	81	0.2	<2	<2	25	1.22	0.020	22	153	1.99	215	0.04	3	2.55	0.02	0.37	<2
96798	1	32	7	91	<.3	53	17	467	4.12	<2	<5	<2	16	43	<.2	<2	<2	19	0.82	0.120	39	133	1.60	194	0.04	3	2.45	0.01	0.44	<2
96799	1	39	<3	101	<.3	57	20	418	4.44	<2	<5	<2	23	18	<.2	2	<2	20	0.32	0.055	50	79	1.46	261	0.07	4	2.69	0.02	0.61	<2
96800	<1	42	<3	105	<.3	55	22	512	4.82	<2	7	<2	13	21	0.2	<2	<2	20	0.70	0.021	19	111	1.40	153	0.04	3	2.43	0.02	0.42	<2
96801	1	5	13	36	<.3	15	6	1210	1.91	3	<5	<2	10	166	<.2	<2	<2	16	4.11	<.001	24	95	0.49	40	0.04	<3	0.91	0.04	0.12	<2
96802	<1	35	5	102	<.3	59	18	449	3.79	14	<5	<2	16	20	<.2	<2	<2	13	0.63	0.032	32	40	1.30	96	0.02	3	2.11	0.01	0.35	<2
96803	2	53	4	123	<.3	50	20	388	4.22	2	<5	<2	13	16	<.2	<2	<2	18	0.44	0.028	24	110	1.34	114	0.05	3	2.30	0.02	0.44	<2
96804	1	23	4	100	<.3	52	19	331	3.95	<2	<5	<2	13	43	<.2	2	<2	17	0.68	0.093	26	74	1.25	110	0.05	4	2.27	0.02	0.48	<2
96805	2	27	59	121	<.3	67	50	346	4.11	45	<5	<2	17	22	0.2	4	4	17	0.39	0.031	35	84	1.29	107	0.07	3	2.28	0.02	0.45	<2
96806	1	16	27	64	<.3	34	19	309	2.64	9	<5	<2	11	145	0.3	<2	4	18	4.31	1.319	55	65	0.78	133	0.04	3	1.94	0.02	0.58	<2
96807	1	26	4	110	<.3	56	21	331	4.09	5	<5	<2	19	23	<.2	<2	<2	16	0.38	0.039	32	63	1.39	87	0.06	3	2.24	0.02	0.40	<2
96808	1	44	9	90	<.3	66	31	280	4.19	9	<5	<2	16	13	0.2	<2	<2	20	0.19	0.033	22	120	1.29	122	0.08	<3	2.29	0.03	0.59	<2
96809	1	24	23	92	<.3	47	17	305	3.40	4	<5	<2	14	27	0.2	2	2	11	0.48	0.034	23	72	1.07	71	0.04	3	1.81	0.02	0.32	<2
96810	<1	36	17	97	<.3	44	17	305	4.03	<2	<5	<2	14	25	<.2	<2	<2	16	0.37	0.028	24	93	1.19	98	0.06	3	2.10	0.02	0.43	<2
96811	1	34	19	86	<.3	39	16	3300	3.50	<2	<5	<2	10	48	<.2	<2	<2	17	0.50	0.024	26	88	1.02	283	0.06	3	2.09	0.03	0.54	<2
96812	<1	14	<3	90	<.3	37	12	342	3.35	<2	<5	<2	16	37	<.2	<2	<2	18	0.52	0.031	34	89	1.12	127	0.06	3	2.18	0.02	0.55	<2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96813	1	21	< 3	113	< .3	51	17	756	4.08	< 2	< 5	< 2	15	36	0.2	< 2	2	19	0.49	0.027	26	101	1.32	135	0.07	3	2.39	0.02	0.51	< 2
96814	1	51	35	102	< .3	59	35	319	4.28	23	< 5	< 2	17	24	< .2	< 2	2	16	0.30	0.033	27	78	1.33	87	0.04	3	2.19	0.02	0.38	< 2
96815	< 1	27	41	109	< .3	62	23	466	4.47	5	< 5	< 2	17	27	< .2	< 2	2	17	0.37	0.035	28	55	1.48	92	0.05	< 3	2.38	0.02	0.36	< 2
96816	1	39	28	81	< .3	29	11	363	3.77	< 2	< 5	< 2	8	28	< .2	< 2	< 2	23	0.61	0.014	15	175	1.07	58	0.07	3	1.90	0.06	0.23	< 2
RE 96816	1	38	30	78	< .3	30	11	355	3.68	< 2	6	< 2	9	27	< .2	< 2	< 2	21	0.59	0.014	15	172	1.04	55	0.06	3	1.84	0.05	0.22	< 2
96817	1	16	28	63	< .3	23	9	596	2.99	< 2	< 5	< 2	10	20	< .2	< 2	< 2	20	0.25	0.017	15	185	0.84	76	0.08	< 3	1.55	0.07	0.25	< 2
96818	1	53	8	99	< .3	49	28	308	4.55	17	< 5	< 2	15	16	< .2	< 2	2	20	0.24	0.027	25	128	1.33	77	0.06	< 3	2.20	0.03	0.33	< 2
96819	< 1	31	6	104	< .3	54	23	332	4.09	7	5	< 2	15	16	< .2	< 2	< 2	15	0.32	0.030	25	69	1.27	84	0.05	3	2.16	0.02	0.36	< 2
96820	1	9	< 3	114	< .3	57	24	401	4.70	24	< 5	< 2	14	20	< .2	< 2	4	22	0.47	0.028	33	110	1.43	132	0.06	4	2.68	0.02	0.54	< 2
96821	< 1	38	14	101	< .3	46	18	336	4.14	< 2	< 5	< 2	12	23	< .2	< 2	< 2	22	0.32	0.023	19	115	1.29	87	0.07	3	2.14	0.03	0.35	< 2
96822	< 1	31	15	130	< .3	58	25	459	4.81	5	< 5	< 2	17	39	< .2	< 2	< 2	29	0.69	0.053	43	89	1.56	99	0.07	3	2.51	0.02	0.43	< 2
96823	1	10	17	59	< .3	26	12	332	2.64	7	< 5	< 2	14	37	< .2	< 2	2	15	0.50	0.026	34	155	0.77	97	0.05	3	1.45	0.03	0.33	< 2
96824	2	5	89	39	< .3	22	9	394	1.68	12	< 5	< 2	22	59	< .2	9	< 2	13	0.79	0.020	25	119	0.41	127	0.10	3	1.03	0.02	0.50	< 2
96825	1	6	16	39	< .3	19	9	274	1.75	10	< 5	< 2	14	35	< .2	< 2	< 2	12	0.63	0.012	17	127	0.45	118	0.07	< 3	1.10	0.04	0.40	< 2
96826	1	9	22	40	< .3	20	7	333	1.86	5	< 5	< 2	9	34	< .2	< 2	< 2	12	0.51	0.011	17	142	0.47	98	0.06	< 3	0.92	0.04	0.31	< 2
96827	1	6	30	49	< .3	24	9	327	2.22	3	< 5	< 2	19	33	< .2	< 2	< 2	17	0.97	0.017	20	138	0.60	147	0.12	< 3	1.38	0.04	0.59	< 2
96828	1	25	33	49	< .3	31	16	463	2.20	11	< 5	< 2	13	84	< .2	< 2	2	21	1.69	0.025	18	102	0.58	96	0.08	3	1.23	0.06	0.40	< 2
STANDARD C2	21	55	37	148	6.3	76	38	1166	3.99	44	22	8	37	51	21.1	21	19	76	0.55	0.096	41	63	1.00	203	0.09	30	2.00	0.06	0.15	16
96829	< 1	13	10	104	< .3	48	22	513	3.91	15	< 5	< 2	9	31	< .2	< 2	< 2	18	0.64	0.022	20	67	1.25	91	0.04	< 3	2.19	0.02	0.38	< 2
96830	< 1	13	3	115	< .3	56	20	434	4.40	13	< 5	< 2	11	24	0.3	< 2	< 2	18	0.42	0.025	25	73	1.44	88	0.05	3	2.37	0.02	0.39	< 2
96831	< 1	22	20	107	< .3	53	17	416	3.85	< 2	< 5	< 2	11	33	< .2	< 2	< 2	14	0.58	0.035	18	43	1.20	92	0.04	< 3	2.15	0.01	0.45	< 2
96832	< 1	31	5	87	< .3	52	21	260	3.50	10	< 5	< 2	14	20	< .2	< 2	2	13	0.33	0.040	26	55	1.08	99	0.03	< 3	1.98	0.01	0.45	< 2
96833	1	17	6	86	< .3	36	13	332	3.95	< 2	< 5	< 2	11	17	< .2	< 2	< 2	17	0.30	0.018	21	158	1.10	73	0.04	< 3	1.92	0.03	0.33	< 2
96834	< 1	4	5	98	< .3	44	16	362	3.62	3	< 5	< 2	20	47	0.2	< 2	< 2	14	1.14	0.319	63	42	1.12	99	0.04	< 3	2.19	0.01	0.50	< 2
96835	< 1	14	6	116	< .3	57	24	474	4.43	19	< 5	< 2	13	34	< .2	< 2	2	19	0.41	0.028	23	93	1.39	98	0.05	< 3	2.32	0.01	0.38	< 2
96836	< 1	37	26	122	< .3	57	28	492	4.29	24	< 5	< 2	13	44	< .2	< 2	< 2	16	0.83	0.114	24	56	1.32	91	0.03	< 3	2.28	0.01	0.36	< 2
96837	1	17	13	20	< .3	15	6	591	1.61	4	< 5	< 2	5	87	< .2	< 2	< 2	5	1.27	0.008	12	212	0.34	51	0.02	< 3	0.47	0.05	0.25	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96838	1	28	3	101	< .3	61	21	423	4.03	7	< 5	< 2	21	25	< .2	< 2	2	18	0.34	0.034	47	100	1.21	138	0.05	3	2.24	0.02	0.49	< 2
96839	1	47	16	82	< .3	53	38	355	3.67	32	< 5	< 2	19	18	< .2	< 2	< 2	16	0.25	0.027	41	169	1.02	134	0.05	3	2.00	0.02	0.50	< 2
96840	1	19	7	104	< .3	59	27	455	4.19	19	< 5	< 2	17	24	< .2	< 2	2	19	0.32	0.032	43	90	1.31	116	0.04	< 3	2.35	0.02	0.44	< 2
96841	1	8	21	33	< .3	16	7	1019	1.80	< 2	< 5	< 2	8	100	< .2	< 2	< 2	11	2.76	< .001	18	126	0.40	46	0.01	< 3	0.76	0.03	0.16	< 2
96842	2	17	21	47	< .3	24	9	1072	2.43	< 2	< 5	< 2	10	88	< .2	< 2	< 2	10	2.97	< .001	23	173	0.51	62	0.02	< 3	1.10	0.03	0.26	< 2
96843	1	18	122	72	< .3	30	12	336	2.87	< 2	< 5	< 2	20	34	< .2	< 2	4	11	0.49	0.035	65	152	0.83	100	0.03	< 3	1.57	0.01	0.43	< 2
96844	1	36	53	92	< .3	47	20	424	4.31	< 2	< 5	< 2	17	57	0.2	< 2	< 2	12	0.94	0.078	48	62	1.12	44	0.02	< 3	1.73	0.01	0.20	< 2
96845	1	8	10	51	< .3	22	8	393	2.57	< 2	< 5	< 2	9	27	< .2	< 2	< 2	16	0.46	0.014	18	160	0.69	64	0.05	< 3	1.39	0.06	0.26	< 2
96846	< 1	43	5	105	< .3	58	35	598	4.18	43	< 5	< 2	16	43	< .2	< 2	< 2	11	0.94	0.061	46	50	1.29	79	0.01	3	2.33	0.01	0.37	< 2
96847	< 1	3	4	123	< .3	50	16	457	5.09	< 2	< 5	< 2	8	19	< .2	< 2	2	21	0.26	0.025	22	183	1.51	74	0.03	< 3	2.61	0.02	0.31	< 2
96848	1	48	6	94	< .3	57	53	310	3.56	73	< 5	< 2	18	27	< .2	< 2	< 2	11	0.41	0.087	75	107	1.21	87	0.02	< 3	2.15	0.01	0.40	< 2
96849	< 1	14	< 3	96	< .3	59	32	472	3.96	40	< 5	< 2	16	27	< .2	< 2	< 2	11	0.48	0.084	50	37	1.36	68	0.01	< 3	2.16	0.01	0.30	< 2
96850	< 1	78	6	104	< .3	51	17	617	4.45	10	< 5	< 2	14	33	< .2	< 2	< 2	14	0.51	0.056	42	60	1.37	72	0.01	< 3	2.33	0.01	0.32	< 2
RE 96850	< 1	72	8	105	< .3	49	17	618	4.46	10	< 5	< 2	14	33	0.3	< 2	< 2	14	0.51	0.056	41	58	1.37	72	0.01	< 3	2.33	0.01	0.31	< 2
96851	4	25	12	71	< .3	30	11	689	3.49	< 2	< 5	< 2	11	52	< .2	< 2	< 2	24	0.70	0.015	29	294	0.98	122	0.07	3	2.11	0.08	0.42	< 2
96852	< 1	18	13	172	< .3	74	32	1000	6.96	15	< 5	< 2	9	34	< .2	< 2	< 2	33	0.52	0.023	27	102	2.23	63	0.04	< 3	3.50	0.01	0.25	< 2
96853	2	50	36	98	< .3	39	21	574	3.59	3	< 5	< 2	8	69	0.2	< 2	< 2	17	2.43	0.011	24	129	0.94	60	0.02	< 3	1.83	0.03	0.27	< 2
96854	< 1	42	38	128	< .3	59	21	686	5.59	7	< 5	< 2	13	45	< .2	< 2	3	19	0.62	0.033	36	116	1.68	68	0.01	< 3	2.86	0.01	0.30	< 2
96855	1	93	11	104	< .3	119	110	453	4.23	173	< 5	< 2	15	18	< .2	< 2	< 2	11	0.29	0.072	49	45	1.41	88	0.01	< 3	2.46	0.01	0.40	< 2
96856	< 1	34	4	93	< .3	41	15	403	3.59	8	< 5	< 2	22	24	< .2	< 2	< 2	12	0.30	0.070	79	81	1.21	107	0.02	3	2.23	0.01	0.46	< 2
96857	1	40	15	74	< .3	36	15	548	3.20	9	< 5	< 2	17	56	0.3	< 2	< 2	16	1.95	0.029	42	73	0.96	68	0.02	< 3	1.82	0.02	0.31	< 2
96858	< 1	< 1	9	80	< .3	34	11	480	3.23	< 2	< 5	< 2	18	52	< .2	< 2	< 2	13	0.73	0.059	63	71	1.02	95	0.02	< 3	1.97	0.02	0.41	< 2
96859	1	53	29	94	< .3	53	37	525	3.96	25	< 5	< 2	14	50	< .2	< 2	2	13	0.82	0.029	44	63	1.12	35	0.02	< 3	1.82	0.01	0.15	< 2
96860	< 1	44	120	104	0.4	47	17	540	4.05	3	< 5	< 2	20	63	0.2	< 2	2	17	1.77	0.044	72	52	1.30	72	0.02	< 3	2.28	0.02	0.31	< 2
96861	1	15	20	47	< .3	31	11	357	2.19	7	< 5	< 2	15	42	< .2	< 2	< 2	11	0.70	0.034	30	103	0.56	73	0.04	< 3	1.16	0.03	0.25	< 2
96862	2	14	38	30	< .3	19	7	293	1.66	5	< 5	< 2	12	32	< .2	2	< 2	8	0.73	0.015	24	87	0.35	47	0.04	< 3	0.75	0.01	0.15	< 2
STANDARD C2	20	58	40	144	6.3	73	38	1193	4.00	42	18	8	34	50	21.6	17	16	72	0.53	0.097	39	64	0.99	198	0.08	28	1.93	0.06	0.14	16



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METAL GROUP
 FILE # 38359

DATE: August 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96863	1	17	4	149	< .3	57	25	796	5.58	19	< 5	< 2	21	27	< .2	< 2	< 2	27	0.38	0.046	47	103	1.58	81	0.06	< 3	2.87	0.02	0.31	< 2
96864	2	24	< 3	144	< .3	70	28	970	5.69	17	< 5	< 2	23	21	0.2	< 2	3	21	0.26	0.054	62	87	1.56	90	0.01	< 3	2.87	0.01	0.34	< 2
96865	2	36	7	70	< .3	28	12	525	3.08	< 2	< 5	< 2	11	37	< .2	< 2	< 2	11	1.17	0.015	25	114	0.73	41	0.01	< 3	1.34	0.01	0.18	< 2
96866	1	32	4	112	< .3	39	18	823	4.26	< 2	< 5	< 2	17	37	< .2	< 2	3	13	0.70	0.070	49	75	1.10	32	0.01	< 3	1.79	0.01	0.17	< 2
96867	1	45	8	82	< .3	49	18	891	4.42	< 2	< 5	< 2	14	41	< .2	3	< 2	12	0.68	0.025	40	152	0.94	57	< .01	< 3	1.73	0.02	0.27	< 2
96868	1	22	8	84	< .3	32	13	763	4.53	2	< 5	< 2	14	20	< .2	< 2	4	13	0.32	0.028	35	173	1.13	47	< .01	< 3	1.72	0.02	0.24	< 2
96869	3	41	14	72	< .3	59	21	536	4.30	< 2	< 5	< 2	24	10	< .2	< 2	2	7	0.10	0.029	84	40	0.88	49	< .01	< 3	1.39	0.01	0.24	< 2
96870	< 1	34	18	155	< .3	74	32	1419	6.12	15	< 5	< 2	15	41	< .2	< 2	2	32	0.49	0.041	47	123	2.02	67	0.05	< 3	3.18	0.02	0.28	< 2
96871	< 1	9	28	58	< .3	25	10	1948	2.74	4	< 5	< 2	10	189	< .2	< 2	< 2	28	7.38	0.005	25	160	0.81	44	0.04	< 3	1.44	0.06	0.19	< 2
96872	1	40	17	113	< .3	51	21	799	4.53	< 2	< 5	< 2	15	32	< .2	< 2	2	14	0.44	0.029	52	67	1.37	37	0.01	< 3	1.85	0.01	0.15	< 2
96873	< 1	17	9	54	< .3	23	9	757	2.68	< 2	< 5	< 2	10	65	< .2	2	< 2	10	2.19	0.021	29	62	0.74	23	0.01	< 3	1.02	0.01	0.09	< 2
RE 96873	< 1	18	11	54	< .3	24	10	785	2.79	2	< 5	< 2	10	69	0.2	< 2	< 2	11	2.31	0.022	31	67	0.76	23	0.01	< 3	1.06	0.01	0.09	< 2
96874	1	63	34	151	< .3	66	29	806	5.68	< 2	< 5	< 2	17	34	< .2	2	< 2	17	0.48	0.076	50	95	1.60	51	0.01	< 3	2.04	0.01	0.19	< 2
96875	< 1	20	17	74	< .3	34	16	1421	3.71	< 2	< 5	< 2	11	178	0.2	< 2	3	13	3.53	0.020	25	83	0.87	54	< .01	< 3	1.70	0.01	0.20	< 2
96876	2	21	14	59	< .3	27	12	1047	2.94	< 2	< 5	< 2	9	110	0.2	< 2	< 2	12	3.06	0.018	27	121	0.76	41	0.01	< 3	1.19	0.02	0.17	< 2
96877	< 1	11	7	71	< .3	24	10	1612	3.20	< 2	< 5	< 2	12	182	0.3	< 2	< 2	19	3.73	0.006	28	104	0.81	35	< .01	< 3	1.35	0.03	0.13	< 2
96878	1	29	12	88	< .3	40	19	774	4.42	< 2	6	< 2	12	99	< .2	3	< 2	11	2.24	0.012	21	64	0.74	40	< .01	< 3	1.28	0.01	0.16	< 2
96879	< 1	35	3	104	< .3	47	20	715	4.88	< 2	6	< 2	13	27	< .2	< 2	< 2	10	0.68	0.035	30	94	0.99	45	< .01	< 3	1.66	0.01	0.22	< 2
96880	1	47	11	104	< .3	55	22	632	5.12	< 2	5	< 2	15	33	< .2	< 2	2	10	0.50	0.070	39	127	1.03	57	< .01	< 3	1.53	0.02	0.28	< 2
96881	1	50	14	64	< .3	66	30	528	5.59	< 2	< 5	< 2	18	17	< .2	3	< 2	8	0.24	0.029	53	79	0.80	72	< .01	< 3	1.36	0.02	0.36	< 2
96882	1	33	11	119	< .3	41	17	596	4.68	< 2	< 5	< 2	16	23	< .2	< 2	2	15	0.28	0.030	37	158	1.22	59	< .01	< 3	1.88	0.03	0.26	< 2
96883	2	55	71	198	< .3	41	17	1368	3.63	< 2	< 5	< 2	11	327	0.5	< 2	< 2	8	6.60	< .001	21	122	0.65	47	< .01	< 3	0.95	0.01	0.19	< 2
96884	1	25	12	61	< .3	22	7	514	1.70	< 2	< 5	< 2	10	80	< .2	< 2	2	4	1.37	0.027	25	140	0.42	32	< .01	< 3	0.42	0.02	0.16	< 2
96885	2	9	9	40	< .3	14	5	715	2.08	3	< 5	< 2	10	138	0.3	2	< 2	13	2.98	0.007	22	132	0.49	20	< .01	< 3	0.81	0.03	0.08	< 2
96886	2	23	14	44	< .3	27	11	817	3.52	< 2	< 5	< 2	4	171	< .2	< 2	< 2	8	3.31	< .001	10	145	0.78	37	< .01	< 3	0.80	0.02	0.14	< 2
96887	1	4	6	32	< .3	13	5	1063	2.06	< 2	< 5	< 2	8	256	< .2	< 2	< 2	11	4.15	< .001	22	158	0.50	37	< .01	< 3	0.92	0.04	0.12	< 2
STANDARD C2	20	55	40	146	6.4	77	38	1174	4.06	42	22	8	35	52	21.6	18	20	74	0.56	0.098	41	69	1.03	203	0.09	29	2.04	0.06	0.15	15

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 3 8 4 3 2
 Date : August 28, 1996
 Samples : Rock
 Project :
 P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
<u>"Assay Analysis"</u>	
96-1 - 96726	<5
96-1 - 96727	<5
96-1 - 96728	<5
96-1 - 96729	<5
96-1 - 96730	<5
96-1 - 96731	<5
96-1 - 96732	<5
96-1 - 96733	<5
96-1 - 96734	<5
96-1 - 96735	<5
96-1 - 96736	<5
96-1 - 96737	<5
96-1 - 96738	<5
96-1 - 96739	<5
96-1 - 96740	<5
96-1 - 96741	<5
96-1 - 96742	<5
96-1 - 96743	<5
96-1 - 96744	<5
96-1 - 96745	<5
96-1 - 96746	<5
96-1 - 96747	<5
96-1 - 96748	<5
96-2 - 91001	20
96-2 - 91002	5
96-2 - 91003	<5
96-2 - 91004	10
96-2 - 91005	12
96-2 - 91006	15
96-2 - 91007	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Greg Swaby
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38432
 Date : August 28, 1996
 Samples : Rock
 Project :
 P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-2 - 91008	<5
96-2 - 91009	<5
96-2 - 91010	<5
96-2 - 91011	<5
96-2 - 91012	<5
96-2 - 96301	15
96-2 - 96302	60
96-2 - 96303	20
96-2 - 96304	10
96-2 - 96305	5
96-2 - 96306	10
96-2 - 96307	12
96-2 - 96308	<5
96-2 - 96309	5
96-2 - 96310	<5
96-2 - 96311	10
96-2 - 96312	5
96-2 - 96313	5
96-2 - 96314	<5
96-2 - 96315	<5
96-2 - 96316	<5
96-2 - 96317	10
96-2 - 96318	<5
96-2 - 96319	20
96-2 - 96320	10
96-2 - 96321	12
96-2 - 96322	10
96-2 - 96323	7
96-2 - 96324	5
96-2 - 96325	<5
96-2 - 96480	<5
96-2 - 96481	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Ray Swaley
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



To : NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN : W.G. Timmins

File No : 38432
 Date : August 28, 1996
 Samples : Rock
 Project :
 P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-2 - 96482	12
96-2 - 96483	22
96-2 - 96484	5
96-2 - 96485	5
96-2 - 96486	<5
96-2 - 96487	<5
96-2 - 96488	<5
96-2 - 96489	10
96-2 - 96490	<5
96-2 - 96491	40
96-2 - 96492	35
96-2 - 96493	10
96-2 - 96494	<5
96-2 - 96495	<5
96-2 - 96496	<5
96-2 - 96497	<5
96-2 - 96498	<5
96-2 - 96499	20
96-2 - 96500	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :


 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38432

DATE: August 28, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 91001	1	39	16	63	< .3	48	21	738	4.09	5	< 5	< 2	11	36	< .2	3	2	52	2.39	0.017	37	90	1.50	27	0.07	4	1.94	0.01	0.15	< 2
96-2 91002	2	12	16	47	< .3	16	7	581	2.34	3	< 5	< 2	11	39	< .2	< 2	3	8	0.95	0.010	18	108	0.57	25	0.03	< 3	1.09	0.01	0.13	< 2
96-2 91003	< 1	43	23	80	< .3	41	17	695	3.94	2	< 5	< 2	14	27	< .2	2	3	10	0.49	0.027	30	69	0.92	32	0.01	3	1.76	0.01	0.16	< 2
96-2 91004	1	35	9	81	< .3	33	14	492	3.76	< 2	< 5	< 2	14	24	< .2	< 2	4	11	0.39	0.016	36	84	0.88	27	0.01	< 3	1.69	0.01	0.14	< 2
96-2 91005	1	41	19	101	< .3	42	19	608	4.23	6	< 5	< 2	16	43	< .2	< 2	3	15	0.76	0.070	47	71	1.06	28	0.01	3	2.06	0.01	0.15	< 2
96-2 91006	2	30	12	72	< .3	31	14	734	3.45	4	6	< 2	15	45	< .2	< 2	2	12	0.91	0.023	26	75	0.87	26	0.01	4	1.71	0.01	0.14	< 2
96-2 91007	1	19	12	60	< .3	31	13	656	3.00	13	< 5	< 2	11	58	< .2	< 2	3	13	1.51	0.023	20	90	0.79	24	< .01	< 3	1.50	0.01	0.14	< 2
96-2 91008	1	41	17	85	< .3	44	18	715	4.08	5	< 5	< 2	17	45	< .2	< 2	2	13	0.90	0.024	45	87	0.98	34	< .01	3	2.02	0.01	0.19	< 2
96-2 91009	1	46	18	95	< .3	47	23	606	4.37	< 2	< 5	< 2	19	27	< .2	< 2	3	11	0.48	0.025	51	69	0.97	35	< .01	3	1.94	0.01	0.20	< 2
96-2 91010	< 1	32	8	80	< .3	42	14	505	3.64	< 2	< 5	< 2	17	16	< .2	< 2	2	9	0.32	0.024	45	42	0.91	44	< .01	< 3	1.87	0.01	0.23	< 2
96-2 91011	1	54	16	85	< .3	48	25	978	5.58	8	< 5	< 2	11	62	< .2	3	2	86	3.06	0.029	24	89	2.27	38	0.01	< 3	3.07	0.02	0.16	< 2
96-2 91012	< 1	57	29	77	0.5	36	39	1518	7.62	19	6	< 2	< 2	150	< .2	4	2	209	7.04	0.012	3	77	3.71	10	0.02	5	4.37	0.02	0.07	< 2
96-2 96301	< 1	33	533	128	1.5	55	19	894	4.89	10	< 5	< 2	9	34	0.2	2	3	24	0.92	0.024	15	131	1.50	41	< .01	< 3	2.36	0.02	0.21	< 2
96-2 96302	1	41	41	86	< .3	47	17	1028	4.55	8	< 5	< 2	9	62	< .2	2	3	17	1.39	0.050	15	121	1.35	36	< .01	< 3	1.92	0.02	0.22	< 2
96-2 96303	< 1	16	235	56	< .3	28	17	1039	2.67	13	< 5	< 2	8	75	< .2	2	3	18	2.24	0.058	17	126	0.69	34	0.01	< 3	1.26	0.03	0.17	< 2
96-2 96304	2	22	44	74	< .3	41	15	893	3.85	4	6	< 2	12	60	< .2	< 2	3	22	1.85	0.014	32	135	1.13	35	0.01	3	1.92	0.02	0.20	< 2
96-2 96305	1	40	48	85	< .3	42	16	633	3.99	5	8	< 2	14	38	< .2	< 2	2	15	0.78	0.043	47	87	1.27	39	0.02	4	2.17	0.01	0.23	< 2
RE 96-2 96305	< 1	40	52	89	< .3	44	16	660	4.16	6	< 5	< 2	14	40	< .2	3	4	15	0.82	0.045	48	93	1.32	41	0.02	< 3	2.27	0.01	0.24	< 2
96-2 96306	1	33	17	96	< .3	44	20	531	4.37	4	< 5	< 2	14	21	< .2	< 2	3	16	0.35	0.030	42	101	1.37	41	0.02	< 3	2.30	0.01	0.23	< 2
96-2 96307	1	21	92	33	< .3	17	7	560	1.96	< 2	< 5	< 2	8	50	< .2	< 2	2	17	2.00	0.014	16	274	0.39	31	0.02	< 3	0.78	0.07	0.15	< 2
96-2 96308	1	28	19	73	< .3	32	16	716	4.03	12	< 5	< 2	15	156	< .2	< 2	2	14	2.38	0.017	21	75	1.07	34	0.01	< 3	1.81	0.02	0.18	< 2
96-2 96309	1	81	24	105	< .3	51	24	989	5.66	17	< 5	< 2	17	190	< .2	< 2	3	21	5.07	0.027	38	68	1.28	38	< .01	< 3	2.53	0.01	0.22	< 2
96-2 96310	1	49	25	88	< .3	43	19	869	5.14	5	< 5	< 2	11	107	< .2	< 2	2	59	4.26	0.017	25	102	1.89	23	0.01	< 3	2.63	0.02	0.12	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38432

DATE: August 28, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96311	< 1	41	31	88	< .3	36	24	983	6.12	7	< 5	< 2	8	91	< .2	4	3	102	3.66	0.046	21	71	2.01	23	0.13	< 3	2.97	0.02	0.13	< 2
96-2 96312	< 1	33	7	59	< .3	26	12	472	3.46	4	6	< 2	13	45	< .2	< 2	3	22	1.66	0.017	27	79	0.91	32	0.11	< 3	1.71	0.02	0.15	< 2
96-2 96313	1	14	7	65	< .3	39	21	817	4.78	2	8	< 2	5	39	< .2	< 2	< 2	92	1.34	0.048	10	84	2.06	31	0.23	< 3	2.68	0.03	0.09	< 2
96-2 96314	1	14	7	61	< .3	36	20	766	4.48	< 2	< 5	< 2	5	37	< .2	< 2	2	87	1.27	0.044	9	80	1.96	29	0.22	3	2.55	0.03	0.08	< 2
96-2 96315	2	60	5	48	< .3	21	22	712	4.33	< 2	9	< 2	< 2	36	< .2	3	2	97	2.21	0.054	1	62	1.54	5	0.27	< 3	2.11	0.04	0.02	< 2
96-2 96316	1	40	8	56	< .3	28	19	856	4.65	< 2	7	< 2	< 2	33	< .2	< 2	4	91	2.41	0.054	2	89	1.94	16	0.24	< 3	2.41	0.04	0.05	< 2
96-2 96317	1	5	23	30	< .3	12	5	519	1.51	3	9	< 2	17	32	< .2	< 2	< 2	14	1.77	0.005	16	96	0.41	24	0.11	< 3	0.86	0.03	0.10	< 2
96-2 96318	3	18	15	70	< .3	30	12	588	3.35	11	6	< 2	19	58	< .2	< 2	2	16	1.74	0.017	30	91	0.86	45	0.10	< 3	1.77	0.02	0.22	< 2
96-2 96319	< 1	14	10	45	< .3	19	8	822	2.47	6	< 5	< 2	14	142	< .2	< 2	< 2	13	2.70	0.001	32	93	0.58	36	0.05	< 3	1.22	0.03	0.17	< 2
96-2 96320	1	23	52	94	< .3	187	34	856	5.55	48	5	3	11	119	< .2	2	< 2	94	3.16	0.047	28	412	3.35	38	0.21	< 3	3.38	0.01	0.16	< 2
96-2 96321	1	15	11	56	< .3	25	8	499	2.99	2	< 5	< 2	11	42	< .2	< 2	< 2	15	1.56	0.011	18	89	0.99	28	0.06	< 3	1.56	0.01	0.15	< 2
96-2 96322	2	22	17	71	< .3	31	14	623	3.30	11	10	< 2	12	50	< .2	< 2	2	16	1.27	0.016	16	123	0.97	38	0.03	< 3	1.68	0.02	0.20	< 2
STANDARD C2	19	61	41	133	6.5	73	36	1203	4.09	44	19	8	36	53	20.7	15	15	73	0.56	0.105	41	69	1.05	181	0.07	28	2.05	0.07	0.15	11
96-2 96323	1	52	20	81	< .3	44	18	412	4.42	< 2	< 5	< 2	18	15	< .2	4	< 2	11	0.48	0.037	47	48	0.98	37	0.08	< 3	1.80	0.01	0.21	< 2
96-2 96324	2	49	11	67	< .3	37	17	590	3.77	7	7	< 2	13	23	< .2	4	< 2	39	1.09	0.024	26	80	1.41	25	0.11	< 3	2.01	0.01	0.10	< 2
96-2 96325	1	42	18	68	< .3	47	28	947	5.43	7	< 5	< 2	3	44	< .2	6	< 2	143	3.12	0.022	5	113	2.85	23	0.16	< 3	3.22	0.02	0.08	2
96-2 96480	2	10	23	24	< .3	13	5	677	1.44	< 2	< 5	< 2	7	74	< .2	< 2	< 2	13	2.27	0.002	20	148	0.38	37	0.03	< 3	0.72	0.03	0.17	< 2
96-2 96481	1	29	31	71	< .3	33	15	406	3.43	< 2	< 5	< 2	10	21	< .2	< 2	< 2	15	0.40	0.017	31	99	1.02	51	0.03	< 3	1.74	0.02	0.24	< 2
96-2 96482	2	52	45	106	< .3	56	27	711	5.33	6	< 5	< 2	12	57	< .2	4	< 2	31	1.37	0.024	38	97	1.80	49	0.02	< 3	2.70	0.01	0.26	< 2
96-2 96483	< 1	42	34	79	< .3	34	14	520	3.94	2	< 5	< 2	16	32	< .2	2	< 2	15	0.58	0.018	38	109	1.14	35	0.04	< 3	1.97	0.02	0.21	< 2
96-2 96484	2	34	31	85	< .3	44	27	479	3.99	19	< 5	< 2	14	24	< .2	4	< 2	16	0.48	0.049	40	108	1.19	52	0.03	< 3	2.09	0.02	0.27	< 2
96-2 96485	1	28	21	66	< .3	27	11	490	3.13	< 2	< 5	< 2	12	27	< .2	< 2	< 2	16	0.72	0.017	24	114	0.93	37	0.04	< 3	1.63	0.02	0.21	< 2
96-2 96486	3	54	36	89	< .3	43	19	538	4.13	7	< 5	< 2	13	33	< .2	7	< 2	23	0.87	0.023	37	101	1.37	44	0.03	< 3	2.16	0.02	0.24	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
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TO: Noble Metal Group
 FILE # 38432

DATE: August 28, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
RE 96-2 96486	2	58	38	92	< 3	44	20	551	4.25	8	5	< 2	13	33	< 2	6	< 2	23	0.89	0.023	37	106	1.39	46	0.03	< 3	2.21	0.02	0.25	< 2
96-2 96487	1	43	36	55	< 3	35	14	558	3.53	2	< 5	< 2	11	41	< 2	3	< 2	17	1.39	0.050	29	103	0.93	50	0.02	< 3	1.51	0.02	0.23	< 2
96-2 96488	2	18	20	52	< 3	27	10	442	2.54	7	< 5	< 2	10	37	< 2	< 2	< 2	9	0.66	0.018	25	107	0.70	52	0.01	< 3	1.02	0.02	0.28	< 2
96-2 96489	1	66	54	104	< 3	54	23	486	5.31	9	< 5	< 2	12	54	< 2	3	< 2	10	0.83	0.097	18	102	1.04	55	< .01	< 3	1.81	0.01	0.26	< 2
96-2 96490	3	25	23	72	< 3	37	16	442	3.38	17	< 5	< 2	11	42	< 2	2	2	11	0.66	0.021	21	130	0.92	63	< .01	< 3	1.50	0.02	0.27	< 2
96-2 96491	3	15	16	25	< 3	13	6	544	1.72	5	< 5	< 2	6	57	< 2	< 2	< 2	4	1.11	0.011	15	184	0.34	45	< .01	< 3	0.39	0.02	0.18	< 2
96-2 96492	1	23	50	129	< 3	42	18	601	3.66	24	< 5	< 2	7	45	0.4	< 2	< 2	7	0.84	0.025	17	131	0.90	53	< .01	< 3	1.00	0.01	0.24	< 2
96-2 96493	2	20	14	37	< 3	15	7	591	2.31	3	< 5	< 2	6	65	< 2	< 2	2	3	1.28	0.009	13	128	0.50	27	< .01	< 3	0.42	0.02	0.14	< 2
96-2 96494	1	5	40	42	< 3	14	6	757	2.33	2	< 5	< 2	9	83	< 2	< 2	2	15	1.66	0.001	22	151	0.66	29	< .01	< 3	0.83	0.04	0.10	< 2
96-2 96495	2	16	28	53	< 3	22	9	407	2.65	2	< 5	< 2	10	21	< 2	2	2	12	0.43	0.015	17	119	0.75	40	0.03	< 3	1.19	0.02	0.14	< 2
96-2 96496	< 1	27	19	76	< 3	37	16	537	3.45	8	< 5	< 2	11	30	< 2	< 2	< 2	11	0.60	0.023	17	127	1.02	49	0.01	< 3	1.60	0.02	0.23	< 2
96-2 96497	3	39	19	88	< 3	55	20	717	4.60	15	< 5	< 2	11	37	< 2	4	< 2	15	0.70	0.035	22	112	1.40	41	< .01	< 3	2.20	0.01	0.24	< 2
96-2 96498	2	38	30	98	< 3	55	19	720	4.51	15	< 5	< 2	12	41	< 2	4	< 2	13	0.92	0.110	24	98	1.46	45	< .01	3	2.24	0.01	0.27	< 2
96-2 96499	2	38	32	80	< 3	43	16	708	4.07	8	< 5	< 2	8	50	< 2	6	< 2	17	1.28	0.268	19	139	1.22	37	< .01	< 3	2.01	0.02	0.22	< 2
96-2 96500	2	46	8	92	< 3	56	24	861	4.53	12	< 5	< 2	12	31	< 2	4	< 2	14	0.82	0.025	15	96	1.40	38	< .01	4	2.29	0.01	0.22	< 2
96-2 96726	< 1	22	16	82	< 3	41	17	527	3.99	2	7	< 2	12	12	< 2	4	2	15	0.30	0.018	19	75	1.23	41	0.10	3	2.11	0.01	0.20	< 2
96-2 96727	1	25	12	89	< 3	44	18	486	3.98	5	< 5	< 2	14	14	< 2	3	< 2	15	0.39	0.033	18	102	1.24	60	0.13	< 3	2.19	0.02	0.28	< 2
96-2 96728	1	214	64	99	< 3	52	31	419	5.38	< 2	5	< 2	13	7	< 2	< 2	< 2	14	0.27	0.048	14	72	1.34	46	0.09	4	2.24	0.02	0.22	< 2
96-2 96729	1	28	10	86	< 3	48	18	465	4.34	3	< 5	< 2	15	7	< 2	3	< 2	14	0.24	0.020	17	91	1.27	52	0.12	< 3	2.25	0.02	0.23	< 2
96-2 96730	< 1	5	16	92	< 3	51	23	504	4.10	3	6	< 2	16	8	< 2	2	< 2	12	0.25	0.026	21	45	1.38	44	0.12	3	2.26	0.01	0.21	< 2
96-2 96731	1	35	10	104	< 3	49	21	475	5.33	< 2	< 5	< 2	14	9	< 2	< 2	< 2	13	0.29	0.020	21	70	1.46	42	0.12	3	2.40	0.01	0.20	< 2
96-2 96732	1	21	6	87	< 3	45	16	381	4.18	6	< 5	< 2	15	7	< 2	5	< 2	11	0.25	0.026	26	44	1.24	38	0.12	< 3	2.02	0.01	0.19	< 2
96-2 96733	1	22	17	76	< 3	37	15	468	4.04	< 2	< 5	< 2	10	44	< 2	5	< 2	15	1.86	0.630	24	82	1.12	46	0.05	< 3	2.07	0.01	0.21	< 2



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TO: Noble Metal Group
 FILE # 38432

DATE: August 28, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96734	1	29	22	90	< .3	44	18	421	4.13	3	< 5	< 2	11	12	< .2	4	< 2	14	0.30	0.033	19	74	1.32	46	0.08	< 3	2.12	0.01	0.21	< 2
96-2 96735	1	31	10	86	< .3	39	13	529	4.12	< 2	< 5	< 2	12	14	< .2	4	< 2	15	0.42	0.019	12	90	1.22	39	0.10	< 3	2.09	0.02	0.18	< 2
STANDARD C2	20	59	42	135	6.5	71	36	1185	4.01	43	21	7	36	52	20.6	18	15	71	0.54	0.101	41	63	1.03	184	0.07	29	2.04	0.07	0.15	12
96-2 96736	< 1	83	6	111	< .3	61	22	363	5.10	16	< 5	< 2	11	15	0.4	2	< 2	17	0.30	0.036	23	81	1.50	79	0.02	3	2.56	0.01	0.26	< 2
96-2 96737	< 1	51	7	105	0.3	52	17	304	4.58	21	< 5	< 2	14	17	< .2	< 2	< 2	15	0.33	0.035	34	51	1.38	82	0.04	4	2.29	0.01	0.29	< 2
96-2 96738	1	129	5	78	< .3	90	25	935	5.54	< 2	< 5	< 2	< 2	293	1.0	< 2	< 2	163	6.38	0.087	8	200	3.35	30	0.23	< 3	3.36	0.02	0.12	< 2
96-2 96739	1	131	< 3	50	< .3	336	38	806	4.57	4	< 5	< 2	< 2	266	0.7	< 2	< 2	106	4.52	0.051	6	739	6.12	14	0.23	< 3	4.32	< .01	0.11	< 2
RE 96-2 96739	1	123	< 3	49	0.6	332	44	794	4.45	10	< 5	< 2	< 2	257	1.0	2	3	103	4.48	0.052	6	718	6.03	14	0.21	3	4.16	0.01	0.11	< 2
96-2 96740	1	9	38	30	< .3	14	2	1035	1.42	2	< 5	< 2	10	150	< .2	< 2	< 2	11	3.94	0.015	16	97	0.40	49	0.09	< 3	0.70	0.02	0.30	< 2
96-2 96741	1	9	17	33	< .3	14	4	277	1.70	< 2	< 5	< 2	10	50	< .2	< 2	2	12	0.85	0.013	16	85	0.44	50	0.08	< 3	0.78	0.01	0.34	< 2
96-2 96742	1	58	8	115	< .3	43	14	469	5.07	< 2	< 5	< 2	10	26	0.3	2	< 2	22	0.41	0.025	15	81	1.66	28	0.04	< 3	2.60	0.01	0.18	< 2
96-2 96743	< 1	41	26	121	< .3	44	12	492	4.95	7	< 5	< 2	13	26	0.2	3	< 2	21	0.40	0.032	24	72	1.72	48	0.05	< 3	2.69	0.01	0.23	< 2
96-2 96744	< 1	3	6	76	< .3	28	6	341	3.28	< 2	< 5	< 2	16	28	0.3	< 2	4	13	0.50	0.115	49	40	1.11	58	0.03	3	1.90	0.01	0.27	< 2
96-2 96745	1	22	7	93	< .3	37	11	466	4.17	4	< 5	< 2	12	26	0.6	< 2	< 2	19	0.41	0.044	25	67	1.38	46	0.04	< 3	2.20	0.02	0.22	< 2
96-2 96746	1	46	6	87	< .3	48	15	340	4.12	2	< 5	< 2	10	19	0.3	2	3	9	0.35	0.027	22	25	1.31	53	0.01	4	1.83	< .01	0.23	< 2
96-2 96747	1	61	13	84	< .3	52	17	303	4.15	3	< 5	< 2	11	23	0.3	< 2	< 2	9	0.30	0.028	27	33	1.26	57	0.02	5	1.73	< .01	0.25	< 2
96-2 96748	< 1	21	9	72	< .3	27	11	650	3.49	12	< 5	< 2	13	152	0.4	< 2	2	14	2.40	0.021	19	61	0.98	38	< .01	< 3	1.70	0.01	0.16	< 2
STANDARD C2	19	55	35	129	5.9	66	31	1133	3.83	39	18	7	33	48	18.5	14	21	69	0.52	0.098	37	60	0.98	195	0.08	26	2.01	0.06	0.13	10

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38456
 Date : August 30, 1996
 Samples: Rock
 Project :
 P.O. #

Certificate of Assay
Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
"Assay Analysis"	
96-1 91226	<5
96-1 91227	<5
96-1 91228	<5
96-1 91229	<5
96-1 91230	<5
96-1 91231	<5
96-1 91232	<5
96-1 91233	<5
96-1 91234	<5
96-1 91235	<5
96-1 91236	5
96-1 91237	<5
96-1 91238	<5
96-1 91239	<5
96-2 96403	<5
96-2 96404	<5
96-2 96405	200
96-2 96406	<5
96-2 96407	20
96-2 96408	12
96-2 96409	14
96-2 96410	25
96-2 96411	25
96-2 96412	<5
96-2 96413	<5
96-2 96414	50
96-2 96415	40
96-2 96416	20
96-2 96417	5
96-2 96418	20

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Gary Swaly
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 3 8 4 5 6
 Date : August 30, 1996
 Samples : Rock
 Project :
 P.O. #

Certificate of Assay

Loring Laboratories Ltd.

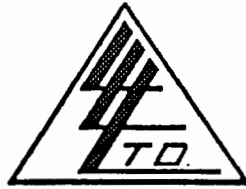
629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-2 96419	20
96-2 96420	10
96-2 96421	7
96-2 96422	5
96-2 96423	<5
96-2 96424	<5
96-2 96425	<5
96-2 96426	<5
96-2 96427	<5
96-2 96428	<5
96-2 96429	14
96-2 96430	<5
96-2 96431	20
96-2 96432	<5
96-2 96433	<5
96-2 96434	15
96-2 96435	<5
96-2 96436	25
96-2 96437	7
96-2 96438	20
96-2 96439	<5
96-2 96440	<5
96-2 96441	<5
96-2 96442	5
96-2 96443	<5
96-2 96444	<5
96-2 96445	5
96-2 96446	5
96-2 96447	20
96-2 96448	<5
96-2 96449	<5
96-2 96450	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Assayer Signature
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



To: NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C
V6C 1T2
ATTN: W.G. Timmins

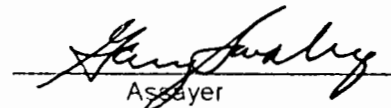
File No : 3 8 4 5 6
Date : August 30, 1996
Samples : Rock
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-2 96451	<5
96-2 96452	5
96-2 96453	60
96-2 96454	55
96-2 96455	5
96-2 96456	142
96-2 96457	5
96-2 96458	15
96-2 96459	5
96-2 96460	38
96-2 96461	17
96-2 96462	200
96-2 96463	18
96-2 96464	230
96-2 96465	5
96-2 96466	25
96-2 96467	215
96-2 96468	<5
96-2 96469	<5
96-2 96470	<5
96-2 96471	<5
96-2 96472	<5
96-2 96473	<5
96-2 96474	<5
96-2 96475	17000
96-2 96476	20
96-2 96477	20
96-2 96478	5
96-2 96479	<5
96-3 91013	5
96-3 91014	40
96-3 91015	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 3 8 4 5 6
 Date : August 30, 1996
 Samples : Rock
 Project :
 P.O. #

Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-3 91016	12
96-3 91017	20
96-3 91018	40
96-3 91019	725
96-3 91020	125
96-3 91021	15
96-3 91022	60
96-3 91023	45
96-3 91024	10
96-3 91025	40
96-3 91026	18
96-3 91027	30
96-3 91028	53
96-3 91029	44
96-3 91030	10
96-3 91031	20
96-3 91032	5
96-3 91033	5
96-3 91034	28
96-3 91035	17
96-3 91036	5
96-3 91037	20
96-3 91038	20
96-3 91039	15
96-3 91040	15
96-3 91041	30
96-3 91042	70
96-3 91043	29
96-3 91044	40
96-3 91045	60
96-3 91046	5
96-3 91047	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Henry Fealey
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins



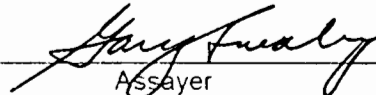
File No : 3 8 4 5 6
Date : August 30, 1996
Samples : Rock
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
96-3 91048	10
96-3 91049	<5
96-3 91050	5
96-3 91051	<5
96-3 91052	5
96-3 91053	<5
96-3 91054	7
96-3 91055	<5
96-3 91056	50
96-3 91057	5
96-3 91058	<5
96-3 91059	15
96-3 91060	30
96-3 91061	<5
96-3 91062	20
96-3 91063	<5
96-3 91064	<5
96-3 91065	<5
96-3 91066	<5
96-3 91067	5
96-3 91068	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38456

DATE: August 29, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-1 91226	< 1	95	5	40	< .3	514	57	478	4.53	17	< 5	< 2	< 2	26	0.9	3	3	87	0.80	0.052	6	1163	5.77	4	0.29	3	3.58	< .01	< .01	< 2
96-1 91227	< 1	81	5	36	< .3	546	55	445	4.46	5	< 5	< 2	< 2	25	0.4	2	3	87	0.75	0.046	5	1087	5.75	2	0.26	3	3.44	< .01	< .01	< 2
96-1 91228	< 1	121	5	39	< .3	527	54	494	4.45	< 2	< 5	< 2	< 2	37	0.5	< 2	2	85	1.12	0.050	5	1072	5.74	2	0.30	3	3.60	< .01	< .01	< 2
96-1 91229	< 1	106	9	38	< .3	292	34	504	3.70	< 2	< 5	< 2	< 2	70	0.2	< 2	< 2	62	1.68	0.053	3	537	4.35	55	0.31	3	3.11	0.01	0.03	< 2
96-1 91230	< 1	124	24	31	< .3	225	31	482	3.18	11	< 5	< 2	< 2	92	0.3	< 2	2	61	2.56	0.061	3	391	3.19	155	0.36	3	2.47	0.02	0.06	< 2
96-1 91231	1	149	16	56	< .3	70	29	607	4.57	< 2	< 5	< 2	< 2	201	0.3	< 2	< 2	114	3.85	0.100	7	141	2.25	88	0.41	< 3	2.43	0.04	0.05	< 2
96-1 91232	< 1	107	22	49	< .3	296	42	745	5.00	6	< 5	< 2	< 2	269	< 2	2	< 2	130	3.82	0.055	5	626	5.67	31	0.31	3	3.96	0.01	0.15	< 2
96-1 91233	< 1	78	13	48	< .3	351	49	604	4.78	40	< 5	< 2	< 2	127	< 2	< 2	4	106	2.14	0.054	6	863	5.15	46	0.28	< 3	3.63	< .01	0.09	< 2
96-1 91234	< 1	48	11	40	0.6	352	48	1036	4.92	53	< 5	< 2	< 2	355	0.3	< 2	< 2	141	5.56	0.041	5	1151	5.07	4	0.22	< 3	3.46	< .01	< .01	< 2
96-1 91235	< 1	70	46	95	< .3	237	51	1220	7.55	9	< 5	< 2	< 2	119	0.6	< 2	< 2	198	1.99	0.068	13	562	6.13	19	0.33	< 3	5.11	0.01	0.04	< 2
96-1 91236	< 1	123	21	72	< .3	438	55	1557	6.67	123	< 5	< 2	2	272	0.8	< 2	3	172	5.97	0.044	4	1318	8.38	6	0.15	< 3	4.18	< .01	0.09	< 2
96-1 91237	< 1	94	37	35	< .3	415	59	1248	4.69	73	< 5	< 2	2	206	0.2	< 2	< 2	129	6.56	0.046	5	1120	5.49	4	0.08	3	2.72	< .01	< .01	< 2
96-1 91238	< 1	71	3	32	< .3	373	46	976	4.64	23	< 5	< 2	< 2	142	0.2	< 2	< 2	136	3.97	0.047	3	1427	6.69	2	0.02	< 3	2.97	< .01	< .01	< 2
96-1 91239	< 1	69	23	26	< .3	558	61	1295	4.33	44	< 5	< 2	2	218	< 2	2	< 2	116	6.68	0.038	3	1446	5.71	2	0.02	< 3	2.40	< .01	< .01	< 2
RE 96-1 91239	< 1	66	18	25	< .3	547	59	1262	4.16	42	< 5	< 2	2	215	0.6	< 2	< 2	112	6.56	0.038	4	1380	5.52	2	0.02	< 3	2.30	< .01	< .01	< 2
96-2 96403	< 1	17	8	14	< .3	20	5	923	1.35	2	< 5	< 2	4	111	0.2	< 2	< 2	8	2.79	0.012	7	173	0.39	33	< .01	3	0.61	0.03	0.13	< 2
96-2 96404	< 1	95	5	18	< .3	525	53	1398	3.71	34	< 5	< 2	2	254	0.8	< 2	4	90	7.03	0.032	3	1301	5.21	3	0.01	< 3	1.85	< .01	< .01	< 2
96-2 96405	< 1	159	12	88	0.4	72	42	474	5.75	< 2	< 5	< 2	11	20	0.6	< 2	< 2	42	0.46	0.091	41	152	2.39	163	0.02	< 3	2.89	0.03	0.16	< 2
96-2 96406	6	33	17	139	1.8	103	26	574	5.13	3	< 5	< 2	9	37	0.5	< 2	< 2	49	1.01	0.097	35	226	2.77	229	0.05	4	3.04	0.03	0.15	2
96-2 96407	1	7	10	37	< .3	28	9	435	2.56	< 2	< 5	< 2	7	42	0.3	< 2	< 2	25	1.00	0.015	23	149	1.06	40	0.02	< 3	1.39	0.04	0.09	< 2
96-2 96408	1	13	13	26	< .3	18	4	215	2.44	< 2	< 5	< 2	6	7	0.4	< 2	< 2	7	0.27	0.022	21	288	0.49	41	< .01	< 3	1.09	0.02	0.21	< 2
96-2 96409	< 1	45	7	112	< .3	66	23	598	5.53	4	5	< 2	15	8	0.5	< 2	2	15	0.46	0.041	23	46	1.49	45	< .01	3	2.71	0.01	0.24	< 2
96-2 96410	1	65	40	138	< .3	72	28	650	5.75	2	5	< 2	18	27	0.7	< 2	4	20	0.70	0.037	41	79	1.81	49	0.03	4	2.85	0.01	0.25	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38456

DATE: August 29, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96411	< 1	57	9	98	< 3	59	22	614	5.03	4	5	< 2	13	29	0.5	< 2	3	23	0.79	0.041	34	101	1.41	45	< 0.1	3	2.43	0.01	0.22	< 2
96-2 96412	1	52	17	84	< 3	52	17	546	4.67	< 2	< 5	< 2	13	23	0.4	< 2	< 2	32	1.07	0.047	42	140	1.86	45	0.16	< 3	2.36	0.02	0.19	< 2
96-2 96413	1	85	17	79	0.3	61	26	489	4.61	3	< 5	< 2	18	17	0.5	< 2	< 2	20	0.69	0.040	41	135	1.71	68	0.09	3	2.30	0.01	0.25	< 2
96-2 96414	1	50	15	77	0.3	47	19	559	4.01	5	5	< 2	15	45	0.3	< 2	< 2	14	1.57	0.033	34	98	1.18	69	0.01	3	2.10	0.01	0.31	< 2
96-2 96415	< 1	38	41	85	0.3	64	24	610	4.13	9	< 5	< 2	16	210	0.7	< 2	< 2	21	5.57	0.055	36	94	1.16	66	0.02	< 3	1.81	0.02	0.23	< 2
96-2 96416	1	36	38	90	0.4	68	23	622	4.35	9	< 5	< 2	17	241	0.7	< 2	< 2	23	6.22	0.053	41	116	1.17	72	0.02	< 3	1.86	0.02	0.25	< 2
96-2 96417	< 1	34	36	85	< 3	61	21	626	4.11	5	< 5	< 2	16	254	0.5	< 2	< 2	21	6.58	0.059	40	83	1.14	64	0.02	< 3	1.78	0.02	0.23	< 2
96-2 96418	1	36	10	116	0.3	64	24	568	5.03	< 2	< 5	< 2	19	26	< 2	< 2	< 2	18	0.39	0.073	71	93	1.41	81	0.02	< 3	2.42	0.02	0.36	< 2
96-2 96419	< 1	58	16	120	< 3	91	29	704	5.13	5	< 5	< 2	19	20	0.2	< 2	< 2	20	0.50	0.155	48	90	1.63	43	< 0.1	3	2.51	0.02	0.21	< 2
96-2 96420	1	26	8	90	< 3	36	15	652	3.87	2	< 5	< 2	15	21	< 2	2	< 2	16	0.47	0.155	41	146	1.26	34	< 0.1	3	2.04	0.02	0.18	< 2
96-2 96421	1	43	8	108	< 3	53	23	612	4.02	2	5	< 2	17	11	< 2	< 2	< 2	13	0.18	0.055	44	92	1.29	30	< 0.1	3	1.95	0.02	0.16	< 2
96-2 96422	2	76	16	95	0.3	80	27	491	4.06	< 2	< 5	< 2	21	11	< 2	< 2	< 2	8	0.16	0.050	66	57	1.09	32	< 0.1	< 3	1.67	0.01	0.18	< 2
STANDARD C2	21	58	47	147	6.8	79	38	1222	4.12	45	23	9	36	54	21.6	15	20	77	0.58	0.100	43	69	1.06	212	0.09	30	2.11	0.07	0.15	15
96-2 96423	< 1	37	6	73	< 3	43	21	502	3.58	6	< 5	< 2	17	10	1.3	< 2	2	11	0.15	0.041	48	109	1.00	35	< 0.1	3	1.66	0.02	0.18	< 2
96-2 96424	1	30	14	112	< 3	64	22	599	3.91	5	< 5	< 2	16	11	0.7	< 2	2	17	0.15	0.040	42	105	1.31	28	< 0.1	3	2.03	0.02	0.14	< 2
96-2 96425	< 1	34	32	92	0.3	43	16	665	4.39	4	< 5	< 2	19	67	0.5	< 2	< 2	18	1.38	0.039	53	107	1.17	36	0.01	3	2.09	0.01	0.17	< 2
96-2 96426	1	116	36	113	< 3	57	27	684	6.51	< 2	< 5	< 2	14	67	0.4	< 2	4	30	1.22	0.038	19	160	1.54	78	0.01	< 3	2.96	0.02	0.29	< 2
96-2 96427	< 1	34	9	58	< 3	34	14	456	3.32	< 2	< 5	< 2	14	66	0.4	< 2	< 2	20	1.43	0.048	17	145	0.87	51	0.01	< 3	1.67	0.03	0.21	< 2
96-2 96428	< 1	30	< 3	126	< 3	60	22	617	5.54	< 2	< 5	< 2	23	57	0.2	< 2	< 2	20	1.14	0.050	27	64	1.58	51	< 0.1	< 3	2.85	0.01	0.22	< 2
96-2 96429	< 1	60	69	112	< 3	47	23	620	5.10	< 2	< 5	< 2	14	85	< 2	< 2	3	22	1.57	0.019	37	114	1.23	33	< 0.1	< 3	2.35	0.01	0.14	< 2
96-2 96430	2	18	19	80	< 3	31	13	462	3.59	3	< 5	2	13	64	0.3	< 2	< 2	15	1.25	0.042	34	166	0.89	46	< 0.1	3	1.85	0.02	0.19	< 2
96-2 96431	4	66	156	74	0.5	32	16	538	3.49	< 2	< 5	< 2	14	96	0.3	2	3	16	1.57	0.031	36	227	0.78	49	< 0.1	< 3	1.67	0.02	0.22	< 2
96-2 96432	< 1	27	32	130	< 3	48	25	812	5.51	19	9	< 2	11	193	0.5	< 2	3	31	4.48	0.947	33	95	1.30	60	0.01	< 3	2.78	0.02	0.25	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38456

DATE: August 29, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96433	3	12	< 3	76	< .3	29	27	774	5.45	9	< 5	< 2	< 2	50	0.7	< 2	2	166	1.98	0.050	1	254	2.61	19	0.02	< 3	3.22	0.03	0.12	< 2
96-2 96434	< 1	34	5	102	0.3	52	24	702	4.63	8	< 5	< 2	22	19	< 2	2	2	15	0.35	0.033	59	57	1.15	42	< .01	< 3	2.33	0.01	0.21	< 2
96-2 96435	1	53	59	126	0.3	50	21	604	4.25	< 2	< 5	< 2	11	24	0.5	< 2	< 2	10	0.44	0.035	20	105	0.84	43	< .01	< 3	1.51	0.02	0.22	< 2
96-2 96436	2	61	21	77	< 3	61	22	685	4.95	< 2	< 5	< 2	11	12	0.3	2	< 2	10	0.19	0.026	17	59	0.94	41	< .01	< 3	1.64	0.01	0.21	< 2
96-2 96437	1	44	10	114	< 3	55	24	677	5.10	< 2	< 5	< 2	23	16	< 2	< 2	< 2	20	0.27	0.030	75	87	1.34	43	0.01	< 3	2.47	0.01	0.21	< 2
RE 96-2 96437	< 1	48	9	111	0.3	55	24	671	5.00	< 2	< 5	< 2	22	16	< 2	2	< 2	19	0.27	0.029	74	85	1.32	42	0.01	< 3	2.42	0.01	0.21	< 2
96-2 96438	1	31	9	80	< 3	32	14	597	3.83	3	< 5	< 2	17	19	< 2	< 2	< 2	14	0.31	0.025	55	98	1.00	40	< .01	< 3	1.88	0.02	0.19	< 2
96-2 96439	< 1	22	14	83	0.3	32	15	760	4.05	3	< 5	< 2	13	36	0.2	2	< 2	14	0.74	0.028	32	103	1.00	35	< .01	< 3	1.81	0.02	0.16	< 2
96-2 96440	1	19	7	79	< 3	32	13	681	3.63	< 2	< 5	< 2	10	25	< 2	< 2	< 2	12	0.57	0.021	18	118	0.95	46	< .01	< 3	1.75	0.02	0.21	< 2
96-2 96441	< 1	14	9	115	< 3	31	12	875	4.55	2	< 5	< 2	10	26	0.2	< 2	2	19	0.90	0.027	20	102	1.34	36	< .01	3	2.25	0.02	0.15	< 2
96-2 96442	< 1	33	< 3	113	< 3	59	22	536	5.05	2	< 5	< 2	17	39	< 2	< 2	< 2	18	0.96	0.061	57	70	1.62	28	0.01	< 3	2.54	0.01	0.13	< 2
96-2 96443	< 1	44	11	101	< 3	52	20	601	4.67	< 2	< 5	< 2	11	41	< 2	< 2	< 2	30	1.00	0.038	31	104	1.65	20	0.01	< 3	2.36	0.01	0.09	< 2
96-2 96444	4	16	14	36	< 3	21	7	244	3.45	< 2	< 5	< 2	4	18	0.2	< 2	< 2	11	0.40	0.024	17	273	0.60	28	< .01	< 3	1.00	0.01	0.14	< 2
96-2 96445	2	49	38	108	0.3	61	22	579	4.62	< 2	< 5	< 2	16	23	< 2	2	< 2	22	0.73	0.045	61	93	1.69	26	< .01	< 3	2.38	0.01	0.12	< 2
96-2 96446	3	67	78	107	0.5	69	27	572	4.62	< 2	< 5	< 2	15	22	< 2	< 2	< 2	21	0.73	0.032	54	202	1.48	39	< .01	< 3	2.22	0.01	0.19	< 2
96-2 96447	1	16	39	37	< 3	18	7	356	2.07	< 2	< 5	< 2	9	31	0.2	< 2	< 2	12	1.28	0.016	17	232	0.51	49	0.08	3	1.10	0.05	0.22	< 2
96-2 96448	3	100	24	120	< 3	66	24	555	5.16	< 2	< 5	< 2	20	17	< 2	3	3	26	0.76	0.094	31	184	1.63	102	0.21	4	2.88	0.02	0.50	< 2
96-2 96449	< 1	24	35	111	< 3	79	37	1111	6.25	17	< 5	< 2	< 2	103	0.5	< 2	< 2	150	4.17	0.040	1	220	4.54	19	0.20	< 3	4.15	0.01	0.12	< 2
96-2 96450	1	52	9	122	< 3	59	22	340	4.99	5	< 5	< 2	12	18	< 2	< 2	2	20	0.33	0.042	19	84	1.67	52	0.05	3	2.59	0.01	0.27	< 2
96-2 96451	< 1	58	14	136	< 3	64	25	488	5.75	6	< 5	< 2	13	29	< 2	2	< 2	24	0.69	0.037	20	107	1.76	61	0.04	< 3	2.94	0.02	0.33	< 2
96-2 96452	2	46	17	53	< 3	35	14	570	3.41	10	< 5	< 2	8	31	< 2	< 2	< 2	9	1.20	0.034	13	140	0.79	46	0.01	< 3	1.43	0.01	0.25	< 2
96-2 96453	1	27	14	63	< 3	33	12	909	3.49	< 2	< 5	< 2	9	43	< 2	2	< 2	10	1.65	0.077	10	121	0.80	35	0.01	< 3	1.41	0.01	0.19	< 2
96-2 96454	4	28	39	44	< 3	19	9	306	2.25	< 2	< 5	< 2	4	29	< 2	< 2	2	13	0.72	0.015	11	263	0.59	28	0.02	< 3	1.06	0.04	0.13	< 2



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TO: Noble Metal Group
 FILE # 38456

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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96455	1	73	51	106	0.3	51	22	436	4.39	< 2	< 5	< 2	19	27	< 2	< 2	< 2	21	0.67	0.038	33	200	1.45	81	0.15	3	2.39	0.01	0.54	< 2
96-2 96456	4	46	35	83	0.3	37	15	341	3.78	3	< 5	2	11	29	< 2	< 2	< 2	17	0.44	0.048	23	258	1.10	53	0.04	< 3	1.85	0.02	0.26	< 2
STANDARD C2	21	58	42	145	6.5	75	37	1186	4.04	43	24	9	36	52	21.4	14	22	76	0.58	0.099	42	68	1.02	201	0.09	29	2.05	0.06	0.15	13
96-2 96457	1	67	84	102	0.4	48	14	416	3.95	< 2	< 5	< 2	14	16	1.2	< 2	3	13	0.56	0.070	35	120	1.20	49	0.01	9	2.08	0.01	0.26	5
96-2 96458	1	40	15	109	< 3	53	20	264	4.34	5	< 5	< 2	17	9	0.4	< 2	< 2	18	0.19	0.044	37	95	1.46	72	0.07	3	2.38	0.01	0.44	< 2
96-2 96459	1	8	15	38	< 3	18	7	266	2.01	2	< 5	< 2	10	40	0.3	< 2	< 2	11	0.52	0.011	26	174	0.53	49	0.01	10	0.99	0.02	0.18	< 2
96-2 96460	46	132	23	138	18.4	44	11	601	2.71	< 2	< 5	< 2	9	69	0.2	2	2	38	1.71	0.025	25	126	1.29	83	0.06	8	1.79	0.01	0.15	461
96-2 96461	1	8	34	55	< 3	25	9	422	2.66	< 2	< 5	< 2	9	25	< 2	< 2	< 2	27	0.67	0.021	13	154	0.71	102	0.21	3	1.36	0.03	0.55	5
96-2 96462	2	8	17	61	< 3	26	8	359	2.46	2	< 5	< 2	14	57	0.2	< 2	< 2	20	1.56	0.338	35	133	0.75	90	0.09	4	1.41	0.01	0.64	2
96-2 96463	1	53	22	64	< 3	50	20	298	3.13	< 2	< 5	< 2	15	26	0.3	< 2	2	14	0.41	0.044	42	141	0.88	52	0.07	4	1.39	0.01	0.31	< 2
96-2 96464	2	67	65	127	0.3	68	35	441	5.39	< 2	< 5	< 2	14	21	0.5	< 2	2	27	0.44	0.030	27	112	1.72	62	0.10	3	2.51	0.01	0.50	< 2
96-2 96465	1	10	25	50	< 3	20	8	238	2.20	5	< 5	< 2	3	20	< 2	< 2	2	22	0.41	0.019	9	269	0.66	36	0.06	8	1.05	0.02	0.24	< 2
96-2 96466	1	38	64	107	0.3	53	28	367	4.12	< 2	< 5	< 2	18	35	0.4	< 2	2	18	0.70	0.038	36	75	1.33	64	0.08	7	2.03	0.01	0.43	< 2
96-2 96467	< 1	1	16	39	0.3	18	7	181	1.67	3	< 5	< 2	11	42	< 2	< 2	< 2	11	1.29	0.404	37	174	0.54	76	0.03	5	1.18	0.02	0.41	< 2
96-2 96468	1	58	21	101	< 3	55	28	417	4.54	< 2	< 5	< 2	17	22	< 2	< 2	2	20	0.44	0.043	21	78	1.29	66	0.10	< 3	2.02	0.01	0.51	< 2
96-2 96469	1	10	21	79	< 3	37	15	511	3.27	14	< 5	< 2	21	47	< 2	< 2	< 2	22	0.88	0.069	47	122	0.98	84	0.08	4	1.75	0.02	0.45	< 2
96-2 96470	1	3	49	59	< 3	25	10	719	2.58	8	< 5	< 2	13	60	0.2	< 2	< 2	20	2.06	0.021	24	127	0.76	49	0.09	8	1.28	0.02	0.20	< 2
96-2 96471	< 1	5	11	31	< 3	15	7	1024	2.17	3	< 5	< 2	5	115	0.4	< 2	< 2	34	5.48	0.018	15	138	0.87	30	0.02	7	1.22	0.02	0.15	< 2
96-2 96472	3	52	74	33	0.4	21	9	526	2.13	< 2	< 5	< 2	3	99	0.2	< 2	4	20	2.66	0.052	12	196	0.69	31	0.03	8	1.07	0.01	0.17	< 2
96-2 96473	< 1	21	40	15	< 3	18	14	1716	3.02	3	< 5	< 2	5	552	0.4	< 2	< 2	6	17.11	0.020	27	29	0.29	22	0.08	< 3	0.51	0.01	0.10	< 2
96-2 96474	1	54	24	18	0.4	63	48	210	4.39	< 2	< 5	< 2	24	72	< 2	< 2	2	5	1.52	0.046	94	41	0.21	70	0.15	9	0.80	0.01	0.33	< 2
96-2 96475	3	24	53	33	3.4	20	13	92	2.52	42	< 5	6	4	11	0.7	< 2	2	3	0.15	0.061	15	136	0.17	32	< 0.1	9	0.18	0.02	0.08	< 2
96-2 96476	< 1	20	25	59	< 3	26	10	495	2.90	< 2	< 5	< 2	12	38	< 2	< 2	< 2	20	0.98	0.022	21	106	0.74	64	0.15	4	1.36	0.02	0.42	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-2 96477	2	132	52	144	0.4	78	54	380	6.12	20	< 5	< 2	18	23	< .2	< 2	5	26	0.39	0.045	58	99	1.84	78	0.06	3	3.01	0.01	0.48	< 2
96-2 96478	1	8	59	79	0.8	43	18	236	2.73	21	< 5	< 2	27	40	< .2	< 2	< 2	13	1.03	0.337	118	29	0.89	105	0.05	4	1.87	0.01	0.54	< 2
96-2 96479	2	44	43	50	< .3	23	10	385	2.70	2	< 5	< 2	10	38	< .2	< 2	< 2	21	0.75	0.021	23	161	0.74	51	0.05	< 3	1.28	0.02	0.21	< 2
RE 96-2 96479	2	44	40	51	< .3	23	10	381	2.70	< 2	< 5	< 2	10	38	0.2	2	< 2	21	0.74	0.019	22	158	0.74	51	0.05	7	1.28	0.03	0.21	< 2
96-3 91013	1	8	31	30	< .3	19	5	495	1.85	6	< 5	< 2	14	56	0.2	< 2	< 2	14	1.35	0.031	33	261	0.41	109	0.05	3	1.08	0.04	0.40	< 2
96-3 91014	4	10	34	42	< .3	30	9	391	2.17	3	< 5	< 2	13	10	< .2	< 2	< 2	9	0.12	0.020	30	302	0.31	71	0.03	8	0.93	0.03	0.27	< 2
96-3 91015	1	21	25	83	< .3	39	10	362	4.49	6	< 5	< 2	13	14	0.2	< 2	< 2	16	0.20	0.028	32	258	0.79	64	0.03	< 3	1.85	0.01	0.29	< 2
96-3 91016	< 1	22	25	64	< .3	34	11	351	2.99	< 2	< 5	< 2	15	11	< .2	< 2	< 2	15	0.15	0.028	40	130	0.80	54	0.03	3	1.52	0.02	0.21	< 2
96-3 91017	2	32	28	66	< .3	29	12	691	4.93	< 2	< 5	< 2	18	15	< .2	< 2	< 2	21	0.22	0.033	39	184	0.67	67	0.02	3	1.60	0.03	0.24	< 2
96-3 91018	1	11	24	68	< .3	36	10	453	2.89	< 2	< 5	< 2	14	30	< .2	< 2	< 2	15	0.70	0.033	31	167	0.66	49	0.03	< 3	1.46	0.02	0.21	< 2
96-3 91019	2	26	16	81	< .3	40	11	453	3.79	< 2	< 5	< 2	16	31	< .2	< 2	< 2	18	0.62	0.036	41	133	1.02	60	0.04	< 3	1.92	0.02	0.25	< 2
96-3 91020	< 1	14	29	68	< .3	34	11	497	3.18	< 2	< 5	< 2	14	23	0.2	< 2	< 2	15	0.39	0.023	37	130	0.75	47	0.02	< 3	1.49	0.02	0.18	< 2
96-3 91021	1	35	30	94	< .3	44	15	939	4.04	4	< 5	< 2	10	213	0.3	< 2	2	18	6.19	2.466	52	82	1.05	116	0.01	7	2.56	0.02	0.44	< 2
96-3 91022	< 1	20	22	88	< .3	44	14	749	3.92	4	< 5	< 2	13	43	0.3	< 2	< 2	15	1.05	0.138	39	118	1.02	66	< .01	< 3	2.08	0.02	0.27	< 2
96-3 91023	1	36	19	125	< .3	63	23	1002	5.09	4	6	< 2	14	11	< .2	< 2	< 2	16	0.25	0.039	24	76	1.33	34	< .01	9	2.35	0.01	0.16	< 2
STANDARD C2	20	56	46	140	6.4	74	35	1159	3.92	43	20	7	34	52	20.6	16	21	73	0.56	0.108	41	67	0.98	204	0.09	32	1.98	0.06	0.14	16
96-3 91024	1	29	15	91	< .3	34	11	1259	4.63	3	8	< 2	11	19	< .2	2	< 2	13	1.08	0.046	17	106	1.10	28	< .01	8	1.78	0.02	0.15	2
96-3 91025	1	76	19	160	< .3	73	30	1045	5.70	19	< 5	< 2	15	7	< .2	< 2	< 2	11	0.20	0.065	15	52	1.34	33	< .01	< 3	1.92	0.01	0.18	< 2
96-3 91026	< 1	20	16	84	< .3	25	7	1361	3.34	10	< 5	< 2	12	30	< .2	< 2	< 2	21	1.30	0.028	29	120	1.03	21	< .01	5	1.51	0.03	0.12	< 2
96-3 91027	1	34	11	89	< .3	31	12	1369	4.12	< 2	< 5	< 2	13	23	< .2	< 2	< 2	10	0.45	0.026	17	73	1.08	22	< .01	< 3	1.61	0.01	0.13	< 2
96-3 91028	< 1	32	15	99	< .3	35	10	1258	4.70	< 2	< 5	< 2	12	13	< .2	< 2	< 2	14	0.31	0.038	15	92	1.24	35	< .01	6	1.81	0.02	0.16	2
96-3 91029	1	103	22	138	< .3	80	29	691	5.87	5	6	< 2	15	5	< .2	3	< 2	8	0.11	0.031	10	43	1.08	29	< .01	< 3	1.62	0.01	0.17	2
96-3 91030	2	91	21	119	< .3	76	27	593	5.35	4	< 5	< 2	14	5	< .2	2	3	7	0.09	0.025	10	42	1.00	39	< .01	4	1.53	0.01	0.19	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-3 91031	3	132	23	108	< 3	81	28	515	5.06	< 2	9	< 2	15	5	< 2	3	< 2	7	0.09	0.021	11	42	0.81	40	< .01	< 3	1.32	0.01	0.21	< 2
96-3 91032	1	88	42	103	< 3	90	34	524	7.13	27	< 5	< 2	14	5	< 2	3	3	7	0.09	0.024	10	45	0.94	32	< .01	< 3	1.44	0.01	0.17	< 2
96-3 91033	1	82	8	96	< 3	66	19	614	5.67	< 2	< 5	< 2	14	7	< 2	2	< 2	8	0.12	0.036	13	42	1.18	40	< .01	< 3	1.80	0.01	0.20	2
96-3 91034	1	37	6	64	< 3	39	12	592	4.01	< 2	< 5	< 2	12	10	< 2	< 2	< 2	9	0.20	0.034	19	70	1.04	46	< .01	6	1.61	0.02	0.19	< 2
96-3 91035	1	39	28	121	0.3	193	41	2304	6.96	110	7	< 2	5	214	1.3	< 2	< 2	140	6.03	0.066	15	531	4.75	36	0.01	4	4.64	0.01	0.09	< 2
96-3 91036	1	80	19	120	< 3	86	32	1288	6.87	23	< 5	< 2	7	174	0.8	< 2	< 2	154	6.10	0.080	25	132	3.40	44	0.01	< 3	3.90	0.01	0.12	< 2
96-3 91037	1	23	31	82	< 3	42	14	913	3.79	5	7	< 2	10	57	< 2	3	< 2	22	2.43	0.037	24	95	1.15	39	< .01	< 3	1.75	0.02	0.14	< 2
96-3 91038	< 1	18	22	53	< 3	23	8	823	2.67	< 2	< 5	< 2	11	79	< 2	2	< 2	14	2.34	0.024	27	115	0.77	44	< .01	4	1.25	0.03	0.15	< 2
96-3 91039	2	112	38	122	< 3	65	20	414	5.10	< 2	< 5	< 2	13	23	< 2	2	2	7	0.56	0.031	17	72	0.77	48	< .01	< 3	1.30	0.02	0.24	< 2
96-3 91040	2	83	40	133	< 3	68	22	312	5.14	< 2	< 5	< 2	15	10	< 2	< 2	2	7	0.18	0.023	21	39	0.92	50	< .01	< 3	1.44	0.01	0.26	< 2
96-3 91041	1	35	12	89	< 3	44	15	566	4.24	< 2	< 5	< 2	14	31	< 2	2	< 2	13	0.88	0.031	28	98	1.15	48	< .01	< 3	1.63	0.02	0.22	< 2
96-3 91042	2	67	22	156	< 3	61	22	381	4.55	< 2	9	< 2	15	9	< 2	3	< 2	9	0.19	0.025	19	87	1.11	56	< .01	< 3	1.67	0.01	0.25	< 2
96-3 91043	1	82	45	122	< 3	70	22	413	5.04	< 2	< 5	< 2	14	12	< 2	2	< 2	9	0.29	0.025	15	55	1.16	56	< .01	< 3	1.77	0.01	0.26	2
96-3 91044	1	36	10	91	< 3	58	19	611	4.38	12	< 5	< 2	10	25	< 2	< 2	< 2	18	0.69	0.029	20	133	1.43	56	< .01	< 3	2.24	0.02	0.24	2
96-3 91045	1	38	21	92	< 3	56	17	689	4.46	3	< 5	< 2	10	45	< 2	< 2	< 2	20	1.34	0.042	25	103	1.41	50	< .01	< 3	2.20	0.02	0.22	< 2
96-3 91046	1	.13	16	89	< 3	64	20	416	4.93	2	6	< 2	11	13	< 2	3	< 2	15	0.24	0.027	24	105	1.44	52	< .01	4	2.06	0.02	0.24	< 2
RE 96-3 91046	1	45	16	94	< 3	63	20	432	5.11	2	< 5	< 2	11	13	< 2	< 2	2	16	0.24	0.027	25	108	1.48	56	< .01	7	2.15	0.02	0.25	< 2
96-3 91047	< 1	24	11	65	< 3	33	10	567	3.32	< 2	5	< 2	11	34	< 2	< 2	< 2	15	0.94	0.024	29	98	1.03	36	< .01	< 3	1.48	0.02	0.16	< 2
96-3 91048	1	47	29	96	< 3	66	21	468	4.79	< 2	< 5	< 2	15	14	< 2	< 2	< 2	12	0.25	0.040	47	115	1.38	48	< .01	< 3	2.03	0.02	0.22	< 2
96-3 91049	< 1	30	15	90	< 3	52	16	533	4.05	7	< 5	< 2	11	33	< 2	< 2	3	14	0.77	0.030	33	88	1.27	47	< .01	< 3	1.97	0.01	0.20	< 2
96-3 91050	1	23	13	73	< 3	38	11	641	3.65	< 2	< 5	< 2	9	42	< 2	2	< 2	15	1.05	0.043	19	103	1.10	40	< .01	< 3	1.72	0.02	0.17	2
96-3 91051	< 1	45	21	98	< 3	56	16	343	4.73	2	< 5	< 2	12	14	< 2	< 2	< 2	11	0.29	0.043	20	69	1.31	46	< .01	< 3	1.96	0.01	0.21	2
96-3 91052	1	17	26	64	< 3	30	8	678	3.15	3	5	< 2	10	62	< 2	2	2	15	1.84	0.028	23	102	0.98	39	0.02	4	1.61	0.02	0.17	< 2



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 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38456

DATE: August 29, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
96-3 91053	< 1	26	31	96	< .3	45	17	792	3.95	15	< 5	< 2	9	66	< 2	< 2	< 2	18	2.21	0.072	25	88	1.22	39	0.01	6	1.92	0.02	0.18	< 2
96-3 91054	< 1	46	19	120	< .3	63	20	362	5.55	3	< 5	< 2	10	17	0.4	< 2	< 2	14	0.35	0.050	13	62	1.51	37	< .01	4	2.34	0.01	0.20	2
96-3 91055	< 1	53	28	121	< .3	64	18	406	5.51	5	6	< 2	10	18	< 2	< 2	< 2	13	0.43	0.054	15	52	1.54	43	< .01	< 3	2.48	< .01	0.19	< 2
96-3 91056	< 1	48	21	116	< .3	61	19	410	5.26	11	6	< 2	12	20	< 2	4	< 2	15	0.41	0.048	21	70	1.51	51	< .01	< 3	2.47	0.02	0.25	2
96-3 91057	1	46	17	120	< .3	61	19	681	5.49	13	< 5	< 2	11	45	< 2	< 2	< 2	15	0.82	0.057	15	66	1.47	49	< .01	3	2.17	0.01	0.25	< 2
STANDARD C2	21	60	42	143	6.2	77	35	1229	4.17	42	20	7	34	51	20.8	14	18	75	0.57	0.101	43	69	1.06	205	0.09	32	2.16	0.06	0.15	12
96-3 91058	1	45	14	112	< .3	54	17	468	4.87	< 2	< 5	< 2	14	23	< 2	< 2	4	11	0.45	0.059	22	69	1.23	47	< .01	< 3	1.85	0.02	0.26	< 2
96-3 91059	1	54	59	115	< .3	52	19	490	4.63	2	< 5	< 2	13	41	< 2	2	2	10	0.59	0.029	23	64	1.11	47	< .01	5	1.66	0.02	0.25	< 2
96-3 91060	2	10	12	53	< .3	16	4	807	2.60	< 2	< 5	< 2	9	91	< 2	< 2	< 2	15	2.08	0.020	21	150	0.93	30	0.01	< 3	1.30	0.03	0.14	< 2
96-3 91061	1	35	20	112	< .3	38	19	843	3.64	2	< 5	< 2	14	93	0.2	< 2	2	14	2.47	0.027	33	94	0.96	38	0.01	< 3	1.43	0.02	0.21	< 2
96-3 91062	2	51	45	148	< .3	54	19	564	4.30	< 2	< 5	< 2	19	48	< 2	< 2	< 2	9	1.20	0.034	52	94	0.91	58	0.01	< 3	1.45	0.02	0.30	< 2
96-3 91063	1	18	18	61	< .3	23	7	1229	2.20	4	< 5	< 2	15	142	0.2	< 2	2	9	4.30	0.021	28	108	0.64	38	0.03	3	1.03	0.02	0.20	< 2
96-3 91064	2	18	23	79	< .3	38	15	454	2.95	12	< 5	< 2	12	71	< 2	2	< 2	18	1.33	0.028	29	117	0.85	57	0.04	< 3	1.45	0.02	0.25	< 2
96-3 91065	2	28	22	111	< .3	52	18	536	4.12	17	< 5	< 2	14	64	< 2	< 2	< 2	25	0.96	0.037	31	106	1.23	61	0.07	< 3	2.00	0.03	0.33	< 2
96-3 91066	< 1	19	17	65	< .3	33	11	403	2.62	12	< 5	< 2	14	38	< 2	< 2	2	15	0.76	0.034	30	94	0.73	65	0.07	< 3	1.32	0.02	0.37	< 2
96-3 91067	2	7	20	13	< .3	13	4	762	0.83	3	< 5	< 2	9	146	< 2	< 2	< 2	7	5.85	0.351	17	113	0.25	70	0.03	5	0.66	0.02	0.32	< 2
96-3 91068	< 1	8	16	28	< .3	17	5	335	1.61	3	< 5	< 2	11	47	< 2	< 2	< 2	9	1.05	0.020	24	103	0.46	38	0.04	3	0.78	0.02	0.20	< 2
80-90	6	100	32	153	5.7	118	36	1510	6.88	55	< 5	< 2	6	160	0.6	3	< 2	126	5.34	0.073	16	213	3.15	27	0.01	< 3	3.59	0.01	0.06	27
90-100	16	212	51	180	37.3	79	18	1041	7.17	13	< 5	< 2	7	40	0.3	< 2	2	30	1.53	0.057	26	110	1.02	92	0.01	< 3	1.96	0.03	0.14	171
100-110	11	280	40	153	70.5	97	23	1011	7.07	14	6	< 2	8	31	< 2	5	2	15	1.00	0.033	19	66	0.76	58	< .01	3	1.49	0.02	0.14	184
110-120	7	119	50	248	4.1	105	24	827	7.48	19	< 5	< 2	5	22	0.7	3	< 2	32	0.42	0.071	28	72	0.98	107	0.01	< 3	2.51	0.03	0.25	19
120-130	5	107	33	154	10.1	87	23	844	5.85	13	< 5	< 2	6	44	0.4	< 2	< 2	20	1.52	0.043	19	53	0.99	81	0.01	< 3	1.93	0.02	0.18	50
130-140	4	101	36	170	10.8	75	21	725	5.84	9	< 5	< 2	9	32	0.2	2	< 2	16	0.77	0.043	24	42	1.05	60	0.01	< 3	1.81	0.02	0.13	57



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TO: Noble Metal Group
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DATE: August 29, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
140-150	4	90	42	138	8.2	72	22	727	5.49	12	< 5	< 2	8	35	0.3	3	2	17	0.85	0.045	25	41	1.00	62	0.01	4	1.79	0.02	0.13	45
RE 140-150	4	88	40	139	10.4	71	21	704	5.46	9	< 5	< 2	8	35	0.4	< 2	< 2	17	0.86	0.044	25	41	1.02	56	0.01	< 3	1.83	0.03	0.13	49
150-160	10	233	30	129	65.7	55	18	807	4.78	15	< 5	< 2	8	68	0.3	2	< 2	17	1.70	0.041	22	52	0.93	120	0.01	< 3	1.67	0.03	0.12	283
160-170	15	156	42	188	18.4	97	23	615	6.29	18	< 5	< 2	8	47	0.2	< 2	< 2	14	0.95	0.087	13	49	1.23	30	< 0.1	< 3	2.05	0.02	0.14	99
170-180	6	80	31	165	4.5	116	35	713	7.62	18	< 5	< 2	9	37	0.5	< 2	< 2	18	0.71	0.077	17	49	1.27	63	0.01	< 3	1.95	0.02	0.18	24
180-190	8	87	37	130	6.9	85	23	731	5.31	4	< 5	< 2	12	68	0.2	< 2	4	12	1.48	0.042	33	45	0.86	58	0.01	8	1.36	0.03	0.14	37
190-200	8	90	31	101	12.7	59	20	819	3.77	19	< 5	< 2	10	81	< 2	< 2	< 2	14	1.86	0.041	33	44	0.74	213	0.03	< 3	1.33	0.03	0.15	67
200-210	8	92	36	88	14.5	52	12	1039	2.80	11	< 5	< 2	8	138	< 2	< 2	< 2	13	4.66	0.045	24	38	0.61	218	0.04	3	1.10	0.03	0.18	69
210-220	12	188	35	102	45.1	42	11	697	3.30	13	< 5	< 2	9	84	0.2	2	< 2	13	2.03	0.065	33	46	0.54	166	0.03	6	1.04	0.03	0.17	196
220-230	10	262	25	120	78.0	53	11	1098	4.39	11	< 5	< 2	8	104	< 2	< 2	< 2	20	3.26	0.042	28	55	0.99	246	0.04	7	1.67	0.01	0.23	326
230-240	6	80	24	116	13.7	66	15	656	4.18	9	< 5	< 2	14	77	0.2	2	< 2	25	1.68	0.035	40	57	1.12	289	0.18	< 3	1.96	0.04	0.37	62
240-250	5	70	33	145	5.3	64	20	724	4.76	15	< 5	< 2	6	40	0.4	< 2	3	29	0.79	0.045	36	61	1.11	151	0.10	< 3	2.05	0.02	0.30	27
STANDARD C2	20	55	42	147	6.4	70	33	1133	3.87	45	20	8	33	49	19.5	16	19	70	0.54	0.096	40	61	0.97	190	0.08	30	1.99	0.06	0.14	12

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38499
 Date : September 18, 1996
 Samples : Core/Sludge
 Project :
 P.O.#

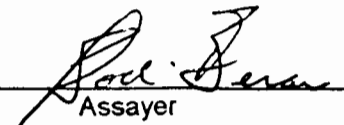
Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
<u>"Assay Analysis"</u>	
91101	20
91102	<5
91103	<5
91104	<5
91105	<5
91106	<5
91107	<5
91108	60
91109	<5
91110	<5
91111	<5
91112	<5
91113	<5
91114	<5
91115	<5
91116	<5
91117	<5
91118	<5
91119	<5
91120	<5
91121	<5
91122	<5
91123	<5
91124	<5
91125	<5
91126	<5
91127	<5
91128	<5
91129	<5
91130	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :


 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins

File No : 38499
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Samples : Core/Sludge
Project :
P.O.#

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91131	<5
91132	<5
91133	<5
91134	<5
91135	<5
91136	<5
91137	<5
91138	<5
91139	<5
91140	<5
91141	<5
91142	<5
91143	<5
91144	<5
91145	<5
91146	<5
91147	<5
91148	<5
91149	15
91150	5
<u>96-3</u>	
250-260	<5
260-270	<5
270-280	<5
280-290	<5
290-300	<5
300-310	<5
310-320	<5
320-330	<5
330-340	<5

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made by me upon the herein described samples :


Assayer

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801, 409 Granville Street
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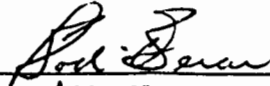
File No : 38499
Date : September 18, 1996
Samples : Core/Sludge
Project :
P.O.#

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
340-350	<5
350-360	<5
360-370	<5
370-380	<5
390-400	<5
400-410	<5
410-420	<5
420-430	<5
430-440	<5
440-450	<5
450-460	<5
460-470	<5
470-480	<5
480-490	<5
490-500	10
500-510	<5
510-520	<5

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Assayer

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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91101	< 1	107	22	106	< .3	68	22	638	6.95	< 2	< 5	< 2	12	55	0.3	< 2	3	78	2.41	0.031	17	135	2.47	35	0.29	< 3	3.22	0.02	0.20	< 2
91102	1	86	12	53	< .3	47	20	619	4.18	< 2	< 5	< 2	< 2	58	< .2	< 2	2	69	3.33	0.030	1	157	2.20	8	0.29	< 3	2.52	0.02	0.05	< 2
91103	1	52	11	50	< .3	42	17	686	4.01	< 2	< 5	< 2	< 2	61	0.2	< 2	3	73	5.66	0.024	< 1	185	2.06	18	0.30	< 3	2.43	0.03	0.07	< 2
91104	1	61	14	100	< .3	63	17	696	6.46	< 2	< 5	< 2	7	42	< .2	< 2	< 2	75	1.80	0.035	12	128	2.39	35	0.24	< 3	3.12	0.01	0.16	< 2
91105	1	31	12	92	< .3	53	11	508	4.46	< 2	< 5	< 2	16	46	< .2	< 2	< 2	23	1.20	0.033	30	97	1.34	66	0.16	< 3	2.24	0.01	0.24	< 2
91106	1	45	21	125	< .3	76	24	620	5.44	25	< 5	< 2	15	32	< .2	< 2	< 2	22	0.88	0.043	22	66	1.80	78	0.14	< 3	2.89	0.01	0.32	< 2
91107	< 1	9	13	61	< .3	33	8	683	3.07	3	< 5	< 2	10	34	< .2	< 2	< 2	23	1.13	0.025	20	107	0.97	44	0.12	< 3	1.65	0.02	0.18	< 2
91108	1	44	9	111	0.3	40	18	855	6.88	< 2	< 5	< 2	5	53	0.4	< 2	< 2	114	2.60	0.060	10	99	2.51	32	0.28	< 3	3.42	0.02	0.12	< 2
91109	< 1	43	< 3	112	< .3	24	24	1301	8.49	< 2	< 5	< 2	< 2	53	0.8	< 2	< 2	183	2.71	0.071	2	41	2.81	14	0.33	< 3	3.99	0.02	0.08	< 2
91110	1	37	15	70	< .3	44	12	421	3.76	< 2	< 5	< 2	19	17	< .2	2	2	12	0.48	0.053	50	90	1.00	52	0.12	3	1.69	0.01	0.31	< 2
RE 91110	1	37	12	74	< .3	44	12	429	3.85	< 2	< 5	< 2	19	18	< .2	< 2	< 2	12	0.48	0.054	53	96	1.02	54	0.12	4	1.75	0.01	0.32	< 2
91111	< 1	28	16	65	< .3	41	16	454	3.38	< 2	< 5	< 2	19	27	< .2	< 2	2	15	0.56	0.064	47	85	0.97	71	0.11	< 3	1.81	0.02	0.34	< 2
91112	2	17	28	76	< .3	38	10	650	3.52	< 2	< 5	< 2	16	71	< .2	< 2	< 2	38	1.08	0.035	33	146	1.16	52	0.10	< 3	1.90	0.04	0.21	< 2
91113	1	33	17	99	< .3	48	14	522	4.23	3	< 5	< 2	20	13	< .2	< 2	< 2	21	0.38	0.042	44	68	1.31	71	0.18	4	2.34	0.01	0.38	< 2
91114	1	23	12	81	< .3	41	14	599	3.68	< 2	< 5	< 2	11	58	< .2	< 2	< 2	23	1.06	0.035	29	116	1.17	71	0.04	< 3	2.04	0.02	0.29	< 2
91115	< 1	78	6	55	< .3	44	19	649	4.47	< 2	< 5	< 2	< 2	56	0.4	< 2	< 2	97	2.69	0.036	2	119	2.18	20	0.28	< 3	2.51	0.03	0.09	< 2
91116	2	6	19	35	< .3	13	4	605	1.72	3	< 5	< 2	9	109	< .2	< 2	5	11	1.67	0.018	20	92	0.54	34	0.07	< 3	0.90	0.02	0.18	< 2
91117	1	3	12	26	< .3	11	4	785	1.22	5	< 5	< 2	6	144	< .2	< 2	< 2	8	2.74	0.018	12	139	0.38	34	0.04	< 3	0.65	0.02	0.20	< 2
91118	2	9	110	22	< .3	9	3	646	1.16	< 2	< 5	< 2	6	212	< .2	< 2	< 2	7	2.23	0.027	11	113	0.32	21	0.02	< 3	0.51	0.03	0.11	< 2
91119	< 1	17	22	17	< .3	9	4	410	1.08	< 2	< 5	< 2	7	85	< .2	< 2	< 2	5	4.39	0.013	11	85	0.19	26	0.02	< 3	0.42	0.02	0.16	< 2
91120	2	21	24	73	< .3	26	7	1084	3.34	< 2	< 5	< 2	10	119	0.2	< 2	< 2	20	3.61	0.028	22	122	0.94	51	0.12	< 3	1.61	0.03	0.24	< 2
91121	1	15	14	34	< .3	16	6	1298	2.14	< 2	< 5	< 2	8	190	< .2	< 2	< 2	7	6.12	0.121	23	98	0.45	51	0.04	< 3	0.83	0.02	0.26	< 2
91122	1	34	37	99	< .3	44	13	778	4.13	< 2	< 5	< 2	14	99	0.4	< 2	< 2	17	2.78	0.062	37	87	1.12	61	0.11	< 3	1.84	0.02	0.31	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91123	< 1	40	26	102	< .3	48	15	547	4.39	< 2	< 5	< 2	17	51	< .2	< 2	< 2	20	1.46	0.068	40	88	1.27	65	0.11	< 3	2.12	0.02	0.33	< 2
91124	1	26	20	87	< .3	31	12	761	3.46	< 2	< 5	< 2	13	56	0.2	< 2	< 2	21	1.51	0.033	31	103	1.03	42	0.08	< 3	1.67	0.02	0.21	< 2
91125	< 1	19	21	55	< .3	23	8	846	2.65	< 2	< 5	< 2	12	90	< .2	< 2	< 2	13	2.46	0.113	33	86	0.73	53	0.05	< 3	1.32	0.02	0.27	< 2
91126	1	18	30	85	< .3	32	11	457	3.24	2	< 5	< 2	16	54	0.2	< 2	< 2	20	0.72	0.066	51	116	1.04	75	0.04	< 3	1.83	0.02	0.35	< 2
91127	< 1	27	23	82	< .3	42	14	456	3.67	< 2	< 5	< 2	16	49	0.2	< 2	< 2	17	0.63	0.104	41	103	1.15	61	0.04	< 3	1.92	0.02	0.29	< 2
91128	1	89	82	99	< .3	68	36	474	4.32	7	< 5	< 2	20	59	< .2	< 2	< 2	13	0.76	0.034	64	55	1.17	74	0.03	< 3	2.00	0.01	0.33	< 2
91129	2	41	45	74	< .3	45	18	458	3.61	< 2	< 5	< 2	16	35	< .2	< 2	< 2	14	0.53	0.038	46	119	1.05	65	0.04	< 3	1.74	0.02	0.31	< 2
91130	1	39	24	87	< .3	45	14	389	3.43	5	< 5	< 2	14	36	< .2	< 2	< 2	12	0.43	0.028	31	105	1.08	58	0.02	< 3	1.87	0.02	0.29	< 2
91131	1	65	18	89	< .3	63	20	258	4.26	5	< 5	< 2	15	20	< .2	< 2	< 2	10	0.24	0.029	33	47	1.17	58	0.02	3	2.00	0.01	0.37	< 2
91132	1	51	30	106	< .3	53	17	404	4.63	5	< 5	< 2	11	30	0.2	< 2	< 2	15	0.82	0.030	21	91	1.41	58	0.01	3	2.32	0.02	0.29	< 2
91133	2	30	15	81	< .3	41	13	342	3.87	< 2	< 5	< 2	12	25	< .2	< 2	< 2	14	0.39	0.052	19	110	1.12	60	0.03	< 3	1.79	0.03	0.27	< 2
91134	2	11	22	33	< .3	13	5	1477	1.80	< 2	< 5	< 2	9	147	< .2	< 2	< 2	11	2.89	0.025	18	130	0.58	44	0.03	< 3	0.88	0.03	0.17	< 2
STANDARD C2	20	58	39	145	7.2	68	32	1258	3.97	38	19	7	35	54	20.5	18	20	74	0.54	0.104	41	62	1.00	200	0.08	27	2.12	0.06	0.15	13
91135	2	17	30	51	0.3	24	9	516	2.33	3	< 5	< 2	9	88	< .2	< 2	< 2	15	0.91	0.025	20	119	0.70	58	0.05	< 3	1.13	0.02	0.27	< 2
91136	1	39	24	102	< .3	55	22	287	3.68	12	< 5	< 2	12	42	< .2	< 2	< 2	20	0.55	0.056	22	72	1.23	80	0.10	< 3	1.87	0.01	0.60	< 2
91137	2	21	19	69	< .3	36	13	398	3.11	7	< 5	< 2	12	45	< .2	< 2	3	22	0.68	0.063	27	137	1.05	70	0.04	< 3	1.67	0.02	0.29	< 2
91138	1	35	16	61	< .3	37	13	305	2.90	< 2	< 5	< 2	9	30	< .2	< 2	< 2	15	0.51	0.031	24	91	0.79	64	0.12	< 3	1.29	0.01	0.42	< 2
91139	2	10	28	37	< .3	20	6	611	1.86	< 2	< 5	< 2	10	70	0.2	< 2	< 2	17	1.77	0.023	22	144	0.60	68	0.11	< 3	1.03	0.02	0.36	< 2
91140	1	33	24	84	< .3	44	17	478	3.74	10	< 5	< 2	11	41	< .2	< 2	< 2	27	0.86	0.034	26	140	1.21	79	0.13	< 3	2.00	0.02	0.40	< 2
91141	3	8	11	14	< .3	10	3	471	0.86	2	< 5	< 2	4	80	< .2	< 2	3	8	1.33	0.009	8	207	0.21	20	0.01	< 3	0.40	0.01	0.09	< 2
RE 91141	3	7	11	13	< .3	9	3	465	0.84	< 2	< 5	< 2	3	79	< .2	2	< 2	8	1.31	0.009	9	208	0.21	20	0.01	< 3	0.39	0.01	0.07	< 2
91142	1	23	14	71	< .3	37	12	520	3.21	4	< 5	< 2	11	95	0.2	< 2	2	25	1.38	0.031	23	108	1.06	70	0.06	< 3	1.67	0.02	0.35	< 2
91143	1	75	32	107	< .3	76	35	302	4.54	27	< 5	< 2	18	30	< .2	< 2	2	20	0.30	0.039	29	72	1.42	79	0.06	< 3	2.22	0.01	0.43	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38499

DATE: September 18, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91144	1	24	19	107	< .3	56	18	401	4.54	20	< 5	< 2	16	78	< .2	< 2	< 2	23	1.09	0.202	33	85	1.46	70	0.02	< 3	2.33	0.01	0.32	< 2
91145	< 1	23	20	57	< .3	26	9	397	3.11	8	< 5	< 2	11	52	< .2	< 2	< 2	24	0.64	0.030	22	116	0.95	45	0.03	< 3	1.50	0.03	0.18	< 2
91146	1	56	26	81	< .3	44	19	401	3.93	4	< 5	< 2	17	42	< .2	< 2	< 2	25	0.56	0.044	35	95	1.15	63	0.03	< 3	1.69	0.02	0.27	< 2
91147	1	36	11	95	< .3	44	17	401	4.03	< 2	< 5	< 2	14	54	< .2	< 2	2	20	0.66	0.036	37	99	1.23	67	0.04	< 3	1.83	0.02	0.31	< 2
91148	< 1	35	16	85	< .3	46	15	491	3.69	2	< 5	< 2	16	60	< .2	< 2	< 2	18	1.01	0.054	36	83	1.15	72	0.04	< 3	1.76	0.02	0.34	< 2
91149	< 1	74	19	114	< .3	63	25	256	4.45	9	< 5	< 2	19	13	0.2	< 2	< 2	10	0.15	0.028	42	39	1.27	50	0.02	< 3	2.10	0.01	0.28	< 2
91150	< 1	57	18	94	< .3	59	21	315	4.34	14	< 5	< 2	13	16	0.2	< 2	< 2	12	0.64	0.090	32	70	1.15	47	0.02	< 3	1.93	0.01	0.26	< 2
STANDARD C2	20	58	38	136	7.0	74	36	1135	3.83	44	19	8	34	51	20.2	19	18	71	0.52	0.104	40	64	0.95	191	0.08	26	1.96	0.06	0.14	15
250-260	6	68	46	116	4.8	54	17	507	3.81	4	< 5	< 2	9	43	< .2	< 2	2	30	0.81	0.047	36	56	1.06	219	0.17	< 3	1.89	0.03	0.38	36
RE 250-260	6	62	29	142	4.6	54	16	511	3.84	3	< 5	< 2	11	43	0.2	< 2	2	30	0.81	0.048	38	57	1.07	223	0.16	< 3	1.89	0.03	0.38	40
260-270	6	80	29	137	7.5	64	21	639	4.41	9	< 5	< 2	11	44	0.2	2	4	30	0.91	0.041	44	57	1.24	209	0.15	< 3	2.11	0.02	0.44	50
270-280	4	59	31	138	2.7	71	23	550	4.91	8	< 5	< 2	12	28	< .2	< 2	3	34	0.54	0.047	46	60	1.32	153	0.22	< 3	2.30	0.02	0.55	19
280-290	3	46	23	101	2.3	54	17	571	4.09	3	< 5	< 2	13	46	< .2	< 2	< 2	32	0.86	0.036	37	51	1.11	145	0.20	< 3	2.01	0.03	0.53	14
290-300	3	41	26	96	2.3	53	17	567	4.05	< 2	< 5	< 2	12	49	< .2	< 2	2	31	0.89	0.035	40	52	1.10	145	0.21	< 3	1.98	0.03	0.53	15
300-310	3	49	27	110	2.5	60	19	523	4.38	6	< 5	< 2	12	38	0.2	< 2	< 2	32	0.70	0.046	40	56	1.15	146	0.19	< 3	2.09	0.02	0.52	15
310-320	4	50	27	107	3.3	57	18	633	4.19	6	< 5	< 2	12	73	< .2	< 2	4	30	1.28	0.051	40	53	0.99	147	0.20	< 3	1.88	0.03	0.54	21
320-330	3	57	21	91	9.6	41	13	505	3.19	5	< 5	< 2	10	51	< .2	< 2	2	21	1.05	0.038	39	34	0.77	108	0.15	< 3	1.49	0.03	0.42	65
330-340	4	72	26	108	6.2	44	15	1007	3.42	7	< 5	< 2	6	95	0.3	3	< 2	19	2.51	0.042	37	38	0.72	95	0.09	< 3	1.40	0.02	0.33	37
340-350	4	63	26	132	2.0	61	20	663	4.45	6	< 5	< 2	13	39	< .2	< 2	2	35	0.85	0.054	43	57	1.07	130	0.18	< 3	2.05	0.03	0.53	15
350-360	3	68	28	143	4.6	62	20	730	4.55	7	< 5	< 2	12	42	< .2	< 2	3	32	1.05	0.042	39	55	1.12	135	0.20	< 3	2.11	0.03	0.52	26
360-370	3	58	27	129	2.7	60	20	755	4.50	12	< 5	< 2	13	41	0.2	< 2	2	31	1.09	0.041	36	53	1.10	116	0.18	< 3	2.07	0.03	0.44	21
370-380	2	94	20	99	0.9	74	29	756	5.17	6	< 5	< 2	< 2	88	0.4	< 2	< 2	110	3.06	0.043	6	105	1.75	47	0.44	< 3	3.24	0.06	0.11	5
390-400	4	101	27	129	8.9	64	25	822	5.47	11	< 5	< 2	7	55	< .2	< 2	< 2	75	2.04	0.050	18	71	1.50	128	0.31	< 3	2.65	0.04	0.19	50



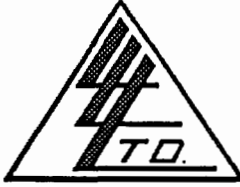
Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38499

DATE: September 18, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
400-410	4	99	17	120	9.7	54	31	930	6.81	7	< 5	< 2	6	55	< .2	< 2	< 2	131	2.17	0.073	21	35	1.79	167	0.41	< 3	2.85	0.03	0.12	58
410-420	8	104	18	101	14.2	38	14	552	3.15	< 2	< 5	< 2	13	50	< .2	< 2	2	27	1.07	0.041	32	43	0.84	358	0.13	< 3	1.37	0.02	0.10	127
420-430	6	66	24	56	11.9	21	7	796	1.66	4	< 5	< 2	6	118	0.2	< 2	3	9	2.84	0.024	18	24	0.41	249	0.06	< 3	0.67	0.02	0.08	101
430-440	5	88	31	100	11.2	49	19	843	3.68	< 2	< 5	< 2	11	84	0.2	< 2	< 2	18	2.41	0.056	43	40	0.78	198	0.09	< 3	1.33	0.02	0.15	83
440-450	11	293	50	139	66.0	68	25	597	4.10	2	< 5	< 2	15	50	< .2	< 2	2	17	0.79	0.074	50	38	0.95	309	0.04	< 3	1.64	0.01	0.19	352
450-460	8	155	17	158	11.0	81	28	504	4.85	8	< 5	< 2	15	25	< .2	< 2	< 2	15	0.46	0.057	44	36	1.12	241	0.03	< 3	2.04	0.01	0.28	74
460-470	7	147	31	120	28.8	62	24	638	4.05	6	< 5	< 2	13	50	< .2	2	2	17	0.90	0.055	39	39	1.00	211	0.05	< 3	1.70	0.02	0.22	181
470-480	5	94	22	99	10.5	54	20	645	3.74	7	< 5	< 2	13	46	< .2	< 2	< 2	15	0.91	0.040	27	38	0.96	138	0.04	< 3	1.59	0.02	0.20	80
480-490	7	182	19	106	52.3	49	18	504	3.81	< 2	< 5	< 2	12	48	< .2	2	2	21	0.82	0.046	30	51	1.00	252	0.06	< 3	1.71	0.02	0.32	343
490-500	6	80	17	92	14.9	45	15	639	3.53	5	< 5	< 2	11	59	< .2	< 2	< 2	24	1.24	0.039	39	50	0.95	248	0.11	< 3	1.66	0.02	0.32	105
500-510	6	86	13	95	16.3	46	16	640	3.54	6	< 5	< 2	13	58	< .2	< 2	< 2	24	1.24	0.039	37	51	0.95	255	0.11	< 3	1.67	0.02	0.32	109
510-520	6	97	27	114	9.7	58	23	554	4.26	12	< 5	< 2	15	58	< .2	< 2	< 2	21	0.86	0.054	38	45	1.07	171	0.05	< 3	1.78	0.03	0.25	56
STANDARD C2	20	60	40	143	7.0	77	38	1139	3.90	39	19	8	36	57	20.4	16	20	76	0.53	0.105	41	69	0.94	197	0.09	28	1.99	0.06	0.16	16



To: **NOBLE METAL GROUP**
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins

File No : **3 8 5 2 0**
 Date : September 25, 1996
 Samples : Core
 Project :
 P.O.#

Certificate of Assay

Loring Laboratories Ltd.

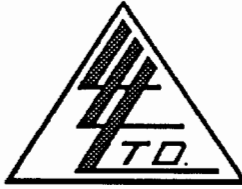
629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
<u>"Geochemical Analysis"</u>	
<u>DDH 96-3</u>	
91069	<5
91070	<5
91071	<5
91072	20
91073	<5
91074	<5
91075	<5
91076	<5
91077	<5
91078	<5
91079	<5
91080	<5
91081	<5
91082	<5
91083	<5
91084	<5
91085	<5
91086	<5
91087	<5
91088	<5
91089	<5
91090	<5
91091	<5
91092	<5
91093	<5
91094	<5
91095	<5
91096	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :


 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



To: NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins

File No : 38520
Date : September 25, 1996
Samples: Core
Project :
P.O.#

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91097	<5
91098	<5
91099	<5
91100	<5
91151	<5
91152	<5
91153	<5
91154	<5
91155	400
91156	<5
91157	10
91158	60
91159	<5
91160	<5
91161	<5
91162	<5
91163	<5
91164	<5
91165	10
91166	<5
91167	<5
91168	268
91169	<5
91170	<5
91171	<5
91172	<5
91173	<5
91174	<5
91175	<5
91176	<5
91177	<5
91178	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins

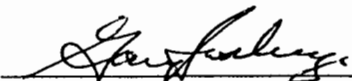
File No : 38520
Date : September 25, 1996
Samples : Core
Project :
P.O.#

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91179	<5
91180	<5
91181	10
91182	30
91183	5
91184	<5
91185	<5
91186	<5
91187	<5
91188	<5
91189	<5
91190	<5
91191	<5
91192	<5
91193	<5
91194	<5
91195	<5
91196	5
91197	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
Calgary Alberta T2K 4W7
Tel: 274-2777 Fax: 275-0541

TO: NOBLE METALS GROUP
FILE # 38520

DATE: September 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
91164	6	88	14	26	< 3	17	8	341	2.99	< 2	5	< 2	7	33	< 2	< 2	< 2	15	0.82	0.019	12	39	0.44	19	0.01	< 3	0.81	0.04	0.09	< 2
91165	3	120	12	64	< 3	56	19	276	3.74	< 2	< 5	< 2	19	14	< 2	< 2	2	14	0.16	0.039	62	34	0.99	84	0.01	< 3	2.00	0.02	0.43	< 2
91166	3	76	11	64	< 3	26	9	649	3.81	< 2	< 5	< 2	17	76	< 2	< 2	< 2	18	1.99	0.038	26	42	0.91	49	0.05	< 3	1.65	0.03	0.23	< 2
91167	4	73	9	44	< 3	22	7	557	2.99	< 2	< 5	< 2	9	53	< 2	< 2	< 2	15	1.71	0.027	13	36	0.76	83	0.10	< 3	1.52	0.04	0.29	< 2
91168	3	106	46	121	< 3	46	19	375	4.41	< 2	< 5	< 2	14	19	< 2	< 2	< 2	14	0.36	0.042	34	34	1.26	68	0.03	< 3	2.14	0.02	0.32	< 2
91169	< 1	76	10	66	< 3	93	39	1892	6.36	19	< 5	< 2	< 2	296	< 2	< 2	< 2	124	11.37	0.082	5	233	3.49	34	0.20	< 3	3.77	0.01	0.08	< 2
91170	2	62	10	75	0.3	105	44	1765	7.13	28	< 5	< 2	2	208	< 2	2	< 2	133	8.31	0.092	5	255	3.87	26	0.21	< 3	4.30	0.02	0.09	< 2
91171	4	46	18	38	< 3	15	4	1507	2.28	< 2	< 5	< 2	7	135	0.2	< 2	< 2	18	5.20	0.026	10	39	0.49	29	0.06	< 3	0.91	0.07	0.10	< 2
RE 91171	4	44	21	38	< 3	14	4	1497	2.24	< 2	< 5	< 2	7	134	< 2	< 2	< 2	17	5.17	0.026	10	37	0.48	29	0.06	< 3	0.90	0.07	0.10	< 2
91172	5	71	17	48	< 3	27	10	503	3.22	< 2	6	< 2	11	42	< 2	< 2	< 2	13	1.10	0.027	12	35	0.73	44	0.07	< 3	1.26	0.02	0.15	< 2
91173	4	72	20	59	< 3	28	9	573	3.77	< 2	< 5	< 2	11	46	< 2	< 2	< 2	26	0.85	0.029	21	41	1.01	82	0.04	< 3	1.74	0.04	0.20	< 2
91174	2	67	10	77	< 3	52	20	395	4.43	< 2	< 5	< 2	15	13	< 2	< 2	< 2	12	0.27	0.041	35	29	1.17	65	0.10	3	1.95	0.01	0.31	< 2
91175	2	45	17	58	< 3	31	10	395	3.03	< 2	< 5	< 2	11	41	< 2	< 2	< 2	20	0.66	0.039	26	41	0.86	71	0.14	< 3	1.58	0.04	0.27	< 2
91176	3	43	41	46	< 3	26	8	565	2.75	4	9	< 2	10	56	< 2	3	< 2	21	1.26	0.027	17	42	0.69	73	0.16	< 3	1.38	0.06	0.29	< 2
91177	4	57	15	50	< 3	29	10	500	2.86	4	< 5	< 2	9	64	< 2	< 2	< 2	16	1.22	0.032	19	33	0.68	50	0.10	< 3	1.25	0.02	0.25	< 2
91178	4	35	11	46	< 3	25	8	342	2.83	2	< 5	< 2	12	28	< 2	< 2	< 2	13	0.47	0.028	22	27	0.71	65	0.07	< 3	1.42	0.03	0.31	< 2
91179	3	66	12	67	< 3	36	13	320	3.49	3	< 5	< 2	16	26	< 2	< 2	< 2	13	0.43	0.081	38	30	0.91	59	0.07	< 3	1.68	0.02	0.33	< 2
91180	3	51	15	53	< 3	26	9	554	3.59	2	< 5	< 2	12	82	0.2	< 2	< 2	15	1.87	0.031	28	37	0.82	45	0.06	< 3	1.58	0.03	0.24	< 2
91181	4	51	13	51	< 3	26	8	509	3.08	< 2	< 5	< 2	10	55	< 2	< 2	< 2	14	1.20	0.064	17	34	0.74	42	0.04	< 3	1.42	0.03	0.22	< 2
91182	3	49	17	37	< 3	21	8	1285	2.73	< 2	< 5	< 2	10	172	< 2	< 2	< 2	15	4.20	0.028	14	36	0.52	32	0.06	< 3	0.95	0.03	0.17	< 2
91183	3	47	18	38	< 3	28	9	779	2.38	< 2	< 5	< 2	11	94	< 2	< 2	< 2	9	2.23	0.029	23	26	0.49	68	0.11	< 3	1.07	0.02	0.40	< 2
91184	3	47	17	52	< 3	30	10	600	2.80	3	< 5	< 2	10	53	< 2	< 2	< 2	13	1.27	0.029	17	29	0.71	75	0.13	< 3	1.44	0.03	0.43	< 2
91185	4	55	22	49	< 3	28	10	503	2.87	< 2	< 5	< 2	10	59	< 2	< 2	< 2	17	1.63	0.037	14	35	0.67	60	0.13	< 3	1.29	0.03	0.35	< 2
91186	4	57	14	45	< 3	25	9	805	2.70	< 2	< 5	< 2	8	96	< 2	< 2	< 2	18	2.21	0.028	12	39	0.65	61	0.08	< 3	1.29	0.04	0.25	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: NOBLE METALS GROUP
 FILE # 38520

DATE: October 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
STANDARD C2	19	61	37	132	6.9	73	36	1131	3.76	38	19	7	35	51	20	16	12	71	0.51	0.106	38	67	0.97	184	0.08	25	2.01	0.06	0.14	10
91187	3	69	16	53	< 3	28	10	688	2.73	4	< 5	< 2	12	49	< 2	< 2	< 2	16	1.66	0.033	19	33	0.73	54	0.13	< 3	1.34	0.03	0.23	< 2
RE 91187	2	50	16	53	< 3	28	10	717	2.85	4	< 5	< 2	13	50	< 2	< 2	< 2	16	1.73	0.033	19	36	0.75	55	0.14	< 3	1.37	0.03	0.24	< 2
91188	3	48	18	46	< 3	26	9	436	2.73	2	< 5	< 2	11	23	< 2	< 2	< 2	15	0.47	0.028	15	35	0.67	46	0.13	< 3	1.19	0.03	0.18	< 2
91189	1	45	12	55	< 3	32	13	844	3.15	2	< 5	< 2	14	52	< 2	< 2	< 2	15	2.56	0.129	21	26	0.77	87	0.11	< 3	1.73	0.02	0.40	< 2
91190	3	65	19	100	< 3	55	20	294	3.67	< 2	< 5	< 2	23	12	< 2	< 2	< 2	13	0.31	0.050	33	29	1.11	94	0.16	< 3	2.28	0.01	0.57	< 2
91191	3	77	31	65	< 3	42	13	313	3.64	< 2	8	< 2	20	16	< 2	< 2	< 2	11	0.44	0.078	32	30	0.75	48	0.12	< 3	1.37	0.01	0.26	< 2
91192	2	53	13	57	< 3	31	15	605	3.87	5	< 5	< 2	11	52	< 2	< 2	< 2	45	2.30	0.034	12	39	1.21	59	0.19	< 3	2.12	0.04	0.25	< 2
91193	2	58	14	69	< 3	36	25	924	5.86	8	< 5	< 2	7	62	< 2	< 2	< 2	120	2.26	0.040	6	51	2.41	30	0.25	< 3	3.17	0.03	0.15	< 2
91194	3	64	12	58	< 3	46	17	336	3.45	4	< 5	< 2	17	19	< 2	< 2	< 2	14	0.52	0.042	14	32	1.01	63	0.13	< 3	1.98	0.02	0.34	< 2
91195	4	53	29	28	< 3	24	9	535	2.19	2	5	< 2	10	31	< 2	< 2	2	14	1.85	0.047	12	33	0.43	33	0.09	< 3	0.90	0.02	0.14	< 2
91196	3	60	12	109	< 3	60	24	466	4.15	7	< 5	< 2	20	11	< 2	< 2	< 2	20	0.35	0.049	15	50	1.33	82	0.16	< 3	2.56	0.02	0.40	< 2
91197	2	39	16	56	< 3	31	10	613	2.88	3	< 5	< 2	14	24	< 2	< 2	< 2	18	0.70	0.037	10	40	0.80	53	0.13	< 3	1.63	0.04	0.26	< 2
STANDARD C2	20	60	38	132	6.6	69	36	1149	3.82	37	16	7	35	51	20	16	15	72	0.53	0.105	39	66	0.98	178	0.08	23	2.04	0.06	0.14	10



To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN : W.G. Timmins

Certificate of Assay
Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

File No : 38540
Date : October 23, 1996
Samples :
Project :
P.O.#

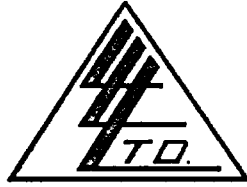
Sample No.	OZ./TON GOLD
<u>"Assay Analysis"</u>	
91198	0.067

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38540
 Date : October 23, 1996
 Samples : Sludge/Core
 Project :
 P.O. #

Certificate of Assay

Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

PPB
 Au

Sample No.	
"Geochemical Analysis"	
91198	2366
91199	65
91200	<5
91201	40
91202	15
91203	<5
91204	<5
91205	<5
91206	<5
91207	10
91208	<5
91209	50
91210	15
91211	50
91212	<5
91213	<5
91214	<5
91215	<5
91216	<5
91217	15
91218	<5
91219	<5
91220	<5
91221	<5
91222	<5
91223	<5
91224	<5
91225	<5
91251	<5
91252	10

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :


 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN: W.G. Timmins



File No : 38540
Date : October 23, 1996
Samples : Sludge/Core
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91253	<5
91254	<5
91255	<5
91256	<5
91257	<5
91258	<5
91259	<5
91260	10
91261	<5
91262	<5
91263	<5
91264	5
91265	<5
91266	<5
91267	<5
91268	<5
91269	26
91270	13
91271	<5
91272	<5
91273	<5
91274	<5
91275	<5
91276	<5
91277	<5
91278	15
91279	<5
91280	5
91281	<5
91282	<5
91283	<5
91284	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To: NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN: W.G. Timmins



File No : 38540
 Date : October 23, 1996
 Samples : Sludge/Core
 Project :
 P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91285	<5
91286	<5
91287	<5
91288	10
91289	<5
91290	10
91291	<5
91292	<5
91293	<5
91294	<5
91295	75
91296	50
91297	<5
91298	<5
91299	<5
91300	15
91301	<5
91302	<5
91303	<5
91304	<5
91305	215
91306	<5
91307	<5
91308	<5
91309	40
91310	25
91311	<5
91312	260
91313	<5
91314	60
91315	50
91316	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :


 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN : W.G. Timmins



File No : 38540
Date : October 23, 1996
Samples : Sludge/Core
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91317	125
91318	60
91319	<5
91320	100
91321	220
91322	<5
91323	200

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38540

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91198	5	69	45	53	< 3	29	9	557	2.95	9	< 5	< 2	11	28	< 2	< 2	< 2	16	0.88	0.031	11	39	0.55	23	0.09	< 3	1.00	0.02	0.10	< 2
91199	2	57	34	63	< 3	33	12	636	3.71	5	< 5	< 2	12	26	< 2	< 2	< 2	30	0.65	0.032	14	56	0.97	30	0.11	< 3	1.66	0.04	0.14	< 2
91200	< 1	53	43	108	< 3	81	30	583	4.06	27	< 5	< 2	25	26	< 2	2	< 2	16	0.70	0.064	38	34	1.34	74	0.14	< 3	2.39	0.02	0.35	< 2
91201	2	48	17	92	< 3	47	14	802	4.75	6	< 5	< 2	14	24	< 2	< 2	< 2	24	0.81	0.053	13	42	1.34	42	0.14	< 3	2.37	0.03	0.19	< 2
91202	1	44	7	116	< 3	64	20	506	5.77	11	< 5	< 2	18	13	< 2	< 2	< 2	21	0.32	0.066	27	46	1.72	65	0.09	< 3	3.14	0.02	0.33	< 2
91203	1	66	16	121	< 3	72	26	491	5.38	27	< 5	< 2	20	12	< 2	< 2	< 2	18	0.24	0.055	36	42	1.77	53	0.07	< 3	3.00	0.01	0.27	< 2
91204	1	69	11	113	< 3	58	18	446	5.05	13	< 5	< 2	18	12	< 2	< 2	< 2	20	0.25	0.050	32	42	1.61	58	0.09	< 3	2.78	0.02	0.26	< 2
91205	1	68	37	120	< 3	60	21	804	5.21	12	< 5	< 2	22	27	< 2	< 2	< 2	21	0.52	0.056	30	41	1.56	85	0.08	< 3	3.08	0.02	0.42	< 2
91206	2	41	15	40	< 3	18	5	2111	2.54	6	< 5	< 2	8	86	< 2	< 2	< 2	18	3.49	0.030	15	32	0.51	41	0.07	< 3	1.25	0.06	0.21	< 2
91207	1	87	35	124	< 3	75	35	759	5.69	8	< 5	< 2	21	28	< 2	< 2	2	25	0.57	0.053	34	46	1.50	87	0.08	< 3	2.97	0.03	0.42	< 2
91208	1	48	19	116	< 3	63	20	481	5.23	17	< 5	< 2	18	14	< 2	< 2	2	18	0.22	0.059	33	40	1.59	48	0.01	< 3	2.81	0.01	0.25	< 2
91209	1	60	19	130	< 3	62	26	676	6.54	25	< 5	< 2	16	35	< 2	< 2	< 2	54	0.72	0.068	30	42	1.92	68	0.02	< 3	3.52	0.02	0.34	< 2
91210	1	46	29	129	< 3	63	21	727	5.63	20	< 5	< 2	22	22	< 2	< 2	< 2	20	0.44	0.070	29	43	1.77	51	0.01	< 3	3.05	0.02	0.26	< 2
91211	2	56	38	121	< 3	65	27	1396	6.30	20	< 5	< 2	15	60	0.2	< 2	< 2	36	1.84	0.111	22	67	1.64	284	0.04	< 3	2.96	0.03	0.23	< 2
91212	1	61	38	135	< 3	62	18	813	5.91	8	< 5	< 2	19	37	< 2	< 2	2	25	0.64	0.056	37	52	1.76	100	0.01	< 3	3.47	0.02	0.52	< 2
91213	1	96	17	131	< 3	80	29	572	6.51	16	< 5	< 2	18	24	< 2	2	< 2	20	0.45	0.116	43	48	1.96	57	0.01	< 3	3.25	0.02	0.30	< 2
91214	1	37	18	99	< 3	54	21	910	4.77	22	< 5	< 2	13	87	0.3	< 2	< 2	21	2.16	0.042	37	47	1.31	52	0.01	< 3	2.31	0.02	0.25	< 2
91215	2	32	16	60	< 3	30	10	717	3.08	10	< 5	< 2	9	78	0.3	< 2	< 2	18	1.72	0.024	23	40	0.80	33	0.01	< 3	1.49	0.03	0.18	< 2
91216	3	30	22	45	< 3	30	10	614	2.72	9	< 5	< 2	11	43	< 2	< 2	< 2	18	0.95	0.038	22	47	0.65	43	0.03	< 3	1.26	0.04	0.18	< 2
91217	2	54	15	81	< 3	48	15	388	4.44	7	< 5	< 2	12	20	< 2	< 2	< 2	18	0.46	0.039	26	41	1.18	42	0.02	< 3	1.99	0.02	0.22	< 2
91218	2	45	20	78	0.3	38	12	569	3.71	10	< 5	< 2	9	71	< 2	< 2	< 2	20	1.62	0.067	29	47	0.99	60	0.02	< 3	1.87	0.03	0.30	< 2
91219	1	26	9	86	< 3	37	13	640	4.16	10	< 5	< 2	16	48	< 2	< 2	< 2	26	0.99	0.050	37	47	1.14	106	0.01	< 3	2.15	0.04	0.30	< 2
RE 91219	1	26	15	83	< 3	39	13	649	4.22	11	< 5	< 2	16	49	0.3	< 2	< 2	27	1.00	0.050	37	48	1.14	108	0.01	< 3	2.17	0.04	0.31	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38540

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91220	2	42	52	79	< .3	42	14	560	3.68	7	< 5	< 2	13	48	< 2	< 2	2	13	1.15	0.076	42	34	0.93	71	0.01	< 3	1.57	0.02	0.26	< 2
91221	2	61	11	73	< .3	62	21	335	4.35	4	< 5	< 2	16	16	0.3	< 2	< 2	11	0.22	0.040	55	29	0.89	79	0.01	< 3	1.59	0.02	0.37	< 2
91222	2	45	20	45	< .3	25	8	553	2.68	3	< 5	< 2	8	60	< 2	< 2	< 2	11	1.24	0.037	23	31	0.53	44	0.01	< 3	0.98	0.04	0.19	< 2
91223	2	48	40	77	< .3	36	13	522	3.40	12	< 5	< 2	10	107	< 2	< 2	< 2	16	1.40	0.032	33	35	0.93	60	0.01	< 3	1.70	0.03	0.26	< 2
91224	2	36	18	60	< .3	28	11	403	2.83	12	< 5	< 2	11	54	< 2	2	< 2	16	0.76	0.032	28	35	0.75	66	0.01	< 3	1.43	0.04	0.23	< 2
91225	2	63	18	52	< .3	26	9	955	2.81	11	< 5	< 2	9	117	0.2	< 2	2	19	2.55	0.027	21	38	0.73	50	0.02	< 3	1.37	0.05	0.20	< 2
91251	1	92	55	119	< .3	60	21	593	4.93	14	< 5	< 2	15	87	0.2	< 2	< 2	21	1.39	0.045	28	42	1.40	83	0.01	< 3	2.44	0.02	0.37	< 2
91252	1	71	33	130	< .3	72	29	429	5.12	37	< 5	< 2	16	25	< 2	< 2	< 2	21	0.43	0.062	33	42	1.56	91	0.01	< 3	2.72	0.02	0.42	< 2
91253	1	69	7	114	< .3	60	23	736	5.54	25	< 5	< 2	8	85	< 2	< 2	< 2	40	2.21	0.192	18	55	1.89	70	0.01	< 3	2.73	0.02	0.31	< 2
91254	2	60	23	91	< .3	42	14	553	3.66	10	< 5	< 2	9	49	0.2	2	< 2	14	1.08	0.031	14	34	1.03	50	< .01	< 3	1.69	0.02	0.22	< 2
91255	2	45	26	83	< .3	46	17	490	4.03	9	< 5	< 2	11	46	0.2	< 2	< 2	19	0.87	0.029	16	42	1.10	68	0.01	< 3	1.87	0.03	0.25	< 2
91256	1	39	14	86	< .3	43	15	394	3.91	10	< 5	< 2	9	29	< 2	< 2	< 2	21	0.54	0.029	20	42	1.27	103	0.01	< 3	2.17	0.04	0.32	< 2
STANDARD C2	20	58	41	140	6.9	75	37	1133	3.80	46	17	8	34	52	20.3	18	19	72	0.53	0.104	38	62	0.97	188	0.08	26	1.88	0.06	0.15	14
91257	1	67	5	90	< .3	473	59	1761	6.89	153	< 5	< 2	3	246	0.3	< 2	< 2	127	6.59	0.052	5	819	8.08	4	0.01	< 3	4.35	< .01	0.01	< 2
91258	3	67	24	135	0.3	208	40	879	7.27	80	< 5	< 2	11	30	< 2	< 2	< 2	47	0.63	0.038	12	301	3.49	55	0.01	< 3	3.76	0.01	0.17	< 2
91259	2	53	25	140	0.3	117	29	2034	6.42	69	< 5	< 2	9	170	0.5	< 2	< 2	64	3.45	0.049	8	235	2.46	30	0.01	< 3	2.92	0.02	0.14	< 2
91260	3	67	7	107	0.3	50	19	2440	4.87	9	< 5	< 2	12	180	0.6	< 2	< 2	15	4.12	0.052	7	42	0.87	42	< .01	< 3	1.49	0.03	0.18	< 2
91261	3	98	11	114	< .3	71	27	805	5.09	4	< 5	< 2	14	28	0.2	< 2	< 2	13	0.56	0.043	13	37	1.12	58	< .01	< 3	1.86	0.02	0.28	< 2
91262	3	94	12	81	0.3	69	22	685	4.99	3	< 5	< 2	12	53	< 2	< 2	< 2	14	1.79	0.603	15	33	1.19	90	0.01	< 3	2.24	0.02	0.43	< 2
91263	3	83	48	164	0.3	82	31	835	5.91	6	< 5	< 2	12	17	0.2	2	< 2	16	0.62	0.037	11	46	1.61	56	0.01	< 3	2.13	0.02	0.26	< 2
91264	3	61	14	102	0.3	55	20	609	5.49	6	< 5	< 2	11	14	< 2	< 2	< 2	13	0.30	0.033	11	49	1.24	48	< .01	< 3	1.68	0.02	0.21	< 2
91265	2	47	10	59	< .3	31	12	390	3.24	4	< 5	< 2	10	13	< 2	< 2	< 2	8	0.27	0.021	12	27	0.73	44	< .01	< 3	1.14	0.02	0.19	< 2
91266	1	83	21	99	< .3	72	40	1766	6.98	35	< 5	< 2	3	316	0.8	< 2	< 2	174	7.35	0.034	2	145	4.32	20	0.02	< 3	4.32	0.02	0.12	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38540

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91267	4	51	10	21	< 3	16	4	1410	2.18	4	< 5	< 2	6	111	< 2	3	< 2	8	3.45	0.013	14	28	0.40	25	< .01	< 3	0.67	0.03	0.11	< 2
91268	2	43	10	53	0.3	30	11	915	3.12	3	< 5	< 2	8	60	< 2	< 2	< 2	9	1.63	0.021	12	28	0.71	36	< .01	< 3	1.11	0.02	0.16	< 2
91269	4	135	21	63	0.3	91	32	298	5.49	6	< 5	< 2	12	13	< 2	< 2	< 2	10	0.19	0.033	14	29	1.14	90	< .01	< 3	1.76	0.01	0.32	< 2
91270	1	122	< 3	75	< 3	653	71	1459	7.07	129	< 5	< 2	2	309	0.7	< 2	< 2	141	7.27	0.061	4	1019	9.19	3	0.02	< 3	3.94	< .01	< .01	< 2
91271	1	75	< 3	78	< 3	580	67	1379	7.24	113	< 5	< 2	3	346	1	< 2	< 2	158	7.59	0.064	5	1062	9.65	4	0.02	< 3	4.36	< .01	< .01	< 2
91272	2	60	9	92	< 3	63	19	355	4.61	4	< 5	< 2	11	21	< 2	< 2	< 2	16	0.35	0.035	17	54	1.46	69	0.01	< 3	2.09	0.02	0.19	< 2
91273	2	85	117	124	0.4	70	29	441	4.26	20	< 5	< 2	13	29	< 2	< 2	< 2	13	1.78	0.052	28	33	1.26	86	< .01	< 3	2.10	0.01	0.29	< 2
91274	2	40	28	86	< 3	41	13	616	4.15	9	< 5	< 2	9	68	0.2	< 2	< 2	17	3.12	0.029	14	34	1.20	40	< .01	< 3	1.75	0.01	0.14	< 2
91275	1	36	15	62	< 3	28	11	330	2.90	2	< 5	< 2	8	21	< 2	< 2	< 2	12	1.11	0.028	16	24	0.79	44	< .01	< 3	1.34	0.03	0.15	< 2
91276	3	39	6	24	< 3	7	2	1648	1.17	4	< 5	< 2	2	368	< 2	2	< 2	2	15.77	0.017	6	13	0.09	12	< .01	< 3	0.12	< .01	0.02	< 2
RE 91276	3	39	6	21	< 3	7	2	1707	1.19	2	< 5	< 2	2	380	< 2	2	< 2	3	16.31	0.018	7	12	0.09	12	< .01	< 3	0.13	< .01	0.03	< 2
91277	1	54	7	99	< 3	51	19	407	4.54	4	< 5	< 2	13	26	< 2	< 2	< 2	13	0.56	0.036	30	28	1.16	70	0.01	< 3	1.90	0.01	0.29	< 2
91278	1	84	68	90	< 3	75	26	299	4.84	2	< 5	< 2	19	33	< 2	< 2	< 2	9	0.62	0.145	61	17	0.75	74	0.01	< 3	1.45	0.01	0.35	< 2
91279	2	50	25	51	< 3	27	10	1085	3.18	4	< 5	< 2	11	134	0.2	< 2	< 2	8	3.26	0.022	17	18	0.48	33	< .01	< 3	0.86	0.02	0.16	< 2
91280	2	44	12	81	< 3	41	17	592	3.69	6	< 5	< 2	12	67	0.2	< 2	< 2	16	1.13	0.045	27	32	0.97	61	0.01	< 3	1.66	0.04	0.24	< 2
91281	2	33	19	40	< 3	20	8	2154	2.55	3	< 5	< 2	9	290	0.4	< 2	< 2	10	8.72	0.022	17	20	0.50	30	< .01	< 3	0.89	0.02	0.13	< 2
91282	2	36	14	29	< 3	18	6	437	2.15	2	< 5	< 2	7	46	< 2	< 2	< 2	8	1.07	0.015	17	18	0.32	61	< .01	< 3	0.84	0.05	0.22	< 2
91283	2	37	18	27	< 3	16	5	217	1.80	2	< 5	< 2	6	19	< 2	< 2	< 2	6	0.37	0.016	14	14	0.25	33	< .01	< 3	0.54	0.03	0.13	< 2
91284	3	64	13	22	< 3	29	10	294	2.47	2	< 5	< 2	10	32	< 2	< 2	< 2	5	0.78	0.022	29	17	0.28	52	< .01	< 3	0.74	0.03	0.23	< 2
91285	4	56	14	34	< 3	14	5	467	2.67	3	< 5	< 2	6	44	< 2	< 2	< 2	6	2.60	0.011	12	19	0.35	25	< .01	< 3	0.66	0.03	0.12	< 2
91286	2	59	5	35	0.4	57	17	276	2.91	< 2	< 5	< 2	28	14	< 2	< 2	< 2	12	0.10	0.027	91	20	0.86	107	0.01	< 3	1.77	0.01	0.51	< 2
91287	3	89	8	74	< 3	38	12	335	4.01	3	< 5	< 2	12	14	< 2	< 2	< 2	9	0.22	0.025	38	21	0.72	51	0.01	< 3	1.17	0.03	0.26	< 2
91288	3	45	13	3	< 3	10	3	495	1.23	< 2	< 5	< 2	3	46	0.2	< 2	< 2	3	1.51	0.007	7	14	0.08	12	< .01	< 3	0.19	0.04	0.06	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38540

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91289	3	115	13	83	< .3	71	24	340	5.46	< 2	< 5	< 2	20	18	< 2	< 2	< 2	10	0.23	0.050	60	25	0.98	71	0.01	< 3	1.66	0.01	0.36	< 2
91290	3	90	17	84	< .3	64	20	382	5.70	2	< 5	< 2	18	23	< 2	< 2	2	11	0.49	0.092	43	26	1.13	56	0.01	< 3	1.80	0.01	0.28	< 2
STANDARD C2	20	59	41	144	7.2	75	38	1186	3.95	43	18	8	37	53	21.2	17	19	73	0.55	0.107	39	64	1.00	200	0.08	25	1.97	0.06	0.15	15
91291	7	130	26	106	3.0	87	26	531	5.73	12	< 5	< 2	11	34	< 2	< 2	< 2	15	0.57	0.048	19	47	1.57	79	< .01	< 3	2.13	0.01	0.14	4
91292	3	70	29	105	0.3	55	22	569	4.40	12	< 5	< 2	16	56	0.4	< 2	< 2	13	1.16	0.063	50	33	1.09	42	0.01	< 3	1.83	0.01	0.17	< 2
91293	2	42	12	72	< .3	28	11	526	3.68	5	< 5	< 2	14	77	< 2	< 2	< 2	13	2.67	0.046	26	27	0.89	35	0.04	< 3	1.47	0.02	0.18	< 2
91294	2	56	12	96	0.4	35	15	627	4.60	162	< 5	< 2	13	148	0.2	< 2	< 2	14	4.88	0.050	37	27	1.04	32	0.06	< 3	1.61	0.02	0.18	< 2
91295	3	82	57	99	0.4	46	19	210	3.89	5	< 5	< 2	19	28	0.3	< 2	< 2	8	0.27	0.048	67	18	0.87	78	0.01	< 3	1.46	0.01	0.19	< 2
RE 91295	3	85	60	103	0.4	46	20	213	3.96	6	< 5	< 2	19	28	0.5	2	< 2	9	0.28	0.049	69	18	0.88	79	0.01	< 3	1.49	0.01	0.19	< 2
91296	3	96	40	132	0.3	55	22	295	5.26	8	< 5	< 2	18	12	0.5	< 2	< 2	12	0.23	0.048	51	26	1.29	44	0.08	< 3	1.77	0.01	0.24	< 2
91297	2	50	24	82	0.3	30	11	441	3.75	9	< 5	< 2	15	82	0.2	< 2	3	22	2.99	0.051	31	37	0.93	31	0.08	< 3	1.52	0.03	0.14	< 2
91298	2	58	29	87	< .3	45	17	368	3.54	7	< 5	< 2	19	62	0.3	< 2	< 2	13	1.85	0.051	61	26	0.89	65	0.10	< 3	1.60	0.02	0.31	< 2
91299	3	66	33	89	0.3	40	16	270	3.93	7	< 5	< 2	17	38	< 2	< 2	< 2	14	0.77	0.049	57	25	0.97	65	0.10	< 3	1.66	0.02	0.31	< 2
91300	2	62	30	80	< .3	29	12	266	3.32	7	< 5	< 2	16	54	0.2	< 2	4	13	1.24	0.056	42	26	0.84	53	0.09	< 3	1.45	0.03	0.24	< 2
91301	3	74	16	77	< .3	34	13	440	3.70	9	< 5	< 2	16	89	< 2	< 2	< 2	15	2.69	0.045	43	27	0.89	51	0.09	< 3	1.51	0.02	0.23	< 2
91302	2	52	28	103	< .3	42	17	410	4.35	8	< 5	< 2	18	69	< 2	< 2	< 2	21	2.48	0.055	44	37	1.21	65	0.13	< 3	2.09	0.03	0.30	< 2
91303	2	63	33	98	< .3	45	17	368	4.01	10	< 5	< 2	18	64	< 2	< 2	< 2	21	1.87	0.050	54	34	1.12	113	0.14	< 3	2.37	0.04	0.54	< 2
91304	2	80	33	125	< .3	46	18	284	4.67	7	< 5	< 2	17	49	0.2	< 2	2	19	1.13	0.056	54	34	1.30	71	0.12	< 3	2.22	0.03	0.35	< 2
91305	2	84	28	90	< .3	30	12	463	4.13	7	< 5	< 2	18	81	< 2	< 2	< 2	18	2.92	0.048	43	29	0.99	70	0.11	< 3	1.94	0.04	0.35	< 2
91306	2	107	31	88	0.3	63	27	114	3.76	10	6	< 2	23	20	< 2	< 2	2	10	0.26	0.055	103	16	0.69	79	0.08	< 3	1.50	0.02	0.49	< 2
91307	2	78	19	116	< .3	39	16	306	4.56	7	< 5	< 2	17	37	< 2	< 2	3	14	0.89	0.046	49	28	1.13	52	0.07	< 3	1.89	0.02	0.29	< 2
91308	2	77	25	86	< .3	41	16	310	3.53	10	< 5	< 2	17	44	0.2	< 2	< 2	13	1.09	0.050	58	23	0.86	63	0.08	< 3	1.61	0.02	0.33	< 2
91309	1	57	29	83	< .3	38	15	468	3.51	8	< 5	< 2	21	75	< 2	< 2	< 2	17	2.26	0.068	47	28	0.89	98	0.11	< 3	1.85	0.03	0.46	< 2



Loring Laboratories Ltd.

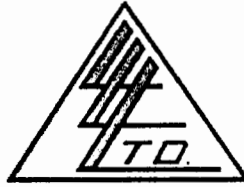
629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38540

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91310	2	65	18	70	< 3	24	8	572	3.12	7	< 5	< 2	15	84	0.2	< 2	< 2	18	2.56	0.049	28	30	0.73	84	0.12	< 3	1.54	0.05	0.41	< 2
91311	2	134	40	121	0.3	64	26	280	4.27	9	< 5	< 2	21	24	< 2	< 2	< 2	15	0.40	0.068	60	26	1.12	77	0.15	< 3	1.82	0.01	0.49	< 2
91312	3	89	20	77	< 3	27	10	378	3.04	5	< 5	< 2	16	67	0.3	< 2	3	17	1.13	0.054	30	30	0.74	159	0.08	< 3	1.42	0.04	0.39	< 2
91313	2	88	26	98	< 3	50	19	221	3.64	10	< 5	< 2	23	40	< 2	< 2	< 2	21	0.60	0.068	58	32	0.97	134	0.17	< 3	2.06	0.03	0.71	< 2
91314	2	47	19	69	< 3	26	10	304	2.80	7	< 5	< 2	14	46	< 2	< 2	2	15	0.90	0.045	27	28	0.72	61	0.09	< 3	1.32	0.03	0.26	< 2
91315	3	52	21	49	< 3	20	6	377	2.37	6	< 5	< 2	14	58	< 2	< 2	< 2	13	1.75	0.047	24	24	0.54	37	0.11	< 3	0.97	0.03	0.16	< 2
91316	3	62	17	42	< 3	16	5	465	2.18	6	< 5	< 2	15	81	0.2	< 2	< 2	14	2.65	0.040	21	26	0.45	21	0.08	< 3	0.77	0.02	0.09	< 2
91317	3	57	16	36	< 3	15	5	543	2.15	6	< 5	< 2	13	87	0.2	< 2	< 2	12	3.63	0.036	18	24	0.39	19	0.07	< 3	0.70	0.02	0.09	< 2
91318	2	60	13	72	< 3	31	12	304	3.19	7	< 5	< 2	16	38	< 2	< 2	< 2	14	1.26	0.048	27	25	0.78	83	0.12	< 3	1.66	0.03	0.42	< 2
91320	1	74	31	80	< 3	80	32	1026	5.46	28	< 5	< 2	4	73	0.4	< 2	< 2	142	5.32	0.038	7	154	3.24	33	0.18	< 3	3.32	0.02	0.12	< 2
91321	2	121	< 3	45	< 3	79	29	481	3.84	20	< 5	< 2	< 2	73	< 2	< 2	2	76	1.53	0.027	< 1	102	2.52	15	0.22	< 3	2.36	0.03	0.05	< 2
91322	1	102	3	72	< 3	82	31	854	5.11	21	< 5	< 2	2	155	< 2	< 2	< 2	119	3.98	0.030	< 1	129	3.54	30	0.23	< 3	3.06	0.02	0.04	< 2
91323	3	103	26	49	< 3	67	25	563	4.31	14	< 5	< 2	9	95	0.2	2	< 2	73	2.48	0.045	15	95	1.80	81	0.20	< 3	2.31	0.03	0.24	< 2
STANDARD C2	20	58	43	143	7.0	74	37	1143	3.88	48	16	9	35	53	20.9	18	21	72	0.53	0.106	38	66	0.97	192	0.08	25	1.90	0.05	0.14	16

To : NOBLE METAL GROUP
 801, 409 Granville Street
 Vancouver, B.C.
 V6C 1T2
 ATTN : W.G. Timmins



File No : 38582
 Date : October 31, 1996
 Samples : Core
 Project :
 P.O.#

Certificate of Assay
Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
 Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
"Geochemical Analysis"	
91240	<5
91241	<5
91242	<5
91243	<5
91244	<5
91324	<5
91325	<5
91326	<5
91327	<5
91328	<5
91329	<5
91330	<5
91331	<5
91332	<5
91333	<5
91334	<5
91335	<5
91336	<5
91337	<5
91338	10
91339	<5
91340	40
91341	<5
91342	<5
91343	20
91344	10
91345	<5
91346	<5

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

Loring Swaley
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38582

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91240	1	5	13	126	0.3	7	2	244	0.73	< 2	< 5	< 2	6	3	0.6	< 2	< 2	2	0.07	0.010	10	95	0.01	23	< .01	< 3	0.10	0.01	0.05	< 2
91241	3	3	3	160	< .3	5	1	242	0.62	< 2	< 5	< 2	< 2	4	1.2	< 2	< 2	2	0.13	0.007	< 1	150	0.02	9	< .01	< 3	0.03	0.01	0.01	< 2
91242	3	8	21	63	< .3	13	7	702	1.66	3	< 5	< 2	5	26	0.2	< 2	< 2	11	0.42	0.036	10	161	0.51	30	0.01	< 3	0.77	0.01	0.10	< 2
91243	< 1	< 1	9	45	< .3	12	4	5655	6.54	11	< 5	< 2	10	241	1.6	< 2	< 2	9	20.80	0.005	1	15	9.15	26	< .01	< 3	0.05	0.01	0.02	< 2
91244	< 1	13	17	58	< .3	21	7	403	2.88	3	< 5	< 2	7	5	< 2	< 2	< 2	9	0.14	0.025	12	78	0.56	29	< .01	< 3	0.98	0.01	0.13	< 2
91324	< 1	23	5	53	< .3	21	7	172	2.17	7	< 5	< 2	24	5	< 2	< 2	< 2	8	0.10	0.037	44	24	0.52	50	0.10	< 3	1.21	0.01	0.26	< 2
91325	1	31	22	80	< .3	27	10	566	3.19	5	< 5	< 2	12	7	< 2	< 2	< 2	12	0.20	0.081	22	84	0.91	31	0.05	< 3	1.56	0.01	0.14	< 2
91326	1	41	11	106	< .3	41	14	348	4.45	5	< 5	< 2	18	14	< 2	< 2	< 2	15	0.47	0.136	35	60	1.29	40	0.10	< 3	2.24	0.01	0.22	< 2
91327	1	43	27	70	< .3	35	17	227	3.30	3	< 5	< 2	19	7	< 2	< 2	< 2	14	0.09	0.021	39	62	0.88	44	0.07	< 3	1.80	0.01	0.23	< 2
91328	2	31	14	96	< .3	45	14	220	3.31	5	< 5	< 2	13	9	< 2	< 2	< 2	12	0.23	0.069	38	115	0.93	37	0.04	< 3	1.58	0.01	0.19	< 2
91329	< 1	19	16	88	< .3	39	13	455	3.71	6	< 5	< 2	16	16	< 2	< 2	< 2	16	0.42	0.038	41	71	1.30	51	0.03	< 3	1.96	0.01	0.23	< 2
91330	1	19	20	96	< .3	16	7	1032	2.13	3	< 5	< 2	9	67	0.3	< 2	< 2	10	2.36	0.031	20	88	1.05	36	0.01	< 3	1.22	0.01	0.14	< 2
91331	< 1	34	8	94	< .3	51	13	236	4.15	4	< 5	< 2	21	10	< 2	< 2	< 2	15	0.17	0.056	56	42	1.34	57	0.03	< 3	2.13	0.01	0.29	< 2
91332	< 1	19	22	71	< .3	29	11	297	2.97	5	< 5	< 2	13	16	< 2	< 2	< 2	15	0.29	0.029	23	86	0.97	38	0.03	< 3	1.49	0.01	0.19	< 2
91333	< 1	4	5	96	< .3	54	31	1423	6.75	5	< 5	< 2	2	165	1.2	< 2	< 2	224	8.79	0.034	3	126	3.47	21	0.24	< 3	3.82	0.01	0.15	< 2
91334	2	15	16	51	< .3	21	8	272	2.36	< 2	< 5	< 2	10	12	< 2	< 2	< 2	16	0.25	0.018	16	106	0.61	47	0.05	< 3	1.07	0.02	0.25	< 2
91335	2	28	15	73	< .3	33	10	153	2.94	3	< 5	< 2	13	7	< 2	< 2	< 2	20	0.10	0.024	28	105	0.89	65	0.13	< 3	1.46	0.01	0.74	< 2
91336	2	7	13	32	< .3	12	4	248	1.30	< 2	< 5	< 2	12	21	< 2	< 2	< 2	11	0.47	0.016	26	98	0.37	43	0.03	< 3	0.63	0.01	0.17	< 2
91337	< 1	10	21	36	< .3	16	5	308	1.68	< 2	< 5	< 2	12	27	0.2	2	< 2	14	0.63	0.019	24	106	0.43	66	0.08	< 3	0.84	0.02	0.43	< 2
RE 91337	1	10	19	37	< .3	16	5	303	1.65	< 2	< 5	< 2	12	27	0.2	< 2	< 2	14	0.61	0.018	23	103	0.43	65	0.08	< 3	0.83	0.02	0.42	< 2
91338	1	7	16	48	< .3	40	6	563	2.13	2	< 5	< 2	10	31	0.3	< 2	< 2	17	1.01	0.016	17	104	0.76	56	0.08	< 3	1.15	0.02	0.35	< 2
91339	< 1	19	19	250	< .3	42	15	298	2.71	8	< 5	< 2	22	40	1.4	< 2	< 2	15	1.46	0.553	77	24	0.87	94	0.14	< 3	1.73	0.01	0.73	< 2
91340	< 1	52	9	106	< .3	46	19	278	4.37	7	< 5	< 2	20	12	< 2	< 2	< 2	22	0.32	0.052	48	56	1.41	74	0.19	< 3	2.21	0.01	0.55	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38582

DATE: October 21, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91341	1	16	24	83	< 3	34	13	429	3.16	4	< 5	< 2	11	11	< 2	< 2	< 2	23	0.40	0.032	22	97	1.08	64	0.15	< 3	1.64	0.02	0.35	< 2
91342	1	10	22	62	< 3	17	6	1012	1.88	2	< 5	< 2	11	66	0.4	< 2	< 2	17	2.90	0.015	17	92	0.55	53	0.13	< 3	0.94	0.02	0.24	< 2
91343	< 1	13	19	46	< 3	18	7	712	2.29	< 2	< 5	< 2	9	31	0.3	2	< 2	20	1.13	0.017	17	83	0.84	61	0.13	< 3	1.23	0.02	0.30	< 2
91344	1	35	16	104	< 3	51	18	523	4.17	8	< 5	< 2	20	11	0.2	< 2	< 2	22	0.26	0.042	46	55	1.48	53	0.11	< 3	2.03	0.01	0.36	< 2
91345	< 1	76	33	164	< 3	266	46	1319	9.18	10	< 5	< 2	9	94	1.3	< 2	< 2	191	5.05	0.743	34	663	5.89	29	0.10	< 3	5.60	0.01	0.14	< 2
91346	1	40	16	82	< 3	49	21	192	3.38	4	< 5	< 2	18	16	0.2	< 2	< 2	13	0.43	0.147	55	46	1.04	52	0.08	< 3	1.63	0.01	0.42	< 2
STANDARD C2	20	57	40	140	7.0	77	37	1131	3.80	43	15	9	36	52	20.4	17	18	72	0.52	0.105	38	63	0.97	196	0.08	25	1.89	0.06	0.15	15



To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN : W.G. Timmins

File No : 38590
Date : November 18, 1996
Samples :
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
"Geochemical Analysis"	
91347	<5
91348	<5
91349	<5
91350	1281
91351	<5
91352	<5
91353	60
91354	<5
91355	<5
91356	<5
91357	<5
91358	<5
91359	5
91360	<5
91361	<5
91362	<5
91363	<5
91364	<5
91365	<5
91366	<5
91367	5
91368	<5
91369	22
91370	<5
91371	<5
91372	<5
91373	5
91374	27
91375	20
91376	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN : W.G. Timmins




File No : 38590
Date : November 18, 1996
Samples :
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91377	<5
91378	<5
91379	<5
91380	<5
91381	<5
91382	<5
91383	<5
91384	<5
91385	<5
91386	<5
91387	<5
91388	<5
91389	<5
91390	<5
91391	<5
91392	<5
91393	<5
91394	<5
91395	<5
91396	<5
91397	<5
91398	<5
91399	<5
91400	<5
91401	<5
91402	<5
91403	<5
91404	<5
91405	<5
91406	<5
91407	<5
91408	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

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To : NOBLE METAL GROUP
801, 409 Granville Street
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V6C 1T2
ATTN : W.G. Timmins



File No : 38590
Date : November 18, 1996
Samples :
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91409	<5
91410	<5
91411	<5
91412	<5
91413	<5
91414	<5
91415	<5
91416	<5
91417	<5
91418	<5
91419	<5
91420	<5
91421	<5
91422	5
91423	<5
91424	<5
91425	13
91426	8
91427	<5
91428	28
91429	<5
91430	19
91431	<5
91432	<5
91433	<5
91434	<5
91435	<5
91436	<5
91437	<5
91438	<5
91439	<5
91440	<5

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

To : NOBLE METAL GROUP
801, 409 Granville Street
Vancouver, B.C.
V6C 1T2
ATTN : W.G. Timmins



File No : 38590
Date : November 18, 1996
Samples :
Project :
P.O. #

Certificate of Assay Loring Laboratories Ltd.

629 Beaverdam Road, NE Calgary Alberta
Tel: (403)274-2777 Fax: (403)275-0541

Sample No.	PPB Au
91442	395
91443	<5
91444	<5
91445	<5
91446	<5
91447	<5
91448	<5
91449	<5
91450	<5
91451	<5
91452	<5
91453	200
91454	40
91455	<5
91456	<5
91457	40
91458	14
91459	<5
91482	<5
91493	<5
91494	<5
91495	<5
91496	<5
91497	<5
91498	<5
91499	<5
91500	<5
91501	<5
91502	<5
91503	450
91504	22
91505	30

I HEREBY CERTIFY that the above results are those assays
made by me upon the herein described samples :


Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38590

DATE: November 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91347	2	128	23	118	0.3	75	35	1069	6.12	< 2	7	< 2	8	70	1.1	< 2	< 2	129	3.82	0.053	15	107	3.27	100	0.26	< 3	3.81	0.04	0.25	< 2
91348	1	23	14	131	< 3	70	40	1401	7.46	5	11	< 2	< 2	95	1.5	< 2	< 2	174	4.98	0.059	2	128	4.36	83	0.32	< 3	5.03	0.03	0.27	< 2
91349	5	54	12	67	< 3	88	21	911	4.38	2	< 5	< 2	< 2	89	0.4	< 2	< 2	100	4.38	0.009	< 1	97	2.16	13	0.10	< 3	2.24	0.01	0.03	< 2
91350	3	146	7	81	< 3	66	28	516	4.79	< 2	< 5	< 2	18	34	0.4	< 2	< 2	37	1.27	0.060	43	57	2.00	151	0.26	< 3	2.73	0.03	0.28	< 2
91351	2	124	12	113	< 3	197	42	1229	6.68	17	6	< 2	6	138	1.4	< 2	< 2	156	6.41	0.080	18	475	4.27	66	0.38	< 3	4.43	0.02	0.15	2
91352	2	76	6	118	< 3	177	41	1346	6.95	14	6	< 2	5	131	1.5	< 2	< 2	168	5.72	0.087	16	489	4.86	83	0.36	< 3	4.92	0.03	0.18	< 2
91353	3	66	5	78	< 3	46	16	535	3.93	< 2	< 5	< 2	16	41	< 2	< 2	2	25	1.05	0.030	20	42	1.35	170	0.14	< 3	2.10	0.03	0.30	< 2
91354	5	41	115	50	0.7	25	8	645	2.85	2	< 5	< 2	13	61	0.5	8	< 2	24	1.93	0.022	19	45	0.88	49	0.11	< 3	1.32	0.04	0.16	< 2
91355	2	76	20	81	0.3	49	16	654	4.15	< 2	< 5	< 2	15	10	0.2	2	< 2	29	0.38	0.034	26	47	1.62	111	0.18	< 3	2.51	0.03	0.38	< 2
91356	3	25	20	80	< 3	30	11	1230	3.47	< 2	< 5	< 2	10	105	0.3	< 2	< 2	25	3.96	0.026	18	37	1.82	68	0.13	< 3	2.20	0.03	0.25	< 2
91357	3	46	25	56	< 3	67	8	1134	2.76	< 2	< 5	< 2	9	118	0.2	< 2	< 2	17	3.78	0.024	17	27	1.14	47	0.11	< 3	1.50	0.02	0.16	< 2
91358	2	56	25	98	< 3	51	18	758	4.89	< 2	6	< 2	21	44	0.2	< 2	< 2	45	1.68	0.053	30	67	3.28	87	0.22	< 3	3.42	0.03	0.26	< 2
RE 91358	3	55	25	95	< 3	50	17	728	4.56	< 2	< 5	< 2	20	42	< 2	2	< 2	44	1.62	0.051	30	64	3.05	83	0.21	< 3	3.26	0.03	0.24	< 2
91359	2	91	23	76	< 3	44	18	846	4.82	< 2	< 5	< 2	15	65	0.3	< 2	< 2	45	1.98	0.024	19	62	4.73	85	0.20	< 3	3.96	0.02	0.37	< 2
91360	1	118	20	38	0.3	526	53	1484	3.00	24	< 5	< 2	< 2	339	0.5	2	2	75	8.74	0.044	4	772	3.12	3	0.07	< 3	1.99	< 0.1	< 0.1	< 2
91361	3	59	9	99	< 3	62	19	686	4.92	< 2	< 5	< 2	16	30	0.2	< 2	< 2	32	1.26	0.056	33	64	1.83	63	0.20	< 3	2.63	0.02	0.26	< 2
91362	3	53	12	87	< 3	46	15	383	4.51	< 2	< 5	< 2	12	7	< 2	3	2	20	0.20	0.024	26	39	1.24	44	0.12	< 3	2.02	0.02	0.23	< 2
91363	6	72	17	81	< 3	53	15	387	4.69	< 2	< 5	< 2	14	9	< 2	2	2	22	0.29	0.028	30	52	1.13	64	0.15	< 3	2.07	0.03	0.29	< 2
91364	4	51	18	46	< 3	25	8	345	3.05	2	< 5	< 2	10	9	< 2	< 2	< 2	14	0.24	0.018	18	29	0.64	31	0.05	< 3	1.15	0.03	0.11	< 2
91365	3	91	24	147	< 3	76	35	735	5.70	< 2	< 5	< 2	19	14	0.3	< 2	< 2	31	0.57	0.037	40	53	1.83	75	0.26	< 3	3.12	0.02	0.32	< 2
91366	2	65	8	123	< 3	65	25	791	5.50	3	< 5	< 2	18	14	0.4	< 2	< 2	25	0.54	0.035	42	45	1.57	57	0.20	< 3	2.83	0.02	0.25	< 2
91367	5	116	85	100	< 3	96	65	469	4.43	6	< 5	< 2	27	10	< 2	< 2	3	19	0.34	0.034	85	29	1.09	120	0.17	3	2.52	0.02	0.58	< 2
91368	2	37	23	105	< 3	42	17	1741	4.35	< 2	< 5	< 2	15	63	< 2	< 2	< 2	27	3.08	0.026	30	45	1.34	53	0.10	< 3	2.45	0.03	0.26	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38590

DATE: November 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91369	2	23	48	53	< .3	28	9	530	2.71	< 2	< 5	< 2	15	71	< .2	< 2	< 2	21	1.66	0.107	53	26	0.79	64	0.02	< 3	1.72	0.05	0.34	< 2
91370	3	57	27	148	< .3	81	31	823	6.10	< 2	< 5	< 2	11	10	0.6	5	< 2	37	0.30	0.024	27	75	2.00	44	0.07	< 3	3.28	0.02	0.16	< 2
91371	3	50	31	75	< .3	49	17	571	4.66	< 2	< 5	< 2	13	6	< .2	< 2	< 2	25	0.22	0.038	32	52	1.28	35	0.09	< 3	2.20	0.02	0.15	< 2
91372	1	42	34	151	< .3	83	36	915	6.72	14	< 5	< 2	15	22	0.6	2	< 2	67	0.95	0.035	30	71	2.51	55	0.28	< 3	3.97	0.02	0.31	< 2
91373	2	50	12	116	< .3	63	20	887	5.11	< 2	< 5	< 2	13	17	0.2	< 2	< 2	29	0.64	0.027	25	54	1.65	64	0.18	< 3	2.99	0.02	0.28	< 2
91374	1	77	75	107	< .3	53	39	1498	7.11	10	6	< 2	< 2	90	1.6	6	< 2	210	5.36	0.058	1	97	3.78	11	0.37	< 3	4.46	0.03	0.05	< 2
91375	4	182	236	172	0.4	151	66	497	7.26	6	< 5	< 2	18	7	0.5	4	2	25	0.33	0.030	34	53	1.94	48	0.16	< 3	2.81	0.01	0.28	< 2
91376	2	62	18	89	< .3	46	16	1400	3.98	< 2	< 5	< 2	14	115	0.5	< 2	< 2	23	4.15	0.026	28	41	1.16	35	0.06	< 3	2.10	0.02	0.16	< 2
91377	3	49	26	97	< .3	42	16	702	4.39	< 2	< 5	< 2	14	27	< .2	2	< 2	31	0.88	0.028	21	52	1.30	38	0.18	< 3	2.24	0.03	0.14	< 2
91378	2	59	18	116	< .3	69	26	770	5.09	< 2	< 5	< 2	13	30	0.2	< 2	< 2	62	1.74	0.036	18	90	2.26	63	0.25	< 3	3.19	0.02	0.27	< 2
91379	2	60	16	102	< .3	96	34	1087	6.01	< 2	< 5	< 2	< 2	86	0.8	2	< 2	158	4.02	0.036	2	204	3.44	23	0.29	< 3	3.78	0.03	0.08	< 2
91380	2	44	54	130	< .3	66	25	852	6.07	< 2	< 5	< 2	9	31	0.5	2	< 2	63	1.09	0.031	15	75	2.46	52	0.28	< 3	3.57	0.03	0.23	< 2
STANDARD C2	22	54	40	148	6.8	78	39	1160	4.03	43	19	8	36	51	18.9	16	17	74	0.59	0.109	40	65	0.99	193	0.09	27	1.98	0.06	0.13	12
91381	2	59	9	66	< .3	37	14	354	3.80	< 2	< 5	< 2	13	14	< .2	< 2	< 2	17	0.57	0.115	24	29	0.98	51	0.13	< 3	1.90	0.02	0.25	< 2
91382	1	44	11	152	< .3	59	29	857	6.33	< 2	< 5	< 2	12	16	0.3	< 2	< 2	70	0.82	0.064	20	53	2.16	71	0.28	< 3	3.51	0.02	0.31	< 2
91383	2	17	34	168	< .3	64	29	1114	7.32	< 2	< 5	< 2	13	25	0.2	< 2	< 2	87	1.02	0.066	20	60	2.64	84	0.31	< 3	4.11	0.03	0.34	< 2
91384	2	41	16	84	< .3	47	16	610	4.30	< 2	< 5	< 2	17	29	< .2	< 2	< 2	34	0.85	0.045	19	52	1.45	64	0.18	< 3	2.47	0.05	0.29	< 2
91385	2	57	14	91	< .3	61	22	583	4.68	< 2	< 5	< 2	16	21	< .2	< 2	< 2	33	0.69	0.038	30	49	1.46	90	0.18	< 3	2.70	0.03	0.38	< 2
91386	2	84	24	101	< .3	50	23	441	4.66	< 2	< 5	< 2	15	10	< .2	2	< 2	17	0.31	0.036	29	33	1.25	42	0.14	< 3	2.16	0.01	0.20	< 2
RE 91386	2	83	22	103	< .3	52	23	452	4.74	< 2	< 5	< 2	15	10	< .2	< 2	< 2	17	0.32	0.037	30	34	1.28	43	0.14	< 3	2.21	0.01	0.20	< 2
91387	2	52	7	120	< .3	48	10	497	5.11	< 2	< 5	< 2	15	8	< .2	< 2	2	22	0.25	0.028	25	43	1.55	83	0.14	< 3	2.90	0.02	0.33	< 2
91388	1	39	14	104	< .3	43	16	428	4.35	< 2	< 5	< 2	18	10	< .2	5	< 2	31	0.50	0.040	30	34	1.46	75	0.20	< 3	2.48	0.02	0.33	< 2
91389	1	59	14	119	< .3	56	19	414	4.59	4	< 5	< 2	18	10	< .2	2	< 2	15	0.31	0.040	40	29	1.37	79	0.13	< 3	2.42	0.01	0.34	< 2



Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
 Calgary Alberta T2K 4W7
 Tel: 274-2777 Fax: 275-0541

TO: Noble Metal Group
 FILE # 38590

DATE: November 7, 1996

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91390	2	34	23	61	< .3	37	12	570	3.41	< 2	< 5	< 2	12	38	< .2	< 2	< 2	28	1.04	0.071	20	51	1.05	60	0.14	< 3	1.76	0.04	0.16	< 2
91391	2	34	16	123	< .3	82	32	1834	6.72	< 2	< 5	< 2	8	98	0.6	< 2	< 2	123	4.25	0.083	18	141	3.02	49	0.24	< 3	3.82	0.02	0.16	< 2
91392	3	79	34	105	< .3	55	22	688	4.93	< 2	< 5	< 2	15	26	< .2	2	< 2	29	0.88	0.033	30	48	1.49	62	0.13	< 3	2.37	0.03	0.19	< 2
91393	2	51	7	111	< .3	145	36	1189	6.41	< 2	< 5	< 2	8	134	0.8	< 2	< 2	117	4.94	0.043	22	248	3.39	65	0.17	< 3	3.83	0.02	0.19	< 2
91394	2	113	43	132	< .3	75	33	837	6.81	< 2	< 5	< 2	23	44	0.3	< 2	< 2	41	1.17	0.055	66	67	2.02	161	0.04	< 3	3.40	0.04	0.41	< 2
91395	3	74	11	49	< .3	27	10	486	3.76	< 2	< 5	< 2	13	30	< .2	< 2	< 2	14	0.92	0.034	30	31	0.77	44	0.01	< 3	1.47	0.02	0.16	< 2
91396	2	115	75	113	< .3	66	29	729	4.92	7	< 5	< 2	20	34	< .2	< 2	< 2	37	0.87	0.064	43	52	1.70	109	0.01	3	2.99	0.01	0.45	< 2
91397	3	38	11	25	< .3	18	6	399	2.07	3	< 5	< 2	14	56	< .2	< 2	< 2	11	1.42	0.018	24	24	0.53	37	< .01	< 3	0.89	0.02	0.13	< 2
91398	3	49	27	29	< .3	19	5	498	2.29	3	< 5	< 2	14	76	0.2	< 2	< 2	13	1.90	0.016	26	26	0.64	27	< .01	< 3	0.97	0.02	0.08	< 2
91399	3	38	9	34	< .3	22	8	412	2.60	4	< 5	< 2	15	45	< .2	< 2	< 2	16	1.22	0.021	29	27	0.72	47	< .01	< 3	1.19	0.02	0.14	< 2
91400	4	49	11	18	< .3	20	7	235	1.67	4	< 5	< 2	16	25	< .2	< 2	< 2	7	0.57	0.017	26	19	0.28	48	0.02	< 3	0.61	0.02	0.15	< 2
91401	3	44	18	30	< .3	17	6	574	2.36	< 2	< 5	< 2	14	90	0.2	< 2	< 2	13	2.39	0.017	28	25	0.81	38	< .01	< 3	1.11	0.02	0.10	< 2
91402	4	36	37	48	< .3	20	7	1105	3.26	< 2	< 5	< 2	16	172	< .2	< 2	< 2	23	4.53	0.017	30	36	1.43	32	0.01	< 3	1.73	0.02	0.07	< 2
91403	2	74	3	73	< .3	50	26	1337	5.63	< 2	< 5	< 2	8	222	0.6	< 2	< 2	84	6.17	0.031	13	86	2.45	87	0.12	< 3	3.06	0.02	0.08	< 2
91404	< 1	77	5	105	< .3	66	48	1675	7.88	< 2	< 5	< 2	< 2	288	1.4	< 2	< 2	247	7.01	0.036	1	181	4.08	67	0.15	< 3	4.72	0.02	0.04	< 2
91405	1	68	< 3	106	< .3	94	47	1584	7.56	3	< 5	< 2	2	304	1.2	< 2	< 2	201	7.23	0.079	6	184	4.23	66	0.13	< 3	4.65	0.02	0.04	< 2
91406	1	55	11	92	< .3	57	39	1414	6.55	< 2	< 5	< 2	< 2	242	0.9	< 2	< 2	211	6.09	0.035	< 1	154	4.31	15	0.20	< 3	4.19	0.02	< .01	< 2
91407	< 1	26	5	94	0.3	48	41	1593	6.93	< 2	< 5	< 2	< 2	298	0.8	< 2	< 2	227	7.07	0.034	< 1	137	4.14	9	0.14	< 3	4.18	0.02	< .01	< 2
91408	< 1	70	8	93	< .3	62	42	1561	6.97	7	< 5	< 2	< 2	248	1.2	< 2	< 2	217	7.03	0.034	< 1	164	3.78	44	0.12	< 3	4.09	0.02	0.02	< 2
91409	1	81	3	101	< .3	64	47	1660	7.19	13	5	< 2	2	278	1.4	< 2	< 2	159	8.14	0.079	8	129	3.24	142	0.25	< 3	4.02	0.02	0.07	< 2
91410	5	53	3	76	< .3	38	24	902	5.43	3	< 5	< 2	9	86	0.4	< 2	< 2	60	3.05	0.112	30	51	2.14	95	0.16	< 3	2.92	0.02	0.12	< 2
91411	3	43	4	39	< .3	19	6	476	2.34	4	< 5	< 2	12	37	< .2	< 2	< 2	11	1.30	0.021	28	22	0.55	46	0.01	< 3	1.06	0.02	0.16	< 2
91412	4	110	20	105	< .3	70	22	552	4.94	< 2	< 5	< 2	18	11	0.2	< 2	< 2	11	0.40	0.030	53	29	1.03	56	0.01	< 3	1.75	0.01	0.25	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91413	4	140	185	215	0.4	78	24	493	5.05	< 2	< 5	< 2	21	12	0.3	2	2	10	0.31	0.032	77	24	0.93	78	0.02	< 3	1.91	0.01	0.39	< 2
91414	3	77	30	127	< .3	56	20	781	4.80	< 2	< 5	< 2	16	18	< .2	3	< 2	14	0.64	0.032	34	37	1.14	37	0.02	< 3	1.85	0.01	0.16	< 2
STANDARD C2	20	56	38	139	6.4	69	34	1160	4.03	40	18	8	35	49	18.5	15	17	68	0.52	0.103	38	59	0.99	182	0.08	28	1.99	0.06	0.13	11
91415	2	40	10	96	< .3	40	16	1287	4.22	4	< 5	< 2	16	51	< .2	< 2	< 2	24	2.03	0.033	23	46	1.17	63	0.07	< 3	2.25	0.04	0.26	< 2
91416	2	40	5	100	< .3	42	17	1245	4.20	3	< 5	< 2	16	44	< .2	< 2	< 2	22	1.69	0.034	16	45	1.22	59	0.11	< 3	2.30	0.03	0.26	< 2
91417	3	56	5	110	< .3	53	21	1126	4.85	< 2	< 5	< 2	15	28	< .2	< 2	< 2	18	1.27	0.032	18	40	1.33	45	0.06	< 3	2.27	0.02	0.20	< 2
RE 91417	3	54	5	108	< .3	53	21	1103	4.75	< 2	< 5	< 2	15	28	< .2	< 2	< 2	17	1.24	0.031	18	40	1.30	43	0.06	< 3	2.22	0.02	0.19	< 2
91418	5	139	85	282	< .3	72	25	781	5.07	< 2	< 5	< 2	17	13	0.5	< 2	2	13	0.46	0.032	32	35	1.13	59	0.07	< 3	2.03	0.02	0.26	< 2
91419	4	60	5	108	< .3	50	18	1221	4.83	3	< 5	< 2	18	14	< .2	< 2	< 2	18	0.54	0.038	18	50	1.25	42	0.09	< 3	2.10	0.03	0.17	< 2
91420	2	66	8	135	< .3	53	21	1458	5.01	5	< 5	< 2	15	10	< .2	< 2	< 2	22	0.39	0.053	22	46	1.52	42	0.06	< 3	2.69	0.02	0.18	< 2
91421	2	44	6	91	< .3	37	13	894	3.92	< 2	< 5	< 2	17	16	0.3	< 2	< 2	15	0.95	0.040	17	36	1.11	29	0.08	< 3	1.79	0.02	0.12	< 2
91422	2	78	15	115	< .3	41	17	773	4.37	< 2	< 5	< 2	14	12	< .2	< 2	< 2	12	0.40	0.033	16	30	1.13	33	0.08	< 3	1.81	0.02	0.13	< 2
91423	5	152	168	692	< .3	95	34	586	5.86	< 2	< 5	< 2	17	10	1.2	< 2	< 2	9	0.30	0.033	31	23	1.02	47	0.10	< 3	1.85	0.01	0.21	2
91424	4	98	96	203	< .3	75	24	541	5.55	< 2	5	< 2	21	10	< .2	< 2	< 2	10	0.30	0.035	33	23	0.93	64	0.12	< 3	1.89	0.01	0.31	< 2
91425	5	122	70	73	< .3	85	32	631	5.56	< 2	< 5	< 2	21	10	< .2	< 2	2	11	0.27	0.031	32	24	1.05	70	0.10	< 3	2.16	0.02	0.35	< 2
91426	5	130	46	64	< .3	85	29	613	5.41	< 2	< 5	< 2	22	10	< .2	< 2	< 2	12	0.24	0.037	38	30	1.03	72	0.08	< 3	2.07	0.02	0.37	< 2
91427	4	87	33	123	< .3	52	19	868	5.60	< 2	< 5	< 2	18	9	< .2	2	< 2	16	0.26	0.049	42	41	1.29	46	0.03	< 3	2.15	0.02	0.21	< 2
91428	3	71	24	110	< .3	49	20	1069	4.69	4	< 5	< 2	20	26	< .2	2	< 2	22	0.99	0.039	27	46	1.22	72	0.07	< 3	2.41	0.04	0.32	< 2
91429	4	45	8	101	< .3	44	14	1314	4.52	2	< 5	< 2	18	34	< .2	< 2	< 2	25	1.59	0.035	26	62	1.23	44	0.04	< 3	2.22	0.05	0.17	< 2
91430	7	135	12	115	0.3	99	37	1013	6.22	5	< 5	< 2	17	23	0.3	< 2	< 2	17	0.81	0.031	53	55	1.03	77	0.01	< 3	2.23	0.03	0.34	< 2
91431	7	107	19	129	< .3	61	22	988	5.32	< 2	< 5	< 2	19	11	< .2	< 2	< 2	22	0.24	0.039	29	54	1.29	89	0.08	< 3	2.57	0.03	0.42	< 2
91432	7	151	55	114	< .3	110	33	601	5.98	< 2	< 5	< 2	19	10	< .2	2	< 2	12	0.22	0.034	38	36	0.85	86	0.07	< 3	2.00	0.02	0.43	< 2
91433	7	155	46	139	< .3	96	34	742	6.48	< 2	< 5	< 2	19	10	< .2	< 2	< 2	14	0.23	0.038	29	44	1.05	80	0.08	< 3	2.17	0.02	0.40	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91434	6	131	101	131	0.3	85	32	657	5.93	< 2	< 5	< 2	19	10	< 2	< 2	< 2	13	0.22	0.037	36	32	0.94	77	0.07	< 3	2.00	0.02	0.36	< 2
91435	7	147	71	144	< 3	79	31	962	5.93	< 2	< 5	< 2	20	11	< 2	< 2	< 2	16	0.26	0.045	26	44	1.30	91	0.07	3	2.65	0.02	0.43	< 2
91436	9	149	20	77	< 3	83	29	819	6.56	2	< 5	< 2	20	10	< 2	4	< 2	15	0.15	0.039	71	47	1.20	79	0.01	< 3	2.30	0.02	0.36	< 2
91437	4	95	22	65	< 3	38	15	428	4.29	< 2	< 5	< 2	14	6	< 2	< 2	< 2	7	0.09	0.026	35	23	0.67	40	< 01	< 3	1.25	0.02	0.17	< 2
91438	3	82	7	88	< 3	65	23	732	5.10	< 2	< 5	< 2	18	8	< 2	< 2	< 2	12	0.15	0.037	58	31	1.26	51	< 01	< 3	2.12	0.01	0.20	< 2
91439	2	59	10	108	< 3	49	18	533	4.61	< 2	< 5	< 2	16	8	< 2	< 2	< 2	12	0.21	0.052	22	30	1.21	49	0.03	< 3	1.72	0.02	0.15	< 2
91440	2	67	21	61	< 3	36	14	332	4.71	< 2	< 5	< 2	11	6	< 2	< 2	< 2	10	0.13	0.023	17	27	0.82	44	0.04	< 3	1.24	0.02	0.09	< 2
91441	2	110	8	131	< 3	98	41	508	6.15	< 2	< 5	< 2	19	11	0.2	< 2	< 2	12	0.22	0.042	28	31	1.38	100	0.05	< 3	2.01	0.01	0.19	< 2
91442	2	119	< 3	149	< 3	118	49	1659	8.76	2	6	< 2	3	114	1.1	< 2	< 2	239	3.94	0.139	11	164	3.45	12	0.24	< 3	4.22	0.03	< 01	< 2
91443	1	88	12	56	< 3	331	50	1509	5.03	39	< 5	< 2	< 2	303	1.0	2	< 2	127	7.84	0.065	8	663	4.86	3	0.24	< 3	3.59	< 01	< 01	< 2
91444	1	114	10	64	< 3	528	68	1239	5.85	60	5	< 2	< 2	182	0.6	< 2	< 2	153	5.36	0.069	7	1333	6.06	2	0.27	< 3	4.04	< 01	< 01	< 2
91445	1	95	< 3	69	< 3	360	55	1299	5.74	44	< 5	< 2	< 2	186	0.8	< 2	< 2	156	5.56	0.073	10	1098	6.55	2	0.32	< 3	4.29	0.01	< 01	< 2
91446	1	80	< 3	61	< 3	438	68	1141	5.55	64	5	< 2	2	141	0.3	< 2	< 2	148	4.54	0.068	6	1141	6.04	2	0.26	< 3	3.94	< 01	< 01	< 2
91447	1	139	5	59	< 3	610	75	1219	5.41	48	< 5	< 2	< 2	171	0.3	< 2	< 2	130	5.52	0.061	5	1300	5.34	3	0.19	< 3	3.42	< 01	< 01	< 2
91448	1	96	22	125	< 3	91	41	2125	7.58	10	< 5	< 2	2	211	1.0	< 2	< 2	229	6.24	0.127	17	119	3.88	9	0.17	< 3	4.56	0.04	< 01	< 2
STANDARD C2	20	58	35	142	6.4	71	35	1160	4.03	44	17	8	34	49	17.8	16	17	69	0.52	0.104	38	60	0.99	188	0.08	27	2.00	0.06	0.12	11
91449	3	58	9	48	< 3	29	11	979	4.14	< 2	< 5	< 2	7	119	< 2	< 2	< 2	49	3.11	0.031	13	48	0.91	8	0.01	< 3	1.30	0.03	0.01	< 2
91450	3	134	50	98	< 3	57	28	478	5.51	< 2	< 5	< 2	11	9	< 2	2	3	13	0.14	0.035	22	33	1.27	43	0.01	3	1.78	0.02	0.13	< 2
91451	4	81	16	58	< 3	29	11	521	3.11	< 2	< 5	< 2	7	40	< 2	< 2	< 2	12	1.08	0.021	17	31	0.71	32	< 01	< 3	1.15	0.04	0.12	< 2
91452	4	79	8	95	< 3	41	17	545	4.16	< 2	< 5	< 2	10	26	< 2	< 2	4	13	0.71	0.028	22	35	1.04	35	0.01	< 3	1.61	0.03	0.15	< 2
91453	3	63	12	93	< 3	38	13	993	5.13	< 2	< 5	< 2	9	104	< 2	< 2	< 2	12	3.56	0.021	12	31	0.96	35	< 01	< 3	1.62	0.02	0.15	< 2
91454	3	102	38	105	< 3	70	29	372	4.68	< 2	< 5	< 2	12	10	< 2	< 2	3	11	0.16	0.032	27	29	1.12	54	0.01	< 3	1.82	0.02	0.23	< 2
91455	3	81	100	102	< 3	45	20	470	4.24	< 2	< 5	< 2	9	23	< 2	< 2	2	13	0.82	0.029	20	32	0.99	46	0.01	< 3	1.62	0.03	0.18	< 2



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ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
SAMPLES	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
91456	2	45	21	85	< .3	38	13	619	3.71	3	< 5	< 2	7	51	< 2	2	4	25	1.50	0.029	24	48	1.08	31	0.01	< 3	1.74	0.05	0.12	< 2
91457	2	92	40	162	< .3	84	33	558	5.36	5	< 5	< 2	19	16	< 2	2	< 2	19	0.29	0.053	51	41	1.65	84	0.01	< 3	2.81	0.01	0.34	< 2
91458	2	60	27	105	< .3	37	14	383	3.62	3	< 5	< 2	10	17	< 2	< 2	< 2	12	0.38	0.030	22	27	0.96	40	0.01	< 3	1.57	0.03	0.16	< 2
91459	3	52	19	65	< .3	26	8	311	2.88	3	< 5	< 2	8	13	< 2	< 2	2	11	0.34	0.026	17	29	0.69	24	0.01	< 3	1.13	0.03	0.09	< 2
91482	4	55	26	37	< .3	24	7	662	2.87	2	< 5	< 2	8	39	< 2	2	3	14	1.03	0.024	9	36	0.52	30	0.07	< 3	0.98	0.04	0.08	< 2
91493	1	93	31	64	< .3	312	41	1179	5.21	20	< 5	< 2	2	205	0.6	2	5	159	5.14	0.086	3	544	4.99	3	0.21	< 3	3.53	< .01	< .01	< 2
91494	1	91	11	45	< .3	283	46	990	3.66	54	< 5	< 2	2	148	0.3	< 2	< 2	113	4.29	0.087	3	472	3.45	2	0.09	< 3	2.44	< .01	< .01	< 2
91495	1	61	17	65	< .3	396	47	806	4.71	22	< 5	< 2	< 2	205	< 2	< 2	6	90	3.43	0.064	6	861	4.85	3	0.27	< 3	3.69	< .01	0.02	< 2
91496	1	108	9	63	< .3	271	42	915	5.17	< 2	< 5	< 2	< 2	313	0.7	< 2	5	139	4.33	0.073	6	746	4.95	37	0.33	< 3	3.83	0.01	0.33	< 2
91497	1	111	13	62	< .3	231	40	904	5.20	6	< 5	< 2	< 2	295	0.5	< 2	3	142	4.40	0.075	6	695	4.47	51	0.38	< 3	3.63	0.02	0.31	< 2
91498	2	148	4	59	< .3	216	38	859	5.23	< 2	< 5	< 2	< 2	256	0.4	< 2	3	143	3.77	0.080	6	718	4.52	51	0.39	< 3	3.60	0.03	0.29	< 2
91499	6	51	23	40	< .3	217	24	401	3.45	< 2	< 5	< 2	< 2	56	< 2	< 2	23	53	0.97	0.038	< 1	574	3.87	21	0.18	< 3	3.16	0.02	0.02	< 2
91500	1	120	10	75	< .3	474	48	765	5.64	< 2	< 5	< 2	5	85	< 2	< 2	2	104	1.56	0.073	10	1112	5.57	15	0.26	< 3	4.25	0.01	0.03	< 2
91501	1	37	< 3	68	< .3	354	44	690	5.11	6	< 5	< 2	< 2	77	< 2	< 2	< 2	110	1.33	0.069	7	858	5.23	14	0.35	< 3	3.87	0.01	0.05	< 2
91502	1	87	18	62	< .3	355	45	779	4.85	6	5	< 2	2	225	0.3	< 2	< 2	112	3.21	0.065	5	900	5.02	13	0.37	< 3	3.75	0.01	0.10	< 2
RE 91502	1	88	21	61	< .3	351	45	778	4.86	10	5	< 2	< 2	225	< 2	2	3	112	3.22	0.066	6	903	5.05	13	0.37	< 3	3.76	0.01	0.10	< 2
91503	1	78	4	56	0.3	258	39	778	4.88	< 2	< 5	< 2	< 2	255	0.2	< 2	< 2	129	3.54	0.074	5	817	4.54	26	0.32	< 3	3.54	0.01	0.21	< 2
91504	1	124	12	65	< .3	262	41	807	5.17	< 2	< 5	< 2	< 2	224	0.2	3	< 2	134	3.39	0.078	6	817	5.16	27	0.35	< 3	3.85	0.01	0.19	< 2
91505	1	126	6	64	< .3	583	59	620	4.80	41	< 5	< 2	< 2	43	< 2	< 2	3	87	1.08	0.056	5	1215	4.80	3	0.32	< 3	3.48	< .01	0.03	< 2
STANDARD C2	20	56	38	140	6.8	71	36	1160	4.06	45	16	8	33	51	19.5	19	19	69	0.50	0.108	37	61	0.99	194	0.08	27	1.98	0.06	0.14	14

Appendix III

Petrographic Thin Section Descriptions



Vancouver Petrographics Ltd.

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Report for: Dorothy Dennis,
Noble Metal Group Inc.,
801 - 409 Granville St.,
VANCOUVER, B.C.
V6C 1T2

Job 960408/409

July 24, 1996

SAMPLES:

13 drill core samples, numbered as below, were submitted for petrographic examination. All samples were prepared as polished thin sections.

Sample	Drill Hole	Depth
1	95-3	18.13
2	95-3	47.44
3	96-1	184
4	96-1	192
5	96-1	304
6	96-1	317
7	96-1	347
8	96-1	376
9	96-1	459
10	96-1	587
11	96-1	651
12	96-1	654
13	96-1	672

SUMMARY:

The rocks of this suite can be subdivided into three groups, as follows:

a) Metasediments:

Samples 5, 6, 7, 12 and 13 are quartzo-feldspathic wackes consisting of equant clasts of coarse, sand-sized quartz and plagioclase, scattered through a silt-sized to fine sand-sized matrix of the same minerals. Accessory sericite, with minor biotite, chlorite and carbonate, occurs as an intergranular accessory in the matrix, and concentrates as sinuous interclast schlieren. Local intercalations of more argillitic composition occur in some of the wackes. Sample 8 is wholly composed of intensely microfolded argillite.

SAMPLE 1: 95-3 18.13

SHEARED CONGLOMERATE OR BRECCIA

Estimated mode

Quartz	42
Plagioclase	8
Sericite	46
Biotite	3
Chlorite	trace
Carbonate	trace
Tourmaline	trace
Ilmenite	0.5
Pyrrhotite	trace
Chalcopyrite	trace
Sphalerite	trace
Pyrite	trace

The sectioned portion of this sample incorporates three strongly segregated lithological components: a foliaceous argillite showing cleavage and crenulate deformation; a mass of intensely strained, vari-granular quartz; and a rock of greywacke aspect. The structural relationships of these three are not clearly displayed on the thin section scale, though there is some indication that the argillite and quartz are parts of large pebbles in a matrix of the greywacke. Alternatively, the rock may be a form of tectonic or fault breccia.

The argillite is composed essentially of minutely fine-grained, compact, foliaceous sericite. Biotite is a minor accessory. It occurs mantling tiny, disseminated skeletal grains of ilmenite; as a few schlierenlike zones (with associated carbonate); and in coarser flaky form, with quartz and chlorite, as rare pockety segregations.

The quartz mass is a monomineralic mosaic aggregate, of grain size 0.05 - 5.0 mm. It exhibits strongly crenulate grain boundaries and shadowy strain polarization, indicative of intense deformation/recrystallization.

The greywacke consists of clasts of quartz and lesser plagioclase, 0.1 - 1.0 mm in size, in a matrix of foliaceous sericite, locally with intergrown biotite and ilmenite. The clasts show augen form and distinct preferred elongation, and the rock appears strongly sheared (with partial granulation of the quartz clasts). This unit is cut by rare hairline veinlets of carbonate. Rare tiny grains of tourmaline are a trace component of the matrix.

At one end of the sectioned area the wacke appears to grade concordantly to an argillitic variant (devoid of quartz/feldspar clasts).

The rock contains traces of sulfides - predominantly sparse disseminated specks of pyrrhotite and of secondary-type pyrite after pyrrhotite. One grain of sphalerite with inclusions of pyrrhotite and chalcopyrite was seen. The sulfides occur in the argillite, and occasionally in the sericitic matrix of the wacke.

SAMPLE 2: 95-3 47.44 TREMOLITE ROCK (SHEARED ULTRAMAFIC)

Estimated mode

Tremolite	57
Chlorite	14
Carbonate	28
Sphene)	
Rutile)	1
Pyrrhotite	trace
Pentlandite	trace
Pyrite	trace
Mineral X	trace
Chalcopyrite	trace

The off-cut block of this sample shows a foliaceous, locally clumpy, strongly sheared aggregate of grey-green minerals, traversed by lenticular segregations of buff-coloured material.

In thin section the foliaceous matrix is found to be composed predominantly of fine-grained, pale-coloured, fibrous amphibole (tremolite), with sporadic stumpy phenocryst-like grains of the same mineral, 0.2 - 2.0 mm in size. Tiny olive brown flecks occur within the tremolite matrix - apparently representing remnants of a protolithic mafic mineral.

Chlorite is the principal accessory, as scattered, more or less discrete clumps of compact, minutely felted material (altered phenocrysts?), and as crenulate-textured, minutely fine-grained schlieren within the foliaceous tremolite matrix - apparently representing zones of more intense shearing.

Sphene and microgranular rutile form evenly disseminated tiny flecks and clusters throughout.

The buff-coloured lenses consist of granoblastic, mosaic-textured aggregates of carbonate, of grain size 50 - 200 microns - with local coarser patches of grains to 1 mm. In part, the carbonate occurs as diffusely intergrown streaks in the tremolite matrix, and it probably represents a partially dislocated vein phase in the protolith. The carbonate shows somewhat subdued reaction with dilute acid, and apparently consists, at least partly, of calcite.

Traces of sparsely disseminated sulfides, as grains 10 - 300 microns in size, include pyrite, pyrrhotite, pentlandite, chalcopyrite, and an unidentified white, isotropic phase (Ni arsenide or sulfarsenide?). These occur as individual grains or mutual intergrowths, sometimes associated with sphene/rutile. The sulfides occur mainly in the tremolitic matrix, but are also seen in the carbonate - especially in its contact zones, or associated with tremolitic inclusions.

This rock is probably an original ultramafic, modified by shearing and metamorphism.

Estimated mode

Tremolite	78
Chlorite	20
Carbonate	1
Sphene)	1
Rutile)	
Pyrrhotite	trace
Pentlandite	trace
Chalcopyrite	trace

This is a similar rock to the previous sample, but without veniform carbonate segregations. Discrete phenocryst-like grains of tremolite within the fine-grained, foliaceous, sheared matrix are prominent (see off-cut). They are typically of equant sub-prismatic form, and range up to 5 mm in size. In thin section some of them are found to consist of graphic-type intergrowths of tremolite and chlorite.

Chlorite occurs in the same manner as in the previous sample - as occasional felted-textured pseudomorphs of original mafic individuals, and as diffuse streaks and crenulate wisps in the sheared matrix.

Disseminated accessories include fine-grained sphene and rutile, and traces of sulfides (mainly pyrrhotite, but with rare associated pentlandite). The sulfide specks are typically in the size range 10 - 200 microns, and show preferred elongation parallel to the ill-defined foliation.

This sample has the typical aspect of a modified ultramafic.

SAMPLE 4: 96-1 192

MODIFIED ULTRAMAFIC/GABBRO

Estimated mode

Amphibole	70
Chlorite	18
Carbonate	5
Plagioclase	5
Sphene	2
Chalcopyrite	trace

This is a rock of similar general appearance (see off-cut) to the previous sample. Prominent, phenocryst-like, prismatic grains to 4 mm in size occur scattered through a fine-grained, foliaceous matrix.

Thin section examination shows that the rock is composed essentially of pale-coloured amphibole and chlorite. The ratio of discrete, blocky, phenocryst-like grains to the fibrous matrix is notably higher in this sample. The former are presumed pseudomorphs of an unknown protolithic mafic component, now composed of pale green (actinolitic) to colourless (tremolitic) amphibole, sometimes with graphic or lamellar intergrowths of chlorite. The interstitial assemblage consists of various proportions of intimately intergrown fibrous amphibole and chlorite, with disseminated clusters of sphene, and pockets of carbonate.

Locally the matrix includes a minor component of plagioclase (suggesting that the protolith in this case may have been of a composition gradational to gabbro).

This rock also appears less sheared than the previous ones, and the blocky granular fabric may be largely a relict primary one. One end of the sectioned area is defined by a discrete shear infilled by a lens of carbonate.

Sulfides in this sample are confined to extremely rare, tiny, irregular grains, 10 - 200 microns in size, of chalcopyrite. These occur intergrown with sphene, or intimately interstitial to the fibrous/flaky silicates of the matrix.

SAMPLE 5: 96-1 304

QUARTZO-FELDSPATHIC WACKE

Estimated mode

Quartz	78
Plagioclase	12
Sericite	8
Biotite	0.5
Chlorite	trace
Tourmaline	trace
Carbonate	1
Ilmenite	trace
Pyrrhotite	trace

This sample is a quartz-rich rock having the aspect of a rather coarse arenaceous sediment (see off-cut).

Quartz, and lesser plagioclase, occurs as abundant, discrete, equant/sub-rounded clasts, 0.4 - 1.5 mm in size, in a fine sand-sized matrix/interstitial phase of the same minerals. The latter include a little intergrown fine-grained accessory sericite, of grain size 30 - 100 microns.

The coarser clasts commonly show crenulate margins, and grain boundaries in the finer matrix are sometimes ill-defined - suggestive of partial recrystallization. However, there is no recognizable elongation of the gritty clasts, and the rock is essentially non-foliated.

Carbonate is a sporadic minor accessory, mainly concentrated as a few laminar zones which appear to represent original hairline veinlets of quartz/carbonate.

Minutely fine-grained biotite and rare chlorite occur associated with the sericitic component of the matrix, tending to concentrate as a network delineating the coarser clasts. Very rare tiny specks of ilmenite and pyrrhotite also occur in this context.

One or two tiny subhedra of tourmaline were noted - consistent with a metasedimentary genesis.

SAMPLE 6: 96-1 317

GREYWACKE

Estimated mode

Quartz	70
Plagioclase	14
Sericite	12
Biotite	4
Chlorite	trace
Ilmenite	trace
Pyrrhotite	trace
Chalcopyrite	trace

Macroscopic examination of the off-cut suggests that this sample is of closely similar type to the previous one (#5).

Thin section observations confirm this, but indicate minor differences - in that the content of biotite is significantly higher, and carbonate is absent.

The quartz and plagioclase clasts range from 0.2 - 2.0 mm in size. The quartz clasts are sometimes polygranular, but clasts of mutually intergrown quartz and plagioclase are seldom, if ever, seen. The plagioclase clasts are notably fresh. The clast shapes are sub-equant, sub-angular to sub-rounded, and they show no preferred orientation.

The clasts are set in a matrix composed predominantly of fine-grained sericite. Intergrown biotite tends to concentrate as sinuous, sub-parallel schlieren (representing localized shears) and small interclast pockets.

The matrix also includes considerable microgranular quartz. This tends to concentrate in mantling or pressure-shadow relation to the coarse clasts, and may be, in part, a granulation/recrystallization feature. Similar microgranular quartz also concentrates as sinuous laminae, probably representing deformed and recrystallized veinlets.

Traces of pyrrhotite, and very rare chalcopyrite, occur as irregular grains, 20 - 200 microns in size, sparsely disseminated in the sericitic matrix and in the recrystallized veinlets.

SAMPLE 7: 96-1 347

WACKE WITH QUARTZ VEINS

Estimated mode

Host Rock

Quartz	23
Plagioclase	8
Sericite	5
Biotite	trace
Chlorite	trace
Ilmenite	trace

Veins

Quartz	54
Carbonate	7
Chlorite	1
Pyrrhotite	2
Pyrite	1

The sectioned portion of this sample consists of a rock of similar general type to the wacke exemplified by the previous two samples, cut by prominent veins of coarse quartz. The latter makes up about 65% of the sectioned area.

The host differs slightly from samples 5 and 6 in that it includes a relatively high proportion of thin laminae of microgranular quartz - probably representing silty or quartzitic intercalations in the original coarser sandstone.

The veins are made up of quartz of highly varied grain size - from coarse mosaics of grains up to 4 mm to microgranular aggregates of grain size down to 20 microns. The latter tend to make up the marginal zones of the veins, and appear to represent a product of recrystallization/granulation - indicating that the veining is pre-tectonic in age. Strain polarization and crenulate grain boundaries are extensively developed.

Carbonate occurs within the quartz veins as irregular pockets, locally mobilized into concordant lenticular gashes. Marginal zones of the quartz veins are locally speckled with emulsion-like clusters of tiny chlorite rosettes.

Two discrete segregations of sulfides (2 mm and 6 mm in size) occur within the vein quartz. The larger one consists of pyrrhotite with intergrown patches of "dusty" cryptocrystalline pyrite of secondary aspect. The smaller one is composed entirely of the dusty pyrite.

SAMPLE 8: 96-1 376

ARGILLITE WITH QUARTZ VEINS

Estimated mode

Sericite	76
Biotite	trace
Chlorite	3
Quartz	20
Carbonate	0.5
Ilmenite	0.5
Pyrrhotite	trace
Chalcopyrite	trace

This sample is a fine-grained metasediment of argillite type, composed almost entirely of compact sericite. A contorted laminar structure (relict bedding?) is defined by small-scale variations in the proportion of included micron-sized opaque material.

Micro-scale chevron folding and associated axial plane cleavage is strongly and evenly developed throughout the rock, normal to the laminar structure.

Minor carbonate and chlorite concentrate as a diffuse zone of crumpled threads, apparently discordant to both bedding and cleavage.

The sectioned portion includes one large (10 mm thick) and one smaller segregation of vein-type quartz, with strongly granulated/recrystallized border zones. The larger quartz mass includes a pocket of compact felted-textured chlorite.

Minute laths of ilmenite occur disseminated throughout the argillite. These are locally accompanied by irregular specks of pyrrhotite, and extremely rare chalcopyrite, as grains 20 - 200 microns in size.

SAMPLE 9: 96-1 459 CARBONATE-CHLORITE ROCK (ALTERED ULTRAMAFIC)

Estimated mode

Carbonate	50
Chlorite	25
Sericite)	
Talc)	20
Biotite	trace
Quartz	4
Rutile	1
Pyrrhotite	trace
Mineral X	trace
Pentlandite	trace
Chalcopyrite	trace

This rock is of different composition to any of the preceding samples.

It is a streaky, incipiently foliated aggregate composed of an intimate intergrowth of carbonate, chlorite, and a minutely fine-grained, sericite-like component which could be talc.

The carbonate - which is unreactive to dilute acid, and is probably dolomite, or possibly magnesite - forms euhedral rhombs, 0.1 - 0.6 mm in size (occasionally clumped). These occur rather evenly distributed through a matrix of minutely foliaceous sericite and/or talc with streaky and pockety lenticular intercalations of compact chlorite. Quartz is a minor accessory, occurring throughout the sericite/chlorite as tiny intergrown flecks and elongate grains.

The rock exhibits a perceptible foliation, defined by the preferred orientation of the flaky minerals, and by the elongation of quartz flecks and carbonate clumps.

A distinctive orange-coloured (phlogopitic) biotite occurs as occasional streaks within the chlorite.

Fine-grained rutile occurs throughout as disseminated clusters and wisps, and there is a trace component of sparse, randomly disseminated sulfides, as specks 10 - 200 microns in size. These consist of pyrrhotite, pentlandite, chalcopyrite and an unidentified white isotropic phase, as individual grains or mutually intergrown.

This is the same assemblage noted in some of the tremolitic samples identified as altered ultramafics - suggesting that this rock is of similar derivation. However, the presence of accessory quartz is atypical.

SAMPLE 10: 96-1 587

QUARTZ DIORITE ?

Estimated mode

Plagioclase	30
Chlorite	15
Sericite	11
Carbonate	2
Quartz	42
Ilmenite)	trace
Rutile)	trace
Pyrrhotite	trace
Chalcopyrite	trace
Galena	trace

This is another sample of distinctive type, not encountered previously in the suite.

It consists dominantly of coarse segregations of quartz and plagioclase, plus an interstitial accessory assemblage of chlorite and sericite.

The quartz areas (1 - 2 cm in size) are coarse aggregates showing intense strain polarization and incipient microgranular recrystallization.

The plagioclase segregations are of somewhat smaller extent than the quartz, and show a tendency to banded configuration (see white-etched areas in the off-cut). They are made up of vari-granular anhedral aggregates, of grain size 0.2 - 4.0 mm, showing mild to moderate pervasive sericitization. Occasional small pockets of quartz and chlorite occur intergrown with the plagioclase.

The interstitial phase consists of foliaceous chlorite and sericite, sometimes intimately intergrown, and sometimes as segregated pockets.

Carbonate occurs as occasional thin, disrupted veinlets, and as a few patches of intergrowth with finely granulated quartz and/or chlorite.

Fine-grained flecks of ilmenite occur as disseminations in the streaky/pockety chlorite segregations. Traces of sulfides (pyrrhotite with rare chalcopyrite and galena) occur as intergranular clumps in quartz.

The origin of this rock is uncertain. It may represent a product of cataclastic brecciation and deformation of a coarse quartz diorite intrusive.

Estimated mode

Quartz	40
Plagioclase	36
Sericite	14
Chlorite	4
Carbonate	3
Rutile	1
Pyrrhotite	2
Pyrite	trace
Chalcopyrite	trace
Sphalerite	trace

This is a heterogenous rock of uncertain origin. The presence of a major component of coarse plagioclase suggests possible genetic similarities to Sample 10. The rock appears to be a form of breccia, with areas of contrasted mineralogy and texture in more or less sharp contact. It shows features in common with Sample 1 (95-3 18.13) and is possibly a melange related to faulting.

The central part of the sectioned area consists of a wacke-like rock composed of discrete quartz (and lesser plagioclase) clasts, 0.2 - 0.8 mm in size, rather sparsely scattered through a dominant matrix of flaky sericite and lesser intergrown chlorite and micron-sized rutile. This matrix shows strong crenulate deformation.

This area is flanked by what appear to be fragmented bands composed dominantly of granular, fresh plagioclase of grain size 0.2 - 2.0 mm. This sometimes has intergrown quartz, and has the appearance of quartz diorite intrusive material. It is locally cut by veins of carbonate.

Other components of the melange are patches of a microgranular quartz-plagioclase rock of aplitic aspect, and irregular pockets of felted chlorite.

These apparent polyolithic breccia fragments are interstitially cemented by pockets and streaks of contorted sericitic material similar to that forming the matrix to the central, wacke-like component (which may itself be of cataclastic, rather than normal sedimentary, origin).

The thin section includes sporadic disseminated pyrrhotite, as irregular grains typically in the 20 - 400 micron size range. There are also occasional coarser sulfide clumps to 1 or 2 mm. Traces of pyrite, chalcopyrite and Fe-rich sphalerite are rare intergrown accessories. The pyrrhotite appears to be confined largely to the contorted sericitic matrix component.

SAMPLE 12: 96-1 654

QUARTZITIC WACKE

Estimated mode

Quartz	67
Plagioclase	12
Sericite	18
Chlorite	trace
Tourmaline	trace
Zircon	trace
Carbonate	trace
Rutile	1.5
Pyrrhotite	1.5

This sample is a quartz-rich rock whose appearance in the off-cut (with prominent equant clasts in a fine-grained matrix) resembles that of the wacke lithotype exemplified by Samples 5, 6 and 7. Material of this type occurs in apparent bedded alternation with a finer, foliated variant devoid of obvious clasts.

This sequence is cut discordantly by a set of sub-parallel veinlets or fracture zones.

Thin section examination shows that the rock consists of vari-sized clasts of quartz and lesser plagioclase, 0.2 - 1.5 mm in size, scattered through a finer silty matrix of dominant quartz. This is traversed by abundant close-spaced, thin, sinuous wisps of sericite with included dust-sized rutile. These diverge around the coarser clasts and define a distinct foliation.

In the zones of relatively smaller mean clast size at each end of the sectioned portion, the individual clasts often appear more or less flattened (or stretched), and show a distinct preferred elongation.

The sample is traversed by several thin veinlets of quartz, sometimes with minor intergrown carbonate and plagioclase, 0.2 - 2.0 mm in thickness. These are mostly discordant to the bedding, and tend to be of irregular, lensey, semi-continuous form. The quartz in them shows intense strain polarization and recrystallization - suggesting that they represent zones of shearing and remobilization.

The sample contains minor disseminated pyrrhotite, as rather evenly distributed, irregular/elongate grains, 20 - 300 microns in size, in an interclast relation. In one case pyrrhotite is incorporated in a concordant quartz thread but, for the most part, it has the aspect of a syngenetic (primary) component.

Estimated mode

Quartz	68
Plagioclase	16
Sericite	9
Biotite	trace
Chlorite	trace
Carbonate	4
Tourmaline	trace
Rutile	trace
Pyrite	2.5
Pyrrhotite	0.5

This is another rock of siliceous metasedimentary aspect. The discrete quartz clasts visible in the off-cut are somewhat smaller and more evenly distributed than in the previous sample, and foliated argillitic intercalations appear essentially absent. A system of thin sub-parallel shears appears to be partly concordant with an incipient bedded structure defined by grain size variations.

Thin section examination confirms the low abundance of sericite in the natrux. Dispersed carbonate is, however, perceptibly more common than in similar rocks of the suite.

Equant sub-angular clasts of quartz and lesser plagioclase, 0.15 - 0.8 mm in size, occur dispersed through a quartzitic matrix of grain size 20 - 100 microns. Minor sericite occurs in the latter as tiny intergranular flecks. Carbonate occurs sporadically as an intergrown component of the silty matrix, and locally concentrates as small lensey segregations.

There is a weak tendency for the coarser clasts to show a preferred elongation parallel to the incipient foliation. The rock shows evidence of partial overall recrystallization.

The bulk of the sericite in this sample occurs as thin sinuous schlieren with intergrown accessory chlorite and carbonate, and concentrations of dust-sized rutile. These show contorted fabric and probably represent loci of localized shearing, partly following thin argillaceous intercalations in the sedimentary sequence. Tiny grains of tourmaline can sometimes be seen within the argillitic material.

The rock contains relatively abundant sulfides, as randomly disseminated grains of pyrite and lesser pyrrhotite, 50 - 500 microns in size (locally aggregating to clumps of 1 - 2 mm). In a few cases the latter show elongate form, apparently controlled by the local shearing but, for the most part, the sulfide distribution does not appear structurally controlled.

The wackes show evidence of partial recrystallization, but are generally only weakly foliated, and primary clastic textures are well preserved. The plagioclase component is generally essentially fresh. Traces of disseminated pyrrhotite in these rocks have the aspect of a minor syngenetic constituent.

b) Modified ultramafics:

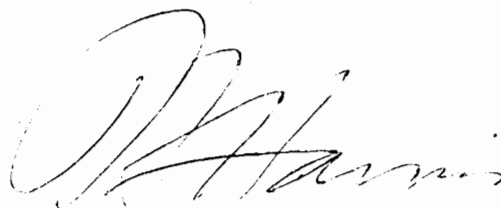
Samples 2, 3, 4 and 9 are of this type. The first two exhibit a distinctive fabric of blocky, phenocryst-like grains of tremolite and lesser chlorite, in a fine-grained, more or less sheared matrix of fibrous tremolite and chlorite. The third is similar, but appears less sheared, and the texture probably represents a pseudomorphed primary one; minor plagioclase occurs in this sample. Sample 9 is of different mineralogy, consisting of euhedral grains of carbonate densely disseminated through a foliaceous matrix of chlorite and sericite (or possibly talc). Apparent quartz is a minor accessory.

Three of the four rocks in this group (Samples 2, 3 and 9) all contain disseminated traces of a distinctive sulfide assemblage consistent with the postulated ultramafic origin. This consists of pyrrhotite, pentlandite, chalcopyrite, and a white mineral which may be a Ni arsenide.

c) Breccias

Samples 1, 10 and 11 are heterogenous rocks of apparent breccia character. They consist of melanges of foliaceous sericitic and chloritic material, strained/recrystallized quartz aggregates, siliceous wacke, and aggregates of fresh plagioclase of dioritic aspect. The origin of these rocks is indeterminate from petrographic evidence, but they are possibly of fault-related origin. The minor sulfide assemblage in this group includes traces of sphalerite and galena.

Individual petrographic descriptions are attached.



J.F. Harris Ph.D.

(929-5867)



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Report for: Dorothy Dennis,
Noble Metal Group Inc.,
801 - 409 Granville St.,
VANCOUVER, B.C.
V6C 1T2

Job 960460

September 6, 1996

SAMPLES:

7 drill core samples, 3 hand specimens and a panned concentrate were submitted for petrographic examination. All samples were prepared as polished thin sections.

Samples are labelled as follows:

Drill Core	96-1 227	Hand Specimen:	96400
	96-2 285.2		96473
	96-2 296	Un-numbered	
	96-2 561.5	Panned Concentrate (un-numbered)	
	96-2 611		
	96-2 631.5		
	96-3 76		

SUMMARY:

Samples 96-1 227, 96-2 285.2 and 296 are feldspar-free, tremolite and talc-rich chlorite-carbonate schists. The mineralogy of these rocks is consistent with derivation by shearing and metamorphism of original ultramafics. Only rare traces of sulfides are present, as tiny disseminated specks. These appear to consist of pyrite and chalcopyrite in the first two samples, but pentlandite and pyrrhotite were recognized in 96-2 296.

Sample 96400 is of uncertain origin. It is composed predominantly of carbonate (unreactive to dilute HCl) with streaks and pockets of accessory chlorite. The presence of traces of possible chromite and possible rare specks of pentlandite suggest that it may be of modified ultramafic affinities, like the previous group. The presence of accessory quartz is atypical, but this could be of subsequent vein origin rather than a primary constituent.

Samples 96-2 561.5, 611 and 631.5 are of quartzo-feldspathic composition. The second of the three is a partially granulated quartz diorite intrusive, whilst the other two are fine-grained rocks which may be sheared leucocratic porphyries (border phases of 611?) or dacitic volcanoclastics.

SAMPLE 96-1 227

TREMOLITE-CHLORITE SCHIST (ALTERED PORPHYRITIC ULTRAMAFIC)

Estimated mode

Tremolite	74
Chlorite	17
Carbonate	7
Sphene	1.5
Rutile	0.5
Chalcopyrite)	trace
Pyrite)	

This is a fine-grained, greenish-grey rock showing a distinct foliation superimposed on a porphyroid texture.

Thin section examination shows that it is composed dominantly of colourless amphibole (tremolite). A minutely fibro-acicular form of this mineral makes up the streakily foliaceous matrix; this is flecked with more or less abundant, tiny, prismatic grains of the same mineral. More or less abundant accessory chlorite occurs as diffuse intergrowths and segregated lenses and irregular laminae.

The apparent phenocrysts consist of ill-defined clumps of felted chlorite, skeletal/aggregate clusters of small prismatic tremolite grains, or granular segregations of carbonate - or of intergrowths of these three components.

Scattered, irregular/sub-prismatic grains of brown sphene, 0.1 - 0.2 mm in size, often with associated clusters of microgranular rutile, are a prominent, though minor accessory.

Extremely rare, tiny (10 - 100 micron), individual disseminated grains of pyrite and chalcopyrite are the only sulfides.

The sectioned area is cut by a thin (0.5 mm) shear zone - oblique to the foliation. This shear is defined by a veinlet of fine-grained foliated carbonate.

The rock is devoid of feldspar and has the characteristics of a modified (sheared and/or metamorphosed) ultramafic igneous rock. The apparent relict porphyritic fabric suggests that it may have been of minor intrusive (dyke rock) origin.

Estimated mode

Carbonate	73
Quartz	10
Chlorite	15
Sericite	1
Rutile	1
Chromite?	trace
Pyrite?)	trace
Pentlandite?)	trace
Pyrrhotite	trace

This rock consists predominantly of a varigranular anhedral aggregate of carbonate, of grain size ranging from 0.05 - 2.0 mm or more.

Accessories are quartz, as a few scattered clumps and irregular/elongate microgranular segregations (the latter suggestive of disrupted veinlets); and chlorite, as compact, felted aggregates in the form of irregular, semi-connected pockets and sub-parallel streaks, commonly speckled with granules and prismatic grains of rutile. Minor sericite occurs as sporadic small schlieren (delineating micro-shears?).

The overall fabric is heterogenous. Grain size variations in the carbonate matrix are irregularly patchy to (locally) veniform.

The origin of this rock is unclear from the petrographic evidence. It could be a form of impure marble or, possibly, part of a somewhat disrupted vein system. The presence of traces of possible chromite (as sporadic small cracked grains) suggests the possibility that it has ultramafic affinities - though the presence of quartz is contra-indicative.

Rare traces of sulfides comprise a few tiny (10 - 100 micron) disseminated specks of pyrrhotite and a creamy-coloured phase which could be pyrite or pentlandite. The latter often shows partial oxidation via networks of limonite. In one case it is seen intergrown with the possible chromite.

The sample bag bears the comment "high Ni", but the petrographic observations provide no indication of significant contents of Ni-bearing minerals.

Estimated mode

Talc	46
Chlorite	38
Carbonate	15
Plagioclase?	trace
Ilmenite	1
Chalcopyrite	trace
Pyrite	trace

The off-cut of this rock is of similar general appearance to the previous sample (96-1 227), except that it has a somewhat more regular, strongly-developed foliation and less obvious relict porphyritic fabric.

Thin section examination shows the present sample to be of different composition, in that tremolite is apparently absent and, instead, talc is a major constituent.

The rock consists of a matrix of minutely felted/foliaceous talc within which a lensey, micro-deformational (phyllitic) fabric is defined by parallel anastomosing wisps and schlieren of oriented chlorite. Local clumpy segregations of chlorite have the aspect of possible original phenocrysts, now strongly altered and sheared.

Carbonate is a prominent accessory as equant grains 50 - 150 microns in size. These occur partly as randomly scattered individuals, and partly concentrated as strings and clumps of such grains in laminar zones paralleling the well-defined foliation.

Tiny, sparsely scattered grains of a low-birefringent, colourless mineral may be plagioclase.

Ilmenite is a minor accessory, as sparsely disseminated, irregular and lath-like grains, 50 - 200 microns in size, generally as concordant strings.

Rare, randomly disseminated, individual grains of chalcopyrite and pyrite, similar in size to the ilmenite, are also seen.

This rock has a mineralogy consistent with a dynamically metamorphosed ultramafic, although its homogeneity and fine-grain size show little in common with the coarse plutonic fabric of a peridotite.

Estimated mode

Quartz	20
Carbonate	30
Sericite	45
Chlorite	trace
Secondary biotite?	trace
Rutile	2
Pyrite	3
Pyrrhotite	trace

This rock has a heterogenous texture (see off-cut). The contorted foliaceous portions are composed dominantly of sericite, with intercalations of microgranular quartz.

The ovoid segregation at one end of the sectioned portion is composed essentially of carbonate as a mosaic of flattened, parallel-oriented grains, 0.1 - 0.2 mm in size, with minor interstitial quartz. This assemblage has the textural aspect of an impure marble (metamorphosed silty limestone).

This zone is thinly mantled by similar material, though with a higher ratio of quartz to carbonate. This is gradational to the contorted sericitic assemblage (silty argillite?, phyllite?) making up the bulk of the section.

The latter is cut by (or incorporates) pods and veniform segregations of carbonate and intergrown quartz and carbonate.

Traces of chlorite occur as localized schlieren within, and adjacent to, the carbonate-rich zones.

Minutely fine-grained rutile is a relatively abundant accessory in the sericitic assemblage, and its distribution locally delineates a contorted foliation suggestive of crenulate folding. Disseminated irregular grains of pyrrhotite, 0.02 - 0.2 mm in size, are present in the same association, and the sectioned portion is cut by an irregular, discordant network of hairline fracture fillings of pyrite - probably secondary after pyrrhotite.

The heterogenous texture of this rock makes its origin uncertain, but it is most probably a folded sequence of thinly intercalated, argillitic, silty and calcareous metasediments.

HAND SPECIMEN (un-numbered)**SPOTTED PHYLLITE**

Estimated mode

Quartz	48
Sericite	34
Biotite	17
Ilmenite	1

This is a rock of distinctive appearance, unlike any others of the suite. The off-cut block displays a strongly foliated, evenly fine-grained matrix speckled with prominent, dark (partly yellow-stained) spots.

In thin section it is found to consist predominantly of quartz and sericite.

The quartz forms an even mosaic of flattened grains, 50 - 150 microns in size. Sericite occurs as strongly oriented flakes forming close-spaced wisps intergranular to the quartz. It locally concentrates as lensy schlieren up to 0.5 mm in thickness. The near-perfect parallelism of the sericite component combined with the preferred grain elongation of the quartz defines a strong, even foliation.

The brown spots are porphyroblastic grains of fresh biotite 0.5 - 2.0 mm in size. These occur rather evenly scattered throughout the foliaceous matrix, but generally discordant to it.

The only other component is ilmenite, as sparsely scattered, disseminated, anhedral to elongate prismatic grains, 0.1 - 0.3 mm in size, in the quartz-sericite matrix - generally concordant with the foliation. The rock contains no sulfides.

This rock is a sericitic phyllite (meta-siltstone) in which the biotite porphyroblasts probably developed in response to a post-tectonic thermal (contact metamorphic) event. It falls into the general class of "spotted slates".

SAMPLE 96-2 296

TALC-CHLORITE-CARBONATE SCHIST

Estimated mode

Talc	40
Chlorite	34
Carbonate	25
Rutile	1
Pyrrhotite	trace
Pentlandite	trace

This rock is of essentially identical type to the previous sample (96-2 285.2).

It is a fine-grained foliated rock composed of a matrix of minutely foliaceous talc, with intercalations of chlorite as sinuously parallel wisps and prominent lenticles. Carbonate occurs scattered throughout as individual equant subhedra, 0.1 - 0.5 mm in size, and as small clumps and concordant strings thereof.

Minor accessories include rutile, as strings of disseminated granules and skeletal grains 10 - 100 microns in size, and traces of pyrrhotite and apparent pentlandite as sparsely scattered individual grains 20 - 200 microns in size. The sulfides tend to be associated with concentrations of carbonate.

This is another rock of probable sheared/metamorphosed ultramafic derivation.

PANNED CONCENTRATE (un-numbered) FURNACE PRODUCT

Estimated mode

White metallic	40
Oxide	60
Pyrite?	trace

This sample consists essentially of two components: a highly reflective white metallic (probably Fe) and a low-reflective opaque oxide phase (probably magnetite).

The metallic occurs mainly as spheroidal globules, 0.2 - 2.0 mm in size, sometimes with shells of the oxide phase. Clearly the latter forms a matrix to the metallic and, in a few cases, much smaller spheroids of the latter can be seen disseminated through fragments of the oxide. The oxide phase itself also occurs partly as perfect spheroids (occasionally hollow), ranging in size from 1 mm down to 30 microns.

A few grains of the oxide show equant subhedral form, and/or are patchily replaced by hematite.

The only other recognizable constituent is a cream-coloured, isotropic sulfide (pyrite?) as a few liberated grains 0.2 - 2.0 mm in size.

This sample is clearly some form of furnace product (of man-made origin).

Estimated mode

Quartz	60
Plagioclase	32
K-feldspar	trace
Sericite	3
Chlorite	2
Carbonate	2
Rutile	0.5
Pyrrhotite	trace
Pyrite	trace
Chalcopyrite	trace

The off-cut of this sample exhibits a fabric suggestive of a sheared porphyry or a felsic volcanoclastic.

Thin section examination shows that it is composed largely of quartz and plagioclase.

Blocky prismatic to sub-rounded and ovoid, augen-like grains of quartz and lesser fresh to mildly sericitized plagioclase, 0.3 - 3.0 mm in size, occur abundantly scattered through a fine matrix. This is composed of an aggregate of anhedral grains, 50 - 150 microns in size, of the same minerals, plus minor accessory proportions of sericite (as tiny, sub-oriented, intergranular flakes), and chlorite (as local sinuous wisps).

Carbonate occurs as occasional disseminated specks in the matrix, as flecks of mild alteration in plagioclase augen, and in association with K-feldspar delineating a few multi-directional hairline microfractures.

Rutile forms strings of tiny granules - mainly associated with the wisps of sericite and chlorite which define a sinuous incipient foliation in the matrix between and around the phenocryst-like augen. Some more elongate augen (particularly those composed of quartz) show a distinct preferred elongation concordant to the weak foliation.

Extremely rare, tiny, randomly disseminated grains of sulfides, 20 - 50 microns in size, appear to be pyrrhotite and pyrite. One or two specks of possible native Au of similar dimensions were also seen.

This rock is probably a sheared quartz feldspar porphyry, or possibly a mildly recrystallized felsic volcanoclastic.

Estimated mode

Quartz	60
Plagioclase	20
Sericite	11
Secondary biotite?	8
Carbonate	1
Rutile	trace
Pyrrhotite	trace
Pyrite	trace
Chalcopyrite	trace
Galena	trace

The etched off-cut of this sample exhibits a relatively coarse, clumpy texture of igneous intrusive aspect.

Thin section examination shows that the rock is composed predominantly of an intergrowth of quartz and plagioclase, as mutual segregations 2 - 10 mm or more in size. The plagioclase typically shows more or less strong pervasive sericitization, and is also occasionally flecked with carbonate. The quartz shows crenulate grain boundaries, intense strain polarization, and local development of streaks and patches of fine granulation/recrystallization - sometimes flecked with carbonate. Notwithstanding these features, the original primary distribution of the two components, and the subhedral outlines of the plagioclase grains, appear unaffected.

Original mafics are, by contrast, strongly modified and probably somewhat redistributed. They now take the form of diffuse patches and schlieren of minutely felted olive-brown material (secondary biotite after original hornblende?) with various proportions of intimately intergrown sericite and fine-grained carbonate. The deformational stresses reflected by the partial recrystallization of the quartz appear to have taken effect as shearing in the interstitial mafics.

Opagues are sparse. They consist of a few flecks and lamellae of rutile, and rare, randomly disseminated grains of pyrrhotite, pyrite, chalcopyrite and galena, 0.05 - 0.5 mm in size.

This rock is a somewhat sheared and granulated quartz-rich leucodiorite intrusive.

SAMPLE 96-2 631.5

SHEARED QUARTZ-FELDSPAR PORPHYRY OR FELSIC VOLCANICLASTIC

Estimated mode

Quartz	70
Plagioclase	25
Sericite	2
Chlorite	1
Carbonate	1
Rutile	trace
Pyrrhotite	trace
Pyrite	trace
Chalcopyrite	trace

This rock is of very similar macroscopic appearance to 96-2 561.5 in the etched off-cut.

Thin section examination confirms that it is essentially identical to that sample, and clearly represents the same lithologic unit.

It consists of augen-like, blocky to subhedral grains of plagioclase and ovoid/elongate quartz, 0.4 - 2.0 mm or more in size, set in a finely granular matrix of quartz and accessory plagioclase of grain size 30 - 150 microns. Minor interstitial sericite and, locally, carbonate, plus rare chlorite are the other matrix components.

A detectable foliation is defined by a parallelism of elongation of the quartz augen (which appear somewhat more strongly strained than in the earlier sample).

The sparse opaques consist of tiny specks and strings of rutile, and rare disseminated grains, 10 - 100 microns in size, of pyrrhotite plus lesser pyrite and chalcopyrite.

As noted for 96-2 561.5, this lithotype is a quartzose volcaniclastic or a sheared dacitic porphyry.

Estimated mode

Sericite	70
Quartz	15
Carbonate	5
Rutile	trace
Pyrrhotite)	10
Pyrite)	

This rock is clearly recognizable from its macroscopic appearance as a pyritic, laminated, black (carbonaceous) phyllite.

In thin section it is found to consist predominantly of sericite, as a fine-grained, compact, oriented aggregate incorporating minor accessory quartz (or possible plagioclase) as scattered grains of 20 - 50 microns.

The bulk of the quartz in the rock occurs as sporadic, concordant, microgranular lenses and laminar segregations, 0.1 - 0.3 mm in thickness.

The alternations of dark and light bands apparent in the macro scale are a function of variations in the abundance of micron-sized, opaque, carbonaceous pigmentation interlaminar to the sericite flakes. On the micro scale the carbonaceous films clearly delineate the minutely crumpled, lenticularly foliated fabric typical of a metasedimentary phyllite.

The abundant sulfides consist of thin (0.02 - 0.1 mm) concordant lenticles of pyrrhotite, and thicker laminae and banded impregnations of granular pyrite. The latter is a dusty, brownish variety which is probably secondary after original pyrrhotite.

Samples 96-3 76, 96473 and the un-numbered hand specimen are metasediments: the first is a black (carbonaceous/sulfidic) phyllite; the second is a heterogenous rock which appears to be a folded thin-bedded argillite/siltstone/limestone sequence; and the third is a quartz-sericite phyllite with biotite porphyroblasts.

The panned concentrate appears to be some form of furnace product. It consists of globules of a white metallic (possibly Fe) in a matrix of probable magnetite. Occasional fragments of a pyrite-like sulfide are also present.

Individual petrographic descriptions are attached.

A handwritten signature in cursive script, appearing to read 'J.F. Harris', is centered on the page.

J.F. Harris Ph.D.

(929-5867)



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Report for: Noble Metal Group Inc.,
801 - 409 Granville St.,
VANCOUVER, B.C.
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Job 960562

September 16, 1996

SAMPLES:

A single core sample, designated 96-2 257.5, was submitted for petrographic examination. The sample appears unmineralized, and was prepared as a standard thin section.

DESCRIPTION:

CONTACT OF MICRODIORITE AND TRACHYTIC-TEXTURED ANDESITE

Estimated mode

Microgranular portion

Plagioclase	34
Hornblende	38
Epidote	20
Chlorite	2
Quartz	3
Rutile	3

Aphanitic portion

Plagioclase	30
Hornblende	38
Epidote	13
chlorite	10
Quartz	2
Sphene	7

The sectioned area embraces the contact between two rock types of greenstone aspect. One (the speckled portion) exhibits a rather even, macroscopically granular texture. The other (the light greenish, featureless portion) is a much finer lithotype of aphanitic character.

In thin section the granular unit is found to consist essentially of hornblende and plagioclase. The hornblende occurs as individual sub-prismatic, sometimes skeletal grains, 0.1 - 1.0 mm in size, often in clumps, in a matrix of the plagioclase. The granularity of the latter is largely obscured by strong, rather even, pervasive saussuritization (speckling with fine-grained epidote and sub-opaque

material), but is probably similar to that of the hornblende - or consists of a combination of prismatic grains and a fine felsitic interstitial component.

The hornblende is generally fresh, but occasionally shows peripheral chloritization and/or incipient epidotization. Skeletal clumps of rutile are a minor associate.

Quartz appears to constitute a minor accessory in the plagioclase matrix, as occasional small, intergranular pockets. Some quartz also occurs as hairline veinlets.

The aphanitic unit is of closely similar composition, but differs texturally, with the hornblende forming abundant, tiny, acicular grains, 0.05 - 0.15 mm in length, intimately intergrown with a turbid felsitic matrix of saussuritized plagioclase. An imperfect orientation of the hornblende needles defines a sub-trachytic fabric. Sporadic, rather diffuse, altered phenocrysts, up to 1.0 mm in size, consist of epidote (after original plagioclase) and chlorite (after hornblende). Tiny specks of sphene are a rather abundant, evenly dispersed accessory.

These two lithotypes are varieties of andesite. The contact is simple and sharp, and may represent the interface between two flows, or, possibly, an intrusive contact between a flow and a microdiorite dyke rock. A few hairline veinlets of quartz 0.05 - 0.1 mm in thickness) cross-cut the contact.



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