DIAMOND DRILLING

GEOLOGICAL REPORT

for the

FIRE(Chzerpnough) and ICE(BNOB) Properties
Watson Lake Mining Division, Southcentral Yukon Territory
Mapsheets 105-F-09,10
Latitude 61° 35' N, Longitude 132°29'W
NTS 6832000 N / 633500 E

Prepared for:

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ASSESSMENT REPORT

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SUMMARY

The FIRE(formerly the Chzerpnough) and ICE(formerly the BNOB) properties consists of 226 contiguous units located in the McConnell / Ketza River area of the Yukon Territories, approximately 40 km south of Ross River. The claims are centered at Latitude 61° 35' N, Longitude 132°29'W; NTS 6832000 N / 633500 E. The claims are owned 100% by Eagle Plains Resources Ltd.

The claims overlie Mississippian aged intermediate to felsic volcanic rocks and similar aged sediments of the Pelly Mountain Volcanic Belt. The stratigraphy includes pyritic trachyte, pyritic lapilli tuffs, crystal tuffs, and volcaniclastic debris flows. Pre 2000 geological fieldwork on the properties identified favorable stratigraphy and mineralization associated with Volcanogenic Massive Sulphide (VMS) deposits including extensive barium – mercury – lead – zinc - silver soil geochemical anomalies and barite – sphalerite – galena - pyrite mineralization within a pyrite altered felsic volcanic package. The 2000 Eagle Plains Resources field program consisted of geological mapping followed by a 616 meter / 2021 foot diamond drilling program that targeted VMS style mineralization. VMS exhalitive type base metal mineralization similar to the nearby Wolf and MM deposits was intersected on both the FIRE and ICE properties at drill locations approximately 7km apart. Subsequent to the 2000 drill program, Eagle Plains Resources undertook an aggressive staking program to establish contiguous claims between the FIRE and ICE properties and also to stake targets generated by regional reconnaissance and research.

The FIRE and ICE claims have high potential to host a large VMS type metal deposit. Based on the results of work to date further work is recommended to continue to define prospective host stratigraphy using geochemistry and mapping, with follow-up diamond drilling. A budget for the proposed work is included with this report.

The total cost of the 2000 geological exploration work on the FIRE / ICE property was $149,921.10

LOCATION AND ACCESS (Fig.1, following page)

The FIRE / ICE claims are located in the south-central Yukon Territory between the Ketza River and McConnell River drainages, centered at approximately Latitude 61° 35' N, Longitude 132°29'W; NTS 6832000 N / 633500 E. Access to the property is by helicopter, with the nearest base in Ross River approximately 35 km north of the property boundary. Gear and personnel mobilization was carried out from the Ketza River Mine road located approximately 15 km east of the property boundary. There is also an established exploration trail located west of the ICE / BNOB showing area which could provide access from the Seagull Lake – Ground Hog Creek area. The claims cover alpine to subalpine terrain within the St. Cyr Range of the Pelly Mountains. Elevations on the claims range from 1150 to 2000 meters, with topography ranging from moderate to very steep. Outcrop exposure is 10 – 20 % with a thin veneer of colluvium or talus typically developed.

TENURE (Fig. 2 in pocket)

The property consists of 226 contiguous claims located on the Cloutier Creek and Pass Peak Map sheets. The claims are owned 100% by Eagle Plains Resources Ltd., with an underlying 1% NSR carried by Bernie Kreft of Whitehorse, Yukon.

Claim Name	Tenure Number	Mapsheet	Expiry Date
Ash 1-10	YB92830-839	105F-10	2001/09/14
Ash 11-12	YB92840-841	105F-09	2001/09/14
Ash 13-20	YB92842-849	105F-10	2001/09/14
ICE 1-6	YB74423-428	105F-10	2006/09/16
ICE 7-8	YB84555-556	105F-10	2003/09/16
ICE 9-10	YB87288-289	105F-10	2003/09/16
ICE 11-18	YB89927-934	105F-10	2003/09/16
ICE 19-46	YB92850-877	105F-10	2001/09/14
ICE 47-52	YB92878-883	105F-09	2001/09/14
ICE 53-78	YB92884-909	105F-10	2001/09/14
ICE 79-82	YB92910-913	105F-09	2001/09/14
ICE 83-104	YB92914-935	105F-10	2001/09/14
CHAR 1-30	YB84517-546	105F-09	2004/06/20
CHAR 31-40	YB92936-945	105F-09	2001/09/14
CHAR 41-42	YB93144-145	105F-09	2001/10/10
CHAR 43-44	YB93146-147	105F-09	2001/10/10
FIRE 1-12	YB74411-422	105F-09	2006/02/06
Cole 1-30	YB93030-059	105F-09	2001/09/14
Salt 1-16	YB93014-029	105F-10	2001/09/14

TOTAL: 226 units

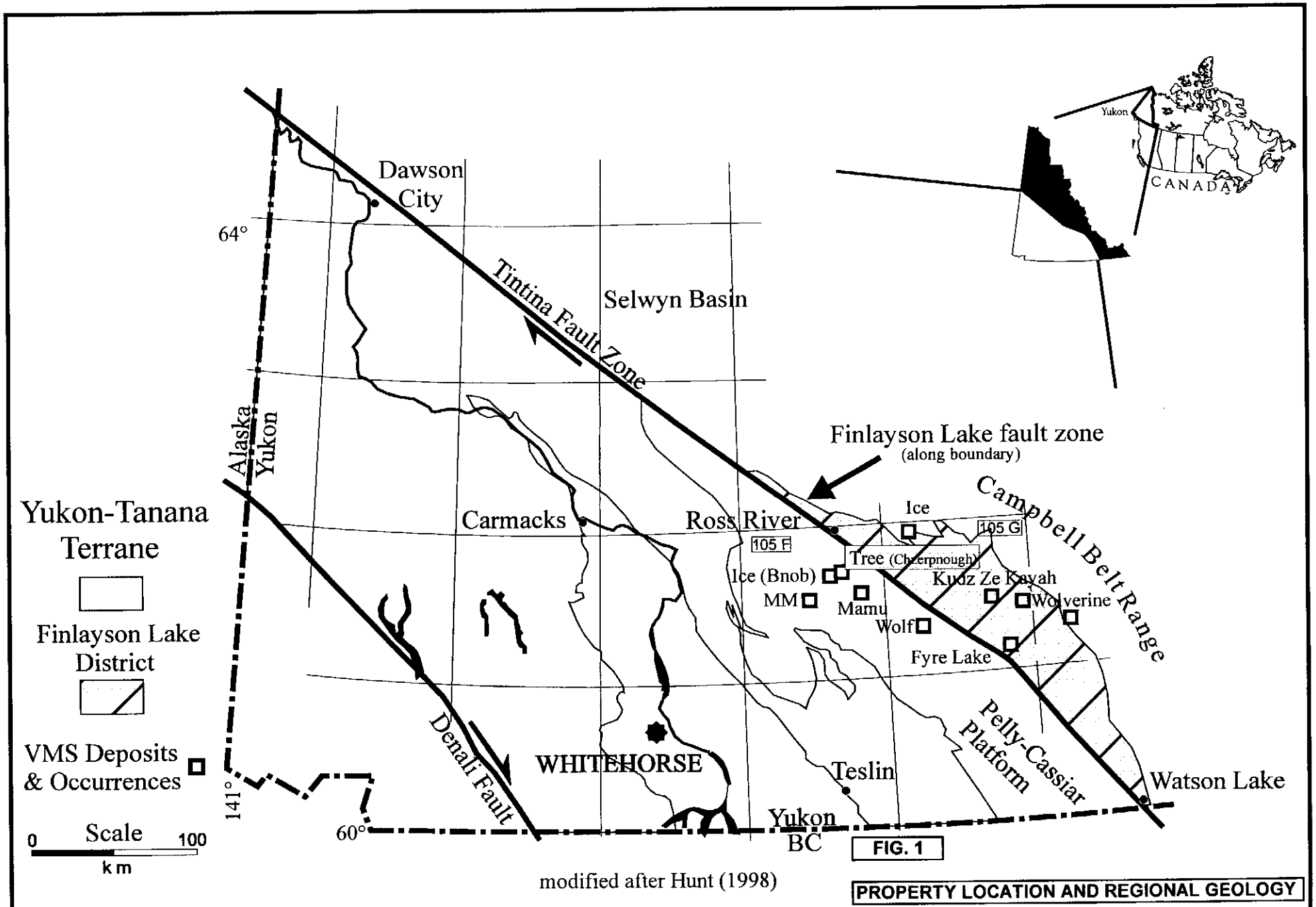

FIG. 1

modified after Hunt (1998)

PROPERTY LOCATION AND REGIONAL GEOLOGY

HISTORY AND PREVIOUS WORK

The FIRE and ICE showing areas are located approximately seven kilometers apart and have been worked in the past as separate properties. The original FIRE 1 – 12 claims were staked by Bernie Kreft of Whitehorse, YT, in 1996 on behalf of Eagle Plains Resources. The twelve contiguous claims were staked to cover a soil geochemical anomaly, a geophysical (magnetic and I.P.) target, and associated mineralized outcrops which were thought to represent a positive exploration environment for volcanogenic massive sulphide (VMS) mineralization.

The exploration target was originally recognized during an exploration program carried out by Cyprus-Anvil Mining Corporation in 1977 who worked the area as the Chzerpnough Claims. A soil geochemical survey conducted in 1977, using a chained and picketed grid, outlined soil anomalies that were interpreted as being (potentially) more extensive than would be expected from the mineralization observed in outcrop. Ground based magnetic and IP geophysical surveys conducted by Cyprus-Anvil revealed a small conductive target associated with a magnetic anomaly, coincident with both a large Zn-Pb soil geochemical anomaly and a sedimentary barite horizon outlined by previous workers.

After staking the FIRE claims in 1996, Eagle Plains Resources undertook a reconnaissance geological exploration program consisting of geological mapping, minor hand trenching, and sampling. The work program was designed to test the mineral potential of the property through following up on anomalous results from previous soil geochemical surveys and a previous geological mapping and sampling program. The program was conducted under the direction of John Dickie, M.Sc. The program identified many features associated with VMS type deposits including vent-proximal felsic volcanic stratigraphy, represented by lapilli-boulder tuff and clastic debris shed from a volcanic edifice, and a strong geochemical trend in talus fines, reflected by large anomalies with highly anomalous zinc, lead, silver and copper values. Anomalous fluorine, occurring as purple fluorite, was found associated with the vent-proximal stratigraphy. Since high fluorine values are commonly associated with lead-zinc mineralization in other volcanogenic massive sulphide deposits, fluorite is regarded as a positive exploration feature on the FIRE claims. The program also identified a distinct stratigraphic horizon mineralized with barite-sphalerite-galena and minor chalcopyrite that appeared to explain part of the soil anomaly. Selected rock samples returned up to 7.12% zinc, 7.82% lead, 72.9 gm/t silver and 1.063 gm/t gold. The sedimentary barite horizon containing sphalerite and galena could not be sampled due to extensive snow cover. The conclusions from the program were that mineralization appears to be stratiform and the strongest geochemical indications, from rock and talus fine sampling, are that the target horizon lies along the northwest edge of the property. As part of the 1996 program, additional contiguous claims(CHAR 1 – 30) were staked to cover prospective VMS stratigraphy to the northwest. Additional work was recommended for the FIRE 1-12 and CHAR 1-30 claims in order to further test the extent of known mineralization.

In 1997, Eagle Plains Resources continued geological work on the FIRE and CHAR claims with a program of hand trenching, geological mapping and rock sampling. The purpose of the work was to locate and assess a barite float train reported to occur on the property. The program successfully identified the barite float train without finding the source. Samples of barite float returned values of up to 56.1 gm/t Ag, 5760 ppm Pb and 812 ppm Zn. The program also located a heavily pyritized, flow banded rhyolite which returned values of up to 2280 ppm Pb and 1709 ppm Zn. Again, more work was recommended.

Eagle Plains Resources optioned the FIRE / CHAR claims to Atna Resources Ltd in October 1997 after Atna's discovery of VMS mineralization at the Wolf property in the Finlayson Lake area. In 1998 Atna carried out geological mapping, soil and rock geochemistry, and airborne and ground geophysical surveys

(see Fig.3, 4 in pocket). The program was very successful. Geological mapping confirmed the presence of a widespread package of silica and sericite altered intermediate to felsic volcanic and volcaniclastic rocks containing pyrite, barite, and galena. Associated with these rocks were a number of coincident barium – mercury – lead – zinc soil geochemical anomalies. Both the ground based MaxMin horizontal loop EM survey and the airborne EM – VLF surveys located anomalies consistent with that associated with the Wolf deposit mineralization. Although Atna recommended further work on the property including diamond drilling, the option agreement was terminated in 1999 and the property was returned to Eagle Plains Resources.

The ICE property was originally staked in 1976 as the BNOB claims resulting from a prospecting joint venture between Hudson's Bay Oil and Gas Company Limited and Cyprus Anvil Mining Corporation. The claims were staked to cover a surface showing of massive sedimentary barite. Work completed from 1976 to 1980 by Cyprus Anvil included soil sampling, mapping, magnetometer and EM geophysical surveying. In 1980 a single drillhole was completed in an attempt to test for VMS style mineralization associated with the barite horizon of 1980. The hole failed to intersect barite or VMS mineralization and it was interpreted to have been collared below the barite horizon (Pigage, 1980). This interpretation is borne out by more recent work which indicates that the hole was collared stratigraphically below the barite horizon.

The area was restaked in 1996 on behalf of Eagle Plains Resources Ltd as the ICE claims by Bernie Kreft of Whitehorse, Yukon. A program of limited geological mapping plus soil/talus geochemical sampling was completed along with prospecting during 1996. The grid geochemistry outlined an anomalous area of Zn/Pb geochemistry spatially associated with the trend of a bedded exhalitive? barite showing. A new showing of barite with galena and sphalerite was also discovered and sampled. In 1997, Eagle Plains Resources continued geological assessment of the ICE claims for VMS style mineralization. Hand trenching and rock sampling in the areas of the barite showings was undertaken. Results confirmed the tenor and style of the mineralization as VMS type and further work was recommended.

Atna Resources Ltd. optioned the property in 1997 after discovering the Wolf massive sulphide deposit within similar rocks 60km southeast of the ICE claims. The 1998 Atna program included geological mapping, gridding, soil sampling and 5.6km of ground HLEM geophysical surveys. Soil geochemistry defined three zones of coincident anomalous lead and zinc corresponding to the BNOB, ICE 1 and GULLY Zone showing areas. Geological mapping of the BNOB showing area defined a NE trending NW dipping strataform barite body occurring within a pyrite-lapilli tuff and a pyritic trachyte. The HLEM survey located two weak conductors which were interpreted to be related to a black, graphitic argillite unit occurring in the area of the anomaly trace. Atna geologists concluded that the BNOB barite showing occurs in the correct stratigraphic position relative to the Wolf property to represent the same mineralized horizon. A single drillhole was recommended to test the BNOB stratigraphy but was not drilled. The property was returned to Eagle Plains Resources in 1999.

GEOLOGY

Regional Geology

The volcano-sedimentary rocks which host the Wolf and MM deposits as well as the FIRE/ICE claims form a narrow arcuate belt that extends 80 kilometres along a northwesterly trend within the Pelly Mountains of the southwestern Yukon (Fig. 1). These rocks have been termed the Pelly Mountains Volcanic Belt (PMVB) by Hunt (1999) and are characterized by high potassium content and, locally, bedded barite and volcanogenic massive sulphide deposits and showings. The PMVB is early to middle Paleozoic in age and occurs within the Pelly-Cassiar Platform, considered to be part of ancestral North America (Templeman-Kluit, 1977). The tectonic framework for the Pelly Mountains area is described by Gabrielse and Yorath (1991), Templemen-Kluit and Blusson, (1977) and Gordey (1977) and is summarized below.

The miogeoclinal sequence and related rocks which underlie much of the Pelly Mountains are part of a large area about 70km wide and 600km long that is referred to as the Pelly-Cassiar Platform (PCP) (Fig.1). The PCP formed slightly outboard of, but parallel to the craton edge and consisted of a thick accumulation of volcanic rocks and related sediments upon which shallow water sedimentation, predominantly carbonate, took place until late Devonian time. To the northeast of the PCP during late Proterozoic through to Silurian time, a sequence of shallow water carbonates, tuffaceous shale and andesitic rocks were deposited on the western edge of ancestral North America in the Selwyn Basin and, to the south, in the Kechika Trough.

During late Devonian to Mississippian time, shale, greywacke, and chert pebble conglomerate was deposited over much of the PCP and Selwyn Basin. These rocks were derived from a westerly source, or from locally uplifted parts of the PCP. Felsic igneous activity, including intrusion and volcanism, occurred locally within the PCP, possibly within rifts or graben-like structures created by variable uplift and block faulting within the platformal rocks. Sedimentation resumed within PCP sub-basins during the Upper Triassic.

Deformation of the Paleozoic rocks took place post-Late Triassic and consisted of compression and/or transpression along a northeasterly axis which resulted in northwesterly trending and northeasterly verging folds and southwesterly dipping thrust faults. The Anvil-Campbell allochthon, part of the Omineca Crystalline belt, was emplaced during this event as a large thrust-sheet and is now preserved as local klippen on mountain ridges. An anastomosing system of steeply dipping, strike-slip faults related to movement along the northwesterly trending Tintina Fault cuts the folds and thrust faults and extends for up to 20 kilometres southwest of the Tintina Trench. Late normal faults cross-cut earlier structures and divide the region into a number of panels which commonly represent different structural levels. Cretaceous intrusions develop thermal and structural aureoles in the western part of the Pelly Mountains. Metamorphism and degree of deformation varies from block to block but generally increases in a westerly direction and varies from lower to upper greenschist facies.

The Pelly Mountains Volcanic Belt is composed of localized volcanic centres separated by basins in-filled with sediments and volcaniclastic rocks. Associated with these volcanic rocks are at least two VMS deposits (the Wolf and the MM) and a number of historical showings, including the Chzerpnough (FIRE claims), and the BNOB (ICE claims).

The volcanic rocks are predominantly felsic, but in some areas significant accumulations of andesite to basalt occur. The most common feature of the belt are flows, epi-zonal sills, and small plugs of trachyte. The trachyte flows and/or sills are laterally very extensive, probably due to low magmatic viscosity caused

in part by high alkali element content. Typically the trachyte contains significant amounts of pyrite which gives rise to extensive gossans. The trachytes are commonly cream coloured, with very fine to medium grained phenocrysts of feldspar and rare quartz and are locally massive, amygdaloidal or brecciated. Syenite intrusions have been noted at a number of locations within the PMVB (Mortensen, 1981; Morin, 1977) and are thought to be rounded plugs which represent volcanic feeders. Although they may still represent volcanic feeders, drill data from the Wolf and ICE properties indicates that the syenite intrusions are sills.

The structural and stratigraphic relationship of the Pelly Mountains Volcanic Belt with other parts of the Pelly-Cassiar Platform are not always clear. In the southern part in the belt near the Wolf deposit, the PMVB rocks are separated from platformal carbonates and associated sediments by thrust, and possibly, steeply dipping normal faults. In the northeastern most part of the belt, immediately northeast of Ketza River Mine site, the volcanic sequence is very thin (+/- 100m) and is overlain by chert and chert pebble conglomerate and underlain by shale. Both contacts appear conformable but are not well exposed.

The shale and conglomerate are considered age equivalent with the volcanic rocks that have been mapped in conformable relationships by Gordey (1977). On the FIRE (Chzerpnough) and Tree claim area, the PMVB appears to conformably overlie, and in places be intercalated with, a relatively thick sequence of shale and minor greywacke. Similarly on the Mamu property, adjacent to the McConnell River, volcanic rocks conformably overlie an extensive shale-greywacke sequence. On the ICE (BNOB) property, between the Tree-FIRE and Mamu properties, the volcanic rocks are surrounded by an argillite-limestone sequence that appears to be continuous with the shale-sequence of the FIRE property. Gordey (1977) describes a Siluro-Devonian assemblage of shallow water dolomite and platy siltstone which represent a stable marine carbonate bank environment, and are supposed basement for the PMVB. The Siluro-Devonian siltstones, however, are quartz bearing and tan weathering and do not seem to be a good match with the shale attached to the Pelly Mountain Volcanic rocks. Similarly, the younger Triassic sedimentary package has not been observed in contact with PMVB. Consequently, there is little or no contact information that gives a clear indication of the tectono-stratigraphic environment in which the PMVB was deposited other than the nature of the rocks within the belt itself.

The platformal setting on the continental margin, the high potassium geochemistry of the volcanic rocks, and the presence of bedded barite and volcanogenic massive sulphide deposits indicate that the Pelly Mountain Volcanic Belt was likely deposited in a continental rift-type environment (Mortensen and Godwin, 1982). The coarse volcanic debris flows that overlie the Wolf deposit indicate a high energy environment consistent with a graben type structure.

Property Geology

FIRE PROPERTY (see also Appendix III, Fig. 4 in pocket)

The stratigraphy of the FIRE 1-12 claims consists of (1) a basal carbonate unit of probable Silurian-Devonian age which crops out close to the McConnell River Valley and appears to be related to other base-metal and skarn-type mineral showings in the region, (2) siliceous, medium-to dark-grey, carbonaceous argillite (commonly phyllite to slate), believed to be Mississippian in age, and (3) rhyodacite to rhyolite tuffs and flows, ranging from unwelded ash to lapilli tuff and agglomerate, to aphyric, locally amygdaloidal flows. The felsic volcanic succession is dominated by fine to coarse lapilli tuffs and flows. Felsic (rhyodacite to dacite) dykes and sills intrude the felsic stratigraphy but are probably comagmatic with the surrounding rhyolitic-trachytic extrusive succession.

Felsic volcanic rocks weather pale green-grey to buff and are dark green-grey on fresh surfaces in non-mineralized zones. Where pervasive mineralization occurs, typically in the form of disseminated pyrite, reaching 10-12% locally, the rocks are heavily oxidized and stained bright red. Amygdules within flows contain either silica or a combination of silica and pyrite. The latter is a positive exploration indicator and, where base metal mineralization within amygdules can be identified, amygdules may serve as a vector for locating massive sulphide bodies, as has been demonstrated for the deposits in the Noranda region in the Canadian Shield. A number of chalcopyrite (rare galena) blebs within amygdaloidal rhyolites on the property indicate a proximity to a base metal source.

The stratigraphy of the property is relatively simple, although intercalations of various volcanic flows and fragmental facies have created a repetitious succession, a feature expected of near-vent (proximal) facies associations in a VMS setting. Following is a more detailed description of the FIRE / CHAR claims stratigraphy developed by Atna in 1998:

Volcanic rocks: Augite bearing mafic through to felsic or unmineralized trachytic primary volcanic flows, crystal tuffs, and synvolcanic intrusions. Includes monolithic or near monolithic lapilli tuffs, crystal or ash matrix supported heterolithic lapilli tuffs, lapilli tuffs with large, generally angular, (10cm to greater than 40cm) blocks or bombs, lapilli tuffs bearing evidence for deposition in hot volcanic flows (alteration rims on clasts or fragments or partially reabsorbed clasts or fragments). Included within this unit are altered (silicified) rocks, often of uncertain protolith. Alteration of these rocks is assumed to be hydrothermal and syngenetic, suggesting a proximal position to a volcanic centre. The occurrence of occasional accidental sedimentary fragments was noted in all the above rock types. While this unit is primarily volcanic it also includes minor layered tuffs and argillites that are interpreted as interflow deposits.

Volcaniclastic rocks: Intermediate to felsic volcaniclastic debris flows and deposits, crystal or ash tuffs with evidence of tuffaceous layering (reworking). This unit includes clast supported heterolithic lapilli tuffs, heterolithic lapilli tuffs with extreme clast variability, lapilli tuffs with a large percentage of sedimentary fragments. Clast size is usually less than 10cm. This unit also encompasses sections that include pyroclastic flows (not uncommon) or other volcanic flows or sills. However, this assemblage is dominantly composed of volcaniclastics +/- argillite. Also included in this unit is a rare occurrence of monolithic lapilli tuff with rounded siliceous clasts.

Mineralized horizon: Intermediate to felsic volcanic to volcaniclastic rocks that are altered (silica and/or sericite) or altered and mineralized with pyrite, barite or rarely galena. Although dominantly composed of ash and lapilli and lithic lapilli tuffs, this unit hosts a significant quantity of mineralized "yellow" trychyte.

In hand sample, the trachyte typically displays ghosts of <2mm feldspar and/or monolithic or heterolithic fragments and /or a breccia texture defined by silica+/- sericite veinlets. Less commonly, a <2mm white feldspar porphyrtic trachyte occurs. The trachyte, and to a lessor degree, all the rocks comprising this unit can be extremely hard, grey, silica over sericite altered or softer yellowish green sericite over silica altered. Less intensely altered and mineralized trachytes that are interpreted to occur in the less intensely altered and mineralized "distal" portions of the mineralized horizon can appear to have a chalky, more brittle "porcelaineous" alteration. The mineralization that defines the mineralized horizon consists of fine-grained disseminated pyrite and approximately 1% green barium mica (?). Locally and usually internal to the horizon the pyrite mineralization intensifies to massive dissemination's and/or irregularly oriented ptigmatically folded veinlets.

Trachyte and mud chip conglomerate: A 1 to 5 meter thick, well sorted and graded trachyte and mud chip conglomerate, or bedded tuff grading to massive lithic lapilli tuff unit that directly overlies the mineralized horizon.

Limestone and argillite unit: Brown to buff weathering, fine-grained grey fresh surface, probably in most part tuffaceous limestone interbedded on a centimeter to decimeter scale with dark grey to black argillite. Locally, this unit maybe intercalated with lapilli lithic tuff. On the western portions of the FIRE claim block this unit is thin, less than 20 meters, and forms a readily recognizable marker unit that is stratigraphically positioned directly over the mineralized horizon. Where the stratigraphy is less well defined, on the eastern portions of the claim block, a limestone-argillite unit is positioned above one mineralized horizon, but is separated from the horizon by 75+ meters of lithic lapilli tuffs. These tuffs grade up into bedded tuffs and into a lime-stone-argillite unit. Close to this locality, a mineralized horizon occurs above the limestone –argillite unit. A limestone-argillite unit was not seen in much of the volcanic stratigraphy that underlies the claim block.

Unmineralized trachyte: Unmineralized trachyte occurs at various intervals throughout the volcanic stratigraphy on the FIRE/CHAR claims

Purple weathering volcanic or volcaniclastic lithic lapilli tuff: A distinctive purple, flaggy weathering, fine-grained, feldspathic, minor black argillite (?) lithic fragments volcanic or volcaniclastic unit that occurs locally at the northeast end of the property.

Argillite: Grey to black weathering and fresh surface, generally foliated, often well laminated or bedded, occasionally lineation or crenulated, occasionally carbonaceous, fine-grained argillite. This unit occurs in thick (10-75 meter) "sub basins" in the volcanic stratigraphy, as thin (less than 10 meter) inter-volcanic flow sedimentary packages throughout the volcanic stratigraphy. Argillite is frequently intercalated with thick to thin bedded tuffs, minor limestone, or more rarely, thick bedded volcanic flows(?).

Most of the rocks on the FIRE property lie on the gently northerly-dipping limb of a large-scale antiform that is part of a train of west-northwesterly to northwesterly trending, gently dipping folds that appear, in general, to be tighter to the NW. Although the rocks have been deformed the stratigraphy appears to be intact and many primary volcanic textures are preserved and readily recognizable; although the work is preliminary, the minor structures observed are not suggestive of severe structural disruption, overturning or other such complication.

The rocks have a ubiquitous S1 fabric, expressed in the less competent lithologies (fine grained clastic rocks; ash, and fine to medium grained tuffs) as a pervasive phyllitic foliation, and in the more competent lithologies as a less obvious though still pervasive spaced cleavage; a second phase crenulation cleavage is

also common, and particularly notable in the well-foliated metasedimentary rocks and finer grained tuff. The stratified rocks on the property outline broad-wavelength, open folds which appear to post-date the foliation-forming event. A strong joint system measured on the property is best developed within either massive flows or indurated, coarse crystal, lithic tuff.

At least one major fault cuts across FIRE the property. A cataclastic zone containing a quartz stockwork infill occurs close to the saddle near the centre of the claim group. The stockwork contains chalcopyrite, malachite, galena and sphalerite. A biotite-phyric basalt dyke cuts through the centre of this zone and appears to have intruded along the plane of the fault. It is unclear if the stockwork zone is related to the fault or if it is a stratigraphic feature related to sulphide mineralization.

ICE PROPERTY

Bedrock exposure on the ICE property is about 2% and is mostly limited to small to medium sized outcrops along the southern side of the dome in the central part of the property. An exception to this is the northwest slope of the dome where a 300 by 200m area of syenite outcrop is exposed. The lack of bedrock exposure and the supergene oxidation of what exposure there is make it difficult to determine the property geology.

In general, the rocks exposed on the ICE property are similar to parts of the stratigraphy on Atna Resources' Wolf property (Wilson, Holbek 1999). The volcanic rocks of the Pelly Mountains Volcanic Belt (PMVB) on the ICE property are bounded to the west by a fault, marked by the McConnell River. On the other three sides the volcanic rocks are bounded by underlying or overlying shale and argillite (+/- carbonate) that appear to be conformable and part of the PMVB, or the Devonian to Mississippian Black Clastic unit (Pigage, 1980), or the Upper Triassic assemblage of shale, siltstone and carbonate (Gordey, 1977). On the western side of the property rocks strike northeasterly and dip moderately to the northwest, whereas on the eastern side of the property the rocks dip gently to the east. The dips are defined primarily by foliation surfaces and suggest a refolding of S1 axial plane cleavage. If the change in dips reflects a fold, then the axial plane of this fold trends northeasterly across the middle of the property and the shale unit to the east and north would overlie the volcanic rocks, if they are right side up.

There is insufficient exposure to determine the actual volcanic stratigraphy on the ICE property but a number of units can be recognized. The western most outcrop exposure is a relatively large area of syenite (Fig. 4 in pocket). This unit consists of fine to medium grained, equigranular, pink to grey feldspar and hornblende. The rock is fresh in appearance, unfoliated and has blocky weathering in outcrop due to widely spaced, perpendicular joint sets. Initially this unit was thought to represent a small plug or pipe-like intrusion. Based on limited exposure, however, the lower contact appears to be somewhat strataform and this unit wasn't intersected in the Cyprus-Anvil drill hole, indicating that it may be sill like.

To the south of, and in fault contact with the syenite is an outcrop of pyritic trachyte. This unit appears to be in the apex of two faults or a fault and intrusive contact. Below the trachyte in contact with the north side of the syenite is a strongly foliated unit of fine lapilli tuff with rare pyrite fragments and moderate to intense sericite alteration. The altered lapilli tuff hosts the barite horizon which is best exposed on the southwest slope of the property. Below the altered lapilli tuff (to the east) is a package of ash to lapilli tuffs which commonly contain up to 5% disseminated pyrite.

Mineralization and alteration

FIRE PROPERTY

Mineralization identified to date on the FIRE is of two types. The first is sucrosic sedimentary barite with bands of disseminated pyrite and galena. Barite mineralization in best developed as float boulders, but has been identified in-situ in some locations on the property and was intersected in 2000 diamond drilling in diamond drillholes F00-02,03,04,and 05. Where found in place, the barite is associated with yellow to orange gossan horizons developed within a trachyte unit. Geochemically the barite mineralization is highly anomalous in silver, lead, and cadmium, and weakly anomalous in zinc. The second type of mineralization is flow-banded rhyolite with syngenetic pyrite. In comparison to the barite mineralization, the rhyolite is more anomalous in zinc, copper and cadmium, and weakly anomalous in silver and lead.

Alteration on the FIRE property is predominantly represented by a quartz - sericite – pyrite assemblage, with local chlorite and rare fluorite. Diamond drill hole F00-01 intersected a zone that possibly represents a skarn type of alteration with pervasive hematite - silica – epidote flood. The hole also cut a zone of pervasive to selective-pervasive potassium feldspar flood and veining.

ICE PROPERTY

Mineralization on the ICE property consists of bedded barite locally containing significant galena, sphalerite, and accessory pyrite. Mineralization is found in-situ at the BNOB and Greig showing areas, and also in extensive float boulder showings in a number of locations including the gully Zone and the ICE1 Zone. At the BNOB showing the barite is strataform, up to 4m in width, and is exposed in trenches and outcrop over a strike length of 250m. The Greig showing area, identified by Eagle Plains Resources in 2000 and successfully tested by 2000 drilling, is only partially exposed at the toe of a syenite talus field. The strataform bedded barite here contains sphalerite, galena and pyrite.

Alteration noted from drillhole I00-01 includes strong sericite and pyrite flood with local strong silicification.

2000 WORK PROGRAM

The two phase 2000 work program on the FIRE/ICE properties was directed toward diamond drill testing to locate VMS style mineralization. The initial phase was completed in July 2000 and consisted of geological mapping and ground truthing of past work. Field crews were stationed in Ross River and mobilized to the properties using a Trans North Helicopters Bell 206. Field mapping carried out by C. J. Greig, PhD focused on areas of prospective VMS host stratigraphy identified in past work programs. Priority drill targets on both properties were identified.

The second phase of the 2000 FIRE / ICE exploration work involved diamond drill testing of selected phase one targets. Aggressive Diamond Drilling from Kelowna, B.C. was contracted to carry out the work using a modified JKS 300 hydrostatic fly type rig. The diamond drill, supply pump, waterline, drill rods and casing, and camp gear were hauled to the mobilization site on the Ketza River Mine road using two pickup trucks and two trailers. The equipment was mobilized to the FIRE and ICE properties using a Trans North Helicopters Bell 206 out of the Ross River base. The four man crew, consisting of a drill foreman, drill helper, geologist and field technician, was billeted in fly camps established on each property. Travel to the drill was on foot, with the helicopter used only for camp and drill moves. The drilling was completed during the period of August 06 – August 25, 2000. A single shift was used for drilling which averaged approximately 140 feet per 12 hour shift including camp and drill moves.

On the FIRE property, six holes were collared on two different sites, and a single hole was completed on the ICE property. On the FIRE property, DDH F00-02, the first hole at the second drillsite, was lost when the rods stuck in permafrost. A summary of the drilling follows :

	Hole #	UTM Coordinates(N/E)	Azimuth	Dip	Depth(meters / feet)
FIRE	F00-01	6835045/635455	260°	-70°	227.1 / 745
	F00-02	6834364/635620	265°	-78°	41.1 / 135
	F00-02A	6834364/635620	265°	-90°	10.7 / 35
	F00-03	6834364/635620	175°	-50°	49.1 / 161
	F00-04	6834364/635620	355°	-50°	60.0 / 197
	F00-05	6834364/635620	265°	-78°	121.0 / 397
ICE	I00-01	6830092/630969	006°	-87°	107.0 / 351
				TOTAL :	616 m / 2021 feet

The drill core was logged on site and selected samples were split and shipped to Northern Analytical services for analysis. Most of the samples were analyzed for 30 element ICP using aqua-regia digestion. All samples were collected, handled, catalogued and prepared for shipment by Eagle Plains Resources staff. The coreboxes were labeled with metal tags, stacked near the drill collars and covered with core box lids for protection. DDH I00-01 is stored in entirety in Whitehorse.

All exploration and reclamation work was carried out in accordance to the Yukon Mining Act.

Total 2000 exploration expenditures by Eagle Plains Resources on the FIRE Property was $95,383.00, while $54,538.10 was spent on the ICE.

2000 PROGRAM RESULTS (Fig. 4 - 8 in pocket)

FIRE PROPERTY

A total of 509m / 1670 feet of diamond drilling from two different sites was completed on the FIRE property in 2000. Geological mapping by C. Greig and ground truthing of soil geochemical anomaly locations directed the locations of the hole collars.

Diamond Drillhole F00-01(AZ 260° / DIP –70°) was collared at an elevation of 1530m and targeted the lower part of the ICE property volcanic stratigraphy, a sequence of altered (quartz-sericite(?)-pyrite) tuffaceous rocks, with a coincident lead – zinc barium soil geochem anomaly and an EM conductor. The hole intersected a thick sequence of volcaniclastic and volcanic rocks with local weak to moderate sericite-quartz alteration. The hole collared in a strongly graphitic argillite package which is postulated as a possible source for the EM anomaly. The best mineralization was associated with a pyritic lapilli tuff unit from 24.7m to 48.1m. A series of conformable 2-15 cm thick bands of massive pyrite with associated carbonate, quartz, and rare galena was intersected. The best geochemical values were from 29.6-30.3m which returned values of 2.9gm/t Ag and 1652 ppm lead over 0.7 meters. From 79.2 – 103.3 meters, the drillhole intersected selective epidote? – hematite skarn type alteration associated with a strongly silicified crystal tuff unit. Turbidite and flow-type textures were generally better developed at depth, in places associated with strong pervasive silicification and bleaching and rare quartz veins with orange feldspar alteration. The hole ended at a total depth of 227.1 meters (745 feet) in a package of interbedded volcanics with rare argillite beds.

Diamond Drillholes F00-02, 02A, 03, 04, and 05 were collared from the same drillsite at an elevation of 2002m. The target was a coincident lead-zinc soil geochemical anomaly associated with a well developed gossanous trachyte outcrop. Four of the five holes intersected strataform barite mineralization. The initial hole collared on the setup, F00-02A(-90°), was stopped above the barite horizon at 10.7m (35 feet) depth due to oblique core angles. The hole was recollared as F00-02(Az 265° / Dip -78°) and intersected a zone of strataform barite from 23.0 – 38.1 meters. The hole was completed to a depth of 41.1m / 135 feet where it was lost due to the drill rods freezing in permafrost ground. The drill was then turned 90° to F00-03(Az 175° / Dip -50°). F00-04(Az 355° / Dip -50°) was drilled at 180° to F00-03. Both of these holes were stopped in the barite horizon footwall. DDH F0-05(Az 265° / Dip –78°) was a redrill of F00-02 and tested the nature of the volcanic package at depth. A summary of the barite horizon hangingwall to footwall intersections follows:

Hole #	Barite Horizon Depth / Width	Geochemistry (ppm)
F00-02	23.0 - 38.1m / 15.1m	22.39 Ag, 50 Cu, 51 Cd, 4930 Pb, 6033 Zn
including :	30.2 - 31.8m / 3.3m	65.5 Ag, 109 Cu, 162 Cd, 4930 Pb, 2.16% Zn
F00-03	23.5 - 32.5m / 9.0m	6.7 Ag, 40 Cu, 22 Cd, 482 Pb, 2216 Zn
F00-04	43.2 - 50.7m / 7.5m	13.1 Ag, 42.5 Cu, 330 Cd, 929 Pb, 2668 Zn
F00-05	24.6 – 36.3m / 11.7m	15.4 Ag, 37 Cu, 39 Cd, 1624 Pb, 3081 Zn

The holes were collared in a thin bedded to thin laminated weakly sericitized volcaniclastic unit that is thought to correlate with Atna Resources mineralized horizon. The barite horizon occurs within this upper package. The immediate barite horizon hangingwall is a distinct package of dark green fine grained thin laminated argillite or possibly volcanic muds that may correlate with Atna's limestone and argillite unit. This horizon typically has 10 – 20% barite as replacement and nodules. Beneath this unit is a zone of massive to semi-massive white to grey barite with 20 - 30 % green argillite and 5 – 20% fine grained pyrite

in disseminations and replacement features. This barite rich horizon grades into another unit of green argillite or volcanic mud with 10 – 20 % barite replacement. Contacts between the barite hangingwall – barite horizon – barite footwall appear to be conformable where preserved. Underlying the barite horizon is a package of volcanic and volcaniclastic rocks including tuffs, crystal tuffs, lapilli tuffs, fragmentals, and multilithic breccias. In places, there is well developed silicification and pyritization which is associated in part with anomalous metal values. A fragmental unit with 8 – 15% pyrite replacement returned values of 5 ppm Ag and 1966 ppm Zn over a 6.5m width interval from 63.1m to 69.6m. DDH F00-05 was the longest hole completed from this set-up with a total depth of 121m / 397 feet. The hole ended in a zone of mixed volcanic breccia and lapilli tuff.

ICE PROPERTY

A single drillhole was completed on the ICE property. DDH I00-01(Az 006° / Dip –87°) was run to a total depth of 107m / 351feet. The target was an outcrop of sucrosic bedded barite with sphalerite, pyrite and galena identified by Charlie Greig during 2000 fieldwork. The hole was collared in a blocky, strongly jointed syenite sill? unit that appears to overlie the barite horizon at this location. Underlying the syenite is a volcanic package that includes pyritic lapilli tuffs and multilithic breccias and debris flows. Within this volcanic package is a sequence of barite / pyrite / sphalerite mineralization thought to be of exhalitive origin.

The first barite was noted from 30.2 – 33.3 meters as a replacement mineral in a fine grained pyritic lapilli tuff. Barite content increased downhole and from 35.6m – 67.8 m a zone of semi-massive to massive barite was intersected. The top of this zone from 35.6 – 45.0m was laminated medium grey semi-massive to massive barite with 2 – 5 % fine grained pyrite and 0.5% fine grained galena. Core angles within more massive barite at the top of this interval indicate that the barite mineralization is locally conformable and nearly flat lying. The best interval within this barite zone was 33.2 – 36.3 meters which returned values of 11.4 gm/t Ag, 61 ppm Cu, 3180 ppm Pb and 1.1% Zn over 3.1meters true width.

Lying beneath this cap of massive to semi-massive barite is a series of barite horizons associated with a pyritic lapilli tuff unit. Barite occurs as both replacement of volcanic rocks and as discrete thin laminated exhalitive type intervals. Within these laminated intervals, lamination(bedding) angles to core axis are widely variable ranging from 0° tca to 80° tca. Within the pyritic volcanic unit, bedding is generally 70 – 80°tca. Pyrite flood is generally well developed with up to 30% very fine grained pyrite over 0.9 meters from 73.5 – 77.4m. From 56.7m – 58.0m sphalerite and galena occur as laminations and disseminations within a strongly pyritized, barite replaced tuff. Geochemical analysis returned values of 28.4 gm/t Ag, 1203 ppm Cu, 8620 ppm Pb and 5.64% Zn over 1.3 meters. Colloform pale yellow sphalerite with galena was noted from 58.8 – 62.5 in a similar pyritic, baritic zone. Geochemical results over 4.5m were 10.4 gm/t Ag, 71 ppm Cu, 1373 ppm Pb and 6617 ppm Zn. The last barite zone was noted from 77.4m to 78.6m with an apparently conformable zone of semi-massive barite.

From 78.6 to the end of the hole a strongly to moderately pyritized sequence of volcaniclastic and exhalitive type rocks were intersected. The interval was anomalous in Ag, Cu, Pb and Zn. The hole was shut down at a depth of 107 m / 351 feet due to drilling problems associated with a swelling clay horizons at 90.5 – 91.3m and 96.2 – 96.5m. Overall, the hole was strongly fractured, with numerous fault and rubble zones.

Eagle Plains Resources carried out an aggressive staking program in the McConnell River – Ketza River area based on the preliminary results of the diamond drilling program.

CONCLUSIONS AND RECCOMMENDATIONS

Results from the 2000 exploration program on the FIRE / ICE claims are extremely encouraging. Initial geological mapping and reconnaissance of anomalous soil and rock geochemical anomalies identified stratigraphy thought to be prospective for VMS style mineralization. Diamond drill testing intersected bedded exhalitive type barite mineralization on both the FIRE and ICE properties approximately 7 kilometers apart. The barite is highly anomalous in silver, zinc, lead and copper and appears to be strataform in part.

A two phase work program is recommended to continue to evaluate the FIRE / ICE property for the presence of a VMS deposit. An initial stage of mapping, prospecting, geochemical sampling and possibly airborne geophysics should be used to identify targets for a second phase diamond drilling program.

Detailed geological mapping should be directed toward defining lithological and alteration trends within the volcanic package. A detailed stratigraphic subdivision underpinned by systematic slabbing and staining of rocks will better define the presence of synvolcanic structures and exhalitive type alteration signatures. The identification of thick flows, tuff-breccia, or coarse lapilli could be used to locate volcanic centers which are the source for VMS type mineralization. A more detailed understanding of the stratigraphy will also resolve the relationships between the geochemical anomalies and may indicate the presence of stacked exhalitive horizons controlled by a common structure. Longer stratigraphic drill holes may help to define geology in areas of poor exposure. Mapping should also focus on establishing the stratigraphic relationship between the FIRE mineralization and the ICE mineralization.

Reconnaissance soil geochemical sampling and prospecting should be carried out on the new claims staked in 2000, with follow-up detailed sampling and mapping to identify drill targets.

The veracity of geophysical conductors is complicated by the presence of graphitic rocks within the volcanic package which may mimic the response associated with VMS mineralization. Detailed soil geochemistry in areas identified by past geophysical surveys may help to establish the presence of mineralized horizons and help direct drillhole location. Air borne radiometric surveys could be used to identify potassic - sericitic alteration zones typically associated with VMS type mineralization.

Geological targets identified with the first phase of work should be prioritized and then tested with a helicopter supported diamond drilling program.

Exploration crews should be based out of fly camps on the properties. It is estimated that the first phase of work would take approximately four weeks, with the second phase program contingent on results from the first phase. A portable rock saw would be useful for preparing rock slabs for staining and cutting drill core.

A budget for the proposed work follows :

PHASE 1

Personnel	$45,000.00
Geophysical Survey	$10,000.00
Helicopter Support	$20,000.00
Analytical	$10,000.00
Meals/Grocery	$6,000.00
Truck and Equipment Rentals	$2,000.00
Fuel (Diesel, Gasoline, Propane)	$2,000.00
Supplies	$5,000.00
Miscellaneous	$5,000.00
Sub-Total :	$105,000.00
10% Contingency :	$10,500.00
TOTAL Phase 1 :	$115,500.00

PHASE 2

Diamond Drilling	$215,000.00
Personnel	$25,000.00
Helicopter Support	$65,000.00
Mob/Demob	$5,000.00
Analytical	$10,000.00
Meals/Grocery	$6,000.00
Truck/Equipment Rentals	$5,000.00
Fuel (Diesel, Gasoline, Propane)	$4,000.00
Supplies	$4,000.00
Miscellaneous	$6,000.00

Report/Reproduction	$5,000.00
Sub-Total :	$350,000.00
10% Contingency :	$35,000.00
TOTAL Phase 2 :	$385,000.00
TOTAL Phase 1, Phase 2 :	$500,500.00

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Wilson, Rob. G. and Holbeck, P. (1999): Project Report on the Ice Property; Atna Resources Internal Report

Appendix I

Statement of Qualifications

CERTIFICATE OF QUALIFICATION

I, Charles C. Downie of 122 13th Ave. S. in the city of Cranbrook in the Province of British Columbia hereby certify that:

1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).

2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.

3) This report is supported by data collected during fieldwork as well as information gathered through research.

4) I personally supervised the diamond drilling program, logged the drill core and supervised the core sampling.

5) I hold 125,000 shares of Eagle Plains Resources; I Hold an option to purchase a further 25,000 Common Shares of Eagle Plains at $0.25 per share.

Dated this 10st day of November, 2000 in Cranbrook, British Columbia.

Charles C. Downie, P.Geo.

Appendix II

Statement of Expenditures

STATEMENT OF EXPENDITURES

The following expenses were incurred on the FIRE / ICE Claims, Watson Lake Mining Division, for the purpose of mineral exploration between the dates of June 01 2000 and October 31 2000.

	FIRE	ICE
PERSONNEL		
T. Termuende, P. Geo: 11 days x $425/day	$2125.00	$2550.00
C. Downie, P. Geo: 20 days x $250.00/day(incl. mob/demob)	$3500.00	$1500.00
EQUIPMENT RENTAL		
4WD Vehicle: including mileage	$2609.57	$3132.05
5-Ton Trailer: 7.0 days x $100.00/day	$350.00	$350.00
Radios (2x): 14 days x $20.00/day	$140.00	$140.00
Camp equipment:	$200.00	$200.00
OTHER		
Diamond Drilling:	$46692.80	$11392.52
Meals/Accommodation/Groceries:	$1270.33	$2521.59
Project Management Fees(Toklat Resources) :	$7874.21	$4623.39
Fuel:	$370.52	$501.20
Camp Materials:	$510.23	$539.17
Consultants::Bernie Kreft & Associates; Charlie Greig;	$8222.74	$6205.23
Airfare:	$1951.00	$1951.00
Helicopter Charter:	$11586.70	$11392.52
Shipping:	$116.69	$169.49
Analytical:	$6773.64	$2108.44
Miscellaneous unallocated GST(project management,rental)	$748.24	$550.44
Miscellaneous:	$0.00	$76.26
TOTAL:	$95,383.00	$54,538.10
TOTAL GST:	$5,899.59	$3,575.09

Total Expenditures for 2000 Exploration Program: $149,921.10

The following expenses were incurred on the FIRE / ICE Claims, Watson Lake Division, for the purpose of mineral exploration and claim staking between the dates of June 01 2000 and October 31 2000.

Staking:	$30740.02
Equipment Rental:	$2403.04
Meals/Accommodation/Groceries:	$648.50
Filing Fees :	$40.00
Handling Fees :	$3795.79
Fuel:	$28.23
Maps / Repro:	$90.84
Consultants:	$642.25
Helicopter Charter:	$1776.20
Analytical:	$1488.21
Miscellaneous:	$100.01
TOTAL:	$37,957.90
GST :	$2483.23

Appendix III

Extended Geology Legend

Tree-Fire geological map extended legend

After Daubeny and Greig

Volcanic rocks: Augite bearing mafic through to felsic or unmineralized trachytic Primary volcanic flows, crystal tuffs, and synvolcanic intrusions. Includes monolithic or near monolithic lapilli tuffs, crystal or ash matrix supported heterolithic lapilli tuffs, lapilli tuffs with large, generally angular, (10cm to greater than 40cm) blocks or bombs, lapilli tuffs bearing evidence for deposition in hot volcanic flows (alteration rims on clasts or fragments or partially reabsorbed clasts or fragments). Included within this unit are altered (silicified) rocks, often of uncertain protolith. Alteration of these rocks is assumed to be hydrothermal and syngenetic, suggesting a proximal position to a volcanic centre. The occurrence of occasional accidental sedimentary fragments was noted in all the above rock types. While this unit is primarily volcanic it also includes minor layered tuffs and argillites that are interpreted as interflow deposits.

Volcaniclastic rocks: Intermediate to felsic volcaniclastic debris flows and deposits, crystal or ash tuffs with evidence of tuffaceous layering (reworking). This unit includes clast supported heterolithic lapilli tuffs, heterolithic lapilli tuffs with extreme clast variability, lapilli tuffs with a large percentage of sedimentary fragments. Clast size is usually less than 10cm. This unit also encompasses sections that include pyroclastic flows (not uncommon) or other volcanic flows or sills. However, this assemblage is dominantly composed of volcaniclastics +/- argillite. Also included in this unit is a rare occurrence of monolithic lapilli tuff with rounded siliceous clasts.

Mineralized horizon: Intermediate to felsic volcanic to volcaniclastic rocks that are altered (silica and/or sericite) or altered and mineralized with pyrite, barite or rarely galena. Although dominantly composed of ash and lapilli and lithic lapilli tuffs, this unit hosts a significant quantity of mineralized "yellow" trychyte. In hand sample, the trachyte typically displays ghosts of <2mm feldspar and/or monolithic or heterolithic fragments and /or a breccia texture defined by silica+/- sericite veinlets. Less commonly, a <2mm white feldspar porphyrtic trachyte occurs. The trachyte, and to a lessor degree, all the rocks comprising this unit can be extremely hard, grey, silica over sericite altered or softer yellowish green sericite over silica altered. Less intensely altered and mineralized trachytes that are interpreted to occur in the less intensely altered and mineralized "distal" portions of the mineralized horizon can appear to have a chalky, more brittle "porcelaineous" alteration. The mineralization that defines the mineralized horizon consists of fine-grained disseminated pyrite and approximately 1% green barium mica (?). Locally and usually internal to the horizon the pyrite mineralization intensifies to massive dissemination's and/or irregularly oriented ptigmatically folded veinlets.

Discussion: Evidence for a syngenetic origin for the mineralized horizon include 1) it's position relative to well defined marker beds in a stratigraphic column that underlies several square kilometers of the claim block, and, 2) the complete lack of any evidence

for alteration of any of the rocks immediately overlying the mineralized horizon. Such alteration might be expected if the mineralization were replacement.

Although there appears to be one main mineralized horizon that occurs relatively lowdown in the section, locally, mineralized trachyte and accompanying rocks occur at other locations in the section.

Trachyte and mud chip conglomerate: A 1 to 5 meter thick, well sorted and graded trachyte and mud chip conglomerate, or bedded tuff grading to massive lithic lapilli tuff unit that directly overlies the mineralized horizon. At one location in Big Cirque this unit occurs as an isolated outcrop of uncertain stratigraphic position.

Limestone and argillite unit: Brown to buff weathering, fine-grained grey fresh surface, probably in most part tuffaceous limestone interbedded on a centimeter to decimeter scale with dark grey to black argillite. Locally, this unit maybe intercalated with lapilli lithic tuff. On the western portions of the Fire-Tree claim block this unit is thin, less than 20 meters, and forms a readily recognizable marker unit that is stratigraphically positioned directly over the mineralized horizon. In the Big Cirque section , a black argillite unit occupies the position that the limestone-argillite unit occurs to the west. Where the stratigraphy is less well defined, on the eastern portions of the claim block, a limestone-argillite unit is positioned above one mineralized horizon, but is separated from the horizon by 75+ meters of lithic lapilli tuffs. These tuffs grade up into bedded tuffs and into a lime-stone-argillite unit. Close to this locality, a mineralized horizon occurs above the limestone –argillite unit. A limestone-argillite unit was not seen in much of the volcanic stratigraphy that underlies the claim block.

Unmineralized trachyte: Unmineralized trachyte occurs at various intervals throughout the volcanic stratigraphy on the Tree and Fire claims. Significant accumulations occur at the same stratigraphic level as the mineralized horizon in the saddle between Julie's Camp Valley and Uwe's Camp Valley. This juncture also marks the terminus of a distinctive succession of mineralized horizon overlain by limestone-argillite marker unit that underlies a several square kilometer area immediately to the southwest. A second significant accumulation of unmineralized trachyte underlies the peak of Hill 2118.5 on the Fire claims.

Purple weathering volcanic or volcaniclastic lithic lapilli tuff: A distinctive purple, flaggy weathering, fine-grained, feldspathic, minor black argillite (?) lithic fragments volcanic or volcaniclastic unit that occurs locally at the northeast end of the property.

Argillite: Grey to black weathering and fresh surface, generally foliated, often well laminated or bedded, occasionally lineation or crenulated, occasionally carbonaceous,

fine-grained argillite. This unit occurs in thick (10-75 meter) "sub basins" in the volcanic stratigraphy, as thin (less than 10 meter) inter-volcanic flow sedimentary packages throughout the volcanic stratigraphy. Argillite is frequently intercalated with thick to thin bedded tuffs, minor limestone, or more rarely, thick bedded volcanic flows(?).

A second argillaceous sedimentary unit, consisting of a thick, (base not exposed), "basinal" argillite package outcrops distally from , and appears to underlie the volcanic stratigraphy on the Tree-Fire claims. This assemblage is occasionally highly graphitic. This graphite appears to be the source of many of the airborne EM conductors that occur below the base of the volcanic stratigraphy. Similar to the argillite units mapped in the volcanic stratigraphy, the basinal argillite is also intercalated with volcanic tuffs. These appear to become more frequent near the top of the section.

Appendix IV

Diamond Drill Logs

Location: FIRE PROPERTY PELLY MTNS. YUKON			
Azimuth: 260°	Elevation: 1530m		
Inclination: 70°	Length: 227.1m/745'		
UTM: ZONE 8 635455E / 6835045N	Core Size: BTW		
Started: AUG. 7, 2000			
Completed: AUG. 12, 2000			
Purpose: TEST COINCIDENT GEOCHEMICAL-GEOPHYSICAL ANOMALY FOR VMS HORIZON			

SURVEYS

Metreage	Azimuth	Inclination	Corr. Inclin.
475'			-68°

Property:	FIRE
Claim No.:	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 8-AUG.12, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
0.0	2.1m/7'	OVERBURDEN								
2.1	5.2	GRAPHITIC SHEAR/BLACK ARGILLITE	2.7	5.2	2.5	0.6	10	141	12	260
		mixed rubble from 2.1-2.7, no sample;black graphitic								
		-carbonaceous fine grained matrix with 40% quartz;well								
		developed foliation-shear fabric @ 50°tca; 30%								
		of interval is muddy crush;								
5.2	17.3	TUFF								
		very fine grained thin to medium bedded pale green								
		tuff;bedding sharp @90°tca; 20% of interval is medium								
		to coarse grained subrounded, generally elongate								
		volcanic fragments in fine grained matrix; contacts with								
		fragmental beds generally concordant;overall rock is								
		weakly silicified; rare 0.5cm thick quartz veins at								
		40-50°tca; moderate pervasive rusty weathering stain;								
		SULPHIDES								
		pyrite occurs as fine disseminations and clots along								
		bedding planes and as replacement of volcanic								
		fragments; 0.5-1% over interval;								
17.3	21.4	TUFF-LAPILLAE TUFF	17.3	18.5	1.2	0.3	28	46	64	20
			18.5	19.8	1.3	0.2	25	54	39	51
		medium to light grey fine grained volcanics;mixed	19.8	21.4	1.6	0.6	21	91	81	16
		large to medium rounded elongate lenses-fragments?								
		in black fine argilliaceous? matrix; strongly silicified /								
		quartz flooded with 20-30% quartz replacement;								
		bedding at 90°tca; pyrite occurs as 1-4mm width								
		crosscutting fracture fill and fine flood; est. 3% pyrite								
		over interval;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
21.4	24.7	TUFF	21.4	23.0	1.6	<0.1	10	67	41	93
		thin bedded-laminated light grey, bleached; weakly	23.0	24.7	1.7	<0.1	9	35	32	94
		silicified;20% quartz, 5% small angular fragments;								
		rock has flow texture;								
24.7	48.1	TUFF WITH PYRITE/LAPILLAE TUFF	24.7	25.2	0.5	0.5	20	80	21	17
		light grey very fine grained matrix supporting fine	25.2	26.0	0.8	<0.1	11	17	5	61
		to medium sized ellipsoid to r.angular fragments;	26.0	26.6	0.6	0.1	9	29	3	20
		overall unit is more massive, bedding 85-90°tca;	26.6	28.1	1.5	0.5	16	56	7	8
		moderate silicification with 10-20% quartz replacement	28.1	29.6	1.5	0.3	9	49	3	22
		of fragments;under hand lens rock has well developed	29.6	30.3	0.7	2.9	43	1652	20	7
		imbrication banding with elongate ellipsoid feldspar?	30.3	31.4	1.1	0.5	17	59	5	12
		quartz in fine ash?matrix;	31.4	32.1	0.7	1.7	46	379	16	8
			32.1	34.0	1.9	0.6	25	67	7	5
		SULPHIDES	34.0	35.4	1.4	1.5	61	436	12	2
			35.4	36.8	1.4	0.6	25	81	6	7
		pyrite occurs as massive conformable bands 2cm-15cm	36.8	37.5	0.7	0.6	27	107	5	10
		thick associated with carbonate, quartz, rare galena;	37.5	39.3	1.8	0.1	5	9	3	81
			39.3	40.8	1.5	0.1	17	34	3	20
		galena also occurs as rim along margins of quartz	40.8	42.3	1.5	0.6	26	72	5	8
		fragments within massive pyrite; estimated 10% pyrite	42.3	43.6	1.3	0.2	12	18	4	34
		over interval;content decreases from 37.5m, also	43.6	44.8	1.2	0.6	22	179	8	5
		occurs as replacement of silicified clasts;	44.8	46.6	1.8	0.3	16	58	4	20
		best invervals: 29.6-30.3 35%; 31.4-32.1 35%;								
		24.7-25.2/26.0-26.6 QUARTZ FLOOD								
		strongly bleached, pale grey-white; upper zone has								
		weak perusive rusty weathering stain; a couple of cm with								
		pyrite bands;								
46.6	46.8	FAULT	46.6	46.8	0.2	<0.1	4	33	12	268
		coarse to medium tuff fragments mixed with clean yellow	46.8	48.1		0.4	13	45	4	33
		-orange sand;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
48.1	52.5	48.1-52.5	48.1	49.5	1.4	0.9	26	133	5	8
		different looking unit; more poorly sorted with 10%	49.5	51.0	1.5	0.2	10	15	3	37
		elongate fragments> 1cm long; matrix is very fine								
		grained pale yellow to brown; pyrite occurs as fine								
		disseminations-replacment of fragments, possibly								
		(wishfully) as small bands, and rarely as more massive								
		type seen above;in places, rock has pervsive pale yellow								
		stain; 10-15% quartz eyes, 20% quartz overall;								
		51.0-51.2 YELLOW "TRACHYTE" ALTERATION								
		structural control feature along growth fault or debris								
		flow; low angle fracture filled with pale yellow very								
		fine grained volcanic?mud;								
		51.8-52.5 QUARTZ FLOOD-QUARTZ VEIN/	51.0	51.2	0.2	0.3	15	21	3	30
		FRACTURE	51.2	51.8	0.6	<0.1	7	11	3	59
		rusty quartz replacement and high angle fracture fill; 30%	51.8	52.5	0.7	<0.1	5	19	4	99
		quartz over interval;								
52.5	59.2	FINE GRAINED TUFF WITH PYRITE/	52.5	54.0	1.5	<0.1	7	6	4	82
		LAPILLAE TUFF	54.0	55.2	1.2	0.2	11	16	4	97
		very fine grained relatively homogenous unit; light grey	55.2	56.4	1.2	2.9	102	886	42	8
		finely laminated-banded under hand lens possible								
		flow texture? same as 24.7;fragments are elongate-								
		rounded, mm scale;1% fine bright green flecks-clasts?								
		SULPHIDES 55.2-56.4								
		pyrite occurs as semi massive fine to medium grained								
		replacment features possibly controlled in part along								
		microfaults;pyritized zones are more silicified;pyrite								
		associated with soft white carbonate mineral in places;								
		bedding here is slightly contorted-deformed;								
		56.4-57.5	56.4	57.5	1.1	0.1	8	13	10	114
		pervasive pale yellow stain-looks like	57.5	58.9	1.4	0.3	19	14	4	38
		weathering stain?								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		58.9-59 2 FRACTURE FILL / QUARTZ VEINS	58.9	59.2	0.3	0.2	19	20	4	43
		3X1-4cm width 20°tca quartz bands carrying internal								
		clasts of volcanic wallrock;contacts suggest possible								
		silica fracture fill;								
59.2	65.6	TUFF	59.2	60.9	1.7	0.5	16	101	5	15
		coarser fragments;very fine grained matrix as above	60.9	62.6	1.7	0.1	4	2	6	104
		supporting elongate-imbricated rounded fragments and	62.6	64.1	1.5	0.2	7	14	8	92
		10-15% quartz eyes;1-3% pyrite in bedding parallel	64.1	65.6	1.5	0.1	8	18	10	105
		(90°tca) dissmeninations, rare cm bands, as local								
		replacment of clasts;light grey-brown;								
		62.6-64.1								
		poorly sorted tuff;generally coarser than above;								
65.6	66.4	ASH TUFF	65.6	66.2	0.6	0.3	13	140	55	85
		very fine grained with 5% fine to med.clasts; from 66.2-	66.2	66.4	0.2	0.2	7	145	16	18
		66.4 is distinct bed with pervasive yellow colour;								
		contacts defined along bedding 85°tca; single 1cm								
		thick pyrite replacment band;								
66.4	67.2	TUFF	66.4	67.2	0.8	0.5	22	88	1162	12
		medium grained fragments in very fine matrix;rock is								
		medium dark grey;well silicified with 20% quartz								
		replacement of fragments and quartz eyes; 10%								
		pyrite as fragment replacement;								
67.2	67.5	ASH TUFF								
		very fine grained, pale green brown; mottled texture;								
		5-6% very fine pyrite flood								
67.5	72.2	FAULT/RUBBLE ZONE	67.2	67.5	0.3	<0.1	12	27	16	30
		strongly fractured medium to large clasts mixed with	67.5	69.2	1.7	<0.1	6	9	21	32
		minor fine crush; rock type is strongly silicified	69.2	70.7	1.5	<0.1	7	16	51	13
		tuff grading downhole into strongly silicified crystal	70.7	72.2	1.5	<0.1	5	15	49	19
		tuff;structure is low angle tca with a few low angle cm								
		width quartz veins; medium to weak pervasive yellow-								
		orange alteration stain throughout, decreasing								
		downhole;fragments have 2-3% finely disseminated								
		pyrite, local pyrite replacement;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
72.2	73.7	TUFF	72.2	73.7	1.5	0.7	27	83	30	4
		light grey fine grained homogenous ash type tuff with								
		breccia fracture overprint 6% pyrite as local coarse								
		replacement and fine fracture fill;								
73.7	79.2	CRYSTAL TUFF	73.7	75.0	1.3	<0.1	9	21	24	15
		light grey, aphanitic-micritic strongly silicified unit;	75.0	76.5	1.5	<0.1	3	<2	7	70
		intense silicification has frosted-destroyed original	76.5	77.9	1.4	<0.1	5	2	5	43
		grain boundaries or possibly original material was very	77.9	79.2	1.3	<0.1	4	2	13	57
		fine grained to begin with; no discernible bedding;								
		weakly developed fine microfracture 35-45°tca								
		healed with quartz/pyrite;2-3% fine buckshot type pyrite								
		disseminations;								
79.2	103.2	ALTERED CRYSTAL TUFF?/SKARN?	79.2	80.4	1.2	<0.1	2	7	23	23
		basically equivalent to above with pervasive pistachio	80.4	81.7	1.3	<0.1	2	2	24	41
		green and rare red-purple mineral flood alteration;								
		unit is strongly silicified and original textures likely								
		masked by alteration, but faint ghosting in background								
		suggest possible pre alteration fracture-brecciation;								
		patchy purple flood is probably hematite too hard for								
		fluorite and green alteration may be chlorite or								
		epidote with silica overprint;2-3% finely disseminated								
		buckshot type pyrite often with well developed crystal								
		forms;weak mm pyritic fracture fill in part;								
81.7	85.2	81.7-85.9 SKARN?	81.7	83.5	1.8	0.1	3	5	42	132
		most intense purple-green alteration; skarn	83.5	85.9	2.4	0.1	5	5	22	55
		85.9-86.1 BRECCIA WITH PYRITE	85.9	86.1	0.2	1.2	38	87	16	4
		angular clasts of silicified crystal tuff in fine grained	86.1	88.1	2	0.1	5	9	22	157
		dark grey matrix +/- fine grained pyrite; estimate 10%								
		over interval;								
		88.1-90.0	88.1	90.0	1.9	0.1	12	14	51	22
		weak to moderate mm scale to rare 0.5cm								
		microfracture healed with soft white to blue-grey non								
		HCl reaction mineral-barite? clay mineral? Host is								
		pale green weakly skarnified? fine grained volcanic; est.								
		3% barite/white clay over interval;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		90.0-92.8	90.0	91.4	1.4	<0.1	3	5	29	57
		pale to medium green fine grained volcanic with	91.4	92.8	1.4	<0.1	3	4	41	101
		moderate mm scale microfracture healed with chlorite?								
		actinolite? +/- pynte; 3-4% pyrite in microfracture								
		and fine disseminations;								
92.8	95.6	SKARN	92.8	94.3	1.5	<0.1	3	6	43	122
		intense purple-green skarn alteration of tuff;fragments	94.3	95.6	1.3	<0.1	3	2	29	122
		are visible, elongate, medium sized; occasional quartz	95.6	97.0	1.4	<0.1	4	2	24	213
		eyes weakly developed mm scale quartz veins/quartz	97.0	99.7	2.7	<0.1	4	8	232	115
		microfracture;2% finely disseminated pyrite;								
		99.7-100.8	99.7	100.8	1.1	1.2	32	138	50	6
		strong quartz flood-quartz replacement with 10%	100.8	103.2	2.4	<0.1	3	8	33	124
		pyrite in massive low angle veins and coarse								
		dissemination;								
103.2	110.8	STRONGLY SILICIFIED PYRITIC UNIT	103.2	104.9	1.7	2.8	82	288	32	9
		medium to light grey fine grained, strongly silicified	104.9	105.8	0.9	0.5	14	40	21	11
		interval; 30-40% quartz flood-replacement has	105.8	107.3	1.5	0.2	9	18	10	35
		masked original textures but there are rare	107.3	108.8	1.5	0.5	12	40	7	21
		background ghosts suggesting fragments; no discern-	108.8	110.8	2.0	0.6	17	47	13	24
		able bedding but there is suggestion of fabric at 20-								
		40°tca; 2-3% finely disseminated buckshot pyrite								
		and more massive pyrite as described below ;rare low								
		angle pyritic veining and fracture fill;contact with								
		overlying unit probably gradational;weakly developed								
		30-50° tca quartz veining mm-0.5 cm width;								
		103.3-104.3 SEMI MASSIVE PYRITE								
		50-60% pyrite in low angle (20°tca) structure;pyrite								
		occurs both in 20°tca vein type features and as								
		replacement? primary clasts? in breccia with white								
		quartz;								
110.8	112.4	SILICIFIED TUFF/ASH TUFF/LAPILLI TUFF	110.8	112.4	1.6	0.5	10	90	90	81
		contact with overlying unit 25°tca along;very fine								
		grained medium to light grey to pale green tuff or								
		possible flow in part; fragments and laminations 90°tca-								
		bedding;fragment margins show some flow type								
		distortion in places; fragments occur in discrete beds								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		separated by fine laminated tuff beds;3% pyrite								
		in fine dissemination;strongly silicified with 20-30%								
		quartz replacement;								
112.4	115.3	TUFF	112.4	113.8	1.4	0.5	10	15	5	58
		small to medium rounded to elongate volcanic	113.8	115.3	1.5	0.2	9	6	3	151
		fragments in very fine grained matrix;medium grey with								
		local light brown ash?bands; moderately silicified								
		with 10-20% quartz replacement, occasional quartz eyes;								
		bedding well developed 90*tca;0.5% of finely dissemin-								
		ated pyrite;								
115.3	122.5	TUFF	115.3	118.0	2.7	0.1	6	7	6	186
		medium to large rounded-elongate volcanic fragments	118.0	121.0	3	0.2	10	6	6	112
		in very fine grained matrix;sharp bedding contact with	121.0	122.5	1.5	0.6	18	26	7	38
		over lying unit; moderately developed flow textures								
		along fragment margins;10-15% pale green pistachio								
		replacement of fragments and fragment margins-								
		epidote? moderately silicified with 10% quartz								
		fragments;0.5% finely disseminated pyrite;overall unit								
		is poorly sorted;unit becomes increasingly silicified								
		downhole;								
122.5	135.8	FLOW/TURBIDITE?/SOME KIND OF REWORKED	122.5	123.3	0.8	0.8	38	112	14	9
		TUFF								
		more disturbed looking unit; medium to large								
		irregular shaped fragments of very fine grained								
		volcanics?in very fine grained medium to dark grey								
		matrix; strongly silicified no well defined bedding;								
		10% pyrite in coarse irregular disseminations, possibly								
		as replacement of fine grained matrix;weakly								
		developed low angle mm-0.5cm width quartz veins +/-								
		white soft mineral-talc?								
		123.3-124.1 QUARTZ FLOOD/QUARTZ VEINS	123.3	124.1	0.8	0.5	23	66	16	14
			124.1	125.6	1.5	1	32	140	8	6
		2X2-3cm width 0-5*tca quartz veins with quartz flood	125.6	127.5	1.9	1.7	40	323	12	2
		along margins;quartz is associated with pyrite,								
		yellow-orange alteration;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		128.0-128.4	127.5	128.5	1.0	0.6	18	79	10	9
		2 bands of fine grained more clastic looking sediment								
		separated by very fine grained thin bedded tuff-ash								
		tuff; clastic units are massive,poorly bedded								
		possibly turbiditic with 4% medium angular clasts								
		of volcanics and argillite?								
128.5	131.5	FAULT/RUBBLE ZONE	128.5	130.7	2.2	0.3	12	24	12	27
		medium to large angular rubble clasts of mixed unit								
		above;fractures dominantly low angle tca in places								
		healed with white soft mineral-talc;rock remains								
		moderately silicified;estimated 5% pyrite in replacement								
		around clast rims as fracture fill;unit is variably bleached;								
		130.7-131.5 BARITE	130.7	131.5	0.8	1.2	55	140	13	2
		a few large clasts of H 3.5 blocky cleavage, heavy, off								
		white mineral with pyrite replacement rims-barite;								
131.5	135.8	same as from 122.5-128.5;5% pyrite flood-	131.5	133.5	2	0.9	45	119	9	4
		replacement;a couple of low angle talc filled	133.5	135.8	2.3	0.5	26	40	9	17
		fractures;well silicified;								
135.8	138.2	DEBRIS FLOW/TURBIDITE/REWORKED TUFF	135.8	138.2	2.4	0.3	11	43	7	61
		grey to pale green fine grained sand sized matrix								
		supporting a variety of poorly sorted clasts; clasts								
		size ranges from mm-3cm across long axis, clasts								
		generally subrounded to rounded, composition								
		varies from quartz to fine grained ash tuff to small								
		feldspar lathes; clasts tend to occur in 10-20cm thick								
		bands separted by fine sand matrix described above;								
		trace fine disseminated pyrite, pyrite rimming of clasts;								
		upper contact at 70°tca; no apparent bedding in unit								
		but clasts weakly imbricated 80-90°tca in part;								
		moderately silicified with microscale quartz flood								
		of matrix; matrix becomes coarser grained toward								
		lower contact;								
138.2	138.7	ASH FLOW	138.2	138.7	0.5	1.2	19	244	206	37
		abrupt change in lighology;very fine to fine grained								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		light green to green grey lenticular beds,turbiditic								
		looking in part with single 3cm width lens of fine to								
		medium grained sediment in middle of package;general								
		fabric-bedding 85-90°tca, but upper contact is cut								
		down at 45°tca; 0.5% finely disseminated pyrite;								
138.7	140.9	MAROON-GREEN VOLCANICS	138.7	140.9	2.2	<0.1	4	4	10	548
		sharp change to more homogenous unit; pale to	140.9	143.4	2.5	<0.1	3	3	10	1247
		medium green to maroon very fine to fine to medium								
		grained unit; homogenous package with 3% fragments-								
		clasts including quartz, pyroxene, pink kspar; green-								
		maroon colour possibly related to sediment size with								
		coarser material maroon and finer material green; fine								
		green rock occurs as wisps and thin laminations								
		typically at 85-90°tca;fine grained green rock								
		generally supports most of the fragments and in part								
		forms fragments; moderately silicified; trace pyrite in								
		finely disseminated and low angle weakly								
		developed mm fracture fill with quartz;unit becomes								
		increasingly silicified and more poorly sorted								
		toward lower contact;								
143.4	146.2	STRONLY SILICIFIED/BLEACHED MAROON AND	143.4	146.2	2.8	<0.1	4	7	17	338
		GREEN VOLCANICS								
		pale maroon to pale green blotchy very fine to fine								
		grained strongly silicified unit; original grain boundaries								
		of matrix destroyed-masked by bleaching-sil'n; 3-5%								
		medium sized elongate rounded fragments of light								
		green fine grained volcanic rock, fragments elongate-								
		imbicated 85-90°tca; local lenses of small								
		imbricated fragments of fine volcanics in very fine								
		grained light green matrix;weakly developed 1-3mm								
		width quartz veins-quartz fracture fill at 40-50°tca;								
		trace-0.5% pyrite in fine dissemination associated with								
		quartz veins, very rare low angle fracture fill;								
146.2	148.9	FRAGMENTAL/TUFF	146.2	148.9	2.7	<0.1	2	5	18	1079
		very strongly silicified, drillers report hardest ground								
		yet; medium to large (1cm-20cm) across short axis)								
		fragments of pale pink very fine grained altered tuff in								
		matrix of very fine grained medium to light green								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		volcanic ash;matrix is weakly laminated in part 80°								
		tca;fragments are more massive and show fragmental								
		medium sized ghosts in background; fragment-matrix								
		contacts are sharp and somewhat irregular; matrix								
		is weakly to moderately fragmental with small to								
		medium volcanic fragments showing flow type								
		imbrication in part; weakly developed mm scale low								
		angle quartz veins -fracture fill; interval is strongly								
		bleached; no sulphides;								
148.9	154.7	MAROON TO GREEN VOLCANICLASTICS/	148.9	151.9	3.0	<0.1	2	6	9	496
		TURBIDITE?/DEBRIS FLOW? FRAGMENTAL	151.9	154.7	2.8	<0.1	1	6	12	406
		similar to 143.4-146.2; dark maroon very fine grained								
		matrix (probably volcanic) supporting small (mm) to								
		large (3cm across short axis) fragments;								
		fragments include green fine grained volcanic (ash tuff?),								
		quartz, medium to large pink feldspar rock; smaller								
		fragments typically recrystallized quartz-quartz								
		porphyroblasts; fragments generally imbricated-								
		elongate parallel to 80-85° bedding and in part show								
		weak flow textures; general pattern is fine to medium								
		grained poorly sorted unstratified beds separated								
		by thin very fine grained thin bedded-laminated beds;								
		10% of interval is fine green volcanics which appear to								
		occur only as fragments here; unit becomes more								
		tuffaceous-bedded near lower contact;								
154.7	158.1	LIGHT GREEN TO PURPLE VOLCANIC	154.7	156.6	1.9	<0.1	1	7	12	147
		TUFF	156.6	158.1	1.5	<0.1	1	5	17	160
		very fine grained light green to light purple matrix								
		supporting small to medium elongate fragments of very								
		fine grained light purple and green volcanics; strong								
		pervasive to selective-pervasive silicification;								
		weakly developed 3-5mm width quartz +/- pink								
		feldspar veins at low angle (20-30°)tca; trace-0.5% py								
		in dissemination and mm fracture fill; interval is strongly								
		fractured;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
158.1	159.6	MAROON VOLCANICS/DEBRIS FLOW	158.1	159.6	1.5	<0.1	3	4	11	487
		very fine grained purple matrix supporting small to rare								
		medium-large fragments; bedding 85°tca; strongly								
		silicified; fine fragments-clasts scattered throughout and								
		in places confined to specific beds;20% quartz as clast								
		replacement,recrystallization and quartz eyes; weakly								
		developed flow textures; lower contact with green								
		volcanic unit is sharp, 20°tca along 3cm wide selvage								
		of quartz and green wallrock clasts;								
159.6	169.6	GREEN VOLCANIC/TUFF/DEBRIS FLOW	159.6	160.5	0.9	<0.1	1	<2	9	836
		medium green fine grained to very fine grained matrix	160.5	162.1	1.6	<0.1	1	8	32	1682
		supporting 10-15% small to medium gragments;	162.1	163.7	1.6	<0.1	2	5	26	698
		strongly silicified; fragments are rounded, elongate,	163.7	165.4	1.7	<0.1	1	5	27	786
		imbricated parallel to bedding; bedding changes from	165.4	167.2	1.8	<0.1	2	6	30	1516
		85°tca at upper contact to ~50°tca at 162.4; trace	167.5	169.6	2.1	<0.1	2	6	61	1482
		disseminated pyrite and pyrite healed fractures;								
		occasional orange hexagonal crystals possibly								
		garnet i.e. at 159.7m; low angle quartz veining +/-								
		rare orange feldspar;								
		QUARTZ LENS-QUARTZ FLOOD								
		well developed 30-50°tca 0.5-1cm width quartz veins								
		and local folded distorted-quartz bands;strong								
		quartz flood-quartz replacement gives interval								
		fragmental texture in part;estimated 30% quartz over								
		interval; quartz veins/flood commonly associated with								
		pink feldspar - estimated 3-5% over interval;								
169.6	171.5	MAROON VOLCANICS/DEBRIS FLOW	169.6	171.5	1.9	<0.1	2	15	21	737
		as from 158.1-159.6, 0.5-2cm width low angle quartz								
		veining not as well developed as in above unit and only								
		minor pink feldspar;								
171.5	176.4	GREEN VOLCANIC/TUFF/DEBRIS FLOW	171.5	173.1	1.6	<0.1	3	8	19	659
		as from 159.6	173.1	174.7	1.6	<0.1	3	8	27	402
			174.7	176.4	1.7	<0.1	1	3	18	1277
176.4	188.5	STRONGLY SILICIFIED-QUARTZ	176.4	178.2	1.8	<0.1	2	8	30	263
		FLOODED VOLCANIC?	178.2	179.9	1.7	<0.1	2	8	28	245
		distinct unit from one above; medium to light grey to								
		green-grey, fine to very fine grained interval with								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		pervasive to pervasive selective quartz flood - sil'n;								
		alteration has masked most of original grain -								
		fragment boundaries but fragmental and lapilli								
		ghosts suggest probable volcanic or volcaniclastic								
		rock; 30-40% quartz replacement-quartz flood; quartz								
		veins not as well developed as above and pink feldspar								
		is seen less frequently; trace finely disseminated								
		pyrite;								
		179.9-181.6 FAULT/RUBBLE	179.9	181.6	1.7	<0.1	2	8	45	227
		strongly fractured medium to large angular clasts;	181.6	184.6	3.0	<0.1	3	4	23	282
		fractures dominantly low angle tca; minor clean crush;								
		184.6-185.4 FAULT	184.6	185.4	0.8	<0.1	2	5	19	217
		strongly fractured medium to large angular clasts mixed	185.4	188.5	3.1	<0.1	3	7	43	220
		with talc-white clay gouge; fractures generally low angle								
		tca; lower contact sharp; talc is confined to fault zone;								
188.5	191.3	STRONGLY SILICIFIED GREEN VOL-	188.5	191.3	2.8	<0.1	2	22	34	258
		CANIC/VOLCANICLASTIC TUFF								
		light to medium green very fine grained matrix with								
		weakly developed lapillae textures supporting								
		rounded, generally elongate clasts; bedding 85°tca;								
		density of fragments increases downhole VOLCANICS/								
		developed low angle quartz veins with local quartz								
		blowouts; matrix is strongly silicified-quartz flooded;								
		trace ofdisseminated pyrite;								
		191.1 galena in quartz vein - quartz fracture fill;								
		single medium sized dissemination;								
191.3	192.5	MORE CLASTIC LOOKING UNIT	191.3	192.5	1.2	0.1	6	31	38	252
		light green fine grained matrix with individual grains								
		visible under handlens; weakly developed elongate								
		lapillae and rare subangular fragments;single large low								
		angle quartz vein;								
192.5	194.8	STRONGLY SILICIFIED QUARTZ	192.5	193.9	1.4	<0.1	4	22	41	220
		FLOODED VOLCANIC	193.9	194.8	0.9	<0.1	5	12	34	281
		as from 176.4-188.5m								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		193.4-194.0 FAULT RUBBLE ZONE								
		mixed angular clasts of units above & below fault; low								
		angle feature; minor fine gouge;								
			194.8	197.2	2.4	<0.1	3	7	17	130
194.80	207.70	GREEN CLASTIC UNIT	197.2	200.0	2.8	<0.1	3	5	14	99
		light green fine sand to medium-coarse silt grained;								
		bedding not particularly well developed at 90°tca;								
		generally medium bedded; rare thin beds with								
		imbricated elongate fragments - clasts, possibly								
		volcanics; might be a reworked volcanic package; weak								
		to moderate pervasive silicification, overall more								
		massive than anything seen thus far; no sulphides;								
			200.0	201.3	1.3	<0.1	3	7	12	73
		200.0-201.3 FAULT/RUBBLE ZONE								
		strongly fractured angular clasts of green clastic rock								
		above; fractures generally low angle; minor gouge and								
		bands of well consolidated fault breccia;								
			201.3	204.0	2.7	<0.1	4	8	10	94
		201.3								
		clastic textures better developed; sediment size								
		changes occur across bedding planes 85-90°tca; rare								
		fragments; very rare fine grained thin bedded weak								
		lapillae type beds; looks distal to any volcanic								
		source here;								
			204.0	205.8	1.8	<0.1	5	10	20	116
		204.0-205.8	205.8	207.7	1.9	<0.1	4	6	16	74
		poorly sorted medium sized angular to subangular								
		clasts in fine to medium grained matrix; moderately								
		silicified, 10-15% quartz replacement of clasts,								
		clasts include volcanics; more massive thick bedded unit								
		with contacts below sharp at 90°tca;								
			207.7	210.6	2.9	<0.1	6	13	16	90
207.7	214.2	GREY TO GREEN-GREY CLASTICS	210.6	213.0	2.4	<0.1	7	11	11	91
		fine to medium grained more massive medium bedded								
		unit; bedding 80-85°tca generally well sorted with								
		local 2-4cm scale beds with fine grained matrix								
		supporting elongate to angular clasts; moderate to								
		weak silicification; local bedding conformable bleaching;								
		rare high angle 2-4cm wide quartz bands-veins; trace								
		disseminated pyrite;								

Hole ID: F00-2A
Page: 1 of 1

Location: FIRE PROPERTY, PELLY MTNS., YUKON			
Azimuth: 265°	Elevation: 1990m		
Inclination: 90°	Length: 35'/10.7m		
UTM:	Core Size: BTW		
Started: AUG. 13, 2000			
Complete AUG. 13, 2000			
Purpose:			

SURVEYS

Metreage	Azimuth	Inclination	Corr. Inclin.

Property:	
Claim No.:	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 13, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Pb	Zn	Cu	Ba
0.0	10.7m/35'	VOLCANIC ROCK/MINERALIZED								
		HORIZON								
		local gossan bands; core angles not great- 60°tca;								
		shallow head to -78° and collar F00-02								
		END OF HOLE 10.7m/35'								

Location: FIRE PROPERTY, PELLY MTN. RANGE, YUKON			
Azimuth: 265°	Elevation: 2002m		
Inclination: 78°	Length: 41.1m/135'		
UTM: 6834364 N / 635620 E	Core Size: BTW		
Started: AUG. 13, 2000			
Complete AUG. 14, 2000			
Purpose: Test for possible VMS source for lead-zinc geochem anomaly;test upper part of volcanic package.			

SURVEYS			
Metreage	Azimuth	Inclination	Corr. Inclin.

Property:	FIRE
Claim No.:	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 13-14, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
0.0	5.2m/17'	OVERBURDEN/CASING								
5.2	15.3	THIN BEDDED VOLCANICLASTIC/	5.2	5.9	0.7	3	19	24	99	
		MINERALIZED HORIZON?	5.9	8.0	2.1	0.5	14	65	62	61
		medium grey to grey green, thin bedded laminated; very	8.0	11.0	3.0	0.7	16	14	67	89
		fine to medium grained matrix supporting medium,	11.0	14.0	3.0	0.2	24	31	59	75
		typically elongate fragments-lapilli; interval is	14.0	15.3	1.3	0.7	11	77	48	50
		moderately weathered; clasts-fragments include								
		feldspar ghosts; weakly pyritized with trace -0.5%								
		disseminated pyrite, rare pyrite repl.t of fragments;								
		bedding 75°tca; quartz occurs in 10cm width								
		conformable-subconformable bands, margins have								
		deep red gossan alteration; quartz carries internal								
		fragments? Secondary mineral alteration of H 4.5								
		yellow to red mineral possible trachyite fragments;								
		weak sericite alteration on fracture surface; pyrite								
		content increases downhole;								
15.3	24.0	ASH TUFF/ARGILLITE?	15.3	17.2	1.9	0.4	9	84	43	38
		very fine to fine grained thin bedded-thin laminated								
		ash tuff; strongly weathered-altered with pervasive								
		yellow and selective-pervasive orange stain; orange								
		stain typically controlled along thin laminations; interval								
		is bleached, possibly silica flooded with rare faint								
		clastic ghosts in background; weakly to moderately								
		pyritized with pyrite flood of elongate lenses-possibly								
		lapilli and finely disseminated; bedding 85°tca; rock								
		is very soft overall, possibly reflecting sericite								
		alteration that has been overprinted by weathering;								
		local 10-30cm width plygmastic folding;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		17 2-17 9 QUARTS BANDS	17.2	17.9	0.7	1.2	12	43	42	51
		white to rusty quartz in 3 x 10-15cm thick bands, quartz	17.9	20.9	3.0	0.2	7	21	56	61
		appears to be within low angle fractures, vuggy; no	20.9	23.0	2.1	1.1	22	32	155	47
		sulphides: 45% quartz over interval; quartz associated								
		with rare carbonate.								
		23 0-23 5 FAULT/RUBBLE ZONE								
		strongly fractured, minor crush,								
24 0	25.0	FAULT	23.0	24.0	1.0	3.9	37	341	559	10
		small to medium clasts mixed with clay and fine crush,	24.0	25.0	1.0	4.7	24	306	504	6
		contacts sharp parallel to bedding,								
25.0	28.8	BARITE HORIZON	25.0	26.5	1.5	12	21	726	2053	6
		pale grey,dense heavy, H 3 5 massive barite horizon with	26.5	28.8	2.3	5.9	18	104	1152	9
		20% dark green streaks -argillite: upper contact is								
		heavily pyritized over 15cm, with 1% finely								
		disseminated pyrite; rare internal quartz bands at								
		60-70°tca; streaks align 80°tca at top of unit,								
		steepening to 50°tca at lower contact;								
28 8	29.4	FAULT/RUBBLE/QUARTZ VEINS	28.8	29.4	0.6	17.6	68	1238	1681	5
		strongly fractured angular clasts of pyritized thin								
		bedded trachyte?ashtuff and quartz mixed with fine								
		clean crush;								
29.4	33.5	THIN BEDDED VOLCANICLASTIC/	29.4	30.2	0.8	25.5	94	1156	5043	3
		MINERALIZED HORIZON	30.2	31.8	1.6	41	90	4198	19688	<2
		as from 5.2-15.3m; thin bedded-laminated 65°tca; very	31.8	33.5	1.7	88.6	126	5619	23329	<2
		fine grained dark green matrix; possible barite replace-								
		ment; 3% finely disseminated pyrite from 29.7-30 2								
		low angle quartz veins-quartz fracture fill with a								
		few large coarse galena disseminations;								
33.5	35.7	BARITE/SERICITE ZONE/FAULT/SHEAR	33.5	35.8	2.3	9.5	33	589	1305	8
		thin laminated barite- streaky argillite; in places rock is								
		fractured into poker chips mixed with grey sericitic								
		mud; 0.5% finely disseminated galena;								
35 8	38.1	as from 29.4 to 33.5	35.8	37.3	1.5	14.3	34	953	1286	5
			37.3	38.1	0.8	9.3	30	501	3972	4

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
38.1	41.1	MINERALIZED HORIZON/INTERMEDIATE	38.1	41.1	3.0	1	10	42	323	39
		TO FELSIC VOLCANICLASTIC/								
		light to medium green to green-grey fine to very fine								
		grained matrix supporting subangular to subrounded								
		multilithic clasts; moderately silicified, clast size								
		ranges from 2mm-2cm across widest part, clasts include								
		fine grained volcanics, argillite? Quartz, possibly pyrite;								
		2% pyrite in fine diss., clasts, crude bedding-clast								
		imbrication at 70°tca; mm scale subconformable								
		sericite healed fractures; fracture density increases to								
		end of hole, silicification increases to end of hole;								
		clasts-fragments include chert,feldspar (augite?)								
		ghosts throughout;								
		END OF HOLE 41.1m/135'								
		rods frozen in permafrost; 20' of rod, core barrel								
		assembly and core tube left in hole.								

Location: FIRE PROPERTY, PELLY MTNS., YUKON			
Azimuth: 175°	Elevation: 2002m		
Inclination: 50°	Length: 49.1m/161'		
UTM: 6834364 N / 635620 E	Core Size: BTW		
Started: AUG. 15. 2000			
Complete AUG. 16, 2000			
Purpose: TEST FOR CONTINUITY OF BARITE HORIZON			
Core Recovery:			

SURVEYS

Metreage	Azimuth	Inclination	Corr. Inclin.

Property	FIRE
Claim No.:	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 15-16, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

From (m)	To (m)	Description
0.0	5.2/17'	CASING/OVERBURDEN
5.2	19.2	THIN BEDDED VOLCANICLASTIC/
		MINERALIZED HORIZON
		medium grey to grey green to rusty weathered; fine
		grained matrix supporting elongate clasts-fragments and
		relict feldspar phenos; core angles variable 50-75°tca;
		generally fractured parallel to bedding into poker
		chips,fractures generally sericitic; weakly pyritized
		with fine to medium disseminations and local clast
		replacement; local crenulated bedding; weakly developed
		0.5-3cm width conformable-subconformable quartz
		bands with rusty to yellow internal clasts?mineral alt'n?
		mineral?
19.2	24.5	ASH TUFF/ARGILLITE?/DARK GREEN
		MUDSTONE
		very fine to fine grained thin laminated ash tuff;
		bedding-laminations 50°tca with concordant poker
		chip fractures strongly weathered-altered with
		pervasive yellow and orange stain; possible nodular -
		lensoid-barite; trace- 0.5% disseminated pynte; rock is
		generally soft, possibly related to pre weathering
		sencite alteration;
		23.5-24.5
		strong clay alteration, strongly fractured

From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Be
5.2	8.2	3.0	0.2	15	18	96	102
8.2	11.3	3.1	0.2	20	13	57	102
11.3	14.3	3.0	0.2	14	16	53	102
14.3	17.4	3.1	0.4	13	27	74	102
17.4	19.2	1.8	0.5	13	114	72	102
19.2	21.8	2.6	0.6	11	72	194	102
21.8	23.5	1.7	0.6	20	43	229	102
23.5	24.8	1.3	1.2	43	73	112	102

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Pb	Zn	Cu	Ba
24.5	26.5	MINERALIZED HORIZON/BARITE	24.8	26.5	1.7	9.9	64	1124	2085	102
		HORIZON								
		similar to F00-02 without massive barite on top of								
		interval; mixed barite and dark green streaky argillite?								
		ash tuff?: 3% finely disseminated pyrite, upper contact								
		is 20cm wide; clay rich gouge possible fault contact;								
26.5	27.2	FAULT/RUBBLE ZONE	26.5	27.2	0.7	6.2	35	284	237	102
		mixed streaky barite and grey gouge; lower 15cm is								
		yellow clay gouge-possible trachyte;								
27.2	27.6	QUARTZ/BARITE/FAULT ZONE/RUBBLE	27.2	27.6	0.4	0.9	8	58	126	102
		mixed angular clasts of dense off white bluish and								
		white bull quartz; barite carries disseminated galena and								
		possibly pale yellow-brown fine grained sphalerite;								
27.6	32.5	BARITE/MINERALIZED HORIZON	27.6	29.6	2	8.3	44	455	7015	102
		fine grained dark green streaky with 20% barite; 5-6%	29.6	32.5	2.9	7.1	28	414	694	102
		pyrite in finely disseminations and replacement features;								
		lower 1m is rubble-fault zone;								
32.5	34.7	VOLCANIC/SILICIFIED ZONE/HEALED BRECCIA	32.5	33.5	1.0	3.5	23	273	258	102
		/FAULT-RUBBLE ZONE	33.5	34.7	1.2	0.8	26	35	929	102
		yellow fine grained volcanic matrix supporting grey								
		quartz clasts? fragments?, quartz has fine pervasive								
		fracture and yellow matrix possibly representing								
		fracture fill; almost looks intrusive;								
34.7	45.4	TUFF/DEBRIS FLOW/MULTILITHIC BRECCIA	34.7	36.1	1.4	1	21	29	458	102
			36.1	38.1	2	1.2	19	27	324	102
		fine grained dark grey matrix with distinct bright	38.1	40.5	2.4	0.8	17	19	123	102
		orange weathering alteration of medium to large	40.5	43.3	2.8	1.3	20	45	268	102
		subangular to angular fragments-clasts; clasts carry	43.3	44.0	0.7	1.3	11	45	57	102
		0.5-1% finely disseminated pyrite; matrix in places looks	44.0	45.4	1.4	1.5	12	68	147	102
		like lapillae withmoderately developed flow banding-	45.4	48.1	2.7	1.6	14	106	333	102
		textures at 50°tca; rare large fractured very hard clasts	48.1	49.1	1.0	2.3	15	174	2140	102
		possible chert?;weakly developed low angle fractures								
		healed with orange weathering material, possibly								
		sencite; as the interval plays out it appears to be a								
		series of fine grained dark grey silicified trachyte beds								
		with lapilli textures in part and 20% subrounded to								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Pb	Zn	Cu	Ba
		subangular fragments separated by beds with high								
		percentage of fragments/clasts generally with orange								
		weathering stain;								
		34.7-38.1 FAULT/RUBBLE								
		strongly fractured angular clasts mixed with muddy								
		crush.								
		43.3-44.0 FAULT/RUBBLE ZONE								
		silicified competent breccia fragments mixed with fine								
		crush and clay;								
		44.0-44.2								
		dark grey-black very fine grained interval; very hard								
		looks like chert.								
45.4	49.1	MULTILITHIC BRECCIA								
		poorly sorted subrounded to subangular clasts								
		supported by fine grained light grey to white matrix;								
		clast size variable from 2mm-2cm across wide axis; 2%								
		finely disseminated pyrite, local pyrite replacement								
		of clasts; in places matrix has brilliant red gossan								
		type alteration;								
		END OF HOLE 49.1m/161'								

Location: FIRE PROPERTY, PELLY MTNS . YUKON			
Azimuth: 355°	Elevation: 2002m		
Inclination: 50°	Length: 60.0m/197'		
UTM: 6864364 N / 635620 E	Core Size BTW		
Started: AUG. 16, 2000			
Complete AUG. 17, 2000			
Purpose: TEST ALONG STRIKE CONTINUITY OF BARITE HORIZON			

SURVEYS

Metreage	Azimuth	Inclination	Corr. Inclin.

Property:	FIRE
Claim No.:	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 16, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Ag	Cu	Pb	Zn	Ba
						Analyses (ppm)				
0.0	4.3m/14'	OVERBURDEN/CASING								
4.3	8.8	ASH TUFF/ARGILLITE?/GREEN MUDSTONE?	4.3	6.8	2.5	<0.1	11	13	78	96
			6.8	8.8	2.0	<0.1	14	19	44	76
		fine to very fine grained pale grey to green, gossan								
		red-orange volcanic; sericitic fractures in part; thin								
		laminated 70°tca:								
8.8	34.6	THIN BEDDED VOLCANICLASTIC/MINERALIZED	8.8	11.3	2.5	<0.1	18	16	87	70
		HORIZON	11.3	14.0	2.7	<0.1	14	11	84	70
		medium grey to rusty (gossan) weathered fine grained								
		matrix supporting elongate clasts-fragments and relict								
		feldspar phenos; thin bedded-laminated with								
		variable bedding with local ptygmatic folding;								
		14.0-15.8 QUARTZ FLOOD	14.0	15.8	1.8	<0.1	20	14	69	75
		lenses?bands of white to grey quartz; strongly								
		sericitic margins and sericite flood throughout; looks								
		very disturbed over interval with variable bedding,								
		foliation, ptygmatic folding.								
15.80	34.60	15.8 - 34.6 THIN BEDDED/THIN LAMINATED	15.8	18.0	2.2	<0.1	16	16	69	74
		VOLCANICLASTIC								
		as above with less clastic content; 1-2mm laminations								
		with alternating light dark, rusty bands; darker bands								
		have well developed feldspar ghosts;lamination-bdding								
		55°tca;strongly sericitic, soft;0.5% fine disseminated								
		pyrite, rare pyrite laminations;								
		18.0-19.2 FAULT/RUBBLE ZONE	18.0	19.2	1.2	<0.1	22	11	66	88
		0.5m core loss; quartz fragments mixed with muddy	19.2	22.1	2.9	<0.1	10	28	52	48
		crush;	22.1	24.9	2.8	<0.1	19	12	77	69

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		22.1 INCREASE IN PYRITE								
		basically same unit as above with 1.5-3% pyrite as								
		laminations, disseminations, replacement of rare								
		clasts; bedding angles change from 60-65°tca above								
		contact to 0-20°tca below; red-orange oxide (gossan)								
		bedding - lamination selective; weak silicification;								
		24.9-25.5 FAULT/RUBBLE ZONE	24.9	25.5	0.6	0.1	13	12	80	102
		strongly fractured volcaniclastic fragments and quartz	25.5	28.5	3	0.1	15	10	66	86
		rubble mixed with minor red-orange gossan clay;	28.5	31.2	2.7	<0.1	14	9	77	90
		27.0 bedding angles more regular 50-70°tca;								
		31.2-31.4 FAULT/RUBBLE ZONE	31.2	31.4	0.2	0.1	16	12	73	113
			31.4	33.1	1.7	0.3	19	14	80	57
		33.1-34.6	33.1	34.6	1.5	0.1	14	15	74	95
		transition between volcaniclastic-lapilli-ashtuff;								
34.6	43.2	34.6-43.2 THIN LAMINATED ASH TUFF/								
		ARGILLITE?/GREEN MUDSTONE?	34.6	37.4	2.8	0.4	22	19	75	41
		very similar to above without clastic component, fine								
		grained thin laminated grey to grey green tuff; weakly								
		bleached, weakly silicified; sericitized fractures;								
		bedding laminations generally 50-70°tca with local								
		low angle intervals; bedding scale bedding selective								
		orange-red weathering stain in part; trace - 1% finely								
		disseminated pyrite, pyrite replacement of laminations;								
		weakly developed concordant to subconcordant white								
		to rusty quartz bands 0.5-2.0cm width, in places look								
		like fracture fill; weakly developed low angle mm sericite-								
		quartz fracture fill-microveins;								
		37.2-43.2 FOLDED SECTION	37.4	39.6	2.2	0.2	15	10	63	73
		core angles convoluted 0-30°tca	39.6	41.8	2.2	0.1	16	13	68	86
			41.8	43.2	1.4	0.3	16	21	124	52
43.2	50.7	BARITE HORIZON/MINERALIZED HORIZON								
43.2	45.9	BARITE HORIZON/THANK GOD/MIXED BARITE	43.2	44.7	1.5	13.7	39	619	2180	3
		AND VOLCANICS	44.7	45.7	1	40	63	2205	5958	<2
		fine grained dark green soft sericitic thin laminated	45.7	45.9	0.2	41	45	7374	15069	<2
		volcanics?argillite?with white to grey white streaky								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		barite; well pyritized with 10% fine grained pyrite as								
		replacement of volcanics and within barite layers-								
		bands: bedding has settled down and is generally								
		consistant at 60-70°tca; 1% bright green barium								
		mica; weakly developed 0.5cm width conformable								
		white quartz bands;								
		45.7-45.9 FAULT ZONE/MUD/CLAY								
		mixture of grey mud and fragments of barite and fine								
		grained volcanics; probably drill derived in part;								
45.9	46.5	BARITE HORIZON	45.9	46.5	0.6	14.7	16	1161	4762	12
		massive, fine grained dense, H 3.5 grey to white barite								
		with fine grained dark laminations: laminations in part are								
		fine grained pyrite, possibly as replacement of barite;								
		upper contact somewhat irregular with clasts of possible								
		internal sediments; 10% pyrite over interval; laminations								
		60°tca;								
46.5	50.7	VOLCANICS/LAPILLI WITH BARITE	46.5	48.5	2	8.5	41	775	2133	3
		thin laminated fine to very fine grained dark to	48.5	50.7	2.2	1.5	44	52	295	11
		medium green volcanics; lapilli looking in part possibly								
		with some barite replacement of lapillae +/- quartz; 1%								
		barium mica-bright green; 2-4% disseminated pyrite,								
		as local disseminations and replacement of fine grain-								
		grained matrix; strong to moderate sericite alteration;								
50.7	53.5	DARK GREEN VOLCANIC UNIT/TUFF/ASHTUFF	50.7	51.3	0.6	0.5	18	21	53	29
		dark green fine grained relatively homogenous unit;								
		weakly laminated 60-70° tca; thin lapilaae features in								
		part; sericitic;								
51.3	51.7	FAULT/RUBBLE ZONE	51.3	51.7	0.4	2	30	18	23	28
		dark green-grey fine grained sericitized volcanic mixed	51.7	53.5	1.8	2.9	34	88	26	13
		with grey mud & crush;								
53.5	58.6	ASH TUFF/LAPILLI	53.5	55.2	1.7	1.6	20	38	13	19
		fine grained medium to dark grey to grey-green,	55.2	57.0	1.8	1.8	21	38	11	16
		homogenous unit; weakly developed lapilli features in	57.0	58.6	1.6	1.8	25	41	17	13
		part; weakly laminated-bedded at 80-85°tca;								
		sericitic fratures-poker chip type fracture;								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
58.6	60.0	FRAGMENTAL/TUFF	58.6	59.4	0.8	0.8	20	31	19	20
		mixed bag here, no real matrix, large (3-15cm along	59.4	60	0.6	0.9	17	123	28	42
		core axis) discordant clasts-fragments of pale yellow								
		fine grained volcanic with rusty brecciated quartz-								
		sericite banding, laminated at 90°tca and dark grey								
		pyritized fine grained weakly volcaniclastic tuff; fine								
		grained yellow unit has pervasive-selective rusty red								
		gossan stain and is in part brecciated, and has rare								
		pyrite replacement clasts;								
		END OF HOLE 60.0m/197'								

Location: FIRE PROPERTY, PELLY MTNS., YUKON			
Azimuth: 265°	*Elevation:* 2002m		
Inclination: 78°	*Length:* 121.0m/397'		
UTM 6834364 N / 635620 E	*Core Size:* BTW		
Started: AUG. 17, 2000			
Complete AUG. 20, 2000			
Purpose: Twin F00-02 which was lost when rods froze in permafrost; test geochem anomaly source,test upper part of volcanic package.			

SURVEYS

Metreage	*Azimuth*	*Inclination*	*Corr. Inclin.*

Property:	FIRE
Claim No.	
Section:	
Logged by:	C. DOWNIE
Date Logged:	AUG. 17-20, 2000
Drilling Co.:	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
0.0	4.3	14' OVERBURDEN								
4.3	15.2	THIN BEDDED VOLCANICLASTIC/MINERALIZED HORIZON?(ATNA) medium grey to grey-green fine to medium grained; thin laminated-thin bedded matrix supporting small to medium fragments and medium to small elongate lapilli; moderately weathered,small fragments possibly felspar ghosts, weakly sericitized with greasy feel on poker chip type fractures: bedding slightly varible 65-80° flattening downhole, moderate pervasive-bedding selective red to rusty orange gossan; weakly developed mm rusty low angle fractures; trace -0.5% finely disseminated pyrite, pyrite replacement along laminations, rare clast replacement,								
15.3	24.6	ASH TUFF/WEAK LAPILLI TUFF very fine to fine grained thin laminated, moderate to strongly weathered ash tuff; pervasive yellow to orange gossan-weathering stain often better developed as bedding selective feature; lamination generally 85-90° tca with local crenulations-ptygmatic folding; weakly developed elongate bedding imbricated lapilli features typically infilled with fine grained medium grey weathered volcanic material; moderately sericitic; overall rock is quite soft;								
		20.4 FAULT/RUBBLE ZONE strongly fractured, generally parallel to bedding-laminations; in places mixed with crush and clay;	20.4	22.3	1.9	<0.1	17	16	86	60
		22.3-24.6 QUARTZ BANDS-QUARTZ FLOOD strongly fractured rubbly interval; white to grey 0.5-3cm	22.3	24.6	2.3	1.5	17	48	254	19

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		wide concordant to subconcordant quartz bands:								
		host is soft fine grained volcanic as below:								
24.60	30.20	BARITE HORIZON								
24.6	25.6	BARITE HORIZON/HANGINGWALL	24.6	25.4	0.8	9.9	24	763	3588	6
		top part to 25.6 strongly fractured, rubbly, dark								
		green fine grained pyritized soft volcanic (argillite?)								
		with barite laminations; poor recovery, contacts								
		indistinct due to rubble;								
25.6	28.9	BARITE HORIZON	25.4	26.5	1.1	0	0	0	0	0
		white to grey H.3.5 dense heavy massive barite with	26.5	28.9	2.4	8.2	20	328	945	9
		10-50% internal clasts? unaltered clasts?unreplaced								
		clasts of fine grained dark green volcanic (argillite?)								
		with 10% barite in laminations, rarer lenses; soft friable								
		poker chip fracture.								
		28.9-29.3 FAULT/RUBBLE ZONE	28.9	29.3	0.4	10.8	43	116	182	6
		white to yellow quartz +/- barite fragments mixed with	29.3	30.2	0.9	14.5	66	422	1479	5
		green sericitic crush;								
30.2	31.3	FRAGMENTAL?/VOLCANICLASTIC?	30.2	31.3	1.1	47	66	7850	18032	<2
		fine to medium grained generally large (2-10cm along								
		core axis) clasts?fragments?of white to grey								
		quartz +/- barite with trace - 0.5% disseminated								
		galena separated by very fine grained thin laminated								
		lapilli - ash tuff; generally a mixed up somewhat								
		disparate looking unit; 1% bright green barium mica;								
31.3	35.1	FAULT/RUBBLE ZONE	31.3	35.1	3.8	19.5	51	2166	2382	4
		60% poker chip "argillite" fragments, 40% crush and								
		grey mud;								
35.1	36.3	DARK GREEN VOLCANIC?ARGILLITE?MUDSTONE?	35.1	36.3	1.2	7.7	22	269	520	9
		fine grained dark green thin laminae crenulated in part;								
		rare lapilli; 5%streaky barite; lower contact rubbly;								
36.3	44.2	VOLCANICLASTIC/FRAGMENTAL/MULTILITHIC	36.3	38.7	2.4	1.6	14	54	377	13
		BRECCIA	38.7	41.1	2.4	<0.1	9	37	476	35
		medium to large lapilli clasts and lithoclasts in fine to	41.1	44.2	3.1	1.1	15	48	204	22

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		medium grained lapilli matrix; matrix has 3-5% fine								
		grained pyrite as replacement of thin laminae and in								
		disseminations; lithoclasts include volcanics, porphy?								
		fsp porphyry?quartz (chert?); moderately silicified								
		increasing downhole, clast fragment size ranges from								
		2-3mm to 3-4cm across wide axis, generally								
		subrounded to subangular; moderate orange-yellow								
		selective-pervasive oxide stain;								
44.2	51.3	TAN FINE GRAINED SILICIFIED...	44.2	47.2	3	<0.1	3	13	204	183
		tan to brown fine to rare medium grained, massive	47.2	50.2	3	0.2	3	14	235	174
		clean, well silicified rock of uncertain protolith;	50.2	51.3	1.1	<0.1	6	34	535	109
		weakly developed low angle quartz +/- carbonate								
		fracture fill; rare larger 3-5cm along core axis quartz								
		veins?fracture fill: upper contact sharp at 30°tca,								
		possibly subconformable contact, lower contact								
		sharp, conformable at 90°tca;								
51.3	97.2	SILICIFIED TUFF/VOLCANICLASTIC/LAPILLI/	51.3	52.6	1.3	0.4	10	40	44	29
		TRACHYTE?								
		fine grained blue-grey to weathered yellow								
		moderately to strongly silicified matrix supporting								
		poorly sorted small to medium subangular to								
		subrounded clasts-fragments-lapilli clasts; moderate								
		pervasive to selective pervasive bleaching; bedding								
		weakly developed at 90°tca; strongly pyritized with								
		5-7% fine grained pyrite as replacement of laminations								
		in matrix, as replacement of clasts;								
		52.6-53.3 FAULT/RUBBLE ZONE	52.6	53.3	0.7	1.7	21	100	79	9
		strongly fractured, moderately weathered angular clasts	53.3	53.8	0.5	1.4	22	71	36	12
		of volcaniclastic mixed with crush and some mud;	53.8	54.2	0.4	0.3	6	153	14	90
			54.2	57.4	3.2	1.1	21	57	117	15
		53.3-54.2 QUARTZ VEIN	57.4	59.4	2	1.4	22	76	851	14
		low angle bull quartz vein;								
		59.4 increase in pyrite content: est. 8% fine grained	59.4	63.1	3.7	1.3	22	107	825	12
		pyrite as replacement of matrix, in disseminations,	63.1	65.6	2.5	4.8	76	573	3127	13
		replacement of fragments, clasts; rock also becoming								
		increasingly silicified with strongly pervasive silica								
		flood, possible o/p sericite?: in places est. 15%								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		pyrite over 30cm.								
		FREEZING RAIN HAS COVERED CORE								
		WITH ICE; BAD LOGGING JUJU								
		65.6-72.2 YELLOW "TRACHYTE" ALTERATION	65.6	67.6	2	6.2	162	128	802	15
		pale yellow pervasive-selective alteration stain	67.6	69.6	2	4.2	104	99	1681	11
		associated with low angle quartz +/- carbonate fractures;	69.6	72.6	3	0.4	26	62	170	17
		72.2-73.2 MULTILITHIC TUFF/BRECCIA	72.6	73.2	0.6	0.2	23	41	208	21
		conformable 90°tca contacts; medium to large								
		subangular fragments-clasts in fine grained medium	73.2	75.3	2.1	0.5	20	51	252	19
		grey matrix; 10% fine pyrite flood;	75.3	78.3	3	<0.1	10	39	340	44
			78.3	79.9	1.6	0.4	7	31	123	26
		79.9-81.9 CARBONATE-QUARTZ	79.9	81.9	2	2.8	13	870	4756	30
		low angle fractures-veins with white carbonate +/-	81.9	84.4	2.5	0.2	3	18	100	99
		quartz; local carbonate plus or minus quartz flood;								
		81.9-92.5	84.4	87.6	3.2	<0.1	4	19	70	79
		rocks somewhat browner in colour; less pyritic 2-3%	87.6	90.2	2.6	<0.1	10	29	1065	66
		finely disseminated pyrite; pyrite laminations, pyrite								
		replacement of clasts;								
		90.2-91.6 CRYSTAL TUFF	90.2	91.6	1.4	0.2	12	19	39	88
		more massive unit; medium brown fine								
		grained micritic looking interval; well silicified; 1% fine								
		disseminated pyrite, contacts conformable;								
		91.6-92.5	91.6	92.5	0.9	0.7	11	36	980	68
		30% rusty yellow quartz +/- rare carbonate replacement								
		and irregular veins, host is tuff of some kind; 2% finely								
		disseminated pyrite;								
		92.5-93.4	92.5	93.4	0.9	1	19	66	78	40
		strongly pyritized volcaniclastic; 15% fine grained	93.4	95.7	2.3	0.5	10	45	32	44
		pyrite flood / replacement;	95.7	97.2	1.5	<0.1	9	22	29	42
97.2	103.3	CLASTIC UNIT	97.2	99.7	2.5	0.1	11	14	63	92
		different looking unit; quite massive fine to medium	99.7	101.5	1.8	2.5	60	77	45	203
		grained, medium brown, silicified clastic unit of uncertain	101.5	103.3	1.8	0.9	25	25	69	123
		protolith; trace - 0.5% finely disseminated pyrite; a								

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn	Ba
		couple of coarse clastic-fragmental 5cm thick interbeds;								
		contacts appear to be conformable;								
103.3	117.8	MIXED TUFF/FRAGMENTAL/VOLCANICLASTIC	103.3	104.8	1.5	1	15	57	415	48
		very similar if not equivalent to unit above 97.2; fine to	104.8	106.3	1.5	0.1	5	13	41	94
		very fine grained silicified medium grey to green-grey	106.3	107.8	1.5	0.2	4	13	43	104
		volcanic matrix supporting multilithic fragments; in	107.8	109.3	1.5	0.1	7	19	69	106
		places matrix has lapilli type textures; fragments	109.3	110.8	1.5	0.1	5	12	69	93
		include trachyte, quartz, fine grained volcanics; 1-2%	110.8	112.3	1.5	0.1	5	7	164	131
		fine grained disseminated pyrite with local pyrite	112.3	113.6	1.3	0.1	5	19	77	128
		flood up to 15% over 20cm; overall this unit has larger								
		clasts and higher matrix-clast ratio(i.e. less clasts),								
		bedding not particularly well developed @ 90° tca,								
		with concordant fragment-clast imbrication; overall unit								
		is less pyritic than above 97.2m;								
		113.6-114.2 FAULT/RUBBLE ZONE	113.6	114.2	0.6	<0.1	4	14	251	161
		drillers lose return; crush and mud, work to seal								
		fractures not successful;	114.2	116.1	1.9	0.5	12	244	1397	54
			116.1	117.8	1.7	<0.1	6	27	37	64
117.8	119.0	BRECCIA	117.8	119.6	1.8	0.7	9	67	718	56
		fine grained grey angular to subangular volcanic clasts	119.6	121	1.4	<0.1	6	50	97	30
		in breccia matrix of calcite +/- quartz; a couple of clasts								
		have disseminated galena;								
119.0	121.0	THIN LAMINATED TUFF-LAPILLI TUFF								
		END OF HOLE 121.0m/397'								

Location: ICE PROPERTY, PELLY MOUNTAINS, YT			
Azimuth: 006°	Elevation:	1460m	
Inclination: 87°	Length:	107m/351'	
UTM: ZONE 8 630969E / 6830092N	Core Size:	BTW	
Started: AUG. 22. 2000			
Completed: AUG. 24, 2000			
Purpose: TEST FOR VMS HORIZON ASSOCIATED WITH EXTENSIVE BARITE FLOAT			

SURVEYS			
Metreage	Azimuth	Inclination	Corr. Inclin

Property:	ICE
Claim No	
Section:	
Logged by	C. DOWNIE
Date Logged:	AUG 22 - 24, 2000
Drilling Co.	AGGRESSIVE
Assayed by:	NAL

Core Recovery:

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn
0.0m	4.6	CASING							
4.6	26.3	SYENITE/RUBBLE ZONE							
		very broken rubbly core; no pieces >8cm length, many							
		redrilled fragments; subsurface is boulders, big							
		jointed blocks, med. grey silicified bleached fine to med							
		grained intrusive; str. selective-pervasive rusty							
		weathering stain;trace disseminated pyrite;	24.20	26.30	2.10	1.7	13	158	219
26.3	28.6	TUFF? RUBBLE ZONE	26.30	28.60	2.30	3.5	5	225	818
		distinct change in lithology; strongly bleached-							
		altered pale yellow, soft.fine grained, weakly							
		laminatated volcanic; 70% of interval is rubble and							
		mud which appears to be derived from volcanic unit;							
		original grain textures masked by intense bleaching-							
		alteration (sericitization?) but there are faint							
		possible lapilli ghosts							
28.6	30.2	MULTILITHIC BRECCIA/DEBRIS FLOW?	28.60	30.20	1.60	2.8	6	181	290
		cartoon type rock; med. to large to small generally							
		subrounded with occasional subangular clasts-							
		fragments supported by very little fine grained							
		volcanic derived?matrix, strongly bleached; clasts							
		include syenite, abundant grey quartz, fine grained							
		volcanic tuffs, possible lapilli, crystal tuff?;much of the							
		fine volcanics has pale green colour; trace							
		disseminated pyrite;upper contact sharp against							
		bleached unit above; syenite is pink to grey with							
		feldspar-hornblende; 1% bright green barium mica; rock							
		stains yellow with dilute HCl;							
30.2	33.2	TUFF/LAPILLI TUFF WITH BARITE	30.20	31.70	1.50	5.4	24	526	284
		fine grained generally med. grey matrix supporting							

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn
		elongate dark grey to green lapilli; laminated-bedded							
		@85 °tca; strongly bleached;5% fine grained pyrite in							
		fine diss.,as replacement of lapilli as replacement							
		of matrix;3% barite as replacement of lapilli, barite							
		content generally increasing downhole							
		31.7-32.2 BARITE	31.70	32.20	0.50	5.0	20	147	317
		semi massive grey barite with 5% fine grained pyrite							
		stroaks.							
32.2	34.7	STRONGLY PYRITIZED DEBRIS FLOW	32.20	33.20	1.00	3.5	19	307	898
		thin laminated unit with very distorted contorted	33.20	34.70	1.50	7.8	36	3190	12200
		bedding contacts, fine to med grained grey to dark							
		green-grey laminations; 25% fine grained finely dissem-							
		inated pyrite as replacement of matrix; trace-0.5% finely							
		disseminated galena; rock is quite dense so there is							
		likely barite involved also;							
34.7	35.6	ASH TUFF	34.70	35.60	0.90	9.8	81	3490	10000
		very fine grained thin laminated volcanic; weak lapilli							
		textures: 5% small white phenos looking clay altered:							
		moderately sericitic;							
35.6	67.8	BARITE AND LOTS OF IT	35.60	36.30	0.70	21.0	90	2760	10000
		medium grey to dirty white thin laminated massive to	36.30	37.80	1.50	29.7	117	7340	7020
		semi massive barite; boxes-core tubes very heavy;	37.80	38.30	0.50	22.7	34	2530	1900
		laminations variably developed at 80-90° tca with	38.30	41.20	2.90	8.4	32	1380	1520
		pyrite, argillite? insoluble residue? 2-5% fine grained							
		pyrite in disseminations-coarse patches, local flood-							
		laminations; interval has 3-5% fine black speckling							
		possibly organics or Charlie Greig's grey sphalerite;							
		1-2% bright green barium mica;interval generally well							
		fractured with rusty weathering on fracture surface;							
		weakly developed low angle fractures with thin bleaching							
		haloes along margins,weakly developed small to medium							
		vugs;							
		41.2-42.2 FAULT, RUBBLE ZONE	41.20	42.20	1.00	7.5	21	3710	289
		barite fragments mixed with yellow crush and mud.							

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn
58.0	58.8	FAULT/RUBBLE ZONE	58.00	58.80	0.80	10.2	143	1244	5610
		gouge, grey clay							
58.8	67.8	BARITE/BARITE REPLACEMENT/	58.80	60.70	1.90	12.6	37	1738	9900
		SHALERITE/GALENA	60.70	62.50	1.80	8.1	74	1046	3600
		looks like barite replacement of volcanic unit; rock							
		textures suggest probable thin laminated tuff, 40%							
		massive to semi massive barite,10-15% fine grained							
		pyrite flood.galena and sphalerite occur together in							
		lamination-patches sphalerite is pale yellow and							
		somewhat difficult to identify due to very fine grained							
		nature and colloform-replacement type habit, however							
		gives distinct "rotten egg" (H2S) smell on addition of							
		dilute HCl; est 2-3% each from 58.8 62.5 laminations-							
		bedding angles pretty good at 70-80°tca							
		62.5-62.8 QUARTZ	62.50	62.80	0.30	5.0	36	415	860
		quartz flood, possibly over barite, with	62.80	64.40	1.60	7.6	105	828	3200
		0.5% blotchy disseminated galena;	64.40	66.00	1.60	5.5	48	389	1390
		66.0-67.8 EXHALITIVE	66.00	67.80	1.80	6.9	50	887	4020
		thin laminated wavy distorted unit;well developed fine							
		grained selective along laminations, pale yellow							
		alteration, possibly sphalerite but gives only faint							
		H2S smell on reaction with dilute HCl; est. 25% over							
		section;I'll ask Burke;							
		67.8-68.4 SHALERITE/EXHALITIVE	67.80	68.40	0.60	12.7	75	2240	27900
		wavy barite with laminations 0° tca; 5-6% pale yellow							
		sphalerite in colloform disseminations with galena and							
		heavy pyrite disseminations							
68.4	72.2	GREY MUD	68.40	70.40	2.00	7.1	48	760	3090
		well consolidated heavy (baritic?) grey fine grained mud,	70.40	72.20	1.80	7.8	56	860	3020
		heavy pyrite dissemination in planes;							
72.2	73.5	BARITE	72.20	73.50	1.30	6.3	88	525	1467
		massive, grey, dense;15% fine grained finely							
		disseminated pyrite, from 72.9-73.5 is Rubble Zone/							
		Fault Zone with grey mud and crush,							

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn
73.5	77.4	BARITE/PYRITE/EXHALITIVE	73.50	74.50	1.00	8.3	69	949	3760
		semi massive barite with 30% fine grained pyrite flood;	74.50	75.90	1.40	12.3	82	1488	4770
		pale yellow mineral possibly sphalerite? ~10%; in	75.90	77.40	1.50	10.4	53	1232	5910
		places barite and pyrite have crenulated wavy habit							
		with laminations parallel tca;							
77.4	78.6	BARITE	77.40	78.60	1.20	1.9	23	118	450
		semi massive to massive barite with 30cm strongly							
		silicified int. in middle;							
78.6	83.1	WAVEY UNIT/EXHALITIVE	78.60	79.80	1.20	7.3	82	1054	4400
		thin laminated barite and pyrite with distinct wavey	79.80	81.60	1.80	8.8	64	1543	3180
		crenulated pattern; pervasive lamination selective	81.60	83.10	1.50	3.6	71	1073	2390
		pale yellow mineral alteration? primary? possibly							
		epidote							
83.1	86.9		83.10	83.50	0.40	5.4	43	87	120
		fine grained to sandy thick bedded tan-grey unit;looks	83.50	84.00	0.50	14.1	138	751	171
		more clastic than volcanic:from 83.5-84.0 is white	84.00	85.00	1.00	6.1	60	195	722
		vuggy quartz with trace disseminated galena: unit is	85.00	86.90	1.90	8.3	77	916	2150
		finely crushed but competent over 20% of interval;							
86.9	90.2	TUFF? VOLCANICLASTIC? ALTERED SYENITE?	86.90	88.50	1.60	3.1	38	248	2210
		TRACHYTE?	88.50	90.20	1.70	4.6	41	404	1430
		strongly altered difficult to discern original rock type:							
		fine to medium grained, generally equigranular rock;							
		15% fine pyrite dissemination; well developed selective-							
		pervasive yellow "trachyte" type alteration;							
90.2	90.5		90.20	90.50	0.30	5.0	61	354	143
		fine grained grey and white thin laminated-foliated unit;							
		moderate pyrite flood;							
90.5	91.3	SWELLING CLAY	90.50	91.30	0.80	5.9	62	590	1690
		grey well consolidated clay, "swelled up in core box:							
		increase in volume non bueno;							
91.30	92.10	TUFF?/EXHALITIVE/SPHALERITE	91.30	92.10	0.80	11.9	99	1830	6020
		dark grey strongly pyritic fine grained rock with vague							
		laminae-volcaniclastic-tuff type textures.part of							
		interval has the wavy texture with very fine grained							

From (m)	To (m)	Description	From (m)	To (m)	Length	Analyses (ppm) Ag	Cu	Pb	Zn
		pynte laminae. barite laminze and fine grained silver-							
		brown mineral,submetallic lustre probably sphalerite;							
		gives rotten egg smell with addition of dilute H2S							
		laminations low angle tca;							
92.1	93.3	MIXED UNIT/EXHALITIVE	92.10	93.30	1.20	6.6	68	648	2780
		well silicified-quartz flooded interval: nice fine grained							
		pyrite; wavy exhalitive laminations;							
93.3	96.2	TUFF?/EXHALITIVE	93.30	94.80	1.50	3.1	57	243	776
		strong pyrite flood has masked much of original rock	94.80	96.20	1.40	2.1	73	106	251
		textures;thin laminated tuff? 40-50% fine grained							
		pynte flood,laminations generally low angle tca; local							
		barite-pyrite wavy textures;							
96.2	96.5	CLAY							
		swelling grey clay;							
96.5	107.0	TUFF?/EXHALITIVE	96.20	96.50	0.30	2.1	92	79	313
		original textures better preserved: bedding-lamination	96.50	97.80	1.30	2.0	294	53	339
		50-60°tca;thin laminated lapilli tuff, very fine grained	97.80	99.30	1.50	1.8	187	39	160
		matrix strong pyrite replacement of selective beds	99.30	100.80	1.50	2.2	105	49	181
		laminae-lapillae;local well developed wavy textures;	100.80	102.30	1.50	1.7	58	53	484
		bedding very erratic in places;good pyritization to end	102.30	103.90	1.60	1.4	49	54	518
		of hole;	103.90	104.90	1.00	1.7	47	98	82
			104.90	106.00	1.10	2.3	63	248	41
		104.4-104.6 swelling clay	106.00	107.00	1.00	2.7	70	271	35
		END OF HOLE 107m/351'							
		hole stopped due to rods sticking in swelling clay zones							
		encountered over last 50'.							

Appendix V

Analytical Results

Bernie

CERTIFICATE OF ANALYSIS
iPL 00H1008

2036 Columbia Street
Vancouver, B.C.
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[100811:19:03:00083000]

INTERNATIONAL PLASMA LABORATORY LTD

Northern Analytical Laboratories
Project : W.O. 00103
Shipper : Norm Smith
Shipment: PO#: 176741

Analysis:
ICP(AqR)30

Comment:

134 Samples Out: Aug 30, 2000 In: Aug 21, 2000

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP 12M/Dis	REJECT 00M/Dis
B31100	134	Pulp	Pulp received as it is, no sample prep.		

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0721	ICP	ppm	Ag ICP	Silver	0.1	99.9
02	0711	ICP	ppm	Cu ICP	Copper	1	20000
03	0714	ICP	ppm	Pb ICP	Lead	2	20000
04	0730	ICP	ppm	Zn ICP	Zinc	1	20000
05	0703	ICP	ppm	As ICP	Arsenic	5	9999
06	0702	ICP	ppm	Sb ICP	Antimony	5	999
07	0732	ICP	ppm	Hg ICP	Mercury	3	9999
08	0717	ICP	ppm	Mo ICP	Molydenum	1	999
09	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	999
10	0705	ICP	ppm	Bi ICP	Bismuth	2	9999
11	0707	ICP	ppm	Cd ICP	Cadmium	0.1	99.9
12	0710	ICP	ppm	Co ICP	Cobalt	1	9999
13	0718	ICP	ppm	Ni ICP	Nickel	1	9999
14	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	9999
15	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	999
16	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	9999
17	0729	ICP	ppm	V ICP	Vanadium	2	9999
18	0716	ICP	ppm	Mn ICP	Manganese	1	9999
19	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	9999
20	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	9999
21	0731	ICP	ppm	Zr ICP	Zirconium	1	9999
22	0736	ICP	ppm	Sc ICP	Scandium	1	9999
23	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
24	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	9.99
25	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	9.99
26	0712	ICP	%	Fe ICP	Iron	0.01	9.99
27	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	9.99
28	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	9.99
29	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
30	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

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Client : Northern Analytical Laboratories
Project: W.O. 00103

134 Samples
134=Pulp

[100811:26:35:00083000]

Out: Aug 30, 2000
In : Aug 21, 2000

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
2.7- 5.2	P	0.6	10	141	12	11	<	<	2	<	<	1.0	2	8	260	<	79	12	24	13	10	5	1	< 0.14	0.03	0.87	0.02	0.17	0.01	0.02
17.3- 18.5	P	0.3	28	46	64	<	<	<	2	<	<	3.1	5	17	20	<	87	6	68	13	6	8	1	< 0.13	0.05	3.14	0.02	0.08	0.01	0.01
18.5- 19.8	P	0.2	25	54	39	<	<	<	2	<	<	1.6	3	8	51	<	100	5	35	20	16	9	1	< 0.16	0.02	1.72	0.01	0.11	0.01	0.02
19.8- 21.4	P	0.6	21	91	81	13	5	<	7	<	<	3.8	11	20	16	<	65	9	184	59	22	26	1	< 0.41	0.41	3.29	0.06	0.20	0.01	0.03
21.4- 23	P	<	10	67	41	8	<	<	3	<	<	<	10	14	93	<	19	3	860	56	157	8	1	< 0.13	16%	0.91	0.05	0.09	0.01	0.03
23 - 24.7	P	<	9	35	32	<	<	<	1	<	<	0.1	10	13	94	<	23	3	1055	7	158	3	2	< 0.18	16%	1.50	0.10	0.12	0.01	0.03
24.7- 25.2	P	0.5	20	80	21	<	<	<	1	<	<	2.7	9	13	17	<	78	4	68	14	21	20	1	< 0.20	0.29	2.81	0.01	0.17	0.01	0.03
25.2- 26.0	P	<	11	17	5	<	<	<	1	<	<	0.7	9	8	61	<	17	<	13	41	9	6	<	< 0.25	0.12	0.92	0.01	0.17	0.01	0.06
26.0- 26.6	P	0.1	9	29	3	<	<	<	2	<	<	1.3	6	9	20	<	106	2	17	6	12	11	<	< 0.08	0.05	1.76	0.01	0.08	0.01	0.05
26.6- 28.1	P	0.5	16	56	7	<	<	<	2	<	<	3.8	41	50	8	<	13	5	14	11	80	3	<	< 0.36	0.60	3.66	0.01	0.20	0.01	0.32
28.1- 29.6	P	0.3	9	49	3	<	<	<	3	<	<	2.1	14	16	22	<	13	6	8	22	46	1	<	< 0.40	0.75	2.17	0.01	0.21	0.01	0.34
29.6- 30.3	P	2.9	43	1652	20	<	<	<	7	<	<	15.0	33	39	7	8	29	15	62	3	32	4	<	< 0.24	0.96	13%	0.01	0.12	0.01	0.17
30.3- 31.4	P	0.5	17	59	5	<	<	<	3	<	<	3.2	23	19	12	<	18	8	11	24	50	2	<	< 0.46	0.78	3.32	0.02	0.25	0.01	0.33
31.4- 32.1	P	1.7	46	379	16	<	<	<	6	<	<	11.6	40	32	8	<	30	15	17	17	40	5	<	< 0.31	0.63	11%	0.01	0.16	0.01	0.22
32.1- 34.0	P	0.6	25	67	7	<	<	<	2	<	<	5.1	35	30	5	5	12	8	5	43	47	2	<	< 0.39	0.78	5.10	0.02	0.21	0.01	0.32
34.0- 35.4	P	1.5	61	436	12	<	<	<	5	<	<	11.0	52	53	2	<	22	14	48	33	70	4	<	< 0.33	1.33	9.91	0.01	0.19	0.01	0.23
35.4- 36.8	P	0.6	25	81	6	<	<	<	7	<	<	5.3	37	45	7	<	14	10	44	48	55	14	1	< 0.46	1.30	4.86	0.02	0.25	0.01	0.32
36.8- 37.5	P	0.6	27	107	5	<	<	<	5	<	<	5.1	24	27	10	<	11	9	18	49	48	13	<	< 0.41	1.10	4.61	0.01	0.23	0.01	0.35
37.5- 39.3	P	0.1	5	9	3	<	<	<	2	<	<	0.5	10	6	81	<	3	4	7	61	45	4	<	< 0.39	1.01	0.53	0.01	0.21	0.01	0.39
39.3- 40.8	P	0.1	17	34	3	<	<	<	2	<	<	1.7	19	8	20	<	5	5	9	14	47	3	<	< 0.36	0.85	1.73	0.01	0.22	0.01	0.30
40.8- 42.3	P	0.6	26	72	5	<	<	<	3	<	<	3.9	18	11	8	5	8	8	8	27	37	3	<	< 0.47	0.68	4.15	0.02	0.28	0.01	0.29
42.3- 43.6	P	0.2	12	18	4	<	<	<	1	<	<	1.4	9	5	34	<	4	6	10	55	50	2	<	< 0.47	0.76	1.33	0.02	0.29	0.01	0.29
43.6- 44.8	P	0.6	22	179	8	<	<	<	5	<	<	4.0	20	12	5	<	8	8	53	44	66	6	<	< 0.46	0.97	4.12	0.02	0.27	0.01	0.25
44.8- 46.6	P	0.3	16	58	4	<	<	<	3	<	<	1.5	19	14	20	<	6	6	15	17	53	3	1	< 0.47	0.81	1.63	0.02	0.25	0.01	0.37
46.6- 46.8	P	<	4	33	12	<	<	<	1	<	<	0.5	4	7	268	<	43	2	10	19	26	3	1	< 0.20	0.05	0.43	0.01	0.14	0.01	0.03
46.8- 48.1	P	0.4	13	45	4	<	<	<	1	<	<	1.0	16	13	33	<	19	4	73	16	24	4	1	< 0.33	0.33	1.15	0.02	0.20	0.01	0.12
48.1- 49.5	P	0.9	26	133	5	<	<	<	7	<	<	3.3	27	30	8	<	25	6	82	9	44	13	1	< 0.32	0.63	3.34	0.01	0.17	0.01	0.20
49.5- 51.0	P	0.2	10	15	3	<	<	<	1	<	<	0.9	12	11	37	<	21	4	29	13	41	5	1	< 0.34	0.50	0.88	0.02	0.18	0.01	0.25
51.0- 51.2	P	0.3	15	21	3	<	<	<	1	<	<	1.4	26	16	30	<	44	5	18	13	63	3	<	< 0.38	0.38	1.55	0.02	0.24	0.01	0.32
51.2- 51.8	P	<	7	11	3	<	<	<	3	<	<	0.8	7	8	59	<	13	4	8	33	38	2	1	< 0.42	0.51	0.65	0.02	0.22	0.01	0.24
51.8- 52.5	P	<	5	19	4	<	<	<	3	<	<	0.8	5	5	99	<	27	7	49	40	96	2	1	< 0.47	0.92	0.72	0.02	0.28	0.01	0.38
52.5- 54.0	P	<	7	6	4	<	<	<	2	<	<	1.0	12	7	82	<	6	6	57	49	72	1	1	< 0.55	1.20	0.74	0.03	0.31	0.01	0.46
54.0- 55.2	P	0.2	11	16	4	<	<	<	3	<	<	0.7	20	18	97	<	11	5	51	48	48	2	1	< 0.52	0.97	0.65	0.03	0.29	0.01	0.35
55.2- 56.4	P	2.9	102	886	42	<	<	<	11	<	<	11.8	56	75	8	<	17	14	139	10	55	12	1	< 0.34	1.16	11%	0.02	0.22	0.01	0.29
56.4- 57.5	P	0.1	8	13	10	<	<	<	2	<	<	0.8	14	8	114	<	12	7	36	31	69	2	1	< 0.73	1.56	0.77	0.04	0.33	0.01	0.45
57.5- 58.9	P	0.3	19	14	4	<	<	<	3	<	<	1.4	27	19	38	<	5	5	122	24	79	2	1	< 0.50	1.54	1.39	0.03	0.27	0.01	0.48
58.9- 59.2	P	0.2	19	20	4	<	<	<	2	<	<	1.3	22	16	43	<	23	4	424	17	192	2	2	< 0.47	2.54	1.41	0.03	0.22	0.01	0.45
59.2- 60.9	P	0.5	16	101	5	<	<	<	2	<	<	1.8	16	20	15	<	9	3	333	11	66	4	1	< 0.26	1.58	2.12	0.03	0.17	0.01	0.11
60.9- 62.6	P	0.1	4	2	6	<	<	<	3	<	<	1.6	6	3	104	<	5	10	1054	10	52	3	2	< 0.26	3.96	1.24	0.87	0.18	0.01	0.10
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1008

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
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134 Samples
134=Pulp

[100811:26:35:00083000]

Out: Aug 30, 2000
In : Aug 21, 2000

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
62.6- 64.1	P	0.2	7	14	8	<	<	<	2	<	<	1.2	10	8	92	<	11	9	531	10	29	5	2	<	0.28	2.39	1.03	0.51	0.19	0.01	0.10
64.1- 65.6	P	0.1	8	18	10	<	<	<	6	<	<	1.4	8	5	105	<	9	8	788	13	45	6	2	<	0.28	3.73	1.06	0.57	0.20	0.01	0.12
65.6- 66.2	P	0.3	13	140	55	6	<	<	4	<	<	1.3	10	11	85	<	15	2	21	17	10	4	1	<	0.29	0.31	0.57	0.03	0.19	0.01	0.09
66.2- 66.4	P	0.2	7	145	16	<	<	<	1	<	<	3.5	38	13	18	<	8	5	8	12	11	14	<	<	0.34	0.28	3.48	0.01	0.22	0.01	0.11
66.4- 67.2	P	0.5	22	88	1162	<	<	<	1	<	<	13.5	18	24	12	<	34	4	12	11	8	6	1	<	0.27	0.16	2.72	0.01	0.18	0.01	0.06
67.2- 67.5	P	<	12	27	16	<	<	<	1	<	<	1.6	8	18	30	<	16	2	8	12	4	3	<	<	0.23	0.10	1.54	0.01	0.17	0.01	0.01
67.5- 69.2	P	<	6	9	21	<	<	<	1	<	<	1.4	3	6	32	<	45	<	228	17	29	3	1	<	0.26	0.86	1.25	0.20	0.17	0.01	0.03
69.2- 70.7	P	<	7	16	51	<	<	<	1	<	<	4.0	3	6	13	<	34	2	1007	9	71	3	1	<	0.23	2.82	3.32	0.74	0.12	0.01	0.04
70.7- 72.2	P	<	5	15	49	<	<	<	2	<	<	3.4	4	8	19	<	38	2	1280	11	95	3	2	<	0.39	3.19	3.10	0.70	0.08	0.01	0.04
72.2- 73.7	P	0.7	27	83	30	<	<	<	3	<	<	6.1	18	30	4	<	20	4	461	6	28	5	1	<	0.21	1.02	6.33	0.21	0.11	0.01	0.01
73.7- 75.0	P	<	9	21	24	<	<	<	3	<	<	2.3	2	5	15	<	27	<	38	15	9	5	<	<	0.27	0.14	2.18	0.02	0.11	0.01	0.03
75.0- 76.5	P	<	3	<	7	<	<	<	4	<	<	0.6	1	1	70	<	28	<	68	23	8	5	<	<	0.20	0.17	0.71	0.03	0.13	0.01	0.01
76.5- 77.9	P	<	5	2	5	<	<	<	6	<	<	1.0	3	4	43	<	29	<	53	32	8	7	<	<	0.16	0.14	1.12	0.02	0.14	0.01	0.01
77.9- 79.2	P	<	4	2	13	<	<	<	3	<	<	1.7	1	<	57	<	37	<	488	25	29	5	1	<	0.27	0.64	1.75	0.13	0.13	0.01	0.01
79.2- 80.4	P	<	2	7	23	21	<	<	3	<	<	3.2	1	2	23	<	33	2	973	22	34	5	1	<	0.26	0.64	3.22	0.18	0.16	0.01	0.02
80.4- 81.7	P	<	2	2	24	<	<	<	3	<	<	3.0	1	4	41	<	44	<	1018	26	34	5	1	<	0.19	0.60	2.89	0.17	0.15	0.03	0.01
81.7- 83.5	P	0.1	3	5	42	<	<	<	4	<	<	4.2	1	4	132	<	33	2	1780	28	65	4	1	<	0.18	1.57	4.12	0.38	0.13	0.02	0.02
83.5- 85.9	P	0.1	5	5	22	<	<	<	4	<	<	2.0	2	<	55	<	36	<	680	30	35	5	1	<	0.28	0.93	2.13	0.15	0.16	0.01	0.02
85.9- 86.1	P	1.2	38	87	16	<	<	<	57	<	<	7.6	37	73	4	<	32	6	304	10	25	11	1	<	0.11	0.62	7.69	0.10	0.13	0.01	0.01
86.1- 88.1	P	0.1	5	9	22	<	<	<	5	<	<	2.4	2	3	157	<	27	2	984	28	85	3	2	<	0.31	2.58	2.09	0.63	0.15	0.01	0.01
88.1- 90.0	P	0.1	12	14	51	<	<	<	7	<	<	3.9	5	12	22	<	26	2	1097	21	84	3	1	<	0.28	2.71	3.23	0.66	0.12	0.01	0.02
90.0- 91.4	P	<	3	5	29	<	<	<	4	<	<	3.4	2	4	57	<	18	2	1186	29	76	2	1	<	0.41	1.97	3.21	0.40	0.15	0.01	0.02
91.4- 92.8	P	<	3	4	41	<	<	<	4	<	<	3.6	1	1	101	<	26	2	1305	24	118	2	1	<	0.19	3.05	3.23	0.48	0.13	0.02	0.01
92.8- 94.3	P	<	3	6	43	<	<	<	3	<	<	5.0	2	1	122	<	35	3	1603	57	33	4	1	<	0.18	0.81	4.80	0.31	0.12	0.03	0.03
94.3- 95.6	P	<	3	2	29	<	<	<	5	<	<	3.8	1	2	122	<	33	2	1444	59	21	4	1	<	0.18	0.54	3.91	0.27	0.16	0.02	0.02
95.6- 97.0	P	<	4	2	24	<	<	<	5	<	<	2.7	2	6	213	<	27	<	1318	42	108	4	2	<	0.19	3.15	2.36	0.52	0.15	0.02	0.02
97.0- 99.7	P	<	4	8	232	<	<	<	5	<	<	3.3	2	3	115	<	19	<	1194	39	77	3	2	<	0.19	2.78	2.03	0.69	0.13	0.01	0.02
99.7-100.8	P	1.2	32	138	50	<	<	<	11	<	<	7.9	13	22	6	<	19	6	782	7	53	10	1	<	0.24	1.91	7.14	0.51	0.11	0.01	0.02
100.8-103.2	P	<	3	8	33	<	<	<	6	<	<	2.0	2	2	124	<	12	<	1138	24	80	3	1	<	0.23	3.33	2.01	0.96	0.13	0.01	0.02
103.2-104.9	P	2.8	82	288	32	<	<	<	23	<	<	14.0	17	43	9	<	39	13	201	2	16	13	<	<	0.10	0.58	13%	0.13	0.11	0.01	0.02
104.9-105.8	P	0.5	14	40	21	<	<	<	7	<	<	3.5	6	9	11	<	21	2	531	13	37	7	1	<	0.14	1.63	3.15	0.49	0.12	0.01	0.02
105.8-107.3	P	0.2	9	18	10	<	<	<	3	<	<	1.4	9	11	35	<	51	<	242	24	25	9	1	<	0.16	0.89	1.42	0.21	0.14	0.01	0.09
107.3-108.8	P	0.5	12	40	7	<	<	<	3	<	<	1.8	9	12	21	<	46	<	31	19	22	12	<	<	0.17	0.46	1.69	0.02	0.12	0.01	0.17
108.8-110.8	P	0.6	17	47	13	<	<	<	3	<	<	2.7	13	19	24	<	51	3	222	21	28	8	1	<	0.23	0.78	2.25	0.14	0.13	0.01	0.13
110.8-112.4	P	0.5	10	90	90	<	<	<	7	<	<	2.5	6	12	81	<	61	3	358	22	61	6	1	<	0.16	1.39	1.18	0.27	0.12	0.01	0.06
112.4-113.8	P	0.5	10	15	5	<	<	<	3	<	<	1.2	17	18	58	<	29	5	18	19	16	5	<	<	0.33	0.25	1.24	0.02	0.21	0.01	0.09
113.8-115.3	P	0.2	9	6	3	<	<	<	1	<	<	0.8	9	7	151	<	18	7	317	22	82	4	2	<	0.30	1.43	0.58	0.13	0.20	0.01	0.10
115.3-118.0	P	0.1	6	7	6	<	<	<	2	<	<	1.7	7	5	186	<	11	12	495	50	84	5	4	<	0.33	3.22	1.40	0.73	0.24	0.01	0.10
118.0-121.0	P	0.2	10	6	6	<	<	<	3	<	<	1.4	8	7	112	<	8	8	444	20	98	6	2	<	0.31	3.22	1.15	0.52	0.21	0.01	0.07
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

——No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1008

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: W.O. 00103

134 Samples
134=Pulp

[100811:26:35:00083000]

Out: Aug 30, 2000
In : Aug 21, 2000

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
121.0-122.5	P	0.6	18	26	7	<	<	<	5	<	<	2.3	16	21	38	<	8	10	483	15	37	9	1	<	0.32	1.86	1.94	0.48	0.20	0.01	0.10
122.5-123.3	P	0.8	38	112	14	<	<	<	3	<	<	3.0	18	29	9	<	19	4	280	13	88	4	1	<	0.29	1.67	3.11	0.07	0.18	0.01	0.15
123.3-124.1	P	0.5	23	66	16	<	<	<	1	<	<	1.9	15	31	14	<	31	2	293	21	49	4	2	<	0.43	1.01	2.26	0.14	0.11	0.01	0.14
124.1-125.6	P	1.0	32	140	8	<	<	<	4	<	<	3.6	20	32	6	<	36	3	98	23	23	4	1	<	0.25	0.40	3.86	0.05	0.15	0.01	0.10
125.6-127.5	P	1.7	40	323	12	<	<	<	3	<	<	7.8	18	27	2	<	39	7	97	6	14	4	<	<	0.18	0.37	7.68	0.06	0.12	0.01	0.08
127.5-128.5	P	0.6	18	79	10	<	<	<	1	<	<	2.7	10	14	9	<	34	4	439	14	38	3	1	<	0.23	1.08	2.90	0.27	0.17	0.01	0.09
128.5-130.7	P	0.3	12	24	12	<	<	<	2	<	<	1.5	10	13	27	<	43	4	508	25	58	3	2	<	0.20	1.45	1.53	0.38	0.16	0.01	0.11
130.7-131.5	P	1.2	55	140	13	<	<	<	5	<	<	7.4	16	23	2	<	19	6	75	3	21	3	<	<	0.11	0.32	7.48	0.05	0.09	0.01	0.08
131.5-133.5	P	0.9	45	119	9	<	<	<	4	<	<	5.1	21	32	4	<	29	4	95	16	17	3	<	<	0.19	0.41	5.25	0.07	0.14	0.01	0.09
133.5-135.8	P	0.5	26	40	9	<	<	<	4	<	<	1.9	15	16	17	<	33	3	262	23	31	3	1	<	0.22	0.83	2.16	0.18	0.19	0.01	0.12
135.8-138.2	P	0.3	11	43	7	<	<	<	2	<	<	1.3	9	5	61	<	18	9	498	15	33	2	1	<	0.30	1.48	1.32	0.35	0.23	0.01	0.10
138.2-138.7	P	1.2	19	244	206	27	<	<	6	<	<	3.9	24	6	37	<	10	3	9	21	9	16	<	<	0.29	0.14	1.18	0.02	0.22	0.01	0.05
138.7-140.9	P	<	4	4	10	<	<	<	2	<	<	1.3	3	4	548	<	11	2	482	79	65	3	1	<	0.33	1.74	1.13	0.43	0.32	0.01	0.07
140.9-143.4	P	<	3	3	10	<	<	<	1	<	<	2.0	1	<	1247	<	17	<	394	67	57	2	1	0.01	0.32	1.56	1.75	0.44	0.31	0.01	0.04
143.4-146.2	P	<	4	7	17	<	<	<	<	<	<	2.3	1	5	338	<	16	2	713	45	83	1	1	<	0.24	3.19	2.19	0.86	0.21	0.01	0.05
146.2-148.9	P	<	2	5	18	<	<	<	2	<	<	2.3	1	3	1079	<	32	2	878	57	77	1	1	<	0.23	3.60	2.04	0.94	0.21	0.01	0.05
148.9-151.9	P	<	2	6	9	<	<	<	1	<	<	2.2	1	3	496	<	12	2	441	62	30	2	1	0.01	0.26	1.33	2.22	0.32	0.25	0.01	0.05
151.9-154.7	P	<	1	6	12	<	<	<	1	<	<	2.6	2	<	406	<	18	2	654	59	34	2	1	0.02	0.28	1.53	2.59	0.36	0.25	0.01	0.04
154.7-156.6	P	<	1	7	12	<	<	<	<	<	<	1.9	1	1	147	<	7	<	531	54	29	2	<	<	0.52	2.01	2.02	0.50	0.27	0.01	0.04
156.6-158.1	P	<	1	5	17	<	<	<	2	<	<	2.9	2	2	160	<	16	<	727	51	51	3	<	<	0.51	2.90	2.77	0.80	0.23	0.01	0.03
158.1-159.6	P	<	3	4	11	<	<	<	1	<	<	1.8	1	1	487	<	14	<	403	94	36	3	<	0.01	0.29	1.49	2.22	0.36	0.23	0.01	0.06
159.6-160.5	P	<	1	<	9	<	<	<	1	<	<	1.3	1	2	836	<	12	<	289	113	46	3	<	<	0.31	1.18	1.27	0.29	0.30	0.01	0.04
160.5-162.1	P	<	1	8	32	<	<	<	2	<	<	2.5	2	5	1682	<	25	<	863	85	164	6	1	<	0.21	3.83	2.49	0.86	0.17	0.01	0.03
162.1-163.7	P	<	2	5	26	<	<	<	4	<	<	2.6	2	2	698	<	16	2	1186	95	112	4	1	<	0.25	4.52	2.32	1.25	0.23	0.01	0.03
163.7-165.4	P	<	1	5	27	<	<	<	<	<	<	2.5	2	4	786	<	19	<	997	75	127	3	1	<	0.22	3.86	2.32	0.93	0.22	0.01	0.03
165.4-167.2	P	<	2	6	30	<	<	<	1	<	<	2.6	2	3	1516	<	34	<	768	74	146	3	1	<	0.20	3.23	2.38	0.62	0.21	0.01	0.03
167.5-169.6	P	<	2	6	61	<	<	<	1	<	<	4.5	3	1	1482	<	32	3	1484	54	245	4	<	<	0.15	5.59	4.14	1.05	0.17	0.01	0.03
169.6-171.5	P	<	2	15	21	<	<	<	2	<	<	5.8	3	<	737	<	15	4	561	84	86	4	<	0.06	0.22	2.17	5.69	0.41	0.24	0.01	0.03
171.5-173.1	P	<	3	8	19	<	<	<	3	<	<	2.1	1	3	659	<	24	<	607	69	88	4	<	<	0.22	2.30	1.81	0.50	0.24	0.01	0.03
173.1-174.7	P	<	3	8	27	<	<	<	3	<	<	2.3	2	<	402	<	38	<	868	55	111	3	<	<	0.22	3.55	2.26	0.86	0.23	0.01	0.02
174.7-176.4	P	<	1	3	18	<	<	<	1	<	<	2.0	1	1	1277	<	15	<	633	107	77	3	1	<	0.30	2.77	1.69	0.68	0.31	0.01	0.03
176.4-178.2	P	<	2	8	30	<	<	<	4	<	<	2.7	3	4	263	<	36	2	1531	43	121	11	1	<	0.10	6.94	2.94	2.13	0.10	0.01	0.02
178.2-179.9	P	<	2	8	28	<	<	<	2	<	<	1.9	2	4	245	<	26	2	1257	95	124	6	1	<	0.13	5.75	2.49	1.78	0.13	0.01	0.03
179.9-181.6	P	<	2	8	45	<	<	<	5	<	<	2.5	3	3	227	<	30	2	1367	70	166	6	1	<	0.11	5.69	2.63	1.68	0.11	0.01	0.02
181.6-184.6	P	<	3	4	23	<	<	<	3	<	<	2.4	3	4	282	<	35	2	952	58	112	5	1	<	0.13	4.53	1.89	1.24	0.12	0.01	0.03
184.6-185.4	P	<	2	5	19	<	<	<	1	<	<	1.8	2	<	217	<	34	<	627	63	81	5	1	<	0.22	2.96	1.39	0.90	0.14	0.01	0.02
185.4-188.5	P	<	3	7	43	<	<	<	4	<	<	1.7	4	1	220	<	30	2	1249	49	146	6	1	<	0.12	5.49	2.45	1.63	0.11	0.01	0.03
188.5-191.3	P	<	2	22	34	<	<	<	20	<	<	2.3	3	2	258	<	23	3	1272	55	153	8	1	<	0.18	6.97	2.65	1.91	0.15	0.01	0.03
191.3-192.5	P	0.1	6	31	38	<	<	<	2	<	<	2.5	5	1	252	<	26	3	1021	65	108	5	1	<	0.23	3.25	1.96	0.75	0.22	0.01	0.05
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1008

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: W.O. 00103

134 Samples
134=Pulp

[100811:26:35:00083000]

Out: Aug 30, 2000
In : Aug 21, 2000

Sample Name		Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
192.5-193.9	P	<	4	22	41	<	<	<	12	<	<	2.4	5	4	220	<	40	5	1463	41	166	4	1	<	0.15	5.21	2.78	1.35	0.14	0.01	0.04
193.9-194.8	P	<	5	12	34	<	<	<	2	<	<	3.8	5	3	281	<	40	3	1416	36	168	3	1	<	0.26	4.45	3.04	1.07	0.14	0.01	0.03
194.8-197.2	P	<	3	7	17	<	<	<	2	<	<	4.4	3	3	130	<	9	3	1255	68	46	2	1	<	0.49	2.49	3.84	0.84	0.33	0.01	0.04
197.2-200.0	P	<	3	5	14	<	<	<	3	<	<	3.9	2	2	99	<	11	3	1736	73	50	3	1	<	0.47	3.35	3.63	0.87	0.31	0.01	0.04
200.0-201.3	P	<	3	7	12	<	<	<	3	<	<	3.2	2	1	73	<	8	3	929	36	42	3	1	<	0.41	3.65	3.07	0.87	0.26	0.01	0.03
201.3-204.0	P	<	4	8	10	<	<	<	5	<	<	3.6	3	<	94	<	6	2	1194	53	34	4	<	<	0.37	3.59	3.21	0.83	0.34	0.01	0.03
204.0-205.8	P	<	5	10	20	<	<	<	3	<	<	5.6	3	<	116	<	15	4	2570	46	61	2	<	<	0.37	4.89	4.84	1.18	0.25	0.01	0.03
205.8-207.7	P	<	4	6	16	<	<	<	8	<	<	4.6	3	1	74	<	17	3	2316	49	36	4	1	<	0.54	3.77	4.24	1.08	0.24	0.01	0.03
207.7-210.6	P	<	6	13	16	<	<	<	5	<	<	4.8	5	6	90	<	17	4	2023	31	49	2	1	<	0.33	4.34	4.33	0.95	0.26	0.01	0.03
210.6-213.0	P	<	7	11	11	<	<	<	7	<	<	3.5	5	1	91	<	9	4	1079	40	34	4	1	<	0.34	2.55	3.50	0.54	0.29	0.01	0.04
213.0-214.2	P	<	5	6	16	<	<	<	4	<	<	4.9	4	9	96	<	7	4	1718	63	43	3	<	<	0.46	3.53	4.29	0.86	0.22	0.01	0.03
214.2-217.2	P	<	4	7	18	<	<	<	2	<	<	4.8	3	2	92	<	5	4	2404	86	32	4	<	<	0.34	2.92	5.11	0.86	0.27	0.01	0.03
217.2-219.7	P	<	5	45	24	<	<	<	9	<	<	5.5	4	4	302	<	57	5	2369	44	123	3	1	<	0.32	5.52	5.44	1.10	0.18	0.01	0.04
219.7-222.1	P	<	10	39	18	<	<	<	8	<	<	5.3	5	14	78	<	15	7	1606	18	82	2	1	<	0.38	4.91	4.69	1.14	0.21	0.01	0.03
222.1-224.6	P	<	5	6	16	<	<	<	4	<	<	5.2	4	8	110	<	14	5	1876	70	56	3	1	<	0.35	3.52	4.40	0.80	0.30	0.01	0.05
224.6-226.8	P	<	5	15	16	<	<	<	6	<	<	5.1	4	1	118	5	8	6	1679	58	70	3	1	<	0.35	4.13	3.99	0.86	0.30	0.01	0.07
226.8-227.1	P	0.2	14	21	8	<	<	<	5	<	<	2.5	13	12	55	<	14	7	725	19	53	6	1	<	0.38	2.14	2.59	0.36	0.29	0.01	0.09
Min Limit		0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*		99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method		ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

Northern Analytical Laboratories ltd.

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18/08/2000

Certificate of Analysis

Bernie Kreft

WO#00103

Certified by

	Sample #	Au ppb
r	2.7-5.2	13
r	17.3-18.5	9
r	18.5-19.8	11
r	19.8-21.4	12
r	21.4-23.0	12
r	23.0-24.7	14
r	24.7-25.2	13
r	25.2-26.0	12
r	26.0-26.6	11
r	26.6-28.1	17
r	28.1-29.6	11
r	29.6-30.3	17
r	30.3-31.4	7
r	31.4-32.1	5
r	32.1-34.0	7
r	34.0-35.4	8
r	35.4-36.8	12
r	36.8-37.5	7
r	37.5-39.3	11
r	39.3-40.8	14
r	40.8-42.3	6
r	42.3-43.6	7
r	43.6-44.8	6
r	44.8-46.6	13
r	46.6-46.8	12
r	46.8-48.1	11
r	48.1-49.5	10
r	49.5-51.0	12
r	51.0-51.2	11
r	51.2-51.8	10

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WO#.00103

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	Sample #	Au ppb
r	51.8-52.5	7
r	52.5-54.0	8
r	54.0-55.2	6
r	55.2-56.4	7
r	56.4-57.5	9
r	57.5-58.9	11
r	58.9-59.2	14
r	59.2-60.9	12
r	60.9-62.6	13
r	62.6-64.1	10
r	64.1-65.6	5
r	65.6-66.2	5
r	66.2-66.4	10
r	66.4-67.2	12
r	67.2-67.5	6
r	67.5-69.2	5
r	69.2-70.7	10
r	70.7-72.7	9
r	72.7-73.7	5
r	73.7-75.0	12
r	75.0-76.5	13
r	76.5-77.9	10
r	77.9-79.2	10
r	79.2-80.4	6
r	80.4-81.7	7
r	81.7-83.5	<5
r	83.5-85.9	9
r	85.9-86.1	9
r	86.1-88.1	9
r	88.1-90.0	8

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WO# 00103

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	Sample #	Au ppb
r	90.0-91.4	5
r	91.4-92.8	7
r	92.8-94.3	7
r	94.3-95.6	5
r	95.6-97.0	9
r	97.0-99.7	10
r	99.7-100.8	11
r	100.8-103.2	9
r	103.2-104.9	10
r	104.9-105.8	9
r	105.8-107.3	8
r	107.3-108.8	8
r	108.8-110.8	8
r	110.8-112.4	8
r	112.4-113.8	10
r	113.8-115.3	8
r	115.3-118.0	13
r	118.0-121.0	8
r	121.0-122.5	12
r	122.5-123.3	11
r	123.3-124.1	6
r	124.1-125.6	6
r	125.6-127.5	5
r	127.5-128.5	6
r	128.5-130.7	8
r	130.7-131.5	7
r	131.5-133.5	7
r	133.5-135.8	10
r	135.8-138.2	12
r	138.2-138.7	13

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WO# 00103

Certified by

	Sample #	Au ppb
r	138.7-140.9	10
r	140.9-143.4	12
r	143.4-146.2	9
r	146.2-148.9	11
r	148.9-151.9	9
r	151.9-154.7	6
r	154.7-156.6	9
r	156.6-158.1	9
r	158.1-159.6	8
r	159.6-160.5	11
r	160.5-162.1	<5
r	162.1-163.7	11
r	163.7-165.4	8
r	165.4-167.2	5
r	167.2-169.6	15
r	169.6-171.5	16
r	171.5-173.1	6
r	173.1-174.7	8
r	174.7-176.4	9
r	176.4-178.2	5
r	178.2-179.9	8
r	179.9-181.6	11
r	181.6-184.6	6
r	184.6-185.4	11
r	185.4-188.5	9
r	188.5-191.3	6
r	191.3-192.5	7
r	192.5-193.9	10
r	193.9-194.8	12
r	194.8-197.2	13

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18/08/2000

Certificate of Analysis

Bernie Kreft

WO# 00103

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	Sample #	Au ppb
r	197.2-200.0	6
r	200.0-201.3	7
r	201.3-204.0	10
r	204.0-205.8	9
r	205.8-207.7	9
r	207.7-210.6	9
r	210.6-213.0	12
r	213.0-214.2	13
r	214.2-217.2	7
r	217.2-219.7	11
r	219.7-222.1	8
r	222.1-224.6	12
r	224.6-226.8	9
r	226.8-227.1	10

CERTIFICATE OF ANALYSIS
iPL 00H1071

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[107116:28:00:00090600]

INTERNATIONAL PLASMA LABORATORY LTD.

Northern Analytical Laboratories
Project : WO#00116
Shipper : Norm Smith
Shipment: PO#: 176743

Analysis:
ICP(AqR)30

Comment:

77 Samples Out: Sep 06, 2000 In: Aug 30, 2000

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION
B31100	77	Pulp	Pulp received as it is, no sample prep.

PULP 12M/Dis REJECT 00M/Dis
NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0721	ICP	ppm	Ag ICP	Silver	0.1	99.9
02	0711	ICP	ppm	Cu ICP	Copper	1	20000
03	0714	ICP	ppm	Pb ICP	Lead	2	20000
04	0730	ICP	ppm	Zn ICP	Zinc	1	20000
05	0703	ICP	ppm	As ICP	Arsenic	5	9999
06	0702	ICP	ppm	Sb ICP	Antimony	5	999
07	0732	ICP	ppm	Hg ICP	Mercury	3	9999
08	0717	ICP	ppm	Mo ICP	Molydenum	1	999
09	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	999
10	0705	ICP	ppm	Bi ICP	Bismuth	2	9999
11	0707	ICP	ppm	Cd ICP	Cadmium	0.1	99.9
12	0710	ICP	ppm	Co ICP	Cobalt	1	9999
13	0718	ICP	ppm	Ni ICP	Nickel	1	9999
14	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	9999
15	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	999
16	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	9999
17	0729	ICP	ppm	V ICP	Vanadium	2	9999
18	0716	ICP	ppm	Mn ICP	Manganese	1	9999
19	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	9999
20	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	9999
21	0731	ICP	ppm	Zr ICP	Zirconium	1	9999
22	0736	ICP	ppm	Sc ICP	Scandium	1	9999
23	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
24	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	9.99
25	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	9.99
26	0712	ICP	%	Fe ICP	Iron	0.01	9.99
27	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	9.99
28	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	9.99
29	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
30	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

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BC Certified Assayer: David Chiu

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iPL 00H1071

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: WO#00116

77 Samples
77=Pulp

[107116:28:00:00090600]

Out: Sep 06, 2000
In : Aug 30, 2000

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
F0-002 5.2- 5.9 P	3.0	19	24	99	<	<	<	8	<	<	5.5	5	4	73	<	13	4	2180	47	18	8	<	<	0.28	2.27	3.67	0.64	0.18	0.02	0.03
F0-002 5.9- 8.0 P	0.5	14	65	62	<	<	<	3	<	<	4.4	4	<	61	<	17	3	2195	29	29	6	<	<	0.21	2.89	3.17	0.55	0.14	0.02	0.02
F0-002 8.0-11.0 P	0.7	16	14	67	<	<	<	3	<	<	4.3	4	2	89	<	10	3	2311	19	27	6	<	<	0.28	1.97	3.33	0.47	0.18	0.02	0.03
F0-002 11.0-14.0 P	0.2	24	31	59	<	<	<	4	<	<	4.6	5	5	75	<	5	3	2098	23	22	6	<	<	0.31	1.43	3.48	0.45	0.21	0.02	0.03
F0-002 14.0-15.3 P	0.7	11	77	48	<	<	<	12	<	<	5.6	7	29	50	<	6	4	1572	29	46	4	<	<	0.32	1.37	3.89	0.29	0.21	0.01	0.06
F0-002 15.3-17.2 P	0.4	9	84	43	<	<	<	11	<	<	5.6	8	33	38	<	7	4	1692	15	46	5	1	<	0.37	2.65	3.88	0.31	0.22	0.02	0.10
F0-002 17.2-17.9 P	1.2	12	43	42	<	<	<	5	<	<	4.7	7	25	51	<	54	4	1531	14	60	4	1	<	0.38	3.11	2.96	0.23	0.22	0.02	0.10
F0-002 17.9-20.9 P	0.2	7	21	56	<	<	<	3	<	<	4.4	8	20	61	<	6	3	1413	12	29	4	<	<	0.35	2.28	3.18	0.33	0.21	0.02	0.08
F0-002 20.9-23.0 P	1.1	22	32	155	<	<	<	6	<	<	4.9	11	39	47	<	25	6	1467	9	48	5	1	<	0.46	2.28	3.03	0.43	0.27	0.02	0.08
F0-002 23.0-24.0 P	3.9	37	341	559	8	18	<	7	<	<	9.0	11	37	10	<	25	6	1048	17	43	8	1	<	0.34	1.75	4.55	0.29	0.20	0.01	0.03
F0-002 24.0-25.0 P	4.7	24	306	504	13	9	<	12	<	<	7.1	8	27	6	<	20	4	439	16	19	9	<	<	0.33	0.63	4.55	0.07	0.20	0.01	0.03
F0-002 25.0-26.5 P	12.0	21	726	2053	10	12	4	5	<	<	20.9	10	32	6	<	11	4	70	5	16	4	<	<	0.19	0.42	4.28	0.02	0.09	0.01	0.02
F0-002 26.5-28.8 P	5.9	18	104	1152	6	14	<	6	<	<	15.9	5	10	9	<	6	3	75	9	27	4	<	<	0.19	0.25	2.84	0.02	0.10	0.01	0.03
F0-002 28.8-29.4 P	17.6	68	1238	1681	<	42	<	8	<	<	19.1	15	79	5	<	58	5	416	36	54	5	1	<	0.26	0.95	4.33	0.02	0.11	0.02	0.06
F0-002 29.4-30.2 P	25.5	94	1156	5043	9	53	<	5	<	<	49.2	37	203	3	<	56	8	579	67	81	9	2	<	0.55	1.58	5.06	0.03	0.24	0.02	0.07
F0-002 30.2-31.8 P	41.0	90	4198	19688	26	68	8	<	<	<	0.2m	26	84	<	<	35	11	135	22	24	12	1	<	0.33	0.80	5.38	0.02	0.14	0.01	0.09
F0-002 31.8-33.5 P	88.6	126	5619	2.3%	32	103	8	<	<	<	0.2m	16	67	<	<	20	8	40	15	16	19	<	<	0.28	0.26	5.76	0.02	0.15	0.01	0.04
F0-002 33.5-35.8 P	9.5	33	589	1305	15	13	<	8	<	<	17.9	10	39	8	<	11	4	24	15	12	6	<	<	0.25	0.12	4.22	0.01	0.14	0.01	0.03
F0-002 35.8-37.3 P	14.3	34	953	1286	<	16	<	12	<	<	19.0	11	41	5	<	5	4	22	10	12	7	<	<	0.23	0.14	4.51	0.01	0.13	0.01	0.02
F0-002 37.3-38.1 P	9.3	30	501	3972	11	10	<	10	<	<	31.7	9	39	4	<	11	6	258	17	40	11	<	<	0.45	0.92	5.86	0.04	0.21	0.01	0.04
F0-002 38.1-41.1 P	1.0	10	42	323	<	<	<	6	<	<	4.7	3	3	39	<	16	2	869	30	58	12	<	<	0.37	2.10	2.32	0.57	0.25	0.02	0.02
F0-003 5.2- 8.2 P	0.2	15	18	96	<	<	<	6	<	<	5.1	4	4	102	<	6	3	2011	35	21	8	<	<	0.28	2.30	3.48	0.63	0.18	0.02	0.04
F0-003 8.2-11.3 P	0.2	20	13	57	<	<	<	21	<	<	4.1	4	3	94	<	3	3	1715	33	27	7	<	<	0.31	1.77	2.96	0.44	0.20	0.02	0.03
F0-003 11.3-14.3 P	0.2	14	16	53	<	<	<	5	<	<	4.5	5	8	73	<	4	3	1896	41	32	5	<	<	0.23	1.42	3.09	0.45	0.15	0.01	0.03
F0-003 14.3-17.4 P	0.4	13	27	74	<	<	<	3	<	<	4.6	4	5	101	<	23	2	2175	16	28	6	<	<	0.28	2.09	3.28	0.54	0.18	0.02	0.02
F0-003 17.4-19.2 P	0.5	13	114	72	<	<	<	6	<	<	5.7	7	18	44	<	11	4	1628	35	44	5	<	<	0.28	0.91	4.29	0.23	0.20	0.01	0.05
F0-003 19.2-21.8 P	0.6	11	72	194	<	<	<	3	<	<	4.9	5	15	64	<	6	3	687	36	42	4	1	<	0.42	1.34	3.33	0.07	0.25	0.01	0.06
F0-003 21.8-23.5 P	0.6	20	43	229	<	<	<	8	<	<	7.8	7	26	42	<	9	3	661	27	58	4	1	<	0.50	1.29	3.07	0.07	0.21	0.01	0.06
F0-003 23.5-24.8 P	1.2	43	73	112	<	<	<	9	<	<	4.6	3	9	89	<	20	3	235	63	33	6	1	<	0.42	0.26	2.33	0.03	0.30	0.02	0.04
F0-003 24.8-26.5 P	9.9	64	1124	2085	<	16	4	11	<	<	21.7	14	43	8	<	13	5	35	10	16	8	<	<	0.20	0.15	4.91	0.01	0.14	0.01	0.01
F0-003 26.5-27.2 P	6.2	35	284	237	18	11	<	11	<	<	6.9	4	12	9	<	37	4	42	13	12	7	<	<	0.23	0.04	3.96	0.02	0.16	0.01	0.01
F0-003 27.2-27.6 P	0.9	8	58	126	<	<	<	<	<	<	1.2	1	1	391	<	85	<	15	3	100	<	<	<	0.04	0.05	0.20	<	0.02	0.01	<
F0-003 27.6-29.6 P	8.3	44	455	7015	<	9	<	8	<	<	64.9	15	62	8	<	12	4	13	8	12	6	<	<	0.18	0.01	4.15	0.01	0.11	0.01	0.01
F0-003 29.6-32.5 P	7.1	28	414	694	18	13	<	9	<	<	8.1	5	19	18	<	13	2	10	33	29	6	<	<	0.20	0.01	2.24	0.01	0.12	0.01	0.01
F0-003 32.5-33.5 P	3.5	23	273	258	18	<	<	4	<	<	5.3	2	3	30	<	39	3	20	90	57	7	<	<	0.34	0.07	2.37	0.02	0.43	0.02	0.04
F0-003 33.5-34.7 P	0.8	26	35	929	35	<	<	10	<	<	31.0	3	8	44	<	28	3	765	82	83	8	<	<	0.72	2.03	3.00	0.53	0.24	0.02	0.12
F0-003 34.7-36.1 P	1.0	21	29	458	18	<	<	9	<	<	12.5	3	3	82	<	12	3	859	52	47	8	<	<	0.43	2.04	2.46	0.59	0.23	0.02	0.06
F0-003 36.1-38.1 P	1.2	19	27	324	19	<	<	10	<	<	6.3	2	1	83	<	15	2	378	59	31	8	<	<	0.33	0.86	1.60	0.24	0.23	0.02	0.05
F0-003 38.1-40.5 P	0.8	17	19	123	<	<	<	6	<	<	6.9	2	1	94	<	13	2	840	47	33	10	<	<	0.36	2.05	1.80	0.68	0.21	0.02	0.02
Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1071

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: WO#00116

77 Samples
77=Pulp

[107116:28:00:00090600]

Out: Sep 06, 2000
In : Aug 30, 2000

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
F0-003 40.5-43.3 P	1.3	20	45	268	<	<	<	6	<	<	7.8	3	3	37	<	19	3	1218	24	38	9	<	<	0.29	2.84	3.05	0.78	0.16	0.02	0.02
F0-003 43.3-44.0 P	1.3	11	45	57	<	<	<	8	<	<	4.2	3	<	24	<	32	3	321	34	33	12	<	<	0.31	1.06	2.92	0.25	0.20	0.01	0.02
F0-003 44.0-45.4 P	1.5	12	68	147	<	<	<	7	<	<	6.3	2	10	20	<	29	4	1134	11	50	9	<	<	0.19	3.84	4.47	0.99	0.13	0.01	0.01
F0-003 45.4-48.1 P	1.6	14	106	333	<	<	<	11	<	<	8.2	3	3	28	<	25	4	1632	12	57	12	<	<	0.21	5.37	4.64	1.60	0.14	0.02	0.02
F0-003 48.1-49.1 P	2.3	15	174	2140	<	5	<	11	<	<	15.8	3	4	30	<	20	3	1066	17	47	12	<	<	0.17	3.87	3.50	1.16	0.14	0.01	0.02
F0-004 4.3- 6.8 P	<	11	13	78	<	<	<	6	<	<	5.3	6	2	96	<	16	4	2684	71	22	22	<	<	0.35	5.31	3.94	1.16	0.17	0.02	0.03
F0-004 6.8- 8.8 P	<	14	19	44	<	<	<	18	<	<	3.5	3	6	76	<	6	2	759	87	15	14	<	<	0.43	1.65	2.49	0.32	0.25	0.02	0.02
F0-004 8.8-11.3 P	<	18	16	87	<	<	<	12	<	<	5.7	6	7	70	<	7	4	2091	129	15	16	<	<	0.58	2.54	3.81	0.55	0.28	0.02	0.03
F0-004 11.3-14.0 P	<	14	11	84	<	<	<	11	<	<	5.5	4	7	70	<	6	4	2070	121	18	10	<	<	0.35	2.66	3.74	0.55	0.19	0.02	0.03
F0-004 14.0-15.8 P	<	20	14	69	<	<	<	6	<	<	5.0	4	4	75	<	23	3	2043	93	26	9	<	<	0.37	3.31	3.41	0.61	0.21	0.02	0.04
F0-004 15.8-18.0 P	<	16	16	69	<	<	<	5	<	<	4.6	5	7	74	<	3	3	2158	21	25	6	<	<	0.32	1.78	3.34	0.40	0.18	0.02	0.05
F0-004 18.0-19.2 P	<	22	11	66	<	<	<	4	<	<	4.3	4	1	88	<	40	3	1678	10	25	7	<	<	0.27	1.90	3.27	0.39	0.17	0.01	0.02
F0-004 19.2-22.1 P	<	10	28	52	<	<	<	8	<	<	5.2	7	22	48	<	5	4	1666	15	18	6	<	<	0.27	1.27	4.05	0.17	0.18	0.02	0.06
F0-004 22.1-24.9 P	<	19	12	77	<	<	<	6	<	<	5.2	6	14	69	<	12	3	2380	12	22	8	<	<	0.31	2.02	3.58	0.44	0.19	0.02	0.03
F0-004 24.9-25.5 P	0.1	13	12	80	<	<	<	4	<	<	4.8	4	9	102	<	19	3	2603	26	24	6	<	<	0.27	2.46	3.50	0.58	0.17	0.02	0.02
F0-004 25.5-28.5 P	0.1	15	10	66	<	<	<	4	<	<	4.4	5	7	86	<	9	3	2215	60	31	7	<	<	0.30	2.54	3.20	0.54	0.19	0.02	0.03
F0-004 28.5-31.2 P	<	14	9	77	<	<	<	3	<	<	4.8	5	4	90	<	3	3	2400	14	18	6	<	<	0.27	1.28	3.77	0.53	0.17	0.02	0.03
F0-004 31.2-31.4 P	0.1	16	12	73	<	<	<	3	<	<	4.2	4	6	113	<	6	3	2099	19	21	6	<	<	0.33	1.53	3.16	0.46	0.21	0.02	0.03
F0-004 31.4-33.1 P	0.3	19	14	80	<	<	<	11	<	<	4.5	7	14	57	<	11	3	1948	12	25	7	<	<	0.31	1.29	3.57	0.36	0.20	0.02	0.05
F0-004 33.1-34.6 P	0.1	14	15	74	<	<	<	5	<	<	4.3	5	7	95	<	13	3	2115	11	28	5	<	<	0.26	1.55	3.32	0.51	0.18	0.02	0.02
F0-004 34.6-37.4 P	0.4	22	19	75	<	<	<	13	<	<	5.7	6	7	41	5	10	4	2033	10	34	6	<	<	0.21	1.94	4.19	0.50	0.15	0.02	0.03
F0-004 37.4-39.6 P	0.2	15	10	63	<	<	<	8	<	<	4.4	5	12	73	<	9	3	1649	15	36	6	<	<	0.26	1.70	3.17	0.39	0.17	0.02	0.05
F0-004 39.6-41.8 P	0.1	16	13	68	<	<	<	7	<	<	4.2	6	8	86	<	5	3	2101	11	36	6	<	<	0.29	2.07	3.27	0.57	0.18	0.02	0.03
F0-004 41.8-43.2 P	0.3	16	21	124	<	<	<	4	<	<	4.6	5	4	52	7	7	3	1795	41	85	5	<	<	0.27	2.15	3.27	0.44	0.18	0.02	0.03
F0-004 43.2-44.7 P	13.7	39	619	2180	<	25	<	11	<	<	18.9	24	136	3	<	12	7	619	13	30	5	<	<	0.24	1.25	6.70	0.14	0.14	0.01	0.05
F0-004 44.7-45.7 P	40.0	63	2205	5958	<	49	5	8	<	<	45.0	29	154	<	<	15	9	385	36	22	6	<	<	0.29	0.98	7.14	0.04	0.15	0.02	0.05
F0-004 45.7-45.9 P	41.0	45	7374	15069	<	51	14	<	<	<	0.1m	15	66	<	<	16	5	164	17	11	5	<	<	0.30	0.34	4.80	0.06	0.14	0.02	0.04
F0-004 45.9-46.5 P	14.7	16	1161	4762	21	21	<	<	<	<	17.4	2	19	12	<	6	3	156	<	22	1	<	<	0.05	0.35	2.19	0.06	0.03	0.01	0.01
F0-004 46.5-48.5 P	8.5	41	775	2133	41	19	<	11	<	<	18.0	21	81	3	<	12	6	151	6	10	8	<	<	0.30	0.33	6.01	0.09	0.17	0.01	0.06
F0-004 48.5-50.7 P	1.5	44	52	295	21	14	<	9	<	<	5.7	16	47	11	<	10	4	1598	7	39	8	<	<	0.23	1.32	3.31	0.36	0.15	0.01	0.07
F0-004 50.7-51.3 P	0.5	18	21	53	<	<	<	11	<	<	3.5	11	32	29	<	3	2	2389	17	45	6	<	<	0.23	0.95	2.65	0.42	0.16	0.01	0.03
F0-004 51.3-51.7 P	2.0	30	18	23	<	16	<	7	<	<	2.5	7	23	28	<	2	2	52	20	12	6	<	<	0.33	0.11	1.61	0.04	0.22	0.02	0.03
F0-004 51.7-53.5 P	2.9	34	88	26	10	24	<	8	<	<	3.7	28	81	13	<	12	4	392	9	17	5	<	<	0.30	0.57	2.96	0.15	0.18	0.01	0.08
F0-004 53.5-55.2 P	1.6	20	38	13	9	14	<	7	<	<	2.3	12	31	19	<	1	2	65	29	13	9	<	<	0.31	0.14	1.93	0.03	0.19	0.01	0.04
F0-004 55.2-57.0 P	1.8	21	38	11	9	10	<	12	<	<	2.6	9	17	16	<	3	2	620	24	29	8	<	<	0.27	0.39	2.21	0.10	0.18	0.01	0.05
F0-004 57.0-58.6 P	1.8	25	41	17	12	10	<	13	<	<	3.0	7	19	13	<	6	3	259	24	19	8	<	<	0.30	0.35	2.52	0.08	0.20	0.02	0.04
F0-004 58.6-59.4 P	0.8	20	31	19	7	<	<	12	<	<	4.0	6	14	20	<	15	2	834	16	67	8	<	<	0.29	1.95	3.02	0.27	0.19	0.01	0.03
F0-004 59.4-60.0 P	0.9	17	123	28	10	<	<	18	<	<	4.4	4	13	42	<	21	3	1866	15	107	6	<	<	0.23	3.86	2.97	0.85	0.16	0.01	0.03
Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

——=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1070

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INTERNATIONAL PLASMA LABORATORY LTD

Northern Analytical Laboratories

Project : WO#00115
Shipper : Norm Smith
Shipment: PO#: 176743

Analysis:
ICP(AqR)30

Comment:

55 Samples Out: Sep 01, 2000 In: Aug 30, 2000 [107014:02:46:00090100]

CODE	AMOUNT	TYPE	PREPARATION DESCRIPTION	PULP 12M/Dis	REJECT 00M/Dis
B31100	55	Pulp	Pulp received as it is, no sample prep.		

NS=No Sample Rep=Replicate M=Month Dis=Discard

Analytical Summary

##	Code	Method	Units	Description	Element	Limit Low	Limit High
01	0721	ICP	ppm	Ag ICP	Silver	0.1	99.9
02	0711	ICP	ppm	Cu ICP	Copper	1	20000
03	0714	ICP	ppm	Pb ICP	Lead	2	20000
04	0730	ICP	ppm	Zn ICP	Zinc	1	20000
05	0703	ICP	ppm	As ICP	Arsenic	5	9999
06	0702	ICP	ppm	Sb ICP	Antimony	5	999
07	0732	ICP	ppm	Hg ICP	Mercury	3	9999
08	0717	ICP	ppm	Mo ICP	Molydenum	1	999
09	0747	ICP	ppm	Tl ICP (Incomplete Digestion)	Thallium	10	999
10	0705	ICP	ppm	Bi ICP	Bismuth	2	9999
11	0707	ICP	ppm	Cd ICP	Cadmium	0.1	99.9
12	0710	ICP	ppm	Co ICP	Cobalt	1	9999
13	0718	ICP	ppm	Ni ICP	Nickel	1	9999
14	0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barium	2	9999
15	0727	ICP	ppm	W ICP (Incomplete Digestion)	Tungsten	5	999
16	0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium	1	9999
17	0729	ICP	ppm	V ICP	Vanadium	2	9999
18	0716	ICP	ppm	Mn ICP	Manganese	1	9999
19	0713	ICP	ppm	La ICP (Incomplete Digestion)	Lanthanum	2	9999
20	0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium	1	9999
21	0731	ICP	ppm	Zr ICP	Zirconium	1	9999
22	0736	ICP	ppm	Sc ICP	Scandium	1	9999
23	0726	ICP	%	Ti ICP (Incomplete Digestion)	Titanium	0.01	1.00
24	0701	ICP	%	Al ICP (Incomplete Digestion)	Aluminum	0.01	9.99
25	0708	ICP	%	Ca ICP (Incomplete Digestion)	Calcium	0.01	9.99
26	0712	ICP	%	Fe ICP	Iron	0.01	9.99
27	0715	ICP	%	Mg ICP (Incomplete Digestion)	Magnesium	0.01	9.99
28	0720	ICP	%	K ICP (Incomplete Digestion)	Potassium	0.01	9.99
29	0722	ICP	%	Na ICP (Incomplete Digestion)	Sodium	0.01	5.00
30	0719	ICP	%	P ICP	Phosphorus	0.01	5.00

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BC Certified Assayer: David Chiu

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iPL 00H1070

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: WO#00115

55 Samples
55=Pulp

[107014:02:46:00090100]

Out: Sep 01, 2000
In : Aug 30, 2000

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
F0-005 20.4- 22.3 P	<	17	16	86	<	<	<	6	<	<	3.9	8	26	60	<	14	3	1167	10	38	6	1	<	0.29	1.75	2.53	0.35	0.19	0.02	0.06
F0-005 22.3- 24.6 P	1.5	17	48	254	<	<	<	6	<	<	4.5	8	34	19	<	26	2	1276	18	59	7	<	<	0.28	1.79	3.26	0.32	0.18	0.01	0.03
F0-005 24.6- 25.4 P	9.9	24	763	3588	<	11	5	6	<	<	26.0	15	58	6	<	11	2	121	9	21	6	<	<	0.22	0.49	4.44	0.02	0.12	0.01	0.01
F0-005 25.4- 26.5 P	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—
F0-005 26.5- 28.9 P	8.2	20	328	945	<	15	<	7	<	<	15.1	5	14	9	<	6	<	35	16	31	6	<	<	0.23	0.21	3.49	0.01	0.12	0.01	0.02
F0-005 28.9- 29.3 P	10.8	43	116	182	<	15	<	12	<	<	6.4	34	171	6	<	44	5	116	28	22	7	<	<	0.35	0.56	6.37	0.02	0.15	0.01	0.05
F0-005 29.3- 30.2 P	14.5	66	422	1479	<	25	<	12	<	<	22.6	30	143	5	<	19	5	41	86	22	8	<	<	0.32	0.29	6.22	0.02	0.17	0.02	0.06
F0-005 30.2- 31.3 P	47.0	66	7850	18032	12	62	6	<	<	<	0.2m	27	119	<	<	37	7	53	54	31	16	1	<	0.36	0.74	4.52	0.02	0.15	0.02	0.09
F0-005 31.3- 35.1 P	19.5	51	2166	2382	19	29	<	8	<	<	42.1	21	78	4	<	13	3	40	31	20	9	<	<	0.26	0.27	4.85	0.02	0.16	0.01	0.03
F0-005 35.1- 36.3 P	7.7	22	269	520	12	12	<	7	<	<	9.3	7	25	9	<	7	<	40	13	14	7	<	<	0.23	0.17	3.15	0.01	0.16	0.01	0.03
F0-005 36.3- 38.7 P	1.6	14	54	377	<	<	<	8	<	<	4.6	3	7	13	<	13	2	406	19	39	12	<	<	0.33	1.12	4.22	0.28	0.18	0.01	0.02
F0-005 38.7- 41.1 P	<	9	37	476	<	<	<	6	<	<	3.7	3	6	35	<	12	<	796	26	51	11	<	<	0.28	1.89	2.95	0.49	0.22	0.01	0.01
F0-005 41.1- 44.2 P	1.1	15	48	204	<	6	<	6	<	<	4.4	3	3	22	<	21	2	288	28	23	13	<	<	0.35	0.96	3.74	0.14	0.21	0.01	0.02
F0-005 44.2- 47.2 P	<	3	13	204	<	<	<	7	<	<	3.7	1	3	183	<	15	<	706	48	45	5	<	<	0.36	2.00	1.37	0.55	0.18	0.02	0.01
F0-005 47.2- 50.2 P	0.2	3	14	235	<	<	<	13	<	<	2.6	1	1	174	<	19	<	504	38	39	5	<	<	0.31	1.36	1.36	0.30	0.15	0.01	0.01
F0-005 50.2- 51.3 P	<	6	34	535	<	<	<	10	<	<	6.2	2	4	109	<	28	<	921	44	55	5	<	<	0.30	3.27	2.15	0.92	0.16	0.02	0.01
F0-005 51.3- 52.6 P	0.4	10	40	44	<	<	<	4	<	<	2.9	2	4	29	<	36	<	25	37	19	11	<	<	0.23	0.49	2.71	0.02	0.23	0.01	0.01
F0-005 52.6- 53.3 P	1.7	21	100	79	<	<	<	10	<	<	6.4	4	3	9	<	20	4	33	42	32	14	<	<	0.28	0.57	6.12	0.02	0.27	0.01	0.03
F0-005 53.3- 53.8 P	1.4	22	71	36	<	<	<	8	<	<	4.6	3	2	12	<	24	2	22	24	11	15	<	<	0.21	0.34	4.67	0.01	0.16	0.01	0.01
F0-005 53.8- 54.2 P	0.3	6	153	14	<	<	<	3	<	<	1.8	1	2	90	<	101	<	17	34	26	4	<	<	0.14	0.44	0.87		<	0.11	0.01	0.01
F0-005 54.2- 57.4 P	1.1	21	57	117	<	<	<	7	<	<	4.7	3	<	15	<	27	2	33	34	15	12	<	<	0.26	0.28	4.56	0.02	0.21	0.01	0.01
F0-005 57.4- 59.4 P	1.4	22	76	851	<	<	<	17	<	<	11.1	3	2	14	<	22	3	231	52	30	13	<	<	0.29	0.88	5.61	0.16	0.26	0.01	0.02
F0-005 59.4- 63.1 P	1.3	22	107	825	<	<	<	8	<	<	10.5	3	8	12	<	25	2	184	61	27	12	<	<	0.31	0.83	5.90	0.05	0.20	0.01	0.02
F0-005 63.1- 65.6 P	4.8	76	573	3127	10	22	<	8	<	<	23.0	3	3	13	<	36	2	214	74	25	11	<	<	0.24	0.52	5.69	0.04	0.17	0.02	0.03
F0-005 65.6- 67.6 P	6.2	162	128	802	5	43	<	7	<	<	8.8	3	2	15	<	37	2	147	64	33	12	<	<	0.27	0.92	4.80	0.02	0.21	0.01	0.02
F0-005 67.6- 69.6 P	4.2	104	99	1681	<	27	<	21	<	<	22.1	4	4	11	<	20	3	128	109	24	13	<	<	0.26	0.62	6.72	0.02	0.19	0.01	0.02
F0-005 69.6- 72.6 P	0.4	26	62	170	<	<	<	13	<	<	6.6	3	5	17	5	15	<	17	81	16	12	<	<	0.24	0.28	4.64	0.02	0.23	0.01	0.02
F0-005 72.6- 73.2 P	0.2	23	41	208	<	<	<	11	<	<	4.8	3	4	21	5	11	2	315	125	25	13	<	<	0.26	1.04	4.97	0.17	0.19	0.01	0.03
F0-005 73.2- 75.3 P	0.5	20	51	252	<	<	<	8	<	<	5.3	3	6	19	<	13	2	116	114	21	12	<	<	0.21	0.61	4.54	0.03	0.16	0.01	0.02
F0-005 75.3- 78.3 P	<	10	39	340	<	<	<	8	<	<	8.0	3	2	44	<	67	<	987	36	40	10	<	<	0.28	2.30	3.00	0.59	0.19	0.01	0.01
F0-005 78.3- 79.9 P	0.4	7	31	123	<	<	<	5	<	<	3.0	3	2	26	<	13	<	221	81	24	10	<	<	0.26	0.82	2.95	0.11	0.21	0.01	0.01
F0-005 79.9- 81.9 P	2.8	13	870	4756	<	<	<	3	<	<	35.4	3	4	30	<	21	3	1190	83	75	5	<	<	0.24	7.03	3.84	0.51	0.14	0.01	0.02
F0-005 81.9- 84.4 P	0.2	3	18	100	<	<	<	1	<	<	2.1	2	1	99	<	13	<	925	65	29	4	<	<	0.36	1.80	2.10	0.53	0.22	0.01	0.02
F0-005 84.4- 87.6 P	<	4	19	70	<	<	<	2	<	<	3.5	2	2	79	<	13	<	1270	26	49	5	<	<	0.28	2.93	3.04	0.86	0.19	0.01	0.02
F0-005 87.6- 90.2 P	<	10	29	1065	<	<	<	7	<	<	8.1	3	5	66	<	12	2	1698	12	61	15	<	<	0.21	5.02	3.29	1.64	0.16	0.02	0.01
F0-005 90.2- 91.6 P	0.2	12	19	39	<	<	<	9	<	<	2.1	4	2	88	<	18	<	1200	32	52	14	<	<	0.18	3.87	2.11	1.24	0.15	0.01	0.02
F0-005 91.6- 92.5 P	0.7	11	36	980	<	<	<	14	<	<	7.4	3	2	68	<	11	2	2645	7	105	14	<	<	0.16	9.48	4.18	2.99	0.12	0.01	0.02
F0-005 92.5- 93.4 P	1.0	19	66	78	<	<	<	8	<	<	4.8	4	9	40	<	16	2	1595	6	62	14	<	<	0.15	5.03	4.55	1.63	0.12	0.01	0.02
F0-005 93.4- 95.7 P	0.5	10	45	32	<	<	<	10	<	<	4.1	3	4	44	<	18	2	1462	6	62	11	<	<	0.15	4.61	4.04	1.48	0.12	0.01	0.02
Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

CERTIFICATE OF ANALYSIS
iPL 00H1070

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INTERNATIONAL PLASMA LABORATORY LTD

Client : Northern Analytical Laboratories
Project: WO#00115

55 Samples
55=Pulp

[107014:02:46:00090100]

Out: Sep 01, 2000
In : Aug 30, 2000

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
F0-005 95.7- 97.2 P	<	9	22	29	<	<	<	4	<	<	2.9	4	3	42	<	17	<	556	17	22	11	<	<	0.21	1.47	2.86	0.44	0.18	0.01	0.02
F0-005 97.2- 99.7 P	0.1	11	14	63	<	<	<	9	<	<	1.9	3	3	92	<	14	<	776	37	40	20	<	<	0.20	2.19	1.71	0.69	0.16	0.01	0.02
F0-005 99.7-101.5 P	2.5	60	77	45	<	18	<	5	<	<	1.6	3	3	203	<	16	<	765	57	35	16	<	<	0.18	2.44	1.34	0.78	0.15	0.01	0.02
F0-005 101.5-103.3 P	0.9	25	25	69	<	6	<	7	<	<	1.5	4	3	123	<	15	<	672	48	37	15	<	<	0.18	2.12	1.42	0.65	0.15	0.01	0.02
F0-005 103.3-104.8 P	1.0	15	57	415	<	<	<	19	<	<	5.6	3	3	48	<	17	2	1553	10	83	18	<	<	0.18	4.38	3.67	1.39	0.13	0.01	0.02
F0-005 104.8-106.3 P	0.1	5	13	41	<	<	<	3	<	<	1.8	3	2	94	<	11	<	790	42	32	9	<	<	0.22	1.63	1.68	0.51	0.20	0.01	0.03
F0-005 106.3-107.8 P	0.2	4	13	43	<	<	<	3	<	<	1.8	4	<	104	<	10	<	1115	44	36	7	<	<	0.21	1.64	2.21	0.58	0.18	0.01	0.03
F0-005 107.8-109.3 P	0.1	7	19	69	<	<	<	4	<	<	2.7	5	4	106	<	14	2	1255	37	38	7	<	<	0.22	1.58	2.70	0.58	0.19	0.01	0.03
F0-005 109.3-110.8 P	0.1	5	12	69	<	<	<	5	<	<	2.4	3	4	93	<	12	<	1165	40	35	8	<	<	0.22	1.82	2.37	0.65	0.20	0.01	0.03
F0-005 110.8-112.3 P	0.1	5	7	164	<	<	<	1	<	<	2.3	3	2	131	<	8	<	747	47	19	6	<	<	0.22	1.00	1.99	0.39	0.20	0.01	0.03
F0-005 112.3-113.6 P	0.1	5	19	77	<	<	<	4	<	<	2.6	3	2	128	<	21	2	1499	35	42	10	<	<	0.20	1.81	3.05	0.71	0.18	0.01	0.03
F0-005 113.6-114.2 P	<	4	14	251	<	<	<	8	<	<	2.2	3	2	161	<	13	<	1086	35	40	6	<	<	0.44	1.52	2.36	0.47	0.22	0.01	0.02
F0-005 114.2-116.1 P	0.5	12	244	1397	<	<	<	62	<	<	11.9	3	<	54	<	16	<	2083	54	77	8	<	<	0.25	4.12	3.23	1.10	0.16	0.01	0.02
F0-005 116.1-117.8 P	<	6	27	37	<	<	<	11	<	<	2.8	3	<	64	<	9	<	2503	19	57	10	<	<	0.24	4.54	2.99	1.16	0.15	0.01	0.02
F0-005 117.8-119.6 P	0.7	9	67	718	<	<	<	43	<	<	7.0	2	<	56	<	10	2	5909	9	95	6	<	<	0.18	8.87	4.37	2.75	0.11	0.01	0.02
F0-005 119.6-121.0 P	<	6	50	97	<	<	<	11	<	<	2.5	2	2	30	<	11	<	1189	137	37	10	<	<	0.27	2.36	2.78	0.37	0.16	0.01	0.01
Min Limit	0.1	1	2	1	5	5	3	1	10	2	0.1	1	1	2	5	1	2	1	2	1	1	1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Max Reported*	99.9	20000	20000	20000	9999	999	9999	999	999	9999	99.9	9999	9999	9999	999	9999	9999	9999	9999	9999	9999	9999	1.00	9.99	9.99	9.99	9.99	9.99	5.00	5.00
Method	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP	ICP

—=No Test Ins=Insufficient Sample Del=Delay Max=No Estimate Rec=ReCheck m=x1000 %=Estimate % NS=No SampleP=Pulp

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30/08/2000

Certificate of Analysis

of pages (not including this page): 2

Bernie Kreft

WO# 00115

Certified by
Justin Lemphers (Senior Assayer)

Date Received: 23/08/2000

SAMPLE PREPARATION:

Code	# of Samples	Type	Preparation Description (All wet samples are dried first.)
r	54	rock	Crush to -10 mesh; riffle split 200g; pulverize to -100 mesh

ANALYTICAL METHODS SUMMARY:

Symbol	Units	Element	Method (A:assay) (G:geochem)	Fusion/Digestion	Lower Limit	Upper Limit
Au	ppb	Gold	G: FA/AAS	15g FA / aqua regia	5	7000

AAS = atomic absorption spectrophotometry
FA = fire assay

1000ppb = 1ppm = 1g/mt = 0.0001% = 0.029166oz/ton

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Certificate of Analysis

Bernie Kreft

WO# 00115

Certified by

F00-05

	Sample #	Au ppb
r	20.4-22.3	<5
r	22.3-24.6	<5
r	24.6-25.4	5
r	26.5-28.9	<5
r	28.9-29.3	<5
r	29.3-30.2	<5
r	30.2-31.3	7
r	31.3-35.1	<5
r	35.1-36.3	<5
r	36.3-38.7	<5
r	38.7-41.1	<5
r	41.1-44.2	5
r	44.2-47.2	<5
r	47.2-50.2	<5
r	50.2-51.3	<5
r	51.3-52.6	5
r	52.6-53.3	8
r	53.3-53.8	<5
r	53.8-54.2	<5
r	54.2-57.4	<5
r	57.4-59.4	8
r	59.4-63.1	8
r	63.1-65.6	15
r	65.6-67.6	13
r	67.6-69.6	14
r	69.6-72.2	7
r	72.2-73.2	8
r	73.2-75.3	11
r	75.3-78.3	7
r	78.3-79.9	6

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Bernie Kreft

WO# 00115

Certified by

	Sample #	Au ppb
r	79.9-81.9	8
r	81.9-84.4	7
r	84.4-87.6	<5
r	87.6-90.2	<5
r	90.2-91.6	7
r	91.6-92.5	9
r	92.5-93.4	11
r	93.4-95.7	10
r	95.7-97.2	9
r	97.2-99.7	13
r	99.7-101.5	<5
r	101.5-103.3	11
r	103.3-104.8	15
r	104.8-106.3	10
r	106.3-107.8	6
r	107.8-109.3	6
r	109.3-110.8	7
r	110.8-112.3	9
r	112.3-113.6	12
r	113.6-114.2	11
r	114.2-116.1	13
r	116.1-117.8	14
r	117.8-119.6	13
r	119.6-121.0	14

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08/09/2000

Certificate of Analysis

of pages (not including this page): 6

Bernie Kreft

WO# 00134

Certified by
Justin Lemphers (Senior Assayer)

Date Received: 05/09/2000

SAMPLE PREPARATION:

Code	# of Samples	Type	Preparation Description (All wet samples are dried first.)
dc	67	drill core	Crush to -10 mesh; riffle split 200g; pulverize to -100 mesh

ANALYTICAL METHODS SUMMARY:

Symbol	Units	Element	Method (A:assay) (G:geochem)	Fusion/Digestion	Lower Limit	Upper Limit
Au	ppb	Gold	G: FA/AAS	15g FA / aqua regia	5	7000
Ag	ppm	Silver	G: AAS (BC)	aqua regia	0.1	50.0
Cu	ppm	Copper	G: AAS	aqua regia	1	10000
Pb	ppm	Lead	G: AAS (BC)	aqua regia	1	10000
Zn	ppm	Zinc	G: AAS	aqua regia	1	10000
Ag	g/mt	Silver	A: AAS (BC)	aqua regia	1.0	10000
Pb	%	Lead	A: AAS (BC)	aqua regia	0.001	#
Zn	%	Zinc	A: AAS	aqua regia	0.001	#

AAS = atomic absorption spectrophotometry
BC = background correction applied
FA = fire assay

No reporting limit. Interferences, solubility limits may limit accuracy of AAS at very high grades.

1000ppb = 1ppm = 1g/mt = 0.0001% = 0.029166oz/ton

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08/09/2000

Certificate of Analysis

Bernie Kreft

WO# 00134

ICE PROPERTY

Certified by

I00-01

	Sample #	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
dc	24.2-26.3	14	1.7	13	158	219
dc	26.3-28.6	13	3.5	5	225	818
dc	28.6-30.2	10	2.8	6	181	290
dc	30.2-31.7	11	5.4	24	526	284
dc	31.7-32.2	36	5.0	20	147	317
dc	32.2-33.2	27	3.5	19	307	898
dc	33.2-34.7	31	7.8	36	3190	>10000
dc	34.7-35.6	43	9.8	81	3490	>10000
dc	35.6-36.3	51	21.0	90	2760	10000
dc	36.3-37.8	80	29.7	117	7340	7020
dc	37.8-38.3	53	22.7	34	2530	1900
dc	38.3-41.2	19	8.4	32	1380	1520
dc	41.2-42.2	17	7.5	21	3710	269
dc	42.2-43.6	20	4.1	66	925	2860
dc	43.6-45.0	24	7.0	65	1940	3180
dc	45.0-46.1	54	25.9	13	2540	128
dc	46.1-47.2	27	6.0	112	2050	1042
dc	47.2-49.1	47	6.4	45	239	647
dc	49.1-49.7	25	21.4	1205	8110	>10000
dc	49.7-50.6	31	7.2	158	2180	1204
dc	50.6-52.7	32	3.4	142	510	1570
dc	52.7-54.7	25	0.9	58	158	227
dc	54.7-56.7	33	1.1	113	190	182
dc	56.7-58.0	70	28.4	1203	8620	>10000
dc	58.0-58.8	29	10.2	143	1244	5610
dc	58.8-60.7	26	12.6	37	1738	>10000
dc	60.7-62.5	24	8.1	74	1046	3800
dc	62.5-62.8	19	5.0	36	415	860
dc	62.8-64.4	24	7.6	105	828	3200
dc	64.4-66.0	18	5.5	48	389	1390

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	Sample #	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
dc	66.0-67.8	19	6.9	50	887	4020
dc	67.8-68.4	25	12.7	75	2240	>10000
dc	68.4-70.4	19	7.1	48	760	3090
dc	70.4-72.2	17	7.8	56	860	3020
dc	72.2-73.6	19	6.3	88	525	1467
dc	73.6-74.5	24	8.3	69	949	3760
dc	74.5-75.9	25	12.3	82	1488	4770
dc	75.9-77.4	29	10.4	53	1232	5910
dc	77.4-78.6	15	1.9	23	118	450
dc	78.6-79.8	28	7.3	82	1054	4400
dc	79.8-81.6	29	8.8	64	1543	3180
dc	81.6-83.1	19	7.3	71	1073	2390
dc	83.1-83.5	12	3.6	43	87	120
dc	83.5-84.0	10	14.1	138	751	171
dc	84.0-85.0	14	6.1	60	195	722
dc	85.0-86.9	16	8.3	77	916	2150
dc	86.9-88.5	16	3.1	38	248	2210
dc	88.5-90.2	13	4.6	41	404	1430
dc	90.2-90.5	24	5.0	61	354	143
dc	90.5-91.3	24	5.9	62	590	1690
dc	91.3-92.1	27	11.9	99	1830	6020
dc	92.1-93.3	29	6.6	68	648	2780
dc	93.3-94.8	32	3.1	57	243	776
dc	94.8-96.2	33	2.1	73	106	251
dc	96.2-96.5	64	2.1	92	79	313
dc	96.5-97.8	37	2.0	294	53	339
dc	97.8-99.3	33	1.8	187	39	160
dc	99.3-100.8	31	2.2	105	49	161
dc	100.8-102.3	31	1.7	58	53	454
dc	102.3-103.9	30	1.4	49	54	518

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Certificate of Analysis

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WO# 00134

Certified by

	Sample #	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
dc	103.9-104.9	25	1.7	47	98	82
dc	104.9-106.0	28	2.3	63	248	41
dc	106.0-107.0	31	2.7	70	271	35
dc	F00-02 30.2-31.8					
dc	F00-02 31.8-33.5					
dc	F00-04 45.7-45.9					
dc	F00-05 30.2-31.8					

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	Sample #	Ag g/mt	Pb %	Zn %
dc	24.2-26.3			
dc	26.3-28.6			
dc	28.6-30.2			
dc	30.2-31.7			
dc	31.7-32.2			
dc	32.2-33.2			
dc	33.2-34.7	7.7	0.32	1.22
dc	34.7-35.6	10.2	0.34	1.00
dc	35.6-36.3	21.0	0.29	0.90
dc	36.3-37.8			
dc	37.8-38.3			
dc	38.3-41.2			
dc	41.2-42.2			
dc	42.2-43.6			
dc	43.6-45.0			
dc	45.0-46.1			
dc	46.1-47.2			
dc	47.2-49.1			
dc	49.1-49.7	21.7	0.79	1.13
dc	49.7-50.6			
dc	50.6-52.7			
dc	52.7-54.7			
dc	54.7-56.7			
dc	56.7-58.0	28.6	0.83	5.64
dc	58.0-58.8			
dc	58.8-60.7	12.3	0.17	0.99
dc	60.7-62.5			
dc	62.5-62.8			
dc	62.8-64.4			
dc	64.4-66.0			

Northern Analytical Laboratories ltd.

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08/09/2000

Certificate of Analysis

Bernie Kreft

WO# 00134

Certified by

	Sample #	Ag g/mt	Pb %	Zn %
dc	66.0-67.8			
dc	67.8-68.4	12.7	0.26	2.79
dc	68.4-70.4			
dc	70.4-72.2			
dc	72.2-73.6			
dc	73.6-74.5			
dc	74.5-75.9			
dc	75.9-77.4			
dc	77.4-78.6			
dc	78.6-79.8			
dc	79.8-81.6			
dc	81.6-83.1			
dc	83.1-83.5			
dc	83.5-84.0			
dc	84.0-85.0			
dc	85.0-86.9			
dc	86.9-88.5			
dc	88.5-90.2			
dc	90.2-90.5			
dc	90.5-91.3			
dc	91.3-92.1			
dc	92.1-93.3			
dc	93.3-94.8			
dc	94.8-96.2			
dc	96.2-96.5			
dc	96.5-97.8			
dc	97.8-99.3			
dc	99.3-100.8			
dc	100.8-102.3			
dc	102.3-103.9			

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08/09/2000

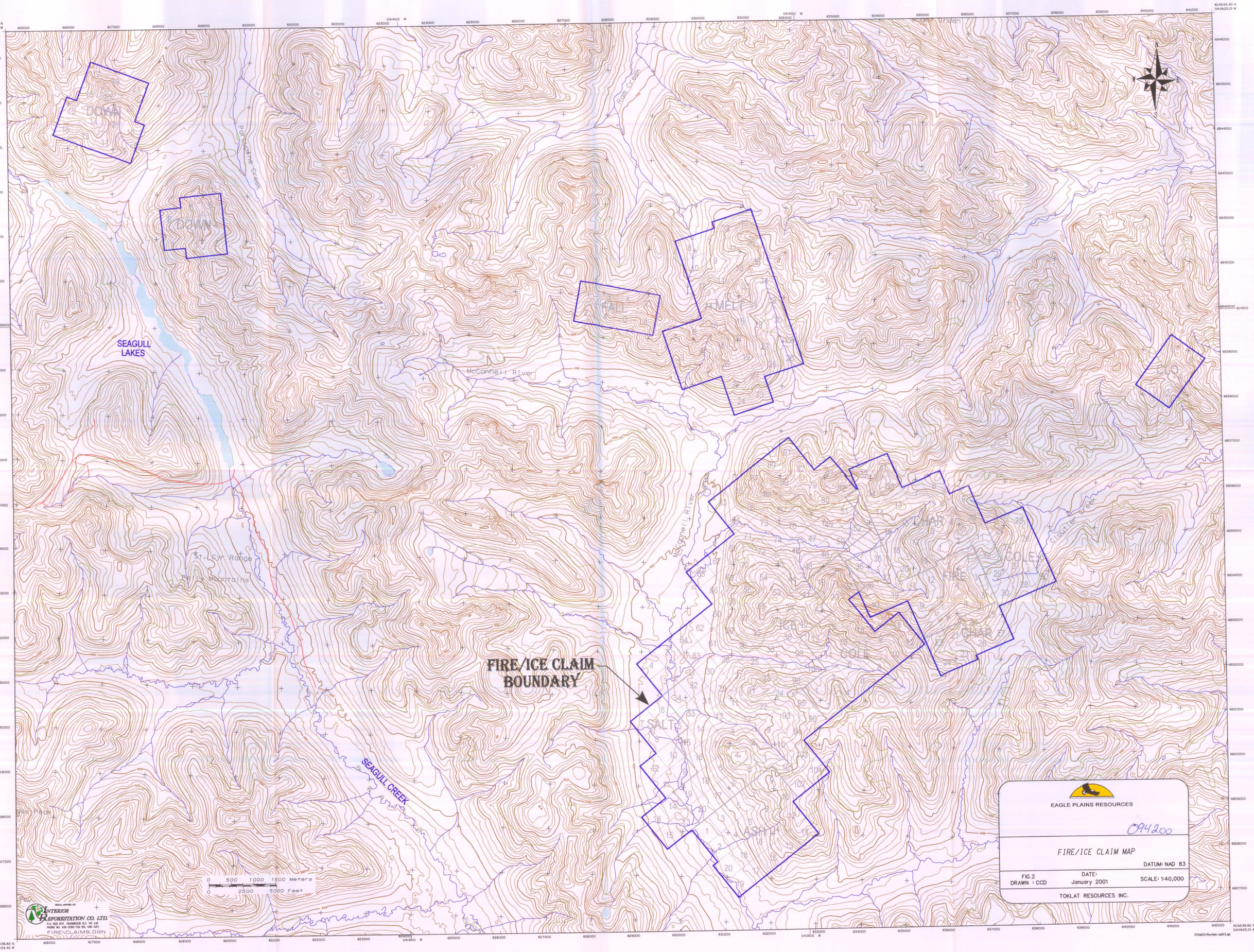
Certificate of Analysis

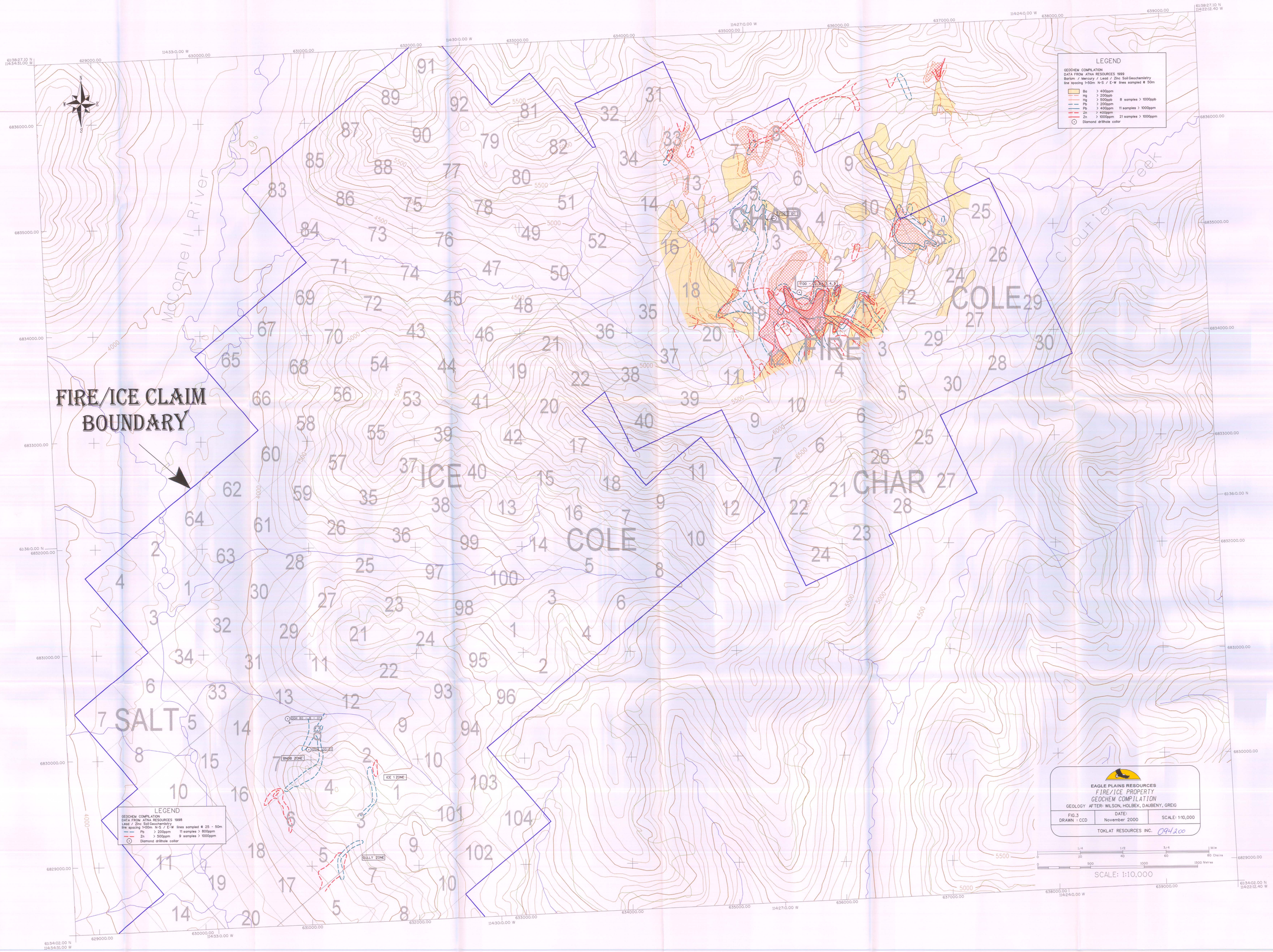
Bernie Kreft

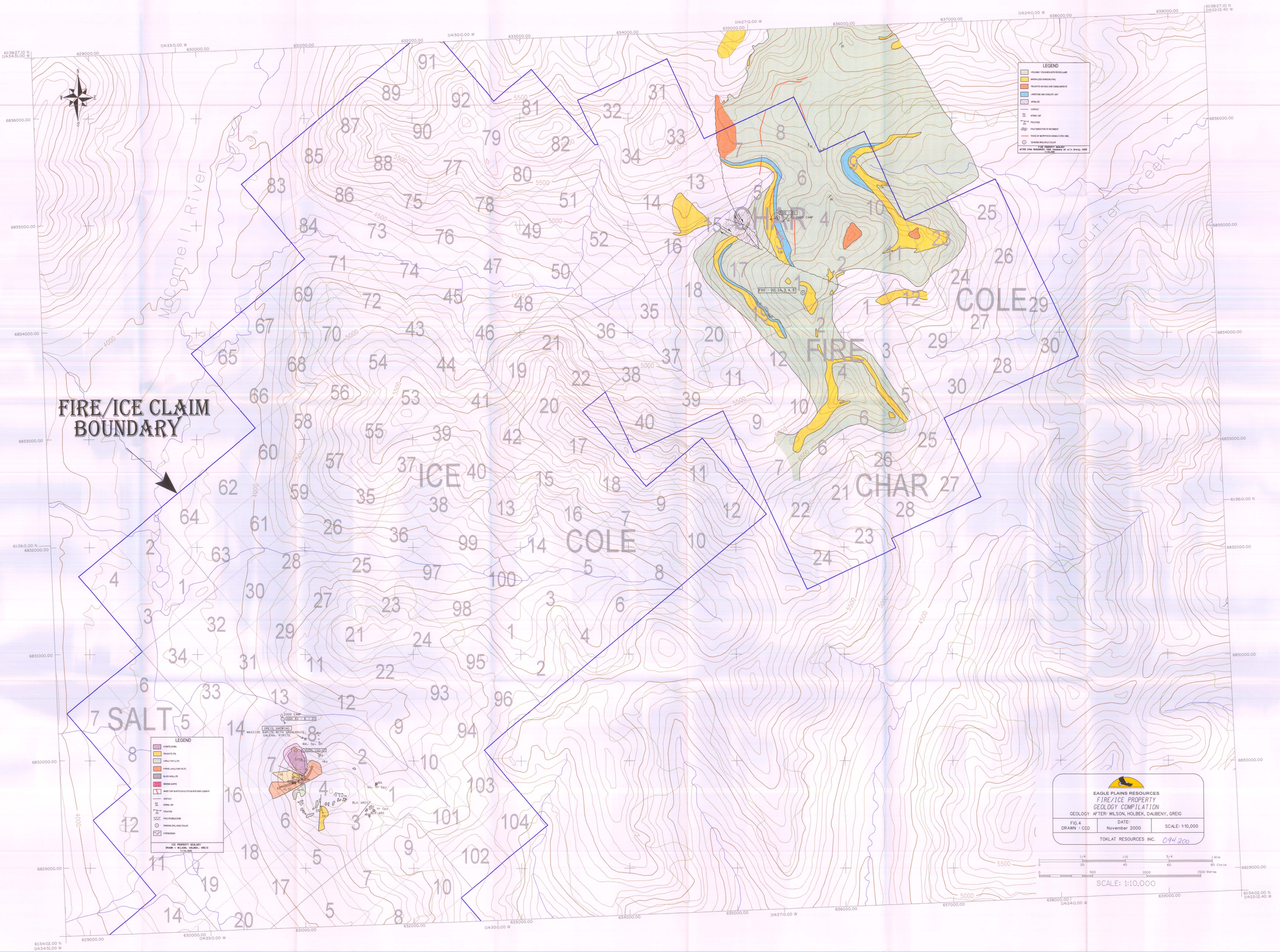
WO# 00134

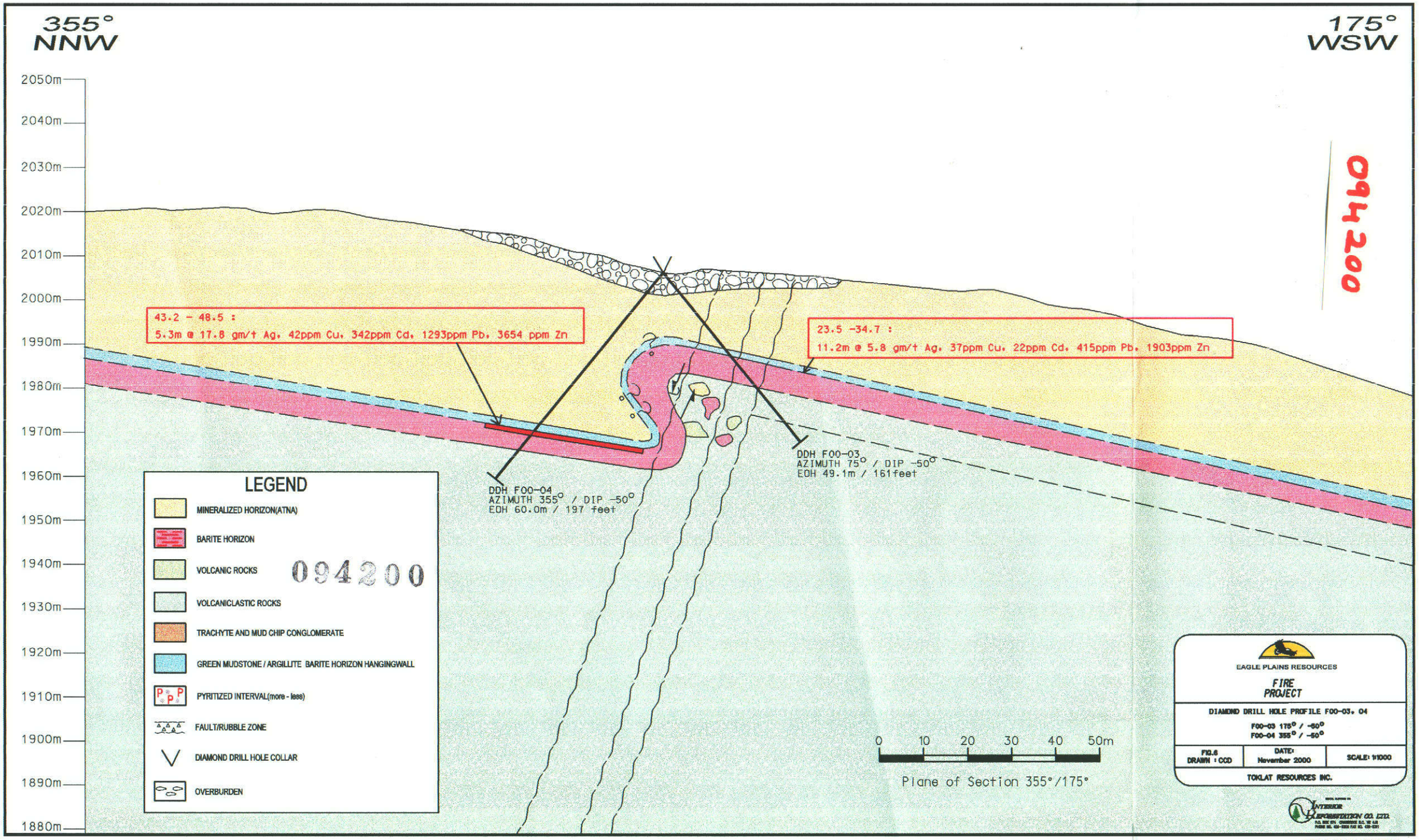
Certified by

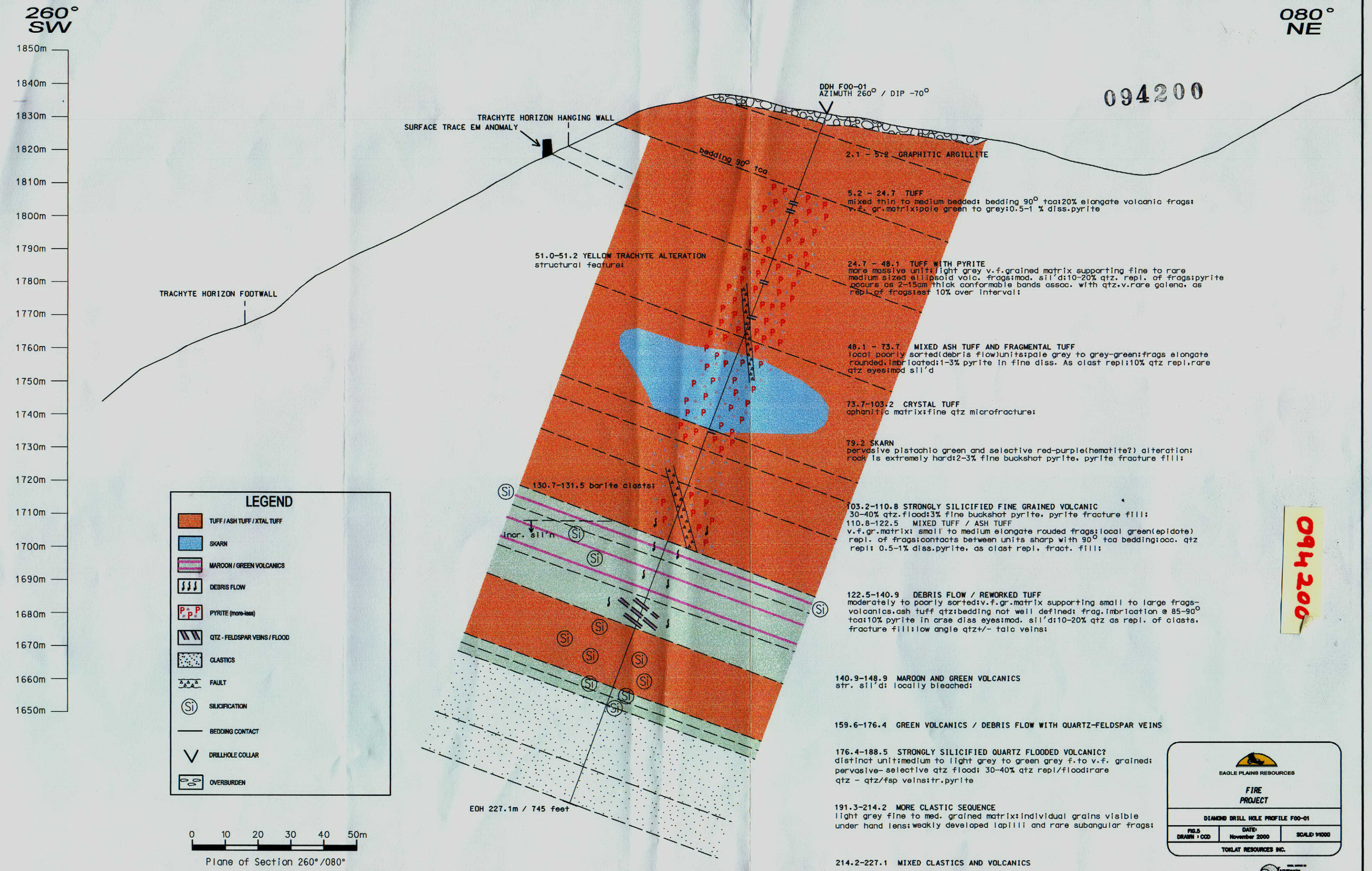
	Sample #	Ag g/mt	Pb %	Zn %
dc	103.9-104.9			
dc	104.9-106.0			
dc	106.0-107.0			
dc	F00-02 30.2-31.8	41.2	0.39	1.97
dc	F00-02 31.8-33.5	72.8	0.50	2.38
dc	F00-04 45.7-45.9	40.2	0.64	1.34
dc	F00-05 30.2-31.8	45.0	0.71	1.74


EAGLE PLAINS RESOURCES
094200
FIRE/ICE CLAIM MAP
DATUM: NAD 83
FIG.2
DRAWN : CCD
DATE:
January 2001
SCALE: 1:40,000
TOKLAT RESOURCES INC.
FIRE/ICE CLAIM BOUNDARY
SEAGULL LAKES
SEAGULL CREEK
McConnell River
Porcupine Creek
Ram Creek
Moose Creek
Clouter Creek
St. Cyr Range
Pelly Mountains
Gas Peak
DOWN
MELT
COLE
FIRE
ICE
SALT
ASH
0 500 1000 1500 Meters
0 2500 5000 Feet
INTERIOR REFORESTATION CO. LTD.
FIRECLAIMS.DGN


FIRE/ICE CLAIM BOUNDARY
LEGEND
GEOCHEM COMPILATION
DATA FROM ATNA RESOURCES 1999
Barium / Mercury / Lead / Zinc Soil Geochemistry
line spacing 1-50m N-S / E-W lines sampled @ 50m
Ba > 400ppm
Hg > 200ppb
Hg > 500ppb 8 samples > 1000ppb
Pb > 200ppm
Pb > 400ppm 11 samples > 1000ppm
Zn > 400ppm
Zn > 1000ppm 21 samples > 1000ppm
Diamond drillhole collar
LEGEND
GEOCHEM COMPILATION
DATA FROM ATNA RESOURCES 1998
Lead / Zinc Soil Geochemistry
line spacing 1-00m N-S / E-W lines sampled @ 25 - 50m
Pb > 200ppm 11 samples > 800ppm
Zn > 500ppm 9 samples > 1000ppm
Diamond drillhole collar
CHAR
COLE
FIRE
ICE
CHAR
COLE
SALT
BNDB ZONE
ICE 1 ZONE
GULLY ZONE
McConnell River
Clautier Creek
EAGLE PLAINS RESOURCES
FIRE/ICE PROPERTY
GEOCHEM COMPILATION
GEOLOGY AFTER: WILSON, HOLBEK, DAUBENY, GREIG
FIG.3
DRAWN : CCD
DATE:
November 2000
SCALE: 1:10,000
TOKLAT RESOURCES INC. 094200
SCALE: 1:10,000

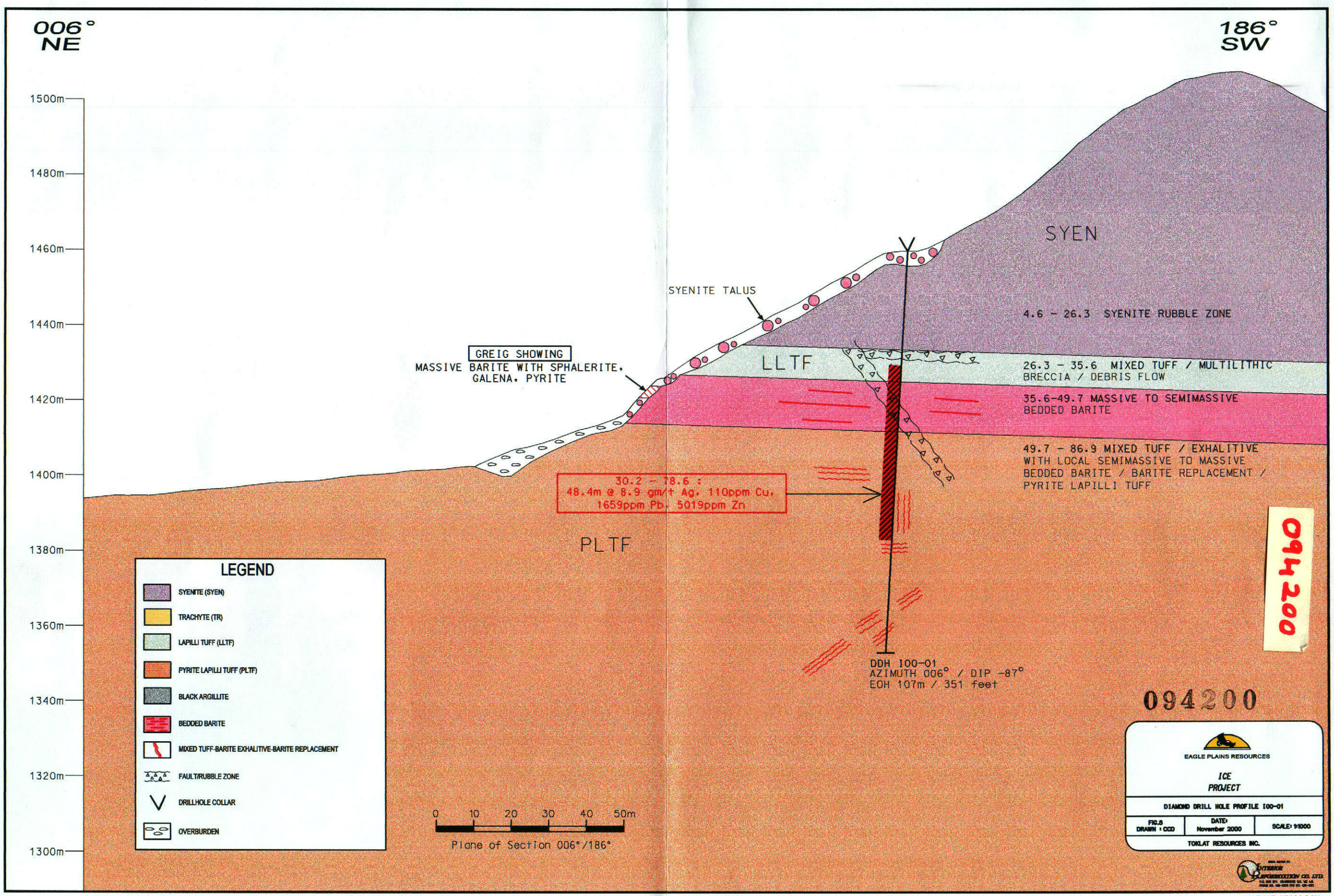

FIRE/ICE CLAIM BOUNDARY
ICE
FIRE
CHAR
COLE
SALT
McConnell River
Cloutier Creek
LEGEND
VOLCANIC VOLCANICLASTIC ROCKS (LAVA)
MINERALIZED HORIZON (TMH)
TRACHYTE AND MUD CHIP CONGLOMERATE
LIMESTONE AND ARGILLITE UNIT
ARGILLITE
CONTACT
STRIKE / DIP
FOLIATION
FAULT/DIRECTION OF MOVEMENT
TRACE OF GEOPHYSICS (MONALTA/CRA 1986)
DIAMOND DRILLHOLE COLLAR
FIRE PROPERTY GEOLOGY
AFTER ATNA RESOURCES 1996 (Boundary at site Greig, 2000 1:25,000)
FOO - 001
2000 CAMP
FOO - 02, 2A, 3, 4, 5
GREIG SHOWING
MASSIVE BARITE WITH SPHALERITE, GALENA, PYRITE
FOOS 100-20
SYEN.
BLK ARG.
LEGEND
SYENITE (SYEN)
TRACHYTE (TR)
LAPILLI TUFF (LLT)
PYRITE LAPILLI TUFF (PLT)
BLACK ARGILLITE
BEDDED BARITE
MIXED TUFF-BARITE EXHALITIC & BARITE REPLACEMENT
CONTACT
STRIKE / DIP
FOLIATION
FAULT/SHEARED ZONE
DIAMOND DRILLHOLE COLLAR
OVERBURDEN
ICE PROPERTY GEOLOGY
DRAWN : WILSON, HOLBEK, GREIG
1:10,000
EAGLE PLAINS RESOURCES
FIRE/ICE PROPERTY
GEOLOGY COMPILATION
GEOLOGY AFTER: WILSON, HOLBEK, DAUBENY, GREIG
FIG.4
DRAWN : CCD
DATE:
November 2000
SCALE: 1:10,000
TOKLAT RESOURCES INC.
094 200
SCALE: 1:10,000

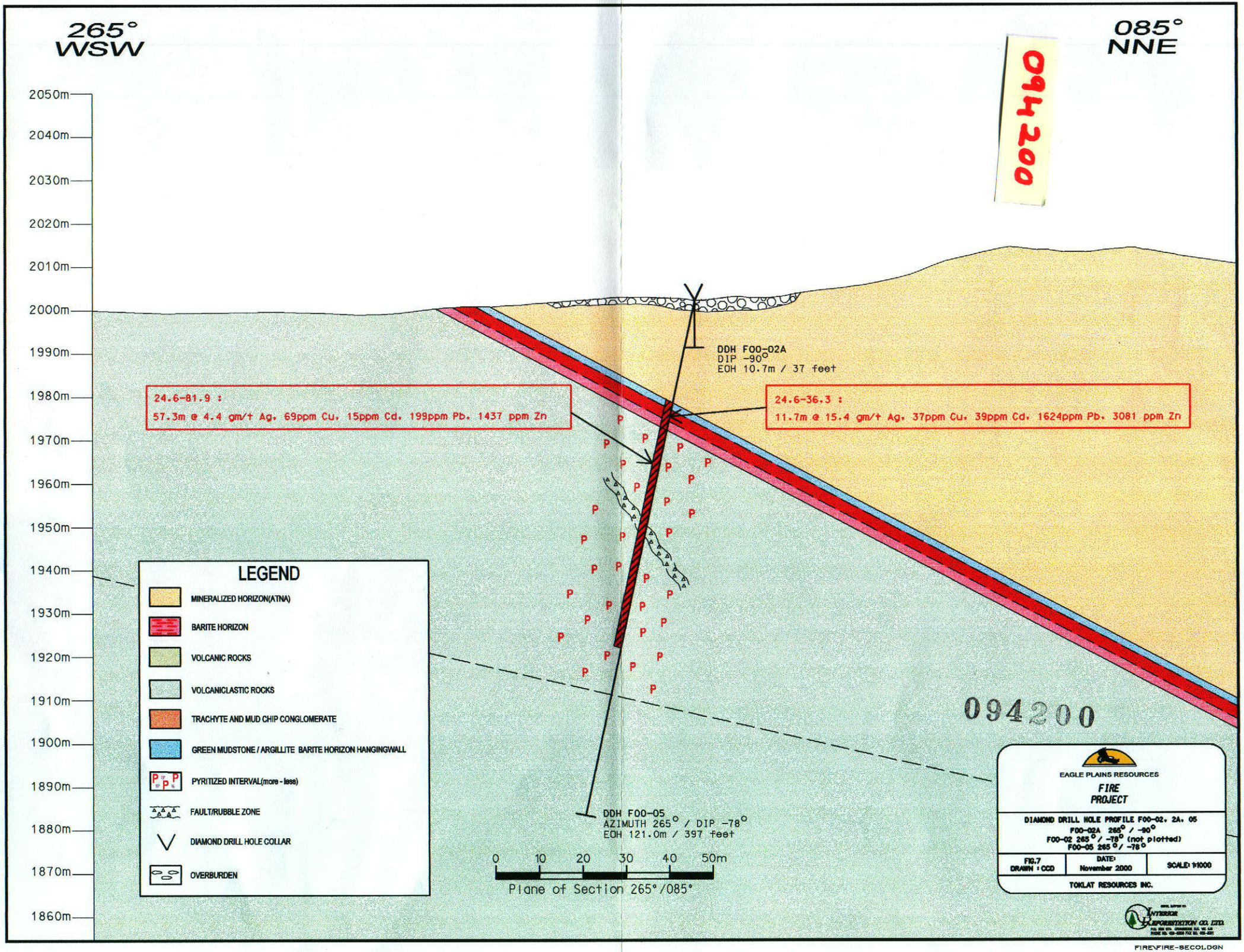

355°
NNW
175°
WSW
2050m
2040m
2030m
2020m
2010m
2000m
1990m
1980m
1970m
1960m
1950m
1940m
1930m
1920m
1910m
1900m
1890m
1880m
094200
43.2 - 48.5 :
5.3m @ 17.8 gm/t Ag, 42ppm Cu, 342ppm Cd, 1293ppm Pb, 3654 ppm Zn
23.5 -34.7 :
11.2m @ 5.8 gm/t Ag, 37ppm Cu, 22ppm Cd, 415ppm Pb, 1903ppm Zn
DDH F00-04
AZIMUTH 355° / DIP -50°
EOH 60.0m / 197 feet
DDH F00-03
AZIMUTH 75° / DIP -50°
EOH 49.1m / 161feet
LEGEND
MINERALIZED HORIZON(ATNA)
BARITE HORIZON
VOLCANIC ROCKS
094200
VOLCANICLASTIC ROCKS
TRACHYTE AND MUD CHIP CONGLOMERATE
GREEN MUDSTONE / ARGILLITE BARITE HORIZON HANGINGWALL
PYRITIZED INTERVAL(more - less)
FAULT/RUBBLE ZONE
DIAMOND DRILL HOLE COLLAR
OVERBURDEN
0 10 20 30 40 50m
Plane of Section 355°/175°
EAGLE PLAINS RESOURCES
FIRE PROJECT
DIAMOND DRILL HOLE PROFILE F00-03, 04
F00-03 175° / -60°
F00-04 355° / -50°
FIG.6
DRAWN : CCD
DATE: November 2000
SCALE: 1:1000
TOKLAT RESOURCES INC.
FIREFIRE-SEC02.DGN



094200

094200


006°
NE
186°
SW
1500m
1480m
1460m
1440m
1420m
1400m
1380m
1360m
1340m
1320m
1300m
SYEN
SYENITE TALUS
4.6 - 26.3 SYENITE RUBBLE ZONE
GREIG SHOWING
MASSIVE BARITE WITH SPHALERITE, GALENA, PYRITE
LLTF
26.3 - 35.6 MIXED TUFF / MULTILITHIC BRECCIA / DEBRIS FLOW
35.6-49.7 MASSIVE TO SEMIMASSIVE BEDDED BARITE
49.7 - 86.9 MIXED TUFF / EXHALITIVE WITH LOCAL SEMIMASSIVE TO MASSIVE BEDDED BARITE / BARITE REPLACEMENT / PYRITE LAPILLI TUFF
30.2 - 78.6 :
48.4m @ 8.9 gm/t Ag, 110ppm Cu, 1659ppm Pb, 5019ppm Zn
PLTF
DDH 100-01
AZIMUTH 006° / DIP -87°
EOH 107m / 351 feet
LEGEND
SYENITE (SYEN)
TRACHYTE (TR)
LAPILLI TUFF (LLTF)
PYRITE LAPILLI TUFF (PLTF)
BLACK ARGILLITE
BEDDED BARITE
MIXED TUFF-BARITE EXHALITIVE-BARITE REPLACEMENT
FAULT/RUBBLE ZONE
DRILLHOLE COLLAR
OVERBURDEN
0 10 20 30 40 50m
Plane of Section 006°/186°
094200
094200
EAGLE PLAINS RESOURCES
ICE PROJECT
DIAMOND DRILL HOLE PROFILE 100-01
FIG.8
DRAWN : CCD
DATE: November 2000
SCALE: 1:1000
TOKLAT RESOURCES INC.
ICE\ICE-SEC02.DGN


265°
WSW
085°
NNE
094200
2050m
2040m
2030m
2020m
2010m
2000m
1990m
1980m
1970m
1960m
1950m
1940m
1930m
1920m
1910m
1900m
1890m
1880m
1870m
1860m
DDH F00-02A
DIP -90°
EOH 10.7m / 37 feet
24.6-81.9 :
57.3m @ 4.4 gm/t Ag, 69ppm Cu, 15ppm Cd, 199ppm Pb, 1437 ppm Zn
24.6-36.3 :
11.7m @ 15.4 gm/t Ag, 37ppm Cu, 39ppm Cd, 1624ppm Pb, 3081 ppm Zn
LEGEND
MINERALIZED HORIZON(ATNA)
BARITE HORIZON
VOLCANIC ROCKS
VOLCANICLASTIC ROCKS
TRACHYTE AND MUD CHIP CONGLOMERATE
GREEN MUDSTONE / ARGILLITE BARITE HORIZON HANGINGWALL
PYRITIZED INTERVAL(more - less)
FAULT/RUBBLE ZONE
DIAMOND DRILL HOLE COLLAR
OVERBURDEN
DDH F00-05
AZIMUTH 265° / DIP -78°
EOH 121.0m / 397 feet
0 10 20 30 40 50m
Plane of Section 265°/085°
094200
EAGLE PLAINS RESOURCES
FIRE
PROJECT
DIAMOND DRILL HOLE PROFILE F00-02, 2A, 05
F00-02A 265° / -90°
F00-02 265° / -78° (not plotted)
F00-05 265° / -78°
FIG.7
DRAWN : CCD
DATE: November 2000
SCALE: 1:1000
TOKLAT RESOURCES INC.
FIRE\FIRE-SECOL.DGN