PART I OF II

GEOLOGICAL REPORT ON THE AFTOM 5, 6, 7, 10, 11, 13 and 20 CLAIMS

SKEENA MINING DIVISION
NTS 104B/9W
and 104B/10E

LATITUDE 56° 38'N
LONGITUDE 130° 24'W

FOR

TAGISH RESOURCES LIMITED

BY

KEN HICKS

and

PAUL METCALFE

CAMBRIA GEOLOGICAL LIMITED
1531 West Pender Street
Vancouver, B.C.

DECEMBER 5, 1991

SUMMARY

The AFTOM 5, 6, 7, 10, 11, 13, and 20 claims are located east, northwest and south of the Eskay Creek gold-silver deposit, in the Unuk River area (NTS 104B/9 and 104B/10). The assessment work described in this report was carried out in September of 1991. This work comprised prospecting and geological mapping at 1:10,000 scale. Work was carried out in areas where previous regional mapping indicated similar lithologies to those hosting the Eskay Creek deposit.

Geological mapping indicated that the stratigraphic column established for the Eskay Creek deposits is applicable to all properties listed in this report.

This sequence has undergone two phases of deformation of northeast trending regional folds with axes plunging, to the northeast. A later period of folding, identified in this study, occurred about east-west fold axes. The Mount Dilworth and Salmon River formations, which host the Eskay Creek deposit, are exposed on the AFTOM 5, 6, and 7 claim groups. The Mount Dilworth Formation is also exposed on the AFTOM 20 claim and the Salmon River Formation is exposed on the AFTOM 10 and 13 groups.

The AFTOM 5 and 6 claim group is underlain by an upright sequence including the Unuk River, Betty Creek, Mount Dilworth and Salmon River Formations and the basal part of the Bowser Lake

Group. This section is exposed in the nose of a northward-plunging anticline. Pyroclastic and clastic sedimentary rocks of the Unuk River and Betty Creek Formations lie at the base of the section. The Mount Dilworth Formation comprises felsic pyroclastic rocks with disseminated pyrite. The overlying Salmon River Formation includes andesitic pillow lavas with pyritic argillites and siltstones.

Salmon River Formation is exposed on the AFTOM 7 in a steeply dipping overturned section. Lithologies present in this section of the Salmon River Formation include green amygdaloidal basaltic flows and grey, silica-flooded and bleached amygdaloidal mafic volcanics occur together with thin, cherty and carbonaceous tuff interbeds. These are overlain by silica-flooded, pyritic argillite.

Pillowed andesite lava of the Salmon River Formation is exposed in the western part of the AFTOM 10 and 11 claim group. The section faces east and the andesite pillow lavas exhibit moderate hydrothermal alteration and pyrite mineralization. The Salmon River Formation is overlain by Bowser Lake Group sedimentary rocks. Chert pebble conglomerates occur near the base of the Bowser Lake Group but more mapping is required before these can be used as stratigraphic markers. The contact between the Salmon River Formation and Bowser Lake Group stratigraphy is conformable and is not defined by a change in lithology.

Andesitic pyroclastic rocks of the Betty Creek Formation outcrop at the core of a major northeast-trending anticline on the AFTOM 20 claim. These rocks have been sheared and hydrothermally altered to a foliated pyrite-quartz-sericite gossanous zone along the hinge zone of the fold. Lithogeochemical analyses indicate that this zone contains elevated copper, arsenic, antimony and silver values. This claim lies adjacent to the SIB claims of American Fiber and Silver Butte Resources Ltd.

It is recommended that further mapping and prospecting be carried out on all the claims examined in the present study in order to further define the areas of outcrop of the Salmon River and Mount Dilworth Formations. In addition, it is strongly recommended that where these formations are exposed soil geochemical, magnetometer and VLF/EM surveys be used to help define anomalies within the two formations. A similar geochemical and geophysical survey is recommended for the altered Betty Creek Formation rocks exposed on AFTOM 20. The lithologies which have been altered are very similar to those hosting the Eskay Creek deposits.

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A. INTRODUCTION

A.1 Preface

The purpose of this study was to determine whether the ground covered by the AFTOM 5, 6, 7, 10, 11, 13 and 20 claims, in close proximity to the Eskay Creek deposit, has the potential to host similar deposits. This geological report was commissioned by Tagish Resources Limited and is based on geological mapping on these claims, by the authors, during September of 1991. An interpretation of structural geology forms part II of II and forms an accompanying volume to this report.

A.2 Location and Access

The property is situated approximately 950 km northwest of Vancouver and 80 km northwest of Stewart, between 56°35'N and 56°45'N and between 130°10'W and 130°40'W (Figure 1).

The area is most easily accessed by helicopter from Bob Quinn Lake along the Stewart - Cassiar highway, 30 km northeast of the property. There is a regular fixed wing service from Smithers and Terrace to a newly constructed air strip at Bob Quinn Lake.

The B.C. Provincial Government has recently completed an access road study from the Stewart-Cassiar highway into the Eskay Creek and Johnny Mountain properties. Construction of an all-weather road from Bob Quinn along the Iskut River valley is presently under way; an access road to the Eskay Creek deposit is planned for the near future. This road would pass within several kilometres of the AFTOM properties.

A.3 Land Status

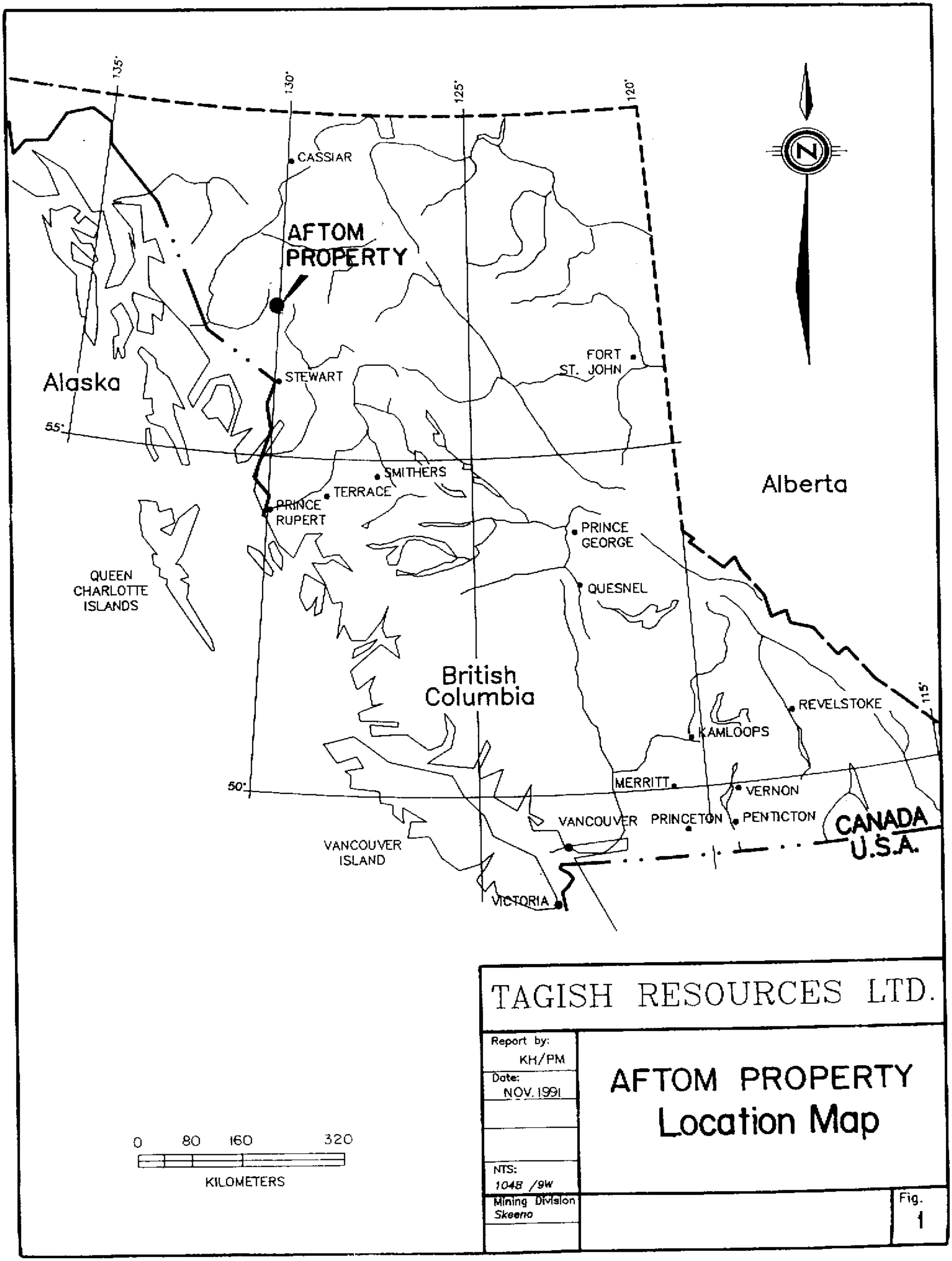
A map of the claims is shown in Fig.2. The status of each claim is listed in Table 1 below.

TABLE 1. CLAIM STATUS

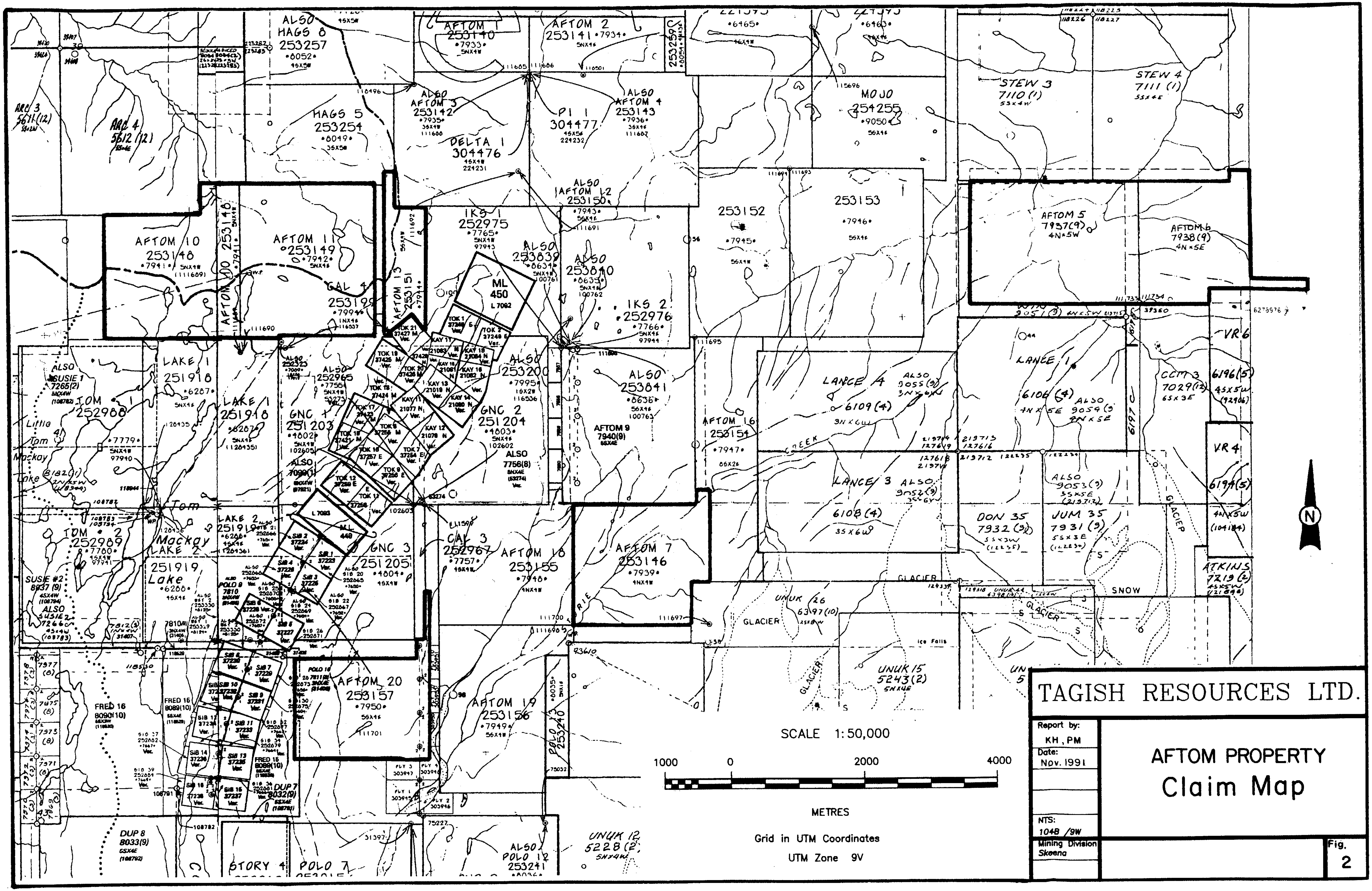
Claim name	Record number	Units	Recording date	Expiry date	Owner
AFTOM 5	7937	20	Sept 10, 1989	Sept 10, 1992	Tagish Res.
AFTOM 6	7938	20	Sept 7, 1989	Sept 7, 1992	Tagish Res.
AFTOM 7	7939	16	Sept 16, 1989	Sept 16, 1992	Tagish Res.
AFTOM 10	7941	20	Sept 9, 1989	Sept 9, 1992	Tagish Res.
AFTOM 11	7942	20	Sept 9, 1989	Sept 9, 1992	Tagish Res.
AFTOM 13	7944	20	Sept 11, 1989	Sept 11, 1992	Tagish Res.
AFTOM 20	7950	20	Sept 17, 1989	Sept 17, 1992	Tagish Res.

A.4 Climate, Physiography and Vegetation

The property is situated on the western margin of the Coast Ranges of British Columbia. Climate is moderate, typically with cool wet summers and mild winters. Annual precipitation is in excess of 100 cm, much of this falling as snow between October and April.



135°
130°
125°
120°
115°
55°
50°
CASSIAR
AFTOM
PROPERTY
STEWART
Alaska
FORT
ST. JOHN
Alberta
SMITHERS
TERRACE
PRINCE
RUPERT
PRINCE
GEORGE
QUEEN
CHARLOTTE
ISLANDS
QUESNEL
British
Columbia
REVELSTOKE
KAMLOOPS
MERRITT
VERNON
VANCOUVER
PRINCETON
PENTICTON
CANADA
U.S.A.
VANCOUVER
ISLAND
VICTORIA
N
0 80 160 320
KILOMETERS
TAGISH RESOURCES LTD.
Report by:
KH/PM
Date:
NOV. 1991
NTS:
104B /9W
Mining Division
Skeena
AFTOM PROPERTY
Location Map
Fig.
1



TAGISH RESOURCES LTD.
Report by:
KH, PM
Date:
Nov. 1991
AFTOM PROPERTY
Claim Map
NTS:
104B /9W
Mining Division
Skeena
Fig.
2
SCALE 1:50,000
1000 0 2000 4000
METRES
Grid in UTM Coordinates
UTM Zone 9V
N
AFTOM 1
253140
AFTOM 2
253141
HAGS 8
253257
HAGS 5
253254
AFTOM 3
253142
PI 1
304477
AFTOM 4
253143
DELTA 1
304476
MOJO
254255
STEW 3
STEW 4
AFTOM 10
253148
AFTOM 11
253149
AFTOM 12
253150
AFTOM 13
253151
IKS 1
252975
IKS 2
252976
253152
253153
AFTOM 5
AFTOM 6
ML
450
GAL 4
LAKE 1
251918
TOM 1
252988
GNC 1
251203
GNC 2
251204
GNC 3
251205
AFTOM 9
AFTOM 16
253154
LANCE 1
LANCE 3
LANCE 4
VR 6
VR 4
TOM 2
252989
LAKE 2
251919
Mackay Lake
Little Tom Mackay Lake
GAL 3
252967
AFTOM 18
253155
AFTOM 7
253146
DON 35
JUM 35
ATKINS
GLACIER
SNOW
Ice Falls
UNUK 26
UNUK 15
AFTOM 20
253157
AFTOM 19
253156
FRED 16
DUP 7
DUP 8
STORY 4
POLO 7
POLO 12
253241
POLO 13
253240
UNUK 12

The area has been glaciated and elevations on the property vary from 400 m above sea level in the valley of the Unuk River to 1800 m a.s.l. on Mount Shirley, with steep-sided U-shaped valleys and areas of alpine plateau, such as the Prout Plateau. The area is deeply incised by rivers and steep-sided river canyons are common.

Tree line is at approximately 1000 m above sea level. Above tree line the vegetation is typically alpine with small stands of dwarf conifers. At higher elevations, the alpine meadows grade into tundra. Below tree line, the vegetation is that of west coast forest; the trees are subalpine conifers. Steeper and less stable slopes host slide alder, devil's club and wild raspberry.

A.5 History

Placer miners first came to the Unuk River valley in search of gold in the 1880's. Copper-lead-zinc-silver-gold showings near Eskay Creek were discovered and staked in 1932. Subsequent exploration activity concentrated on precious metal showings on the central and southern portion of the property. Reviews of the exploration history of the are given in Kuran (1985) and by Chapman *et al.* (1990). Prior to 1988, exploration work consisted of underground development on the "Mackay" and "22" zones, trenching, and drilling of 84 drill holes totalling 3,950 metres by 11 companies. In November, 1988, Calpine Resources Incorporated (now Prime Explorations Limited) announced the discovery of high grade precious and base metal mineralization in the 21A Zone. Mineralization consisted of massive sulphides at the contact between a rhyolite and overlying sequence of andesite and sediments. Additional drilling resulted in the delineation of the 21A zone, and the discovery of the 21B and 21C Zones further to the north.

An in-house compilation of reserves by Prime Resources in September 1990 indicated probable geological reserves in the 21A and 21B zones. At a cut-of grade of 0.25 oz/ton Au, reserves were calculated at 2,164,000 tons averaging 1.41 oz/ton Au and 51.9 oz/ton Ag. At a cut-off grade of 0.10 oz/ton, reserves increased to 5,018,000 tons but at a lower overall grade averaging 0.70 oz/ton Au and 25.3 oz/ton Ag.

Previous work on the area of the AFTOM claims of this report is limited. Two airborne geophysical surveys were conducted, one on the area of the AFTOM 10, 11 and 13 claims, the other in the area of the AFTOM 5 and 6 claims (Mallo 1989a, 1989b). A geological, geophysical and geochemical survey on the area of the AFTOM 10, 11 and 13 claims was done in 1989 (Chapman and Raven 1990). The properties lie within the area covered by a government reconnaissance stream sediment geochemical survey (National Geochemical Reconnaissance 1:250,000 map series 1988).

A.6 1991 Exploration

Property exploration in 1991 comprised detailed mapping and prospecting of each of the claims, listed in Table 1. Two field teams were used, each consisting of a geologist and an assistant. Representative rock specimens and samples of any mineralization were collected. Mineralized samples for analysis are described in Appendix B. Samples were analyzed by Acme Analytical Labs, using the methods described in Appendix C. Analytical results are listed in Appendix D. Structural measurements were taken on bedding surfaces, contacts and fold or fault structures.

B. REGIONAL GEOLOGY

B.1 Introduction

The Unuk River area lies within Stikinia in the Intermontane Belt of the Canadian Cordillera (Wheeler *et al.* 1988). The area is part of the Stewart Complex, defined by Grove (1971, 1986). Mapping conducted by the British Columbia Geological Survey Branch has covered much of the Stewart Complex (Lefebure and Gunning 1989, Webster and McMillan 1990, Alldrick and Britton 1988, Alldrick *et al.* 1989, Alldrick *et al.* 1990, Britton *et al.* 1989, Britton *et al.* 1990a, Brown and Greig 1990, Logan *et al.* 1990). The Unuk River area has also been the subject of two thesis studies (Donnelly 1976, Gunning 1986) on the stratigraphy around Eskay Creek. Alldrick (1989) made a preliminary reconstruction of Hazelton Group volcanic stratigraphy in the Stewart Complex using a stratovolcano model. Regional geology is shown in Fig. 3.

Four tectonostratigraphic assemblages occur in the area, bounded by regional unconformities (Anderson 1989, Anderson and Thorkelson 1990). These assemblages are:

- Paleozoic Stikine assemblage
- Triassic to Jurassic volcanic-plutonic arc complexes
- Middle and Upper Jurassic Bowser overlap assemblage
- Tertiary Coast Plutonic complex.

In the Unuk River area, Permian and older arc and shelf sequences of the Stikine assemblage are overlain by a thick (5,000 m) succession of volcanic and sedimentary rocks. The Stikine Assemblage is not exposed in the area. The volcanic and sedimentary sequence is defined as the Upper Triassic Stuhini Group and the Upper Triassic to Middle Jurassic Hazelton Group (Figs 3 and 4). These in turn are overlain by marine basin sediments of the Middle to Upper Jurassic Bowser Lake Group. These rocks were deformed and weakly metamorphosed during Cretaceous time (Alldrick 1987).

Four main phases of igneous intrusion within the Stewart Complex are identified by Anderson and Bevier (1990). In order of intrusion, these are the Late Triassic Stikine (213-226 Ma) suite, the Early Jurassic (189-196 Ma) Texas Creek suite, the Middle Jurassic (175-180 Ma) Three Sisters suite and the post-tectonic (44-62 Ma) Coast Plutonic Complex. The products of Pleistocene and

Recent basaltic eruptions, associated with the Quaternary Stikine volcanic belt (Souther 1977), are locally preserved.

B.2 Stratigraphy

B.2.a Upper Triassic Stuhini Group

The Stuhini Group consists of clastic sedimentary rocks, limestone, and intermediate to mafic volcanoclastic rocks and flows. The volcanic rocks are often clinopyroxene phyric and are useful marker horizons east of the Unuk valley (Britton *et al.* 1990b). The unit shows both gradational and unconformable contacts with the overlying Hazelton Group.

B.2.b Lower to Middle Jurassic Hazelton Group

Unuk River Formation

The Unuk River formation is characterized by a monotonous sequence of massive, fine-grained feldspar-hornblende phyric intermediate pyroclastic rocks and minor flows. Interbeds of finely laminated tuffaceous siltstone, wacke, and conglomerate occur locally, but are not laterally extensive. Alldrick (1989) defined the top of the Unuk River Formation as a distinctive two-feldspar+hornblende phyric andesite, called the Premier Porphyry. This unit is spatially and temporally associated with precious metal veins in the Sulphurets-Stewart area. More recent data (R.G. Anderson pers. comm. 1991) suggests that the Premier Porphyry may be, in part, intrusive, therefore, the contact between the Unuk River Formation and the overlying Betty Creek

Formation would be gradational, defined by the appearance of more well-bedded strata upsection.

Betty Creek Formation

The Betty Creek formation consists of varicoloured intermediate volcanoclastic rocks and minor flows. Air-fall pyroclastic textures and marine fossils - pillow lavas indicate both subaerial and subaqueous deposition (Britton *et al.* 1990). The unit conformably overlies the Unuk River Formation. Lithologies are dominantly epiclastic. Some sections contain maroon-coloured horizons with ferruginous quartz veins, but the formation is more commonly green or grey in colour and cannot be distinguished from the underlying Unuk River Formation on the basis of colour.

Mount Dilworth Formation

The Mount Dilworth formation is a thin, but widespread marker unit of intermediate to felsic pyroclastic rocks that overlies the Betty Creek formation. It can be traced from the Kitsault valley north to the Eskay Creek area. The unit consists of pale green to white, dacitic to rhyolitic tuff, lapilli tuff and tuff-breccia. Local zones of welding are a distinctive feature of this formation. Aphyric, spherulitic, flowbanded, and autobrecciated welded ash flows and rhyolite flows are common in the Unuk River area.

Salmon River formation

The Salmon River Formation consists of turbiditic argillite, siltstone, sandstone and minor limestone and interfingering pillow lava and pillow lava breccia. The formation unconformably overlies the Mount Dilworth Formation and hosts the precious and base metal mineralization at the 21A and 21B deposits at Eskay Creek. The unit represents the transition between arc volcanism and the onset of entirely marine sedimentation represented by the Middle Jurassic Bowser Lake Group (Britton *et al.* 1990b).

The basal member of the Salmon River Formation is laterally persistent and is typically less than two metres thick. The member comprises pyritiferous wacke, often containing belemnites and pelecypods (Weyla). The fossil suite constrains the age of this member to the Lower to Middle Toarcian (Anderson and Thorkelson 1990).

The upper member of the Salmon River Formation exhibits facies variation; at least two facies types have been described by Anderson and Thorkelson (1990) and by Britton *et al.* (1990b). The economically important Eskay Creek facies contains mafic pillow lavas and pillow lava breccias which interfinger with limestone, calcareous or cherty siltstone and shale. Pillow interstices are locally filled with calcareous material. Rare felsic pillow lavas have been observed but their felsic appearance may be due, at least in part, to synvolcanic hydrothermal alteration (Souther 1972).

B.2.c Middle and Upper Jurassic Bowser Lake Group

The Bowser Lake Group includes a basal sequence of siltstone, shale and minor greywacke that grades upsection into conglomerate. The resistive and distinctive conglomerate unit contains pebble size clasts of argillite, siltstone, chert, quartz and felsic volcanics. This unit is correlated with the widespread Ashman Formation of Tipper and Richards (1976) further to the south. The conglomerates are overlain by a thinly bedded sequence of turbiditic argillite, siltstone, and sandstone.

The Bowser Lake Group overlies the Salmon River Formation with structural and, apparently, stratigraphic conformity (Anderson and Thorkelson 1990).

B.3 Structure

Regional folds interpreted from the outcrop trace of the Mount Dilworth formation and overlying sedimentary rocks of the Salmon River formation. The folds occur as a series of upright, northeast trending anticline - syncline pairs that plunge gently to the north. This outcrop trace has not been followed around the nose of the anticline at Eskay Creek or the keel of the syncline in the Unuk River (Britton *et al.* 1990b). Low angle thrust faults may be associated with this folding event.

A second period of folding has resulted in open, upright, east-west trending folds. Associated with this folding event are northwest trending strike-slip faults that dip to the northeast.

B.4 Setting of the Eskay Creek base and precious metal deposits

The 21 Zone base and precious metal deposits within the Eskay Creek area are currently being explored by International Corona Corporation of Vancouver. These prospects are hosted by strata near the top of the Hazelton Group. A stratigraphic column is presented in Fig. 4. Host rock stratigraphy comprises a lower sequence of interbedded dacitic tuffs and wackes, a middle sequence of rhyolitic tuffs and breccias and an upper sequence of flows, intercalated with mudstones.

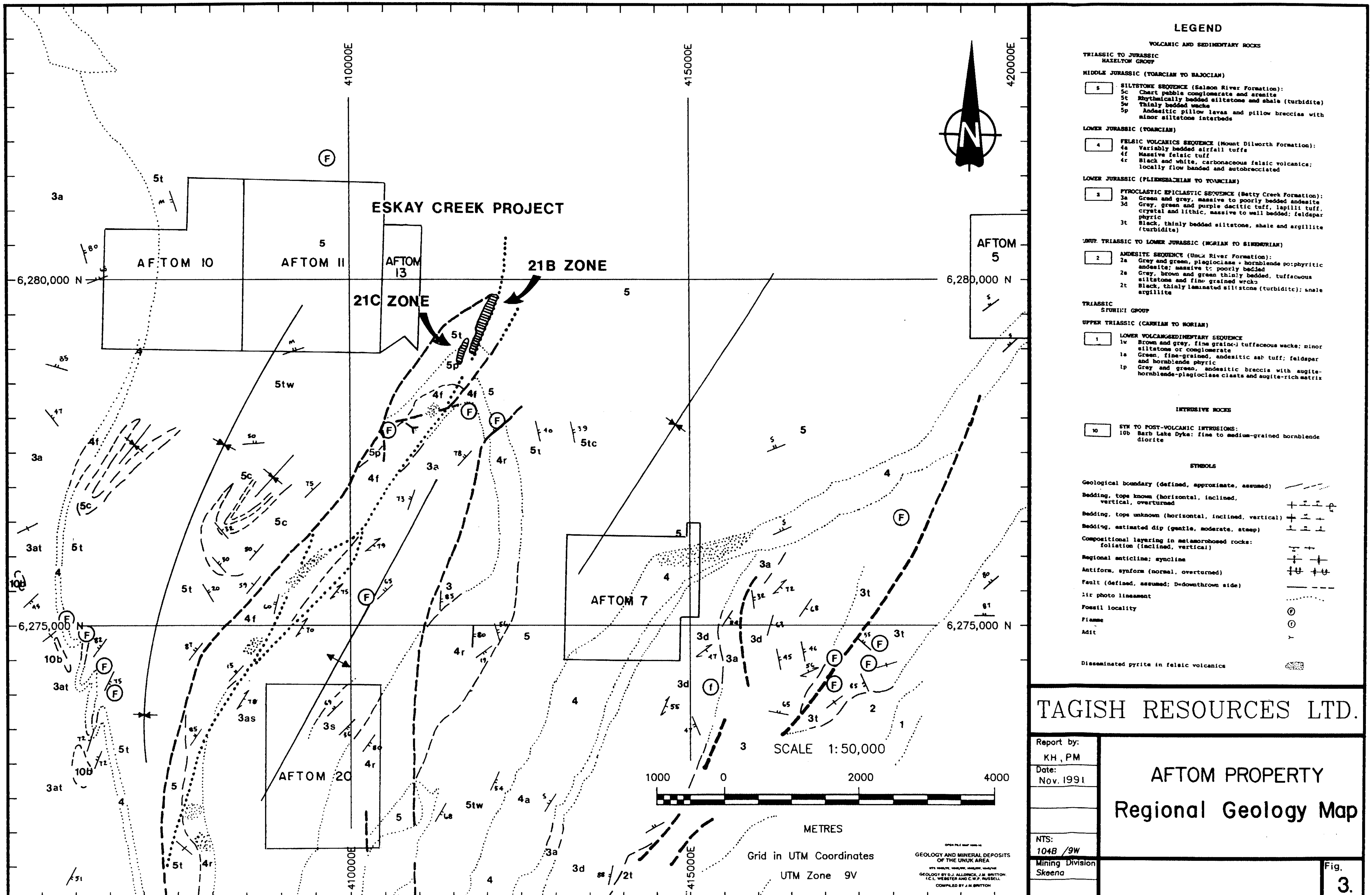
Drilling has traced exceptionally high-grade gold and silver-bearing sulphide mineralization more than 1400 metres along strike and 250 metres down dip. Two deposits, the 21A and 21B, have so far been delineated. Both contain precious metal-rich stratabound massive sulphide lenses within a tuffaceous mudstone unit at the rhyolite-andesite contact. Precious metal-rich disseminated and stockwork mineralization is also present in rhyolite, the massive sulphides and in the hanging wall. The northern part of the 21B deposit has two massive sulphide lenses within interflow mudstones of the upper sequence.

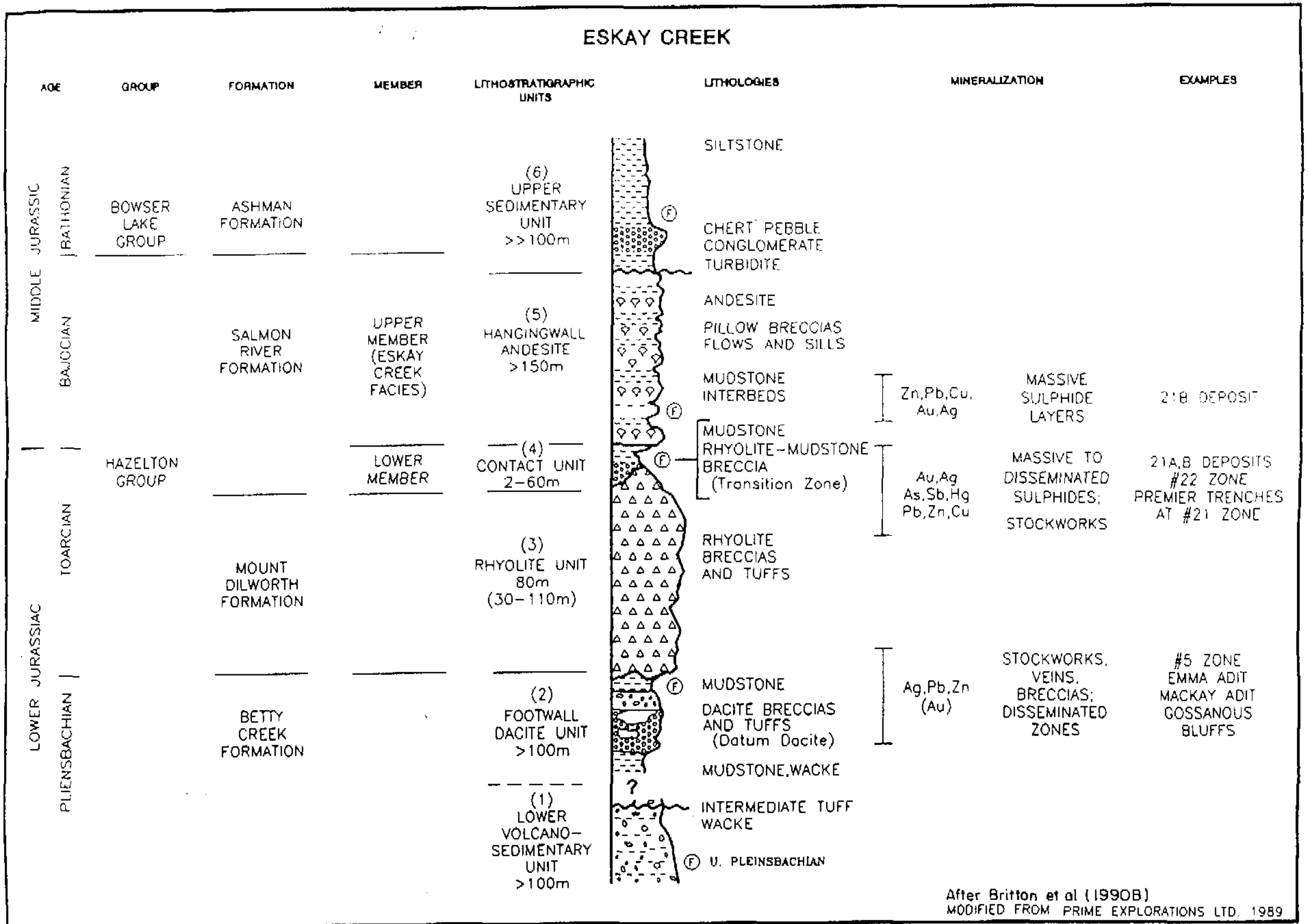
The two deposits have distinctly different mineralogies. The 21A is rich in stibnite and realgar with only minor pyrite and base metal sulphides. The 21B lacks stibnite and realgar but contains abundant sphalerite, tetrahedrite, boulangerite, galena and pyrite (Britton *et al*. 1990b).

An in-house compilation of reserves by Prime Resources in September of 1990 indicated probable geological reserves in the 21A and 21B zones. At a cut-off grade of 0.25 oz/ton Au, the deposits contain 2,164,000 tons averaging 1.41 oz/ton Au and 51.9 oz/ton Ag. At a cut-off grade of 0.10 oz/ton, the deposits contain 5,018,000 tons averaging 0.70 oz/ton Au and 25.3 oz/ton Ag.

C. PROPERTY GEOLOGY

The AFTOM claims are underlain by Bowser Lake and Hazelton Group volcanic and sedimentary rocks deposited within a rapidly changing eruptive arc and basinal environment. Possible geological settings for ore deposition are a small rift basin within a mature island arc or a submarine felsic caldera undergoing cauldron subsidence. Either interpretation is compatible with the current understanding of the geology of the Hazelton Group (Alldrick 1989, Britton *et al*. 1990). Geological maps of the claim areas are shown in Map 1, (3 sheets, pocket).


ESKAY CREEK PROJECT
21B ZONE
21C ZONE
AFTOM 10
AFTOM 11
AFTOM 13
AFTOM 5
AFTOM 7
AFTOM 20
410000E
415000E
420000E
6,280,000 N
6,275,000 N
N
LEGEND
VOLCANIC AND SEDIMENTARY ROCKS
TRIASSIC TO JURASSIC
HAZELTON GROUP
MIDDLE JURASSIC (TOARCIAN TO BAJOCIAN)
5 SILTSTONE SEQUENCE (Salmon River Formation):
5c Chert pebble conglomerate and arenite
5t Rhythmically bedded siltstone and shale (turbidite)
5w Thinly bedded wacke
5p Andesitic pillow lavas and pillow breccias with minor siltstone interbeds
LOWER JURASSIC (TOARCIAN)
4 FELSIC VOLCANICS SEQUENCE (Mount Dilworth Formation):
4a Variably bedded airfall tuffs
4f Massive felsic tuff
4r Black and white, carbonaceous felsic volcanics; locally flow banded and autobrecciated
LOWER JURASSIC (PLIENSBACHIAN TO TOARCIAN)
3 PYROCLASTIC EPICLASTIC SEQUENCE (Betty Creek Formation):
3a Green and grey, massive to poorly bedded andesite
3d Grey, green and purple dacitic tuff, lapilli tuff, crystal and lithic, massive to well bedded; feldspar phyric
3t Black, thinly bedded siltstone, shale and argillite (turbidite)
UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)
2 ANDESITE SEQUENCE (Unuk River Formation):
2a Grey and green, plagioclase + hornblende porphyritic andesite; massive to poorly bedded
2s Grey, brown and green thinly bedded, tuffaceous siltstone and fine grained wacke
2t Black, thinly laminated siltstone (turbidite); shale argillite
TRIASSIC
STUHINI GROUP
UPPER TRIASSIC (CARNIAN TO NORIAN)
1 LOWER VOLCANOSEDIMENTARY SEQUENCE
1w Brown and grey, fine grained tuffaceous wacke; minor siltstone or conglomerate
1a Green, fine-grained, andesitic ash tuff; feldspar and hornblende phyric
1p Grey and green, andesitic breccia with augite-hornblende-plagioclase clasts and augite-rich matrix
INTRUSIVE ROCKS
10 SYN TO POST-VOLCANIC INTRUSIONS:
10b Barb Lake Dyke: fine to medium-grained hornblende diorite
SYMBOLS
Geological boundary (defined, approximate, assumed)
Bedding, tops known (horizontal, inclined, vertical, overturned)
Bedding, tops unknown (horizontal, inclined, vertical)
Bedding, estimated dip (gentle, moderate, steep)
Compositional layering in metamorphosed rocks: foliation (inclined, vertical)
Regional anticline; syncline
Antiform, synform (normal, overturned)
Fault (defined, assumed; D=downthrown side)
Air photo lineament
Fossil locality
Fiamme
Adit
Disseminated pyrite in felsic volcanics
SCALE 1:50,000
1000 0 2000 4000
METRES
Grid in UTM Coordinates
UTM Zone 9V
TAGISH RESOURCES LTD.
Report by: KH, PM
Date: Nov. 1991
NTS: 104B /9W
Mining Division Skeena
AFTOM PROPERTY
Regional Geology Map
Fig. 3.



STRATIGRAPHIC COLUMN
FIGURE 4

C.1 Stratigraphy

C.1.a Lower Jurassic Unuk River Formation (Unit 2)

The oldest stratigraphic unit examined is identified as the Unuk River Formation. The formation is exposed on the southern part of the AFTOM 5 and 6 claims in the core of a northeasterly plunging anticline (Map 1 sheet 2). The dominant lithology of the unit is homolithic coarse tuff, lapilli tuff and tuff breccia with angular to subrounded fragments. The fragments are of porphyritic andesite, containing 10% subhedral hornblende and 10% subhedral plagioclase phenocrysts in a chloritized groundmass. Approximately 5% magnetite is present in both fragments and matrix. The rock is grey-green and weathers to a buff colour.

The basal contact of the Unuk River Formation was not observed. An upper contact with structurally overlying clastic sedimentary rocks is exposed on the AFTOM 6 claim. A conglomerate unit upsection from the contact indicates local unconformity (Map 1 sheet 2).

C.1.b Lower Jurassic Betty Creek Formation

The Betty Creek Formation is exposed on the AFTOM 5 and 6 and on the AFTOM 20 claims (Maps 1, sheets 2 and 3). On the AFTOM 5 and 6 claims. The basal and upper contacts were observed. The basal part of the formation contains thinly bedded to thickly laminated siltstones and lithic wackes, exhibiting scour surfaces and low-angle cross-bedding. These rocks are intensely folded near the contact. A dark grey volcanic conglomerate near the base of the formation contains fragments of andesitic volcanoclastic rocks.

The top of the Betty Creek Formation is exposed in a river canyon to the west of the common boundary between the AFTOM 5 and 6 claims (Map 1, sheet 2). The top of the unit contains dark grey argillites which grade upsection to a buff-weathering siltstone and sandstone. The unit is overlain by rhyolite pyroclastic rocks identified as the Mount Dilworth Formation.

The Betty Creek Formation is also exposed at the core of a major northeast-trending anticline on the AFTOM 20 claim (Alldrick *et al* 1989). The formation is shown on Map 1, sheet 3. Lithologies include thinly bedded argillites and wackes and andesite volcanoclastic rocks. The volcanoclastic units consist of massive fine-grained tuff. Close to the hinge zone of the fold, these rocks have been sheared and hydrothermally altered to a foliated pyrite-quartz-sericite gossanous zone. Geochemical analyses of rock within this zone contained elevated copper, arsenic, antimony and silver values.

C.1.c Mount Dilworth Formation (Unit 4)

The Mount Dilworth Formation outcrops prominently on the AFTOM 5, 6 and 20 claims (Map 1, sheets 2 and 3). On the AFTOM 5, upsection from the basal contact with the Betty Creek Formation, the Mount Dilworth Formation has a true thickness of approximately

120 m and consists of at least three massive pyroclastic flow units, containing rhyolitic tuff and lapilli tuff.

Lithologies are weakly porphyritic, with 5% anhedral quartz and 5% subhedral feldspar phenocrysts in an aphanitic matrix. Tuff fragments are homolithic, matrix-suspended, 2-5 mm in size and subangular to subrounded. Patchy silica flooding on a scale of 1-2 cm is common, as is fine-grained disseminated pyrite. Near the top of the unit, some fragments are chloritized. Some outcrop surfaces exhibit fiamme textures. Graphitic and hematitic fragments occur near the basal contact with the underlying Betty Creek Formation. Fresh surfaces are light to medium grey or greenish grey in colour, weathering to a distinctive orange-brown.

Pyritiferous rhyolitic volcanic rocks with distinctive rusty, manganiferous and jarositic weathered surfaces outcrop in the northwest corner of the AFTOM 20 claim. The formation here has an apparent thickness of 200 metres. Numerous small, recent trenches and rock sample sites are located on these outcrops.

C.1.d Middle to Lower Jurassic Salmon River Formation (Unit 5)

The Salmon River Formation is the best exposed Hazelton Group formation on the AFTOM claims and occurs on each claim group. The section is dominated by sedimentary rocks (Fig. 4, Map 1, sheets 1-3).

Lithologies present in the Eskay Creek facies of the Salmon River Formation include limestone, calcareous or cherty siltstone and shale and andesitic volcanic rocks (Anderson and Thorkelson 1990). A high content of carbonaceous material occurs in the sedimentary rocks (A. Ettlinger, pers. comm. 1991).

Andesitic volcanic rocks in the Salmon River Formation are volumetrically less significant than sedimentary rocks. The volcanic rocks are, however, a significant component of current ore deposition models (e.g. Britton *et al*. 1990b). Occurrences of pillowed andesite (subunit 5p) were observed on the AFTOM 5, 6, 7, and 10 claims (Map 1, sheets 1-3). Pillowed andesite, not observed in this study also forms the base of the section on the AFTOM 13 claim.

The volcanic rocks comprise plagioclase-phyric andesite, exhibiting massive, pillow and pillow-breccia textures. The unaltered andesite comprises 5% subhedral plagioclase phenocrysts in a dark grey aphanitic groundmass. The rock commonly exhibits alteration to epidote, chlorite and calcite, consistent with the lower greenschist metamorphic grade described by Britton *et al*. (1989). The andesites commonly weather to a dark greenish grey colour. Locally, the rock is more intensely altered, with a pale green porcellaneous appearance. It is possible that at least some of the rhyolites described within this sequence are altered andesites, similar to those described by Souther (1972).

A section exposed on the southeast side of the Storie Creek valley, on the AFTOM 7 claims (Map 1, sheet 3), has been tentatively identified as the Eskay Creek facies of the Salmon River Formation (Anderson and Thorkelson 1990). The sequence is inverted, dipping steeply to the southeast, with tops facing northwest. Outcrops of Mount Dilworth Formation, mapped by Alldrick *et al*. (1989) lie at the stratigraphic base of the section but were not observed in the present study. Upsection, towards Storie Creek, the Mount Dilworth Formation is succeeded by a resistant weathering pyritic and silica-flooded siltstone. This unit is overlain by a poorly defined sequence of thinly bedded white-grey cherty tuff or silica-flooded sedimentary rocks, with thin carbonaceous interlaminae. Amygdaloidal, pillowed andesite with bleached silica-flooded volcanic rocks lie structurally below. The latter either rhyolites or, possibly, bleached and silicified andesites. Carbonaceous and calcareous argillites exposed in Storie Creek form the lowest structural unit in this section.

The basal contact of the Middle Jurassic Salmon River Formation with the underlying Mount Dilworth Formation is a regional unconformity (Anderson 1989, Anderson and Thorkelson 1990). This unconformity was observed at one location on the AFTOM 5 claim, where a polymictic volcanic conglomerate with subrounded clasts of rhyolite in a dark grey siltstone matrix occurs above the contact.

A contact between the pillowed andesites and overlying clastic sedimentary rocks (subunits 5w and 5t) occurs on AFTOM 10 in a steeply dipping to overturned section, with tops to the east. The contact itself is obscured by lack of outcrop. The andesite section is of undefined but considerable thickness and has possibly been repeated by faulting subparallel with the north-south Harrymel shear zone (Alldrick *et al.* 1989) which lies to the west. Sedimentary lithologies include monotonous, thinly bedded to thickly laminated argillites with minor interlaminated siltstone and lithic wacke. The section is interpreted as a rhythmically bedded turbiditic sequence displaying load casts, low-angle scour surfaces, graded bedding and rare cross bedding.

C.1.e Middle and Upper Jurassic Bowser Lake Group (Unit 6)

The sedimentary sequence overlying the pillowed andesite unit of the Salmon River Formation is exposed on the lower slopes of Mount Shirley, in a steeply dipping to overturned section with tops facing to the east. The contact of Salmon River clastic sedimentary rocks with the conformably overlying lithologies of the Bowser Lake Group was not identified in the present study, because of the lithological similarity of the two units.

Lithologies in the Bowser Lake Group consist of monotonous, thinly bedded to thickly laminated argillites with minor interlaminated siltstone and lithic wacke. Chert pebble conglomerate, described below, occurs near the base of the unit.

Low-angle scour surfaces occur in many exposures. Strata include a rhythmically bedded turbiditic sequence displaying load casts, graded bedding and rare cross bedding. This sedimentary sequence outcrops over the majority of the AFTOM 10, 11 and 13 claims and on the northern part of the AFTOM 5 and 6 claim group (Map 1, sheets 1 and 2).

C.1.f Ashman Formation equivalent (Unit 6a)

A distinctive pebble conglomerate occurs near the base of the Bowser Lake Group. The lithology comprises 80% subangular to rounded clasts, 0.3-2 cm in size, clast or matrix suspended in a calcareous sandstone matrix. Clast compositions comprise 75% chert, usually medium grey in colour; 15% lithic fragments, usually volcanogenic; 5% white quartz and 5% angular fragments of greenish grey siltstone. The last lithology includes clasts of the other lithologies and is interpreted as a rip-up assemblage; sizes of the siltstone clasts are as much as 50 cm.

Numerous scour surfaces are visible in outcrop. Significant lateral grain size variation occurs; the unit may grade laterally or upsection into coarse grit. It is possible that several units with this lithology occur within the clastic sedimentary sequence (J.M. Britton pers. comm. 1991). For these reasons, it may not be possible to use the chert pebble conglomerate as a stratigraphic marker.

On the AFTOM 5, a chert pebble conglomerate forms resistant knolls and ridges just east of the Unuk River and lies in a consistent unit stratigraphically above proposed Salmon River Formation sediment and Mount Dilworth rhyolite pyroclastic rocks. Isolated outcrops of conglomerate also occur on the AFTOM 10, 11 and 13 claims, but lateral correlation of these outcrops as a single horizon will require further mapping.

Thinly bedded siltstone, shale and sandstone comprise the remainder of the Bowser Lake Group. These lithologies are similar to those of the Salmon River Formation thereby making the distinction between the two difficult.

C.2 Structure

Two superimposed phases of deformation occurred in the claim area. An early, regional-scale deformation is dominant. In the claim area this event is represented by large north-northeasterly trending folds, with axial planes dipping steeply to the northwest. Fold axes plunge moderately to gently to the north-northeast.

The second phase off deformation is represented by refolding of first generation folds about east-west axes. This superimposed deformation is most commonly observed in less competent rocks sedimentary rocks of the rocks of the Bowser Lake group and the Salmon River Formation show good examples of the deformational overprint. Minor fold structures on the AFTOM 10 show a range in axial inclination from a plunge at 25° along a trend of 195 with axial planes dipping moderately to the southeast to a plunge at 33° along a trend of 020°, with vertical axial planes 500 m to the east of this location. Further to the east, most measurements indicate a similar northeastern fold plunge direction.

D. TARGET EVALUATION AND RECOMMENDATIONS

D.1 Introduction

Geological mapping conducted on the AFTOM claims during the present study indicates that the section established by Britton *et al* (1990) for the Eskay Creek deposits is applicable to all the ground covered. The geologically favourable horizons of either the Salmon River or the Mount Dilworth Formations underlie substantial portions of the AFTOM 5, 6, 7, 10, 13 and 20 claims.

D.2 AFTOM 5 and 6

The Mount Dilworth and Salmon River Formations both outcrop on the AFTOM 5 and 6 claim group. The formations have a strike length of over 4 km and true thicknesses in excess of 100 m. Pillowed andesites are present in the Salmon River Formation within the AFTOM 5 and 6 claims.

Disseminated pyrite mineralization is present in the Mount Dilworth Formation. As much as 10% pyrite mineralization is also present in faults which offset the two formations and also at the contact between the Salmon River and Mount Dilworth formations.

The claim group has very good potential for hosting Eskay Creek-type deposits because of the presence of pillowed volcanics and alteration related disseminated pyrite.

It is strongly recommended that geological mapping be continued on these claims, to define the outcrop area of the Salmon River and Mount Dilworth formations. It is further recommended that a grid be constructed over the outcrop area of the two formations. The grid lines are to run perpendicular to the average strike of the two formations at a spacing of 100 m. A soil geochemical survey should then be carried out on this grid, at a sample interval of 50 m. A geophysical survey, comprising magnetometer and VLF/EM should also be carried out, in order to define possible areas of mineralization and geological boundaries.

D.3 AFTOM 7

The Salmon River Formation is exposed on the AFTOM 7 claim and has a projected strike length in excess of 2 km. True thickness is in excess of 150 m. The formation includes andesite pillow lavas, chert-rich sedimentary rocks and pyrite mineralization. The AFTOM 7 claim is therefore highly prospective for hosting Eskay Creek-type mineral deposits.

It is strongly recommended that geological mapping be continued in order to define the extent of the Salmon River Formation and to confirm the existence and extent of the Mount

Dilworth Formation on the claim group. In addition it is recommended that a geochemical and geophysical survey be carried out on a 100 m grid perpendicular to strike as for the AFTOM 5 and 6 claim group.

D.4 AFTOM 10 and 11

The Salmon River Formation outcrops on the western edge of the AFTOM 10 claims. The exposed strike length is in excess of 1.5 km. The dominant lithology is andesite pillow lavas. The formation has an apparent thickness in excess of 500 m and extends beneath the younger rocks exposed to the east. The pillowed andesites exhibit locally intense hydrothermal alteration and as much as 10% disseminated stockwork pyrite mineralization. This claim group prospective for hosting Eskay Creek-type mineralization.

It is recommended that geological mapping be continued in order to define further the extent of outcrop of the Salmon River Formation, in the western portion of the claim group. It is further recommended that a grid be constructed over the outcrop area of the Salmon River Formation and that geophysical and soil geochemical surveys be carried out, where terrain permits.

D.5 AFTOM 13

One outcrop of andesite pillow lavas of the Salmon River Formation at the south end of AFTOM 13 identified during previous work. It is recommended that geological mapping be concentrated in this area and that a 100 m grid be cut over the area underlain by Salmon River Formation. A geochemical and magnetometer and VLF/EM survey should then be carried out on the grid as recommended for the AFTOM 5 and 6 group.

D.6 AFTOM 20

The AFTOM 20 claim is underlain by fine-grained andesite pyroclastic rocks of the Betty Creek Formation. A thin exposure of Mount Dilworth occurs on the northwest corner of the claim group.

Mineralization is present in the Mount Dilworth Formation and in an intensely altered horizon of Betty Creek andesites. The altered horizon is approximately 100 m and in open along strike. Rock sampling indicated anomalous concentrations of Pb (<4545 ppm), An (<4325 ppm), Ag (<6.2 ppm), As (<725 ppm), and Au (<1199 ppb) in the Mount Dilworth formation and anomalous Cu (<587 ppm), Ag (<16.5 ppm) and Sb (<139 ppm) in altered Betty Creek Formation.

It is recommended that geological mapping be continued, in order to define the area underlain by the altered portion of the Betty Creek Formation. This area should be enclosed with a cut line grid, similar to that recommended for the AFTOM 5 and 6 group and geochemical, magnetometer and VLF/EM surveys carried out using the grid.

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F. STATEMENT OF QUALIFICATIONS

I, Paul Metcalfe, of North Vancouver, in the Province of British Columbia, do hereby certify that:

1. I am a geologist in the employ of Cambria Geological Ltd, with offices at 1531 West Pender Street, Vancouver, British Columbia.

2. I am a graduate of University College, Durham University, England with a Bachelor of Science degree with Honours, in geology (1977), a graduate of the University of Manitoba, with a Master of Science degree in geology (1981) and a graduate of the University of Alberta, with a doctorate of philosophy in geology (1987).

3. I have practised my profession continuously during and since my academic studies, in Canada, from 1977 to the present.

4. I am a Fellow of the Geological Association of Canada and my membership is in good standing.

5. This report is based upon geological mapping of the AFTOM 5, 6, 7, 10, 11, 13 and 20 claims in northwestern British Columbia and also upon an evaluation of all pertinent geological data.

6. I have no interest, either direct or indirect, in Tagish Resources Ltd., nor do I expect to acquire any such interest.

7. I hereby grant permission for the use of this report by Tagish Resources Ltd.

P Metcalfe

Paul Metcalfe

December 5, 1991
Vancouver, B.C.

STATEMENT OF QUALIFICATIONS

I, Ken Hicks, of 115 - 1741 West 10th Avenue, Vancouver, in the Province of British Columbia, do hereby certify that:

1. I was commissioned as a contract geologist by Cambria Geological Ltd, 1531 West Pender Street, Vancouver, British Columbia to carry out the field program outlined in the accompanying report.

2. I am a graduate of the University of British Columbia, Vancouver, BC. with a Bachelor of Science degree (Honours) in geology (1982).

3. I have practised my profession continuously from graduation to the present.

4. I am a Fellow of the Geological Association of Canada (1989) in good standing.

5. This report is based upon personal observations and geological mapping of the AFTOM 5, 6, 7, 10, 11, 13 and 20 claims in northwestern British Columbia during the period September 4 - 22, 1991.

6. I have no interest, either direct or indirect, in Tagish Resources Ltd., nor do I expect to acquire any such interest.

7. I hereby grant permission for the use of this report by Tagish Resources Ltd.

Ken Hicks

Ken Hicks

December 5, 1991
Vancouver, B.C.

G. STATEMENT OF EXPENDITURES

CLAIMS: AFTOM 5, 6, 10, 11, 13 and 20 (Omitting AFTOM 7)

GEOLOGICAL

PERSONNEL

Consulting

P. McGuigan	Project Manager	6 days @ $450/day =	$2,700.00	
P. Metcalfe	Geologist	11 days @ $450/day =	$4,950.00	
K. Hicks	Geologist	15 days @ $450/day =	$6,750.00	
C. Johnson	Field assistant	7 days @ $250/day =	$1,750.00	
		8 days @ $200/day =	$1,600.00	
				= $17,750.00

Employees

R. Hertzig	Field assistant	7 days @ $140/day =	$ 980.00	
J. Holmes	Cook	11 days @ $150/day =	$1,650.00	
				= $ 2,630.00

TRANSPORTATION

Fixed wing - Central Mountain Air	= $ 3,042.58
Truck Rental 10 days @ $65.00	= $ 650.00
Fuel	= $ 150.00
	= $ 800.00
Helicopter - Vancouver Island Helicopter	
Mobilization	
1.5 hrs @ $635 + 1.0 hrs @ $670	
Fuel 1.5 X $87 + 1.0 X $97.2	
GST $1622.5 x 0.07	= $ 1,979.71
Demobilization	
4.5 hrs @ $635	
Fuel 4.5 x $87	
GST $3249 x 0.07	= $ 3,476.43
Geology	
8.45 hrs @ $635	
Fuel 8.45 @ $87	
GST	= $ 6,533.42
5.1 hrs @ $670	
Fuel 5.1 @ $97.2	
GST	= $ 4,186.61

FOOD AND ACCOMODATION

44 man-days @ $25/day food	= $ 1,100.00
44 man-days @ $25/day accommodation	= $1,100.00
	= $ 2,200.00

ASSAYING AND SUPPLIES

Analytical costs 24 samples @ $11.48/sample	= $275.52
Excess pulverizing costs	= $ 39.00
GST	= $ 22.02
	= $336.54

DRAFTING AND MATERIALS	= $ 1,400.00
REPORT WRITING	= $ 5,000.00

AIRPHOTO INTERPRETATION

AIRPHOTO SUPPLIES AND INTERPRETATION

Terrane analysis and structural lineament interpretation	= $ 2,166.75

TOTAL APPLICABLE EXPENDITURES	= $51,502.00

Allocation of assessment expenditures on the AFTOM 5, 6, 10, 11, 13 and 20
(Omitting AFTOM 7)

Assessment work was carried out equally to all the above claims, therefore the assessment applied to each claim is a percentage of total project expenditures.

Claim	Units	% of Total	Record date	Current Expiry date	Applied assessment per unit	Cost per claim	New Expiry date
AFTOM 5	20	1/6* $51,502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
AFTOM 6	20	1/6* $51,502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
AFTOM 10	20	1/6* $51502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
AFTOM 11	20	1/6* $51502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
AFTOM 13	20	1/6* $51502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
AFTOM 20	20	1/6* $51502= $8583.66	Sept 1989	Sept 1992	1 yr @ $100	$2000	Sept 1993
TOTAL	120	$51502			1 year	$12000	

Total applicable expenditures =$51,502
Total applied assessment =$12,000

Excess credit applied to PAC =$39,502
($6383.66 per claim)

APPENDIX A

SAMPLES SUBMITTED FOR ANALYSIS

SAMPLES SUBMITTED FOR ANALYSIS

Sample No.	Type	Claim	Elev	Sample Description
33351	GRAB	AFTOM 5	2450	Rusty wea rhyolite tuff
33352	FLT	AFTOM 10	4300	Rusty wea rhyolite abundandt fg py, at andesite/rhyolite contact
33353	GRAB	AFTOM 10	4100	Thin, pyritic, felsic unit
33354	GRAB	AFTOM 5,6	1920	Rusty, manganiferous, phyllite
33355	GRAB	AFTOM 5,6	1920	As 33354
33356	GRAB	AFTOM 5,6	2020	Rusty weathering flow banded rhyolite at contact with pillow basalt
33363	GRAB	AFTOM 20	3800	Rusty, manganiferous, jarositic, sericitized rhyolite tuff
33364	GRAB	AFTOM 20	3800	As above
33365	GRAB	AFTOM 20	3940	Rusty, pyritic rhyolite
33366	GRAB	AFTOM 20	3980	Trench. Rusty, manganiferous rhyolite
33367	GRAB	AFTOM 20	3620	Grey-green to tan (bleached) andesitic tuff, patches of pyrite.
33368	GRAB	AFTOM 20	3220	Rusty weathering rhyolite tuff
33369	GRAB	AFTOM 20	3220	As 33368
3370	FLT	AFTOM 20	3220	As above, abundant fg pyrite
33371	GRAB	AFTOM 20	3270	Rusty, manganiferous, sericitic felsic tuff/phyllite

Sample No.	Type	Claim	Elev	Sample Description
33372	GRAB	AFTOM 20	1850	Lt grey massive rhyolite with patchy pyrrhotite, minor cpy and unidentified fg black mineral
33751	GRAB	AFTOM 5		Mineralize d fault breccia with dark grey matrix and 10-15% pyrite. Fragments crackle brecciated.
33752		AFTOM 5		Polymictic conglomerate with fragments of rhyolite in dark, fine-granied matrix with 10% pyrite
33753		AFTOM 10		Chlorite alteration with Fe staining and minor pyrite
33754		AFTOM 10		Intensely chloritized andesite with 10-15% pyrite
33755		AFTOM 10		Dark grey aphanitic alteration, possibly altered argillite, with moderate crackle brecciation and infilling with quartz, carbonate and ≈ 5% pyrite
33756		AFTOM 10		Dark grey crackle-brecciated andesite with minor pyrite
33757		AFTOM 10		Altered chloritized andesite with 5% pyrite
33758		AFTOM 10		Fault gouge

APPENDIX B

ANALYTICAL METHODS

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St., Vancouver, B.C., Canada V6A 1R6
Telephone: (604) 253-3158 Fax: (604) 253-1716

Geochemical Methods
Acme Analytical Laboratories Ltd.

Soil Preparation: Dry soil or silt sample up to 1 Kg at 60 deg.C and sieve to -80 mesh.

Rock Preparation: Rocks or cores are crushed to -3/16" and 250 gm is split out. This split is pulverized using a ring mill pulverizer to 99% -100 mesh.

ICP Analysis: 0.50 gm sample is digested with 3ml 3-1-2 HCL-HNO3-H2O at 95 deg.C for one hour and is diluted to 10ml with water. This leach is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K, Al.

Gold Analysis (Fire Geochem): 10 gm is ignited at 600 deg.C for 4 hours and fused with F.A. flux. The dore bead is dissolved in Aqua Regia and analysed by ICP.

Detection limit for	Au	1 ppb
	Pt	3 ppb
	Pd	3 ppb
	Rh	3 ppb

** Larger sample - on special request.

APPENDIX C
ANALYTICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Cambria Geological Inc. File # 91-4812
1531 W. Pender St., Vancouver BC V6G 2T1 Submitted by: KEN HICKS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
E 33352	24	43	43	36	1.0	28	5	395	6.46	15	5	ND	1	5	.2	2	2	18	.23	.050	16	31	.47	12	.12	2	.78	.08	.03	1	20
E 33353	15	66	3	2	.2	10	5	102	5.90	2	5	ND	1	2	.2	2	2	6	.45	.006	2	32	.07	37	.08	2	.52	.08	.03	1	7
E 33354	11	28	9	149	.3	22	7	557	4.73	16	5	ND	1	20	.4	2	2	20	.07	.050	8	13	.08	450	.01	3	.74	.02	.18	1	7
E 33355	28	71	14	596	1.7	81	10	278	4.92	52	5	ND	1	33	7.0	8	2	36	.24	.090	2	23	.06	61	.01	4	.50	.02	.21	2	3
E 33356	12	16	3	54	.1	20	4	184	1.28	5	5	ND	2	39	.2	2	2	2	.34	.010	19	59	.03	76	.01	3	.19	.11	.04	1	6
E 33357	7	9	26	11	.3	7	3	77	10.00	118	5	ND	1	7	.2	4	2	1	.01	.007	12	24	.01	19	.01	2	.26	.02	.22	1	3
E 33358	12	10	20	8	.2	10	2	99	3.20	35	5	ND	3	12	.2	2	2	1	.01	.004	20	32	.01	112	.01	2	.26	.04	.16	1	6
E 33359	45	23	34	61	.7	18	8	179	5.52	26	5	ND	5	37	.2	2	2	64	.71	.645	26	28	.41	108	.01	4	1.00	.06	.15	1	5
E 33360	2	29	6	118	.2	30	23	1081	5.50	11	5	ND	1	126	.2	2	2	22	3.83	.176	9	16	.36	57	.01	6	1.17	.04	.26	1	2
E 33361	4	1	12	17	.2	4	2	130	1.40	14	5	ND	4	6	.2	2	2	1	.15	.011	28	8	.03	48	.01	6	.51	.01	.25	1	2
E 33362	6	2	31	36	.9	5	1	36	1.28	116	5	ND	3	11	.2	2	2	1	.02	.011	23	12	.01	99	.01	2	.32	.01	.22	1	4
E 33363	1	5	2006	78	2.5	3	6	180	4.36	23	5	ND	1	12	.2	2	2	12	.23	.138	8	5	.07	91	.01	2	.69	.03	.26	1	7
E 33364	2	16	172	84	1.0	4	4	92	4.33	167	5	ND	1	14	.2	2	2	17	.28	.159	9	9	.13	120	.01	2	.91	.03	.31	1	95
E 33365	7	6	352	16	1.3	8	5	50	3.46	194	5	ND	1	11	.2	2	2	6	.09	.089	5	22	.01	73	.01	2	.24	.02	.19	1	363
E 33366	12	29	4545	4325	6.2	7	9	191	9.80	725	5	ND	1	12	21.3	10	2	8	.25	.067	6	15	.06	21	.01	3	.37	.01	.25	22	1199
E 33367	6	78	25	147	2.8	68	46	562	24.47	625	6	ND	1	10	.4	6	2	176	.19	.081	2	101	1.63	10	.01	5	3.59	.01	.02	1	726
E 33368	4	107	30	11	2.1	6	7	37	4.29	83	5	ND	1	28	.2	139	3	8	.01	.019	2	13	.02	46	.01	3	.32	.01	.15	1	16
RE E 33364	2	15	143	84	.9	4	4	89	4.37	174	5	ND	1	15	.2	2	2	18	.28	.160	10	9	.13	126	.01	2	.94	.04	.32	1	74
E 33369	7	54	77	7	4.7	11	4	83	2.53	81	5	ND	1	26	.2	94	8	3	.01	.005	2	31	.01	77	.01	2	.09	.01	.01	1	20
E 33370	7	587	29	41	16.5	12	12	75	4.02	221	5	ND	1	17	.4	136	7	2	.01	.001	2	28	.01	33	.01	2	.05	.01	.01	1	6
E 33371	2	291	49	1	1.2	7	17	40	10.47	156	5	ND	1	25	.2	12	5	2	.01	.003	2	8	.01	10	.01	2	.11	.01	.01	1	15
E 33753	10	11	14	70	.4	7	1	646	5.36	10	5	ND	1	7	.2	2	4	3	.19	.014	26	23	.39	77	.23	2	1.40	.05	.10	1	22
E 33754	5	31	9	129	.8	9	16	834	9.22	16	5	ND	1	8	.7	7	2	237	1.46	.108	8	26	1.42	46	.76	2	2.76	.04	.03	1	4
E 33755	11	52	18	100	.8	24	6	554	5.11	14	5	ND	1	6	1.1	2	3	100	.41	.068	5	29	1.36	67	.35	2	2.03	.03	.14	1	1
E 33756	5	63	20	186	.8	47	24	972	7.42	5	5	ND	1	67	.6	7	2	197	2.21	.068	7	96	2.37	64	.56	5	3.86	.03	.06	1	1
E 33757	1	62	17	90	.7	25	41	717	9.95	11	5	ND	1	8	.2	4	2	229	2.23	.063	7	37	2.53	22	.58	3	3.44	.05	.01	1	2
E 33758	4	61	9	145	.5	16	30	865	10.17	6	5	ND	1	9	.2	2	2	277	.96	.075	8	23	3.16	46	.65	4	3.25	.07	.02	1	1
STANDARD C/AU-R	18	59	37	132	7.3	69	34	1041	3.94	40	18	6	40	52	18.5	15	19	57	.48	.090	41	57	.86	178	.09	35	1.87	.06	.15	12	462

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 30 1991 **DATE REPORT MAILED:** Oct 3/91. **SIGNED BY.** ......D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

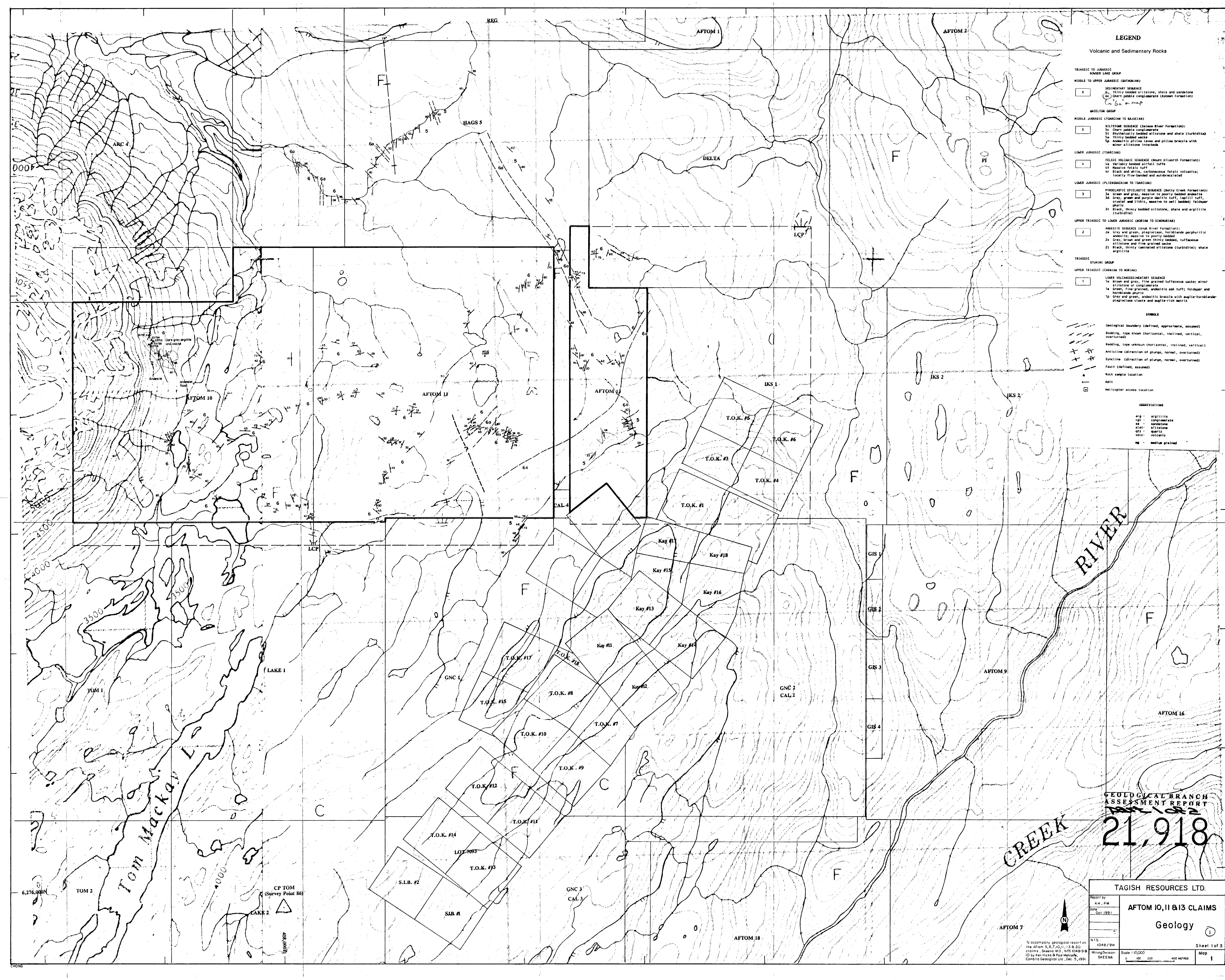
Cambria Geological Inc. File # 91-5164

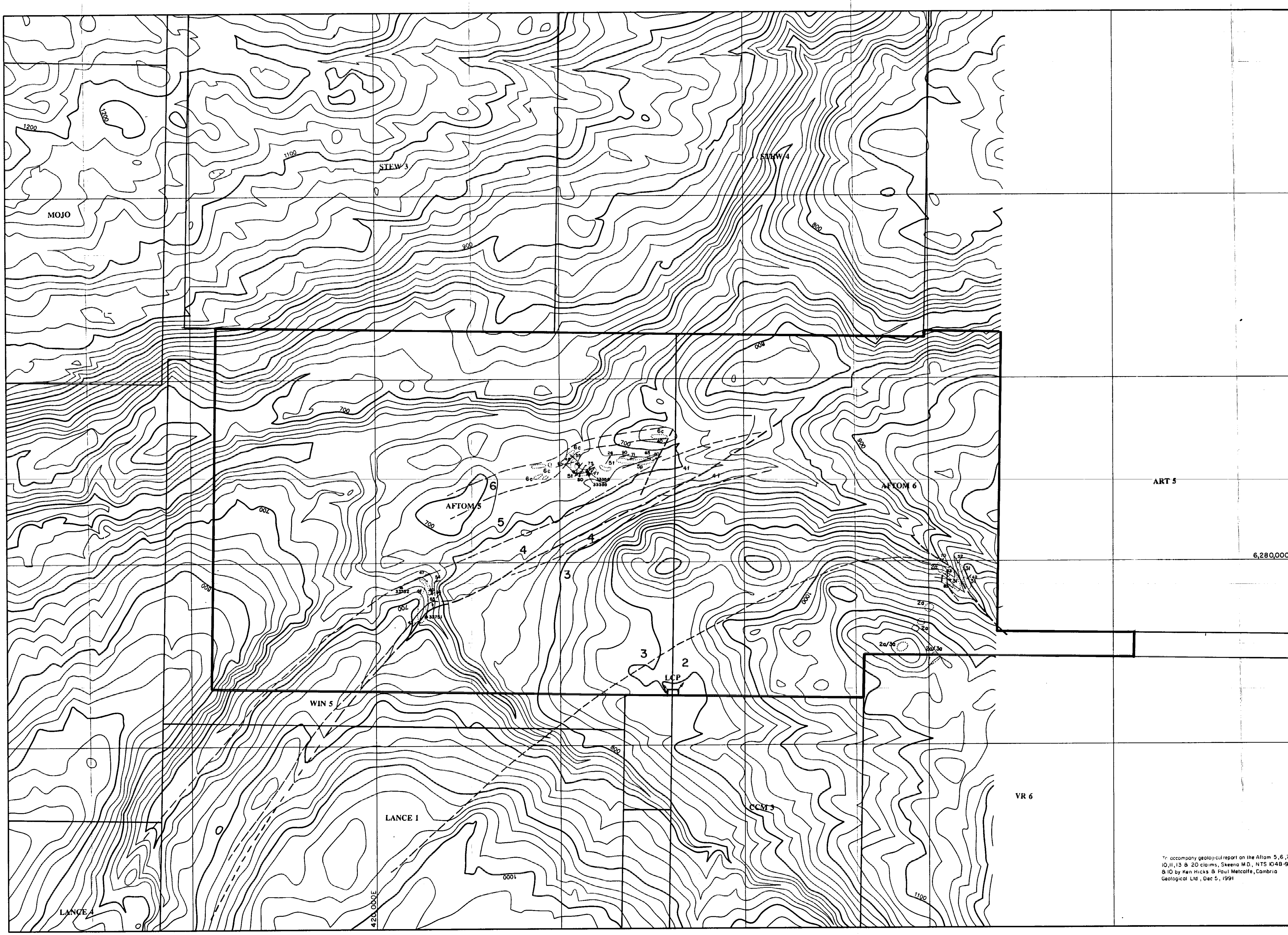
1531 W. Pender St., Vancouver BC V6G 2T1 Submitted by: KEN HICKS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
33372	38	142	16	204	.1	119	31	633	6.33	2	5	ND	1	8	1.0	2	2	39	.52	.053	6	8	2.73	22	.18	2	2.93	.03	.02	1	4
33757	9	105	10	75	.1	22	11	475	3.81	4	5	ND	1	11	.3	2	2	47	2.80	.025	7	20	.99	22	.16	2	2.88	.01	.03	1	1
RE 33372	42	147	17	202	.1	117	31	629	6.35	2	5	ND	1	8	1.1	2	2	39	.54	.053	6	8	2.77	20	.19	2	3.04	.03	.02	1	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 21 1991 **DATE REPORT MAILED:** Oct 24/91. **SIGNED BY** C. Leong ....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS


LEGEND
Volcanic and Sedimentary Rocks
TRIASSIC TO JURASSIC
BOWSER LAKE GROUP
MIDDLE TO UPPER JURASSIC (BATHONIAN)
6 SEDIMENTARY SEQUENCE
6 Thinly bedded siltstone, shale and sandstone
6c Chert pebble conglomerate (Ashman Formation)
"6a" on map
HAZELTON GROUP
MIDDLE JURRASIC (TOARCIAN TO BAJOCIAN)
5 SILTSTONE SEQUENCE (Salmon River Formation):
5c Chert pebble conglomerate
5t Rhythmically bedded siltstone and shale (turbidite)
5w Thinly bedded wacke
5p Andesitic pillow lavas and pillow breccia with minor siltstone interbeds
LOWER JURASSIC (TOARCIAN)
4 FELSIC VOLCANIC SEQUENCE (Mount Dilworth Formation):
4a Variably bedded airfall tuffs
4f Massive felsic tuff
4r Black and white, carbonaceous felsic volcanics; locally flow-banded and autobrecciated
LOWER JURASSIC (PLIENSBACHIAN TO TOARCIAN)
3 PYROCLASTIC EPICLASTIC SEQUENCE (Betty Creek Formation):
3a Green and gray, massive to poorly bedded andesite
3d Grey, green and purple dacitic tuff, lapilli tuff, crystal and lithic, massive to well bedded; feldspar phyric
3t Black, thinly bedded siltstone, shale and argillite (turbidite)
UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)
2 ANDESITE SEQUENCE (Unuk River Formation):
2a Grey and green, plagioclase, hornblende porphyritic andesite; massive to poorly bedded
2s Grey, brown and green thinly bedded, tuffaceous siltstone and fine grained wacke
2t Black, thinly laminated siltstone (turbidite); shale argillite
TRIASSIC
STUHINI GROUP
UPPER TRIASSIC (CARNIAN TO NORIAN)
1 LOWER VOLCANOSEDIMENTARY SEQUENCE
1w Brown and grey, fine grained tuffaceous wacke; minor siltstone or conglomerate
1a Green, fine-grained, andesitic ash tuff; feldspar and hornblende phyric
1p Grey and green, andesitic breccia with augite-hornblende-plagioclase clasts and augite-rich matrix
SYMBOLS
Geological boundary (defined, approximate, assumed)
Bedding, tops known (horizontal, inclined, vertical, overturned)
Bedding, tops unknown (horizontal, inclined, vertical)
Anticline (direction of plunge, normal, overturned)
Syncline (direction of plunge, normal, overturned)
Fault (defined, assumed)
Rock sample location
Adit
Helicopter access location
ABBREVIATIONS
arg - argillite
cgl - conglomerate
ss - sandstone
slst - siltstone
qtz - quartz
volc - volcanic
mg - medium grained
REG
AFTOM 1
AFTOM 2
HAGS 5
ARC 4
DELTA
AFTOM 10
AFTOM 11
AFTOM 13
LCP
IKS 1
IKS 2
T.O.K. #5
T.O.K. #6
T.O.K. #3
T.O.K. #4
T.O.K. #1
CAL 4
Kay #17
Kay #18
Kay #15
Kay #16
Kay #13
Kay #11
Kay #14
Kay #12
GIS 1
GIS 2
GIS 3
GIS 4
RIVER
AFTOM 9
AFTOM 16
T.O.K. #17
T.O.K. #18
T.O.K. #15
T.O.K. #8
T.O.K. #7
T.O.K. #10
T.O.K. #9
T.O.K. #12
T.O.K. #11
T.O.K. #14
T.O.K. #13
LOT 7093
S.I.B. #2
S.I.B. #1
GNC 1
GNC 2
CAL 2
GNC 3
CAL 3
LAKE 1
LAKE 2
TOM 1
TOM 2
Tom Mackay L
CP TOM
(Survey Point 86)
6,276,000N
AFTOM 18
AFTOM 7
CREEK
GEOLOGICAL BRANCH
ASSESSMENT REPORT
21,918
TAGISH RESOURCES LTD.
Report by: KH, PM
Date: Oct. 1991
AFTOM 10, 11 & 13 CLAIMS
Geology
N.T.S. 104B/9W
Sheet 1 of 3
Mining Division: SKEENA
Scale 1:10,000
0 100 200 400 METRES
Map 1
To accompany geological report on the Aftom 5, 6, 7, 10, 11, 13 & 20 claims, Skeena M.D., NTS 104B-9 & 10 by Ken Hicks & Paul Metcalfe, Cambria Geological Ltd., Dec. 5, 1991



LEGEND

Volcanic and Sedimentary Rocks

TRIASSIC TO JURASSIC
BOWSER LAKE GROUP

MIDDLE TO UPPER JURASSIC (BATHONIAN)

[6] SEDIMENTARY SEQUENCE
- 6 Thinly bedded siltstone, shale and sandstone
- 6c Chert pebble conglomerate (Ashman Formation)

HAZELTON GROUP

MIDDLE JURRASIC (TOARCIAN TO BAJOCIAN)

[5] SILTSTONE SEQUENCE (Salmon River Formation):
- 5c Chert pebble conglomerate
- 5t Rhythmically bedded siltstone and shale (turbidite)
- 5w Thinly bedded wacke
- 5p Andesitic pillow lavas and pillow breccia with minor siltstone interbeds

LOWER JURASSIC (TOARCIAN)

[4] FELSIC VOLCANIC SEQUENCE (Mount Dilworth Formation):
- 4a Variably bedded airfall tuffs
- 4f Massive felsic tuff
- 4r Black and white, carbonaceous felsic volcanics; locally flow-banded and autobrecciated

LOWER JURASSIC (PLIENSBACHIAN TO TOARCIAN)

[3] PYROCLASTIC EPICLASTIC SEQUENCE (Betty Creek Formation):
- 3a Green and gray, massive to poorly bedded andesite
- 3d Grey, green and purple dacitic tuff, lapilli tuff, crystal and lithic, massive to well bedded; feldspar phyric
- 3t Black, thinly bedded siltstone, shale and argillite (turbidite)

UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)

[2] ANDESITE SEQUENCE (Unuk River Formation):
- 2a Grey and green, plagioclase, hornblende porphyritic andesite; massive to poorly bedded
- 2s Grey, brown and green thinly bedded, tuffaceous siltstone and fine grained wacke
- 2t Black, thinly laminated siltstone (turbidite); shale argillite

TRIASSIC
STUHINI GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

[1] LOWER VOLCANOSEDIMENTARY SEQUENCE
- 1w Brown and grey, fine grained tuffaceous wacke; minor siltstone or conglomerate
- 1a Green, fine-grained, andesitic ash tuff; feldspar and hornblende phyric
- 1p Grey and green, andesitic breccia with augite-hornblende plagioclase clasts and augite-rich matrix

SYMBOLS

- Geological boundary (defined, approximate, assumed)
- Bedding, tops known (horizontal, inclined, vertical, overturned)
- Bedding, tops unknown (horizontal, inclined, vertical)
- Anticline (direction of plunge, normal, overturned)
- Syncline (direction of plunge, normal, overturned)
- Fault (defined, assumed)
- Rock sample location
- Adit
- Helicopter access location

ABBREVIATIONS

arg -	argillite
cgl -	conglomerate
ss -	sandstone
slst-	siltstone
qtz -	quartz
volc-	volcanic
mg -	medium grained

UTM N.
T.N.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

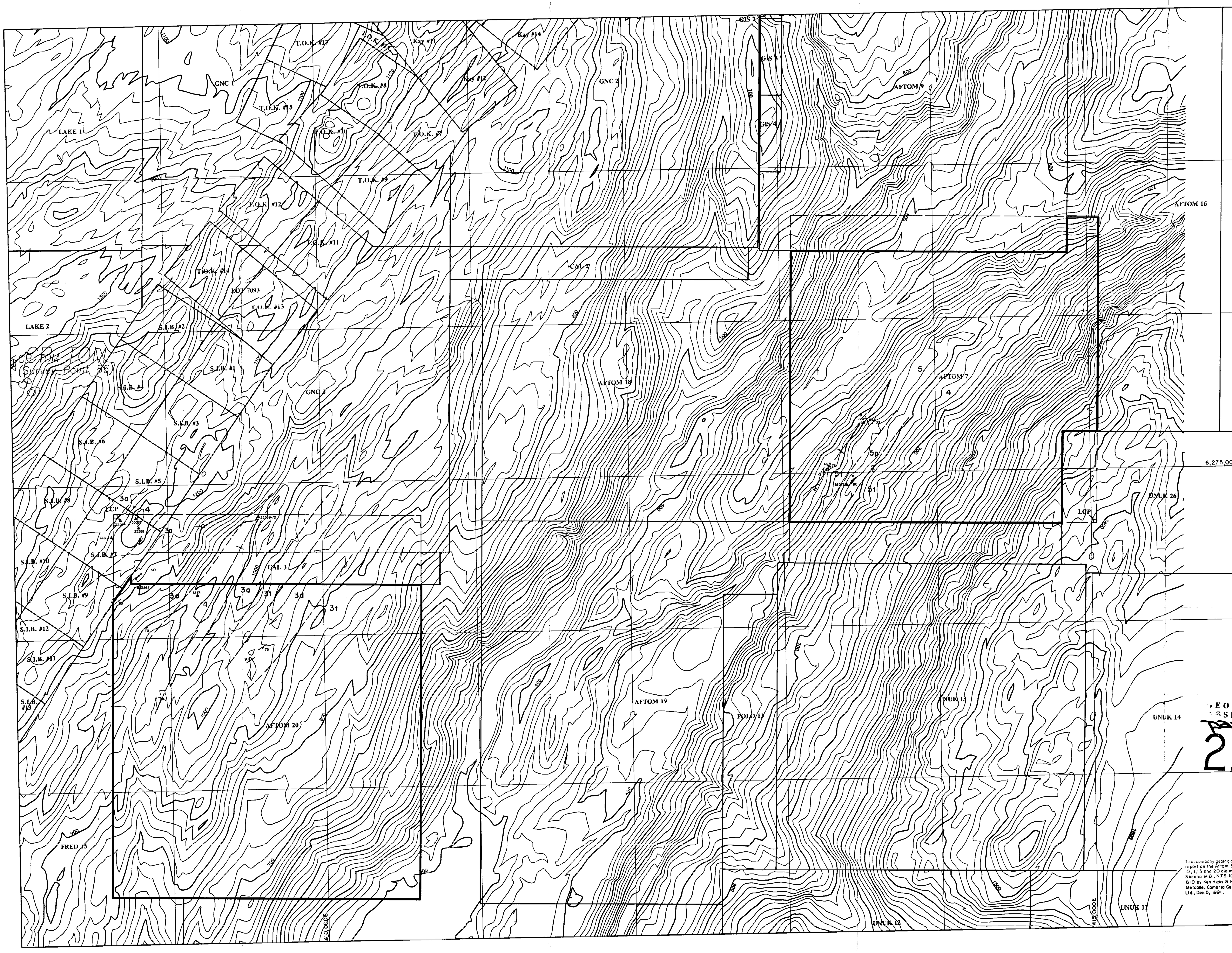
21,918

Scale 1:10,000
0 200 400 600 metres

To accompany geological report on the Aftom 5,6,7, 10,11,13 & 20 claims, Skeena M.D., NTS 104B-9 & 10 by Ken Hicks & Paul Metcalfe, Cambria Geological Ltd, Dec 5, 1991

TAGISH RESOURCES LTD.

Report by: KH, PM	AFTOM 5 & 6 CLAIMS
Date: Nov. 1991	Geology
NTS: 104B /9W	Sheet 2 of 3
Mining Division Skeena	Map 1



LEGEND

Volcanic and Sedimentary Rocks

TRIASSIC TO JURASSIC
BOWSER LAKE GROUP

MIDDLE TO UPPER JURASSIC (BATHONIAN)

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LOWER JURASSIC (TOARCIAN)

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TRIASSIC
STUHINI GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

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- Fault (defined, assumed)
- Rock sample location
- Adit
- Helicopter access location

ABBREVIATIONS

arg - argillite
cgl - conglomerate
ss - sandstone
slst- siltstone
qtz - quartz
volc- volcanic

mg - medium grained

GEOLOGICAL BRANCH
ASSESSMENT REPORT
~~Part 1 of 2~~
21,918

UTM N.
T.N.

Scale 1:10,000
0 200 400 600metres

To accompany geological report on the Aftom 5,6,7, 10,11,13 and 20 claims, Skeena M.D., N.T.S. 104B-9 & 10 by Ken Hicks & Paul Metcalfe, Cambria Geological Ltd., Dec. 5, 1991.

TAGISH RESOURCES LTD.

Report by: KH, PM
Date: Nov. 1991
NTS: 104B /9W
Mining Division Skeena

AFTOM 7 & 20 CLAIMS
Geology
(3)
Sheet 3 of 3
Map 1