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NTS 104M/10E

NATIONAL HYDROCARBONS LTD.

PROPOSED EXPLORATION

TP MINERAL CLAIM

ATLIN MINING DIVISION, BRITISH COLUMBIA

Trigg, Woollett, Olson Consulting Ltd.

May 1987

R. A. Olson

Prospectus
Auspex Gold Ltd.
Effective Date: Dec 7/87
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NATIONAL HYDROCARBONS LTD.

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ATLIN MINING DIVISION, BRITISH COLUMBIA

SUMMARY

Exploration of TP mineral claim and the adjacent area was conducted during summers 1982 and 1983 by Trigg, Woollett, Olson Consulting Ltd. on behalf of Texaco Canada Resources Ltd. TP mineral claim was prospected and geologically mapped at 1:10,000 scale. One or more of gridding, detailed prospecting, detailed geological mapping, trenching, rock sampling, and ground magnetometer and very low frequency electromagnetic geophysical surveys were performed at two mineralized skarns named Main and Camp Showings.

TP mineral claim is underlain by pre-Permian gneiss and schist of Yukon Group that is unconformably overlain by Upper Triassic volcanic rocks of Stuhini Group. Numerous intrusions are present. The intrusions are of several ages and compositions. Yukon Group metamorphic rocks include marble, which locally is altered to skarn. At the Main Showing, visible gold, a cobalt arsenide and erythrite exist where two en echelon fracture zones cut amphibole and magnetite skarn. The two gold- and cobalt-bearing zones have maximum strike lengths on surface of 25 m and 40 m, respectively. Weighted average grades for the two zones are up to 10.42 parts per million gold and 2.22 per cent cobalt across 6.35 m, and 22.66 parts per million gold and 0.11 per cent cobalt across 4.85 m, respectively. At the Camp Showing, which is about 740 m south of the Main Showing, up to 40 volume per cent pyrrhotite exists in a small lens of skarn. Rock samples from the Camp Showing all contain less than 0.01 parts per million gold and less than 0.01 per cent cobalt.

Further exploration is required within TP mineral claim. The Main Showing should be drill tested. Exploration should be staged. During stage 1, about 300 m in at least four holes should be drilled to test the Main Showing at depth. In addition, a small amount of overburden stripping, rock chip sampling and detailed geological mapping are required to more precisely define the length, width and grade of the Main Showing at surface. The stage 1 program will require a geologist, geological assistant and cook for about one field month. A drilling contractor will be needed to perform the recommended drilling. A helicopter will be needed on a casual basis to establish and service the camp, and move the drill between set-ups. The estimated cost to perform the stage 1 program is $135,000.

If the stage 1 drilling beneath the Main Showing produces encouraging results, additional drilling and certain other follow-up

exploration would be warranted at TP mineral claim. The amount and type of exploration that will be required during stage 2 and the estimated cost of any stage 2 program, should be established when the results from the stage 1 program have been evaluated.

INTRODUCTION

This report was prepared at the request of Mr. C. A. Main of Archer, Cathro & Associates (1981) Limited, Vancouver, British Columbia.

Location and Access

TP mineral claim is in northwestern British Columbia, within National Topographic System (NTS) map area 104M/10E, at about 59°41'N latitude, 134°41'W longitude (Dwg. 7217-1). The region is mountainous with peaks up to 2,300 m, separated by broad U-shaped glacial valleys with valley floors at elevations about 650 m above sea level. At higher altitudes, extensive winter snow may persist into mid- or late-June on all but the south-facing slopes.

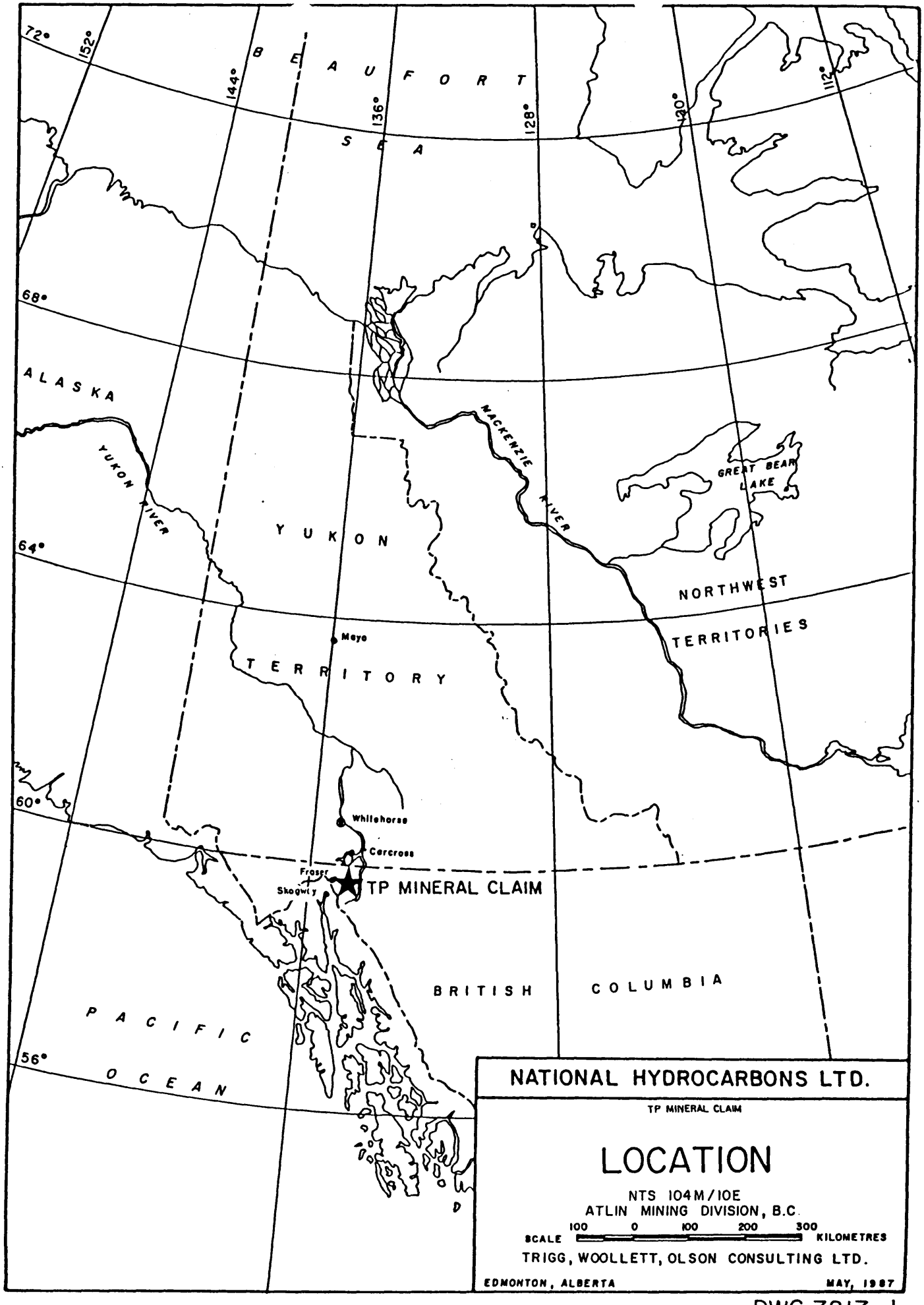
TP mineral claim is at the southwest side of Teepee Peak, and is 20 km east of Fraser, British Columbia. Fraser is on Highway 2 which links Whitehorse, Yukon Territory to the deep water port of Skagway, Alaska. White Pass and Yukon Route Railway also connects Whitehorse to Skagway, passing through Fraser, but has been out of operation since 1982. Access from Highway 2 to the mineral claim is by helicopter. If required, a road could be constructed to the base of Teepee Peak from Highway 2.

Property Status

TP mineral claim, record No. 1754(8), was recorded on August 24, 1982 in the name of Texaco Canada Resources Ltd. TP mineral claim encompasses an area of about 500 ha. Mr. C. A. Main advises that on January 1, 1987, the ownership of TP mineral claim was transferred to Archer, Cathro & Associates (1981) Limited. The option agreement between Archer, Cathro & Associates (1981) Limited and Texaco Canada Resources Ltd. is subject to certain cash payments that must be made between now and January 1, 1990; further, Texaco Canada Resources Ltd. retains a 10 per cent net smelter return until option earn in. The ownership of TP mineral claim is subject to an option agreement between Archer, Cathro & Associates (1981) Limited and National Hydrocarbons Ltd. that is to take effect on May 15, 1987. The agreements and other documents that establish the ownership of TP mineral claim and the terms of the various options, have not been examined by Trigg, Woollett, Olson Consulting Ltd.

Exploration History

Exploration in the TP mineral claim region dates to the 1890's when prospectors travelling to the Klondike goldfields prospected en route. Gold was produced from quartz veins at the Engineer mine which is near Taku Arm of Tagish Lake, British Columbia. Gold and silver were produced from veins at the Venus and Big Thing mines on Montana Mountain which is just north of the Yukon Territory - British Columbia border.


72°
152°
144°
136°
128°
120°
112°
BEAUFORT SEA
68°
ALASKA
YUKON RIVER
MACKENZIE RIVER
GREAT BEAR LAKE
YUKON
64°
NORTHWEST TERRITORIES
Mayo
TERRITORY
60°
Whitehorse
Carcross
Fraser
Skagway
TP MINERAL CLAIM
BRITISH COLUMBIA
PACIFIC OCEAN
56°
NATIONAL HYDROCARBONS LTD.
TP MINERAL CLAIM
LOCATION
NTS 104M/10E
ATLIN MINING DIVISION, B.C.
100 0 100 200 300
SCALE KILOMETRES
TRIGG, WOOLLETT, OLSON CONSULTING LTD.
EDMONTON, ALBERTA
MAY, 1987

DWG.7217-1

Assessment records do not document any previous work within TP mineral claim, nor is there any surface indication of exploration such as trenching or sampling at any of the mineral occurrences which exist within the mineral claim.

In 1982, Trigg, Woollett, Olson Consulting Ltd. explored the Bennett Lake - Atlin Lake region of northern British Columbia on behalf of Texaco Canada Resources Ltd. (Lhotka and Olson, 1982). As a result of this exploration, a gold-cobalt occurrence, named the Main Showing, and a pyrrhotite-bearing skarn, named the Camp Showing, were discovered during prospecting. TP mineral claim was staked to protect these two showings. A small amount of follow-up prospecting, rock and stream sediment sampling, and reconnaissance geological mapping were performed during 1982 within and near TP mineral claim.

During 1983, about 190 field man-days of exploration were conducted within and near TP mineral claim by Trigg, Woollett, Olson Consulting Ltd. on behalf of Texaco Canada Resources Ltd. (Lhotka and Olson, 1983). Exploration included prospecting, rock and stream sediment sampling, and geological mapping at 1:10,000 scale of TP mineral claim and the immediately adjacent area. Detailed geological mapping at 1:1,000 or larger scales, grid surveying, rock sampling, trenching and ground geophysical surveys were performed at the Main Showing and, to a lesser extent, at the Camp Showing. A total of 81 rock chip, 18 rock grab and 2 stream sediment samples were collected for geochemical analysis.

GEOLOGY

The Geological Survey of Canada has geologically mapped NTS map area 104M at a scale of 1:253,440 (Christie, 1957) and adjacent map area 104K at a scale of 1:250,000 (Souther, 1971). Because the geology of the two map areas is similar and Souther's work is more detailed and more recent than that of Christie, the stratigraphic terminology of Souther is used in this report.

Within the northeastern quadrant of NTS 104M, which includes Teepee Peak, the oldest rocks are Yukon Group, a series of quartz-chlorite-amphibole gneiss and schist, with minor amounts of marble and ultramafic rocks (Table I). The age of Yukon Group is uncertain; Christie (1957) assigns the group a pre-Permian(?) age, whereas Souther (1971) prefers a Triassic and earlier age. Fine grained diorite has intruded Yukon Group and is of probable Lower or Middle Triassic age. Upper Triassic Stuhini Group exists in two northwest trending belts which are up to 40 km long by 10 km wide, and several smaller isolated exposures, including the one that caps Teepee Peak (Dwg. 7217-2A). Regionally, Stuhini Group is a highly variable unit comprised of felsic to mafic flows, tuff and breccia interbedded with slate, siltstone, greywacke and conglomerate. King Salmon Formation, a locally identifiable division of Stuhini Group, comprises well-bedded conglomerate, greywacke, siltstone and shale. Jurassic Laberge Group lies in locally conformable, disconformable or unconformable contact with Stuhini

Group and consists of conglomerate, greywacke, siltstone, shale and limestone. Porphyry intrusions, in the form of stocks, dykes and sills, some of which are older than Stuhini Group and some of which cut Stuhini Group, are Cretaceous and older in age. Cretaceous and/or Jurassic Coast Plutonic rocks, which are comprised largely of granodiorite, but include rocks ranging from diorite to granite, have intruded all other rock types.

Geology of TP Mineral Claim

The oldest rocks within TP mineral claim are Yukon Group which dominantly consists of quartz-chlorite-amphibole gneiss and schist with minor amounts of marble; the marble is locally replaced by magnetite, amphibole and calcsilicate-calcite skarns (Dwg. 7217-2B). Hornblendite and fine grained diorite cut Yukon Group. Stuhini Group crops out only on the upper elevations of Teepee Mountain where it unconformably overlies Yukon Group. Near the southern boundary of TP mineral claim the unconformity is marked by a rubble zone, from 1 m to 3 m in thickness, comprised of locally derived clasts of Yukon Group. The rubble zone is in turn overlain by a porphyritic mafic volcanic flow, the base of which contains some clasts similar to those in the rubble zone. Stratigraphically upwards, the mafic flows are overlain by felsic flows and by finely laminated, porphyritic, felsic volcanics which may represent an ash-flow or crystal-tuff. East of the Main Showing the base of Stuhini Group is marked by a sharp angular unconformity between Yukon Group and a porphyritic intermediate flow which contains a few clasts derived from Yukon Group. The unconformity between Yukon Group and Stuhini Group generally strikes northwesterly and dips shallowly to the northeast. However, northeast of the Main Showing the trace of the unconformity turns sharply uphill to the east, and then turns sharply northwesterly to again subparallel the topographic contours. The change in the trace of the unconformity at this locale is spatially coincident with the assumed trace of Teepee Fault (Dwg. 7217-2B).

Teepee Fault is a major northwesterly trending fault that cuts Yukon Group metamorphic rocks southeast of and, possibly, northwest of Teepee Peak (Dwg. 7217-2A). Within TP mineral claim there is no evidence, such as alteration zones, shearing or linear topographic features, to indicate that Teepee Fault cuts any of the rocks younger than pre-Permian age. The assumed trace of Teepee Fault is shown on drawing 7217-2B where it is thought to be present beneath Stuhini Group.

Cretaceous and older porphyry intrusions, including a few dykes of intermediate composition, exist as sills, dykes and stocks. Some of these intrusions are older than Stuhini Group, as evidenced by their being eroded at the unconformity, whereas others intrude Stuhini Group. At the 1:10,000 scale of the 1983 geological mapping it was not possible to show the numerous small porphyry intrusions or to consistently separate the different ages of porphyries; therefore, they have been shown as one unit on drawing 7217-2B. In the northeastern part of TP mineral claim a large stock of Cretaceous and/or Jurassic granodiorite has intruded Stuhini Group volcanic rocks.

MINERAL OCCURRENCES

Main Showing

At the Main Showing, gold and cobalt minerals exist in and near two northwesterly trending fracture zones that are adjacent to the contact between a quartz-feldspar porphyry stock and a skarn in Yukon Group gneiss and schist (Dwg. 7217-3). At and near the Main Showing, numerous, metamorphosed quartz porphyry sills have intruded the gneiss and schist; the sills are older than Upper Triassic because clasts of quartz porphyry are found in the basal intermediate flows of Stuhini Group which unconformably overlie Yukon Group. For this reason, the quartz porphyry sills are included in the pre-Permian Yukon Group on drawing 7217-3. The quartz-feldspar porphyry stock which intrudes Yukon Group is not in contact with Stuhini Group at the Main Showing. Northeast of the Main Showing, however, the stock does cut Stuhini Group (Dwg. 7217-2B). Therefore, this quartz-feldspar porphyry stock is younger than Upper Triassic. The quartz-feldspar porphyry stock is cut by fine grained, green dykes of intermediate composition in the southeast part of the grid (Dwg. 7217-3). In the northern part of the grid area there are four, lens-shaped felsic dykes that cut Yukon Group. These dykes consist of a fine grained, felsic groundmass with phenocrysts of quartz and feldspar, and a few angular breccia fragments that are up to several centimetres in diameter. The age of the breccia dykes is post-Yukon Group, but their exact age is unknown because they are not in contact with the quartz-feldspar porphyry stock or the fine grained, green, intermediate composition dykes.

A skarn, which is about 200 m long by about 15 m thick, exists in Yukon Group near the eastern contact of the quartz-feldspar porphyry stock (Dwg. 7217-3). In places, a narrow band of gneiss separates the stock from the skarn. The skarn is zoned and consists of three mineralogical types. The northern end of the skarn consists of magnetite with minor amounts of calcite. The magnetite zone grades southerly into a calcsilicate-calcite zone which consists of garnet and calcite with minor amounts of dark green amphibole. Further to the south, the calcsilicate-calcite zone grades into marble. At the northern end of the skarn the magnetite zone pinches out. There are four other small lenses of magnetite or calcsilicate-calcite skarn east of the main skarn. The third type of skarn consists of zones of pale green amphibole that exist along or near two fractures which cut the main skarn and the adjacent gneiss. The amphibole zones host most of the gold and cobalt minerals.

The two en echelon fracture zones which control the amphibole skarns, are each about 80 m long, and trend north-northwest subparallel to the contact between skarn and quartz-feldspar porphyry (Dwg. 7217-4). Both fracture zones consist of one or more narrow fractures that in places have slickensides. The southwestern fracture zone dips about 45 degrees east, whereas the northeastern fracture zone dips about 70 degrees east. Slickensides indicate the relative motion on the northeastern fracture zone is left lateral, but displacement is negligible because no displacement exists where the fracture zone intersects the contact between magnetite skarn and gneiss.

Mineral occurrences at and near the Main Showing can be classed into four types. The most important type comprises a primary cobalt arsenide mineral, erythrite and, locally, visible gold. The visible gold exists at trench T-1 (Dwg. 7217-3). Erythrite and the cobalt arsenide mineral from which it is derived, exist in amphibole skarn and to a lesser extent in gneiss and quartz-feldspar porphyry adjacent to the two en echelon fracture zones (Dwg. 7217-4). The second type of mineral occurrence comprises small pyrite-bearing gossans in gneiss and schist (Dwg. 7217-3). A third type of mineral occurrence exists about 25 m south-southeast of trench T-4 at sample sites 3XF0018 to 3XF0022. This occurrence comprises disseminated arsenopyrite that has replaced magnetite skarn adjacent to the northeastern fracture zone. No cobalt or visible gold is associated with this occurrence. A fourth type of mineral occurrence exists at the southwest end of the grid, near sample site 3PLP004. At this occurrence, a 20 cm diameter pod of chalcopyrite, malachite and galena is hosted by calcsilicate-calcite skarn.

A petrographic study of two specimens, which were collected during 1982 near trenches T-1 and T-4, was performed in May 1983. Both samples are megascopically similar and comprise erythrite, a cobalt arsenide, which may be skutterudite, and magnetite in pale green amphibole skarn. The specimen from near trench T-1 contains gold that is visible with the aid of a 10 power hand lens, whereas the specimen from near trench T-4 contains no visible gold. Microscopic examination of polished thin sections from the two specimens indicates that they are mineralogically identical, except for the lack of visible gold in the specimen from near trench T-4. Native gold in the specimen from near trench T-1 exists as discrete grains up to 0.1 mm in diameter. The gold occurs at grain boundaries of the cobalt arsenide, magnetite and silicate minerals. Textural relationships indicate magnetite and the cobalt arsenide may have replaced silicate gangue minerals and that gold was deposited in the interstices between the minerals.

Camp Showing

The Camp Showing comprises a small lens of northwest trending skarn in Yukon Group gneiss and schist (Dwg. 7217-2B). During 1983 this occurrence was geologically mapped at 1:500 scale (Dwg. 7217-2C). The Camp Showing skarn consists of two mineralogical types: massive magnetite, and calcsilicate-calcite that contains garnet, epidote and calcite. The Camp Showing skarn is discontinuously exposed for about 60 m, and varies in width from 1 m to 7 m. A quartz-feldspar porphyry body of unknown size is in contact with the skarn at its northern end.

Pyrrhotite is the only sulphide present at the Camp Showing and it exists as fine grained disseminations that locally comprise up to 40 per cent by volume of the skarn.

TRENCHING

Four trenches were excavated at the Main Showing (Dwg. 7217-4). Approximately 25 cubic metres of rock and 12 cubic metres of overburden were excavated from the four trenches. The trenches were geologically mapped at 1:100 scale and rock chip sampled (Dwgs. 7217-5 to 7217-8, inclusive).

SAMPLING

Thirteen rock grab, 2 rock chip and 2 geochemical stream sediment samples were collected during prospecting traverses which were conducted within and near TP mineral claim. In addition, 75 rock chip and 5 rock grab samples were collected from the Main Showing, and 4 rock chip samples were collected from the Camp Showing. All samples were sent to Bondar-Clegg & Company Ltd., North Vancouver, British Columbia for analysis for gold, silver and cobalt. Selected samples were also analyzed for one or more of copper, lead, nickel, zinc, tungsten, bismuth, platinum and palladium. Gold, platinum and palladium were analyzed for by the fire assay-atomic absorption method, tungsten was analyzed for by the colourimetric method, and the remaining elements were analyzed for by atomic absorption. Details of the analytical and sample preparation methods, and a summary of all the analytical results, which includes a brief description of each sample, are tabulated in Lhotka and Olson (1983).

Rock chip samples from trenches and outcrops at the Main Showing contain up to 65.18 parts per million (ppm) gold*, 5.59 per cent cobalt and 79.9 ppm silver* (Table II). Rock samples from pyrite-bearing gneiss and schist, arsenopyrite in magnetite skarn, and chalcopyrite and galena in calcsilicate-calcite skarn at and near the Main Showing, all contain less than 1.0 ppm gold and less than 0.1 per cent cobalt (Dwg. 7217-3). Those rock chip samples that contain greater than 1.0 ppm gold and greater than 0.1 per cent cobalt are from, or are adjacent to, the two en echelon fracture zones that contain cobalt minerals (Dwg. 7217-4). High gold and cobalt assays generally occur together. The limits of the gold- and cobalt-bearing zones which are shown on drawing 7217-4, are defined by rock chip samples that contain greater than either 3.0 ppm gold or 0.1 per cent cobalt. Within a gold- and cobalt-bearing zone, rock chip sample results for selected intervals were combined by calculating a weighted average grade for the interval. Weighted average grades for gold are up to 22.66 ppm across 4.85 m, and for cobalt are up to 3.91 per cent across 3.55 m (Dwgs. 7217-5 to 7217-8, inclusive). Silver assays are generally less than 10.0 ppm and therefore they have not been included in the calculations of weighted average grades. The widths which are given with the weighted average grades for gold and cobalt are approximately true widths because the rock chip samples were mainly collected at right angles to the strike and to the dip of the gold- and cobalt-bearing zones. Drawing 7217-4 also shows two interpretive cross-sections that were prepared by extrapolating the surface assay and geological data into the sub-surface.

*1 ppm gold (or silver) equals 1 gram gold (or silver) per tonne or 0.029 ounces gold (or silver) per ton.

At the northeastern fracture zone, the gold- and cobalt-bearing zone is estimated to have a strike length of about 25 m. The gold- and cobalt-bearing zone is poorly exposed due to overburden, but is well exposed at trench T-4. Rock chip samples 3XF0016 and 3XF0017, which were collected 11 m southeast of trench T-4, are from a small outcrop that is about 1 m by 1.5 m. This outcrop consists of cobalt minerals in an amphibole skarn. The outcrop is surrounded by overburden, hence the sampled interval that contains 8.62 ppm gold and 1.37 per cent cobalt across 1.50 m is the minimum width of the gold- and cobalt-bearing zone at this site. Further south, at rock sample sites 3XF0018 to 3XF0022, the northeastern fracture zone does not contain cobalt minerals, nor are there high gold or cobalt assays. The northern end of the northeastern fracture zone is truncated by a quartz-feldspar porphyry dyke that has intruded the magnetite skarn; beyond this dyke, magnetite skarn does not contain visible gold or cobalt minerals.

At the southwestern fracture zone, a gold- and cobalt-bearing zone is exposed in trenches T-1 and T-2, and at the site of rock samples 3PL0043 to 3PL0045. The maximum surface length of this zone is less than 40 m. The north end of this gold- and cobalt-bearing zone terminates before trench T-3 because there are no high gold or cobalt assays from this trench. South of trench T-1, erythrite exists in a fractured zone of amphibole skarn for a distance of about 12 m before being covered by talus and snow in a deep gully. Across the gully, about 27 m south of trench T-1, a narrow fractured zone of amphibole skarn contains erythrite. Rock chip samples 3PL0043 to 3PL0045 have a weighted average grade of 8.02 ppm gold and 0.99 per cent cobalt across 1.00 m. Just south of this chip sampled interval, the amphibole skarn pinches out and the fracture zone dies out.

Five rock samples from the two gold- and cobalt-bearing fracture zones were analyzed for bismuth, nickel, lead, platinum and palladium; results are tabulated in Table II. Maximum assays are 0.875 per cent bismuth, 0.23 per cent nickel, 0.27 per cent lead, less than 0.05 ppm platinum and 0.02 ppm palladium.

At the Camp Showing, four rock chip samples were collected across the magnetite skarn at approximately equal intervals along the exposed strike length (Dwg. 7217-2C). All of these samples contain less than 0.01 ppm gold and 0.01 per cent cobalt.

Analytical results for gold and cobalt in samples which were collected outside the Main Showing and Camp Showing areas, are shown on drawing 7217-2B. Maximum results are 10.83 ppm gold, 0.02 per cent cobalt and 147.4 ppm silver. Silver assays are generally less than 30.0 ppm and were not plotted except for the sample which contains 147.4 ppm silver. Two sites contain greater than 1.0 ppm gold. At sample site 3XFP002, which is about 460 m south of the south boundary of TP mineral claim, a rock grab sample from an arsenopyrite-bearing feldspar porphyry dyke contains 1.90 ppm

gold. Arsenopyrite comprises up to 10 per cent by volume of the chilled margin of the dyke over an area of less than two square metres. Prospecting along the dyke failed to discover any other arsenopyrite occurrences, but exposure is poor. At sample site 3PLO026, which is about 330 m south-southeast of the Main Showing, a magnetite and calcsilicate-calcite skarn, which is 5 m by 15 m and hosted by marble, locally contains pyrrhotite, chalcopyrite and arsenopyrite. Rock chip sample 3PLO026, which was collected across the sulphide-bearing portion of this skarn, contains 0.09 ppm gold, less than 0.01 per cent cobalt and 12.3 ppm silver across 3.00 m. Rock grab sample 3PLP011 is a few metres from rock chip sample 3PLO026. Rock grab sample 3PLP011 was collected from an arsenopyrite-rich zone that is less than two square metres in area. The sample assays 10.83 ppm gold, 0.02 per cent cobalt and 147.4 ppm silver.

Both of the geochemical stream sediment samples, 3XFC018 and 3XFC019, contain less than 5 parts per billion (ppb) gold (Dwg. 7217-2B).

GEOPHYSICAL SURVEYS

Magnetometer and very low frequency electromagnetic (VLF-EM) surveys were performed within TP mineral claim.

Magnetometer surveying was performed using a Scintrex MP-2 proton magnetometer to measure the total magnetic field. All lines were surveyed using a loop procedure and diurnal corrections were made to the data.

VLF-EM surveying was performed using a Geonics EM-16 instrument. The instrument was used to measure the in-phase and quadrature components of the secondary field using the transmitting station at Cutler, Maine which generates a signal at a frequency of 17.8 KHz.

Main Showing

A magnetometer survey was completed along all grid crosslines with readings taken at 12.5 m intervals. Contoured results of this survey are plotted on drawing 7217-3 with the zero contour set equal to a total field reading of 60,000 gammas. As expected, magnetite skarn produces extremely large anomalies with positive highs up to +25,000 gammas and negative lows down to -15,000 gammas. At the north central part of the grid, a linear

magnetic high, which is flanked by linear magnetic lows, trends north-northwest parallel to the axis of the magnetite skarn. At the north end of the grid these magnetic anomalies fade out into background readings where magnetite skarn pinches out. In the central part of the grid the linear magnetic high broadens out into a large, oval, very positive anomaly without flanking magnetic lows. A discontinuous lens of magnetite skarn exists at the center of this high. At the southwest margin of the grid a slight magnetic high corresponds to a narrow lens of magnetite skarn.

Camp Showing

Magnetometer and VLF-EM surveys were performed across a line at the Camp Showing to test whether these methods would respond to the pyrrhotite-bearing magnetite skarn (Dwg. 7217-2C). The magnetometer survey shows that the magnetite skarn produces readings up to about 59,000 gammas, compared to a background of about 57,000 gammas. The VLF-EM survey shows that a 7 degree increase in the in-phase reading and a corresponding slight decrease in quadrature readings are associated with the Camp Showing skarn.

Reconnaissance Lines

Reconnaissance magnetometer or VLF-EM surveys, or both, were also conducted along a single survey line at three separate locales within TP mineral claim (Dwg. 7217-2B).

The purpose of reconnaissance Line 1 was to test for a possible extension of the Main Showing skarn towards the north under a talus-covered area. Magnetometer readings indicate a high of about +400 gammas, relative to a background of 57,500 gammas, exists at the west end of the line. This positive magnetic anomaly is interpreted to be caused by the hornblendite that is in contact with quartz-feldspar porphyry. Near the middle of Line 1 a single station high of +100 gammas may indicate the position of Teepee Fault. Along the remainder of the line, readings vary within 100 gammas of background. VLF-EM surveying was not performed along Line 1.

Lines 2 and 3, which are located between the Main Showing and the Camp Showing, were surveyed by magnetometer and VLF-EM to test whether a band of marble and skarn extends southerly under moraine and continues into the Camp Showing skarn. Magnetometer readings for Lines 2 and 3 have a maximum range of 200 gammas above or below a background of about 57,700. There is a low amplitude positive magnetic anomaly about 100 m wide near the central part of Line 2, and a low amplitude positive magnetic anomaly near the southwest end of Line 3. The VLF-EM data from lines 2 and 3 are ambiguous; no definite VLF-EM anomalies are present. The causes of the magnetic anomalies and VLF-EM responses are unknown. Hence, the band of marble and skarn which extends south of the Main Showing, may or may not continue southerly beneath moraine into the Camp Showing.

CONCLUSIONS

The Main Showing is the only important gold-bearing occurrence that has been discovered within TP mineral claim. At the Main Showing, two gold- and cobalt-bearing zones have been outlined by rock chip sampling of trenches and outcrops (Dwg. 7217-4). The northeastern zone has a maximum surface strike length of about 25 m, whereas the southwestern zone has a maximum surface strike length of about 40 m, assuming that it is continuous across a talus and snow-covered gully. Weighted average grades for the northeastern zone are up to 10.42 ppm gold and 2.22 per cent cobalt across 6.35 m, and from the southwestern zone are up to 22.66 ppm gold and 0.11 per cent cobalt across 4.85 m.

Both of the gold- and cobalt-bearing zones are spatially related to amphibole skarn and fracture zones. Amphibole skarn is always found along or adjacent to the gold-bearing fracture zones and it is possible that amphibole skarn is an alteration product that was produced by mineralizing fluids moving along the fracture zone. Anomalous gold and cobalt assays exist in quartz-feldspar porphyry, gneiss and schist, and amphibole skarn near the fracture zones. The highest gold and cobalt assays are always associated with amphibole skarn, indicating that this lithology is the most favourable host rock.

Interpretive cross-sections, which were constructed from surface data, indicate that the northeastern and southwestern fracture zones may intersect at a depth of about 40 m below surface (Dwg. 7217-4). Metamorphic layering in the skarn and the adjacent gneiss and schist dips east at about 45 degrees. The dip of each of the fracture zones is approximately parallel to the dip of the enclosing skarn, and therefore the intersection of the two fracture zones should occur within the skarn at depth. The downdip extensions of the fracture zones and their intersection could have been favourable sites for deposition of gold and cobalt during the mineralization event.

The assumed trace of Teepee Fault indicates it should be present in Yukon Group, underneath Stuhini Group, about 200 m northeast of the Main Showing (Dwg. 7217-2B). Further evidence for the presence of Teepee Fault is the abrupt change in direction of the trace of the unconformity northeast of the Main Showing. This abrupt change in direction of the unconformity may reflect a paleoscarp produced by Teepee Fault. It is possible that the gold- and cobalt-bearing fracture zones at the Main Showing are related to Teepee Fault. If this is correct, Teepee Fault may also be a favourable site for a gold and cobalt mineralized zone.

Drilling is required at the Main Showing to test whether the downdip extensions of the fracture zones, the intersection of these fracture zones, and Teepee Fault are gold- and cobalt-bearing. If the results of drilling at the Main Showing are positive, then further exploration may be warranted at selected other mineral occurrences that have been discovered within and near TP mineral claim.

RECOMMENDATIONS

A staged program of exploration should be performed at TP mineral claim.

Stage 1

About 300 m of drilling in at least four holes should be completed to test the downdip extensions and intersection of the northeastern and southwestern gold- and cobalt-bearing zones (Dwg. 7217-9). Because the dips of the two fracture zones are unknown at depth and the topography at the Main Showing is rugged, the proposed collar locations, lengths and inclinations of the drillholes shown on drawing 7217-9 are estimated. The details of the proposed drillholes may require modifications once drilling is in progress. In conjunction with the recommended drill program, a geologist should perform a small amount of overburden stripping, rock chip sampling and geological mapping to more precisely define the length, width and grade of the two gold- and cobalt-bearing zones at surface.

Diamond drilling should be performed during the summer months from a small camp that could be established on the moraine near the toe of the glacier (Dwg. 7217-2B). A geologist, geological assistant and cook would be needed for about one field month to establish the camp and perform the recommended exploration. A drilling contractor would be needed to perform the recommended drilling. A helicopter chartered on a casual basis from Whitehorse would be needed to establish and service the camp, and move the drill between set-ups. The estimated cost to perform the recommended stage 1 program is $135,000 (Table III).

Stage 2

If the stage 1 drilling beneath the Main Showing produces encouraging results, additional drilling would be warranted. This additional drilling should test strike and downdip extensions of the Main Showing, and test whether Teepee Fault is a gold- and cobalt-bearing structure. It is difficult to assess how much additional drilling would be needed. Prior to any stage 2 drilling, a small amount of prospecting, geological mapping and, possibly, reconnaissance ground geophysical surveys may be required along and near the trace of Teepee Fault in order to facilitate the selection of drill collar locations.

The amount and type of exploration that may be required during stage 2, and the estimated cost of any stage 2 program, should be established when the results from the stage 1 program have been evaluated.

Trigg, Woollett, Olson Consulting Ltd.

R. A. Olson, Ph.D., P.Eng.

May 15, 1987
Edmonton, Alberta

REFERENCES

Christie, R. L. (1957) Bennett, Cassiar District, British Columbia; Geol. Surv., Canada, Map 19-1957.

Lhotka, P. G. and Olson, R. A. (1982) Exploration - 1982, Volcanogenic Copper, Gold Deposits, Carcross Region, Atlin Mining Division, British Columbia, Whitehorse Mining District, Yukon Territory; unpublished report prepared by Trigg, Woollett Consulting Ltd. for Texaco Canada Resources Ltd.

_____ (1983) Exploration - 1983, TP mineral claim, Atlin Mining Division, British Columbia; unpublished report prepared by Trigg, Woollett Consulting Ltd. for Texaco Canada Resources Ltd.

Souther, J. G. (1971) Geology and mineral deposits of Tulsequah map-area, British Columbia; Geol. Surv., Canada, Memoir 362.

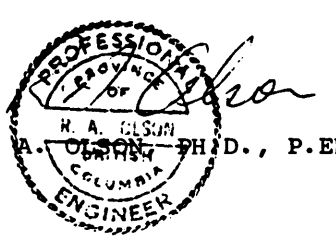
CERTIFICATION

I, R. A. OLSON OF 8727 - 181 STREET, EDMONTON, ALBERTA CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF BRITISH COLUMBIA WITH A B.SC. DEGREE IN GEOLOGY (1968), A GRADUATE OF THE UNIVERSITY OF WESTERN ONTARIO WITH A M.SC. DEGREE IN GEOLOGY (1971) AND A GRADUATE OF THE UNIVERSITY OF BRITISH COLUMBIA WITH A PH.D. DEGREE IN GEOLOGY (1977). I AM REGISTERED AS A PROFESSIONAL ENGINEER WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF BRITISH COLUMBIA AND AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS AN EXPLORATION GEOLOGIST WITH TEXASGULF INC., VANCOUVER, BRITISH COLUMBIA. SINCE 1969 I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS, PROPERTY EVALUATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY OF TRIGG, WOOLLETT & ASSOCIATES LTD. AND AS A PARTNER IN THE FIRM OF TRIGG, WOOLLETT, OLSON CONSULTING LTD. (PRIOR TO 1984, TRIGG, WOOLLETT CONSULTING LTD.), EDMONTON, ALBERTA.

I HAVE NO DIRECT OR INDIRECT INTEREST IN NATIONAL HYDROCARBONS LTD. OR THEIR PROPERTIES, NOR DO I EXPECT TO RECEIVE SUCH INTEREST.

MY REPORT ENTITLED "PROPOSED EXPLORATION, TP MINERAL CLAIM, ATLIN MINING DIVISION, BRITISH COLUMBIA", IS BASED UPON STUDY OF PUBLISHED AND UNPUBLISHED DATA, INCLUDING THE REPORTS BY LHOTKA AND OLSON (1982, 1983), AND UPON FIELD EXAMINATION OF TP MINERAL CLAIM AND ADJACENT AREAS DURING 1982 AND 1983.



R. A. OLSON, PH.D., P.ENG.

MAY, 1987
EDMONTON, ALBERTA

TABLE I

TABLE OF FORMATIONS*

(NTS Map Area 104M)

EON	ERA	GROUP	FORMATION	LITHOLOGY	MAP UNIT**
	CRETACEOUS AND/OR JURASSIC	Coast Plutonic rocks		mainly granodiorite, ranges from diorite to granite	7
			INTRUSIVE CONTACT		
	CRETACEOUS AND OLDER			porphyry intrusions, includes a few dykes of intermediate composition	6
			INTRUSIVE CONTACT		
	JURASSIC	Laberge Group		conglomerate, greywacke, siltstone, shale and limestone	5
			CONFORMABLE, DISCONFORMABLE OR UNCONFORMABLE CONTACT		
MESOZOIC	UPPER TRIASSIC	Stuhini Group		felsic to mafic flows, tuff and breccia interbedded with slate, siltstone, greywacke and conglomerate	4
			King Salmon Formation (local division of Stuhini Group)	well-bedded conglomerate, greywacke, siltstone and shale	3
			UNCONFORMABLE CONTACT		
	LOWER OR MIDDLE TRIASSIC			fine grained diorite	2
			INTRUSIVE CONTACT		
PALEOZOIC	PRE-PERMIAN?	Yukon Group		quartz-chlorite-amphibole gneiss and schist with minor amounts of marble and ultramafic rocks	1

*Modified after Souther (1971) and Christie (1957).
**Map units on drawings 7217-2 to 7217-9, inclusive, use this numbering sequence.

TABLE II

BISMUTH, NICKEL, LEAD, PLATINUM AND PALLADIUM ANALYSES OF SELECTED GOLD- AND COBALT-BEARING ROCK CHIP SAMPLES

IDENTIFIER	INTERVAL SAMPLED m	LOCATION	GOLD ppm	COBALT %	SILVER ppm	BISMUTH %	NICKEL %	LEAD %	PLATINUM ppm	PALLADIUM ppm
3PLO007*	0.50	trench T-1	65.18	0.13	14.4	0.500	0.068	0.108	<0.050	0.010
3PLO012*	0.65	trench T-2	12.24	0.08	3.3	0.135	0.067	0.006	<0.050	<0.005
3PLO035*	1.10	trench T-4	17.21	5.59	5.6	0.500	0.038	0.009	<0.050	0.005
3PLO044**	1.00	south of trench T-1	8.02	0.99	13.0	0.046	0.021	0.052	<0.050	0.005
3XFO016**	0.80	south of trench T-4	14.50	2.28	79.9	0.875	0.230	0.270	<0.050	0.020

*The location of these rock chip samples in trenches T-1, T-2 and T-4 are shown on drawings 7217-5, 7217-6 and 7217-8, respectively; the location of trenches T-1, T-2 and T-4 are shown on drawing 7217-4.

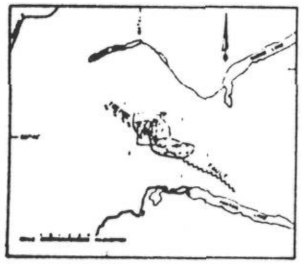
**The location of these rock chip samples are shown on drawing 7217-4.

Note: ppm denotes parts per million
% denotes weight per cent
< denotes less than

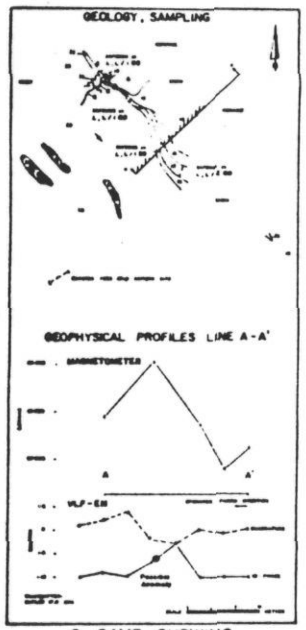
TABLE III

ESTIMATED COST OF THE RECOMMENDED STAGE 1 EXPLORATION

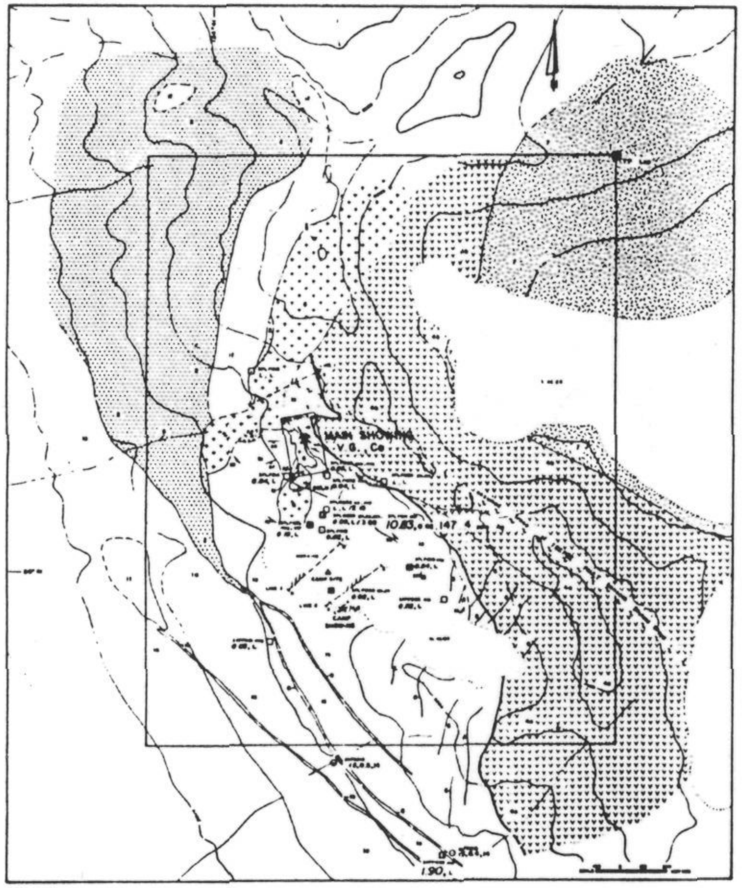
1.	Accommodation, travel, meals, freight	$ 4,600
2.	Aircraft and fuel	
	(a) Helicopter	26,900
	(b) Helicopter fuel	2,250
3.	Assays	3,200
4.	Communications	500
5.	Drilling	45,000
6.	Equipment, supplies, rentals, food, camp fuel, insurance	16,900
7.	Maps, publications	100
8.	Reporting (drafting, xeroxing, binding)	4,000
9.	Salaries	
	(a) Geologist, assistant, cook	20,050
	(b) Secretarial, accounting, expediting	4,000
	Subtotal	$127,500
10.	Supervision fee	7,500
	ESTIMATED TOTAL	$135,000



A. LOCATION AND REGIONAL GEOLOGY



C. CAMP SHOWING



B. TP MINERAL CLAIM – GEOLOGY, PROSPECTING, SAMPLING

LEGEND

SYMBOLS

MAIN SHOWING

1.90

NATIONAL HYDROCARBONS LTD.

GEOLOGY, PROSPECTING, SAMPLING

DWG. 7217-2

LEGEND

CRETACEOUS

[6] Porphyry dykes, sills and stocks
- a quartz-feldspar porphyry, dykes, sills and stocks
- b breccia dykes
- c intermediate-composition dykes

UPPER TRIASSIC
STUHINI GROUP

[4b] Intermediate porphyritic flows

PRE-PERMIAN
YUKON GROUP

- a gneiss and schist
- b marble
- c calcsilicate-calcite skarn
- d magnetite skarn
- e amphibole skarn
- f quartz porphyry dykes and sills

Note: Stratigraphic relationships are not implied by the sequence of lettered lithological units

SYMBOLS

Outcrop, rubbly outcrop

Geological contact: defined, approximate or assumed

Unconformity: defined, approximate or assumed

Bedding or metamorphic layering; tops unknown: inclined

Drag fold: Z-fold, S-fold; arrow indicates direction and amount of plunge

Fracture zone: defined, approximate or assumed; arrows indicate displacement, dip shown

T-1 Trench: identifier

22.66,0.11/4.00 m Rock chip sample site producing gold values greater than 1.00 parts per million: gold in parts per million, cobalt in per cent/interval sampled in metres. (See drawing 7217-4 for details of sampling)

Rock chip sample site producing gold values less than 1.00 parts per million: (See drawing 7217-4 for details of sampling)

Rock grab sample site, from outcrop: identifier; minerals present; gold in parts per million, cobalt in per cent

Magnetic contour: values in gammas with respect to a datum where 60,000 gammas is the 0 contour

Magnetic depression

Axis of magnetic high

ABBREVIATIONS

cal	calcite	l or L	less than 1.0)
Co	cobalt minerals	mag	magnetite
G	gossan	mal	malachite
gal	galena	py	pyrite
gar	garnet	V.G.	visible gold

R.A. Olson
September 1987

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
R.A. OLSON

NATIONAL HYDROCARBONS LTD.

TP MINERAL CLAIM

GEOLOGY, SAMPLING, MAGNETOMETER SURVEY

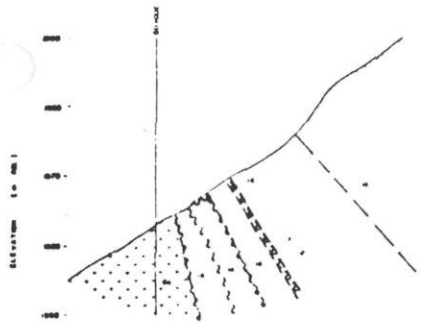
ATLIN MINING DIVISION, BRITISH COLUMBIA

TRIGG, WOOLLETT, OLSON CONSULTING LTD.

EDMONTON, ALBERTA — MAY, 1987

DWG. 7217-3

CROSS - SECTION 51 + 00N



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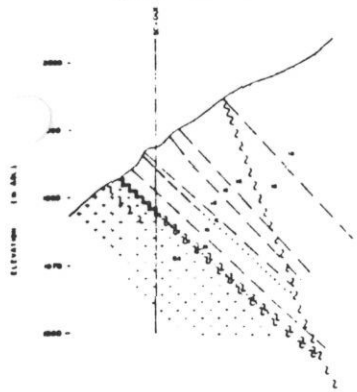
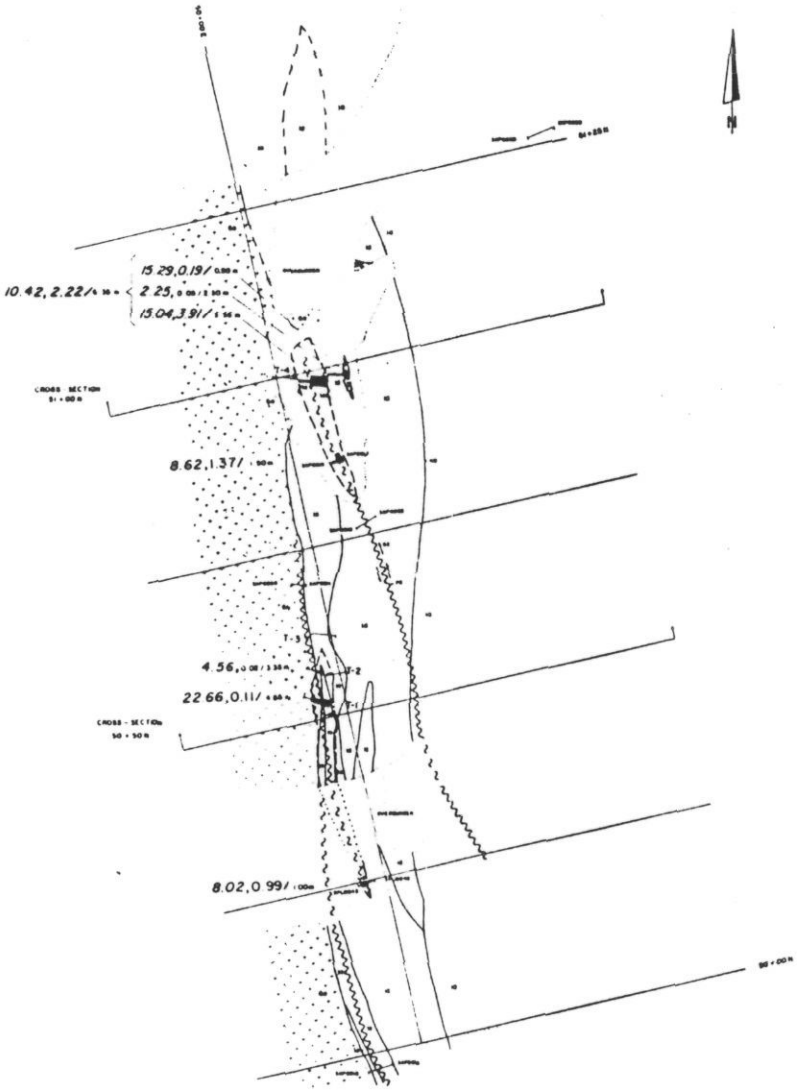




PLAN VIEW

GOLD- AND COBALT-BEARING ZONES

LEGEND

CRETACEOUS

"Kp" Quartz-feldspar porphyry

PRE-PERMIAN

YUKON GROUP

gneiss and schist

calcsilicate-calcite skarn

magnetite skarn

amphibole skarn

Note: Stratigraphic relationships are not implied by the sequence of lettered lithological units

SYMBOLS

Outcrop

Geological contact: defined, approximate or assumed

Bedding or metamorphic layering, tops unknown: inclined

Fracture zone: defined, approximate or assumed; arrows indicate displacement, dip shown

Lineation: direction and amount of plunge

Rock chip sample site: interval sampled; gold values are symbolically represented above the line while cobalt values are shown below the line. Sample identifiers indicate the series of samples taken for outcrop sites only

8.02,0.99/100m

Gold and cobalt-bearing zone: gold in parts per million, cobalt in per cent/interval sampled in metres. Rock chip samples are taken from outcrop surfaces except for sites labelled T-1 to T-4 which are trenches

Gold- and cobalt-bearing zone: boundary is defined, approximate, assumed

Note: For details of geology and sampling of trenches see drawings 7217-5 to 7217-8, inclusive.

R. A. [illegible]
September [illegible] 1987

PROFESSIONAL ENGINEERS BRITISH COLUMBIA ENGINEER

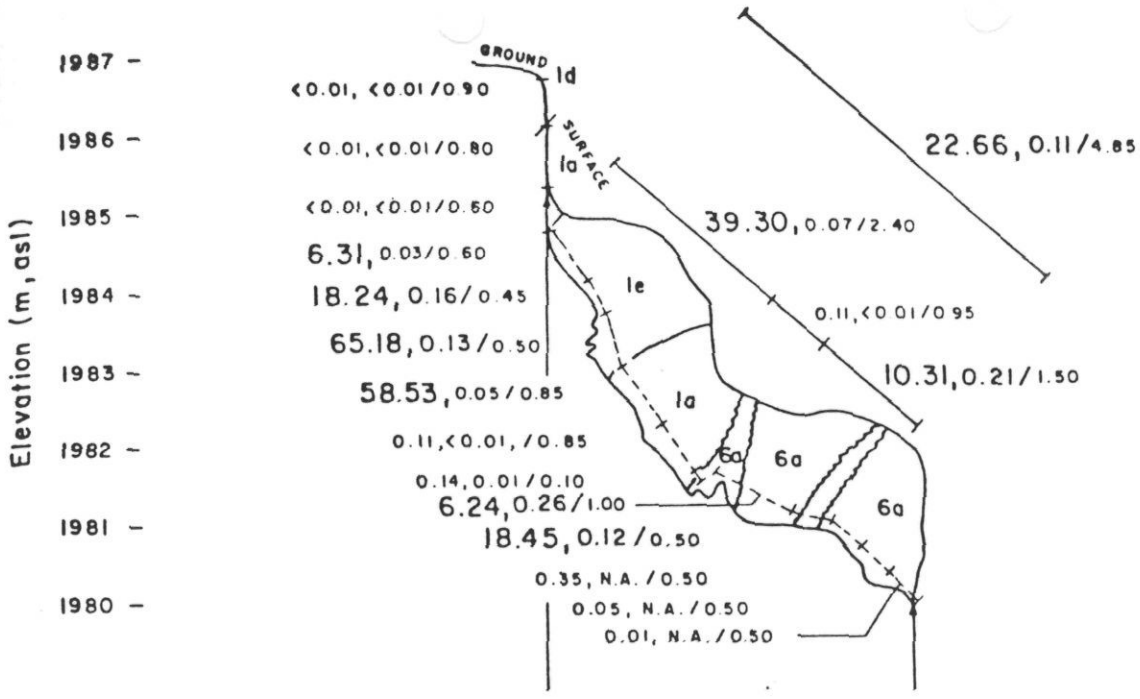
NATIONAL HYDROCARBONS LTD.

DETAILED GEOLOGY, SAMPLING, CROSS-SECTIONS

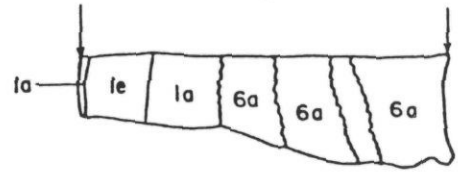
EDMONTON, ALBERTA

MAY, 1987

DWG. 7217-4



LONGITUDINAL SECTION
SOUTH WALL FACING SOUTH



PLAN VIEW

LEGEND

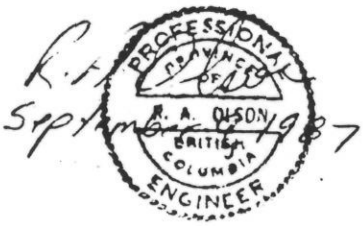
JURASSIC

6a — Quartz-feldspar porphyry

PRE-PERMIAN

YUKON GROUP

1 — Quartz-chlorite-amphibole schist with minor amounts of marble
- 1a gneiss and schist
- 1d magnetite skarn
- 1e amphibole skarn



SYMBOLS

0.16, 0.01/1.10
4.08, 2.64/1.10

Rock chip sampled interval: gold in parts per million, cobalt in per cent/ sampled interval in metres. Where gold is greater than or equal to 3.0 parts per million or cobalt is greater than or equal to 0.1 per cent, the assays are in bold lettering.

Geological contact: defined

Fracture zone: defined

Note: < denotes less than
N.A. denotes no analysis

NATIONAL HYDROCARBONS LTD.

TP MINERAL CLAIM

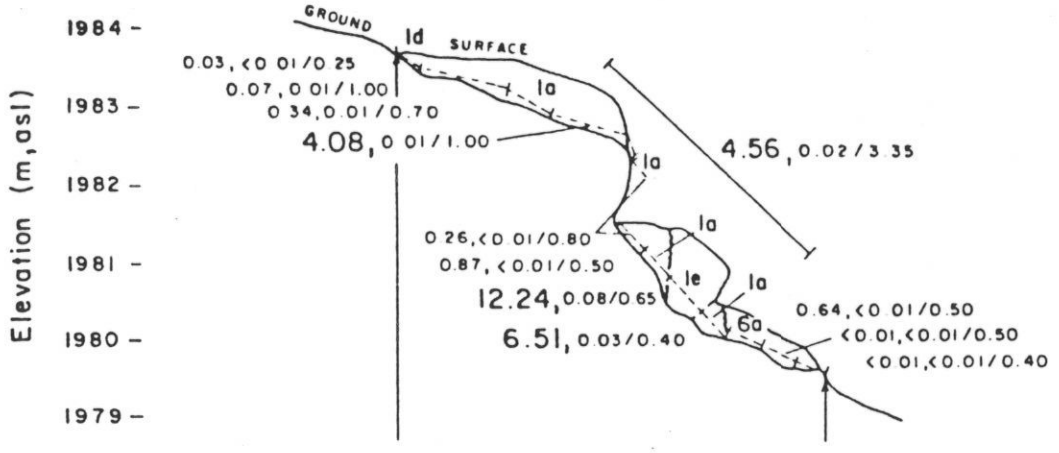
TRENCH T-1
GEOLOGY, SAMPLING

NTS 104 M/10E
ATLIN MINING DIVISION, B.C.

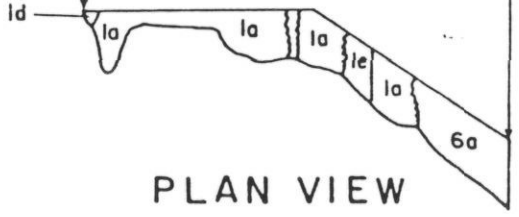
SCALE 1 0 1 2 METRES

TRIGG, WOOLLETT, OLSON CONSULTING LTD.
EDMONTON, ALBERTA — MAY, 1987

DWG. 7217-5



LONGITUDINAL SECTION
SOUTH WALL FACING SOUTH



PLAN VIEW

LEGEND

JURASSIC

6a	Quartz-feldspar porphyry

PRE-PERMIAN

YUKON GROUP

1	Quartz-chlorite-amphibole schist with minor amounts of marble
	1a gneiss and schist
	1d magnetite skarn
	1e amphibole skarn

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R. A. OLSON
Sept 1987

SYMBOLS

0.16, 0.01/1.10
4.08, 2.64/1.10

Rock chip sampled interval: gold in parts per million, cobalt in per cent/ sampled interval in metres. Where gold is greater than or equal to 3.0 parts per million or cobalt is greater than or equal to 0.1 per cent, the assays are in bold lettering.

Geological contact: defined

Fracture zone: defined

Note: < denotes less than

NATIONAL HYDROCARBONS LTD.

TP MINERAL CLAIM

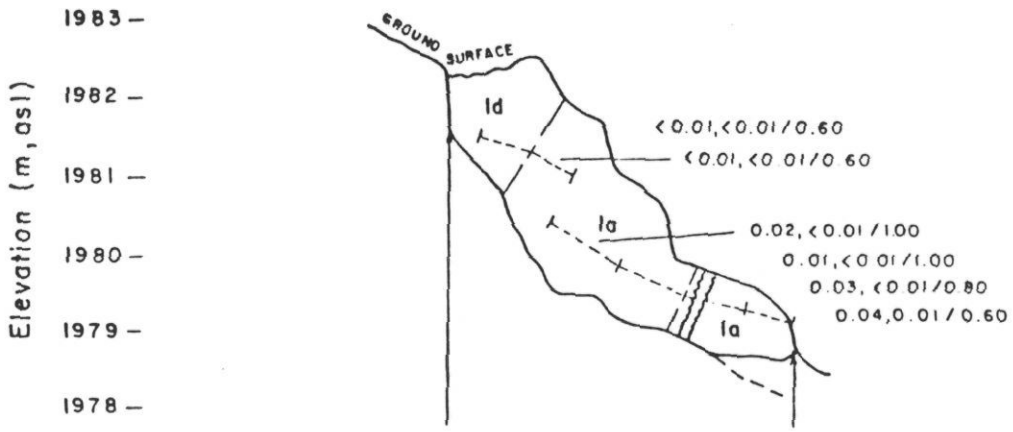
TRENCH T-2
GEOLOGY, SAMPLING

NTS 104 M/10E
ATLIN MINING DIVISION, B.C.

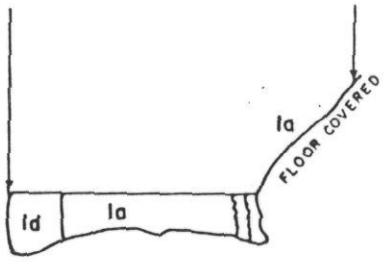
SCALE 1 0 1 2 METRES

TRIGG, WOOLLETT, OLSON CONSULTING LTD.
EDMONTON, ALBERTA MAY, 1987

DWG. 7217-6



LONGITUDINAL SECTION
SOUTH WALL FACING SOUTH



PLAN VIEW

LEGEND

JURASSIC

6a	Quartz-feldspar porphyry

PRE-PERMIAN

YUKON GROUP

1	Quartz-chlorite-amphibole schist with minor amounts of marble 1a gneiss and schist 1d magnetite skarn 1e amphibole skarn

SYMBOLS

0.16, 0.01/1.10
4.08, 2.64/1.10

Rock chip sampled interval: gold in parts per million, cobalt in per cent/ sampled interval in metres. Where gold is greater than or equal to 3.0 parts per million or cobalt is greater than or equal to 0.1 per cent, the assays are in bold lettering.

Geological contact: defined

Fracture zone: defined

Note: < denotes less than

September

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BRITISH COLUMBIA

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TP MINERAL CLAIM

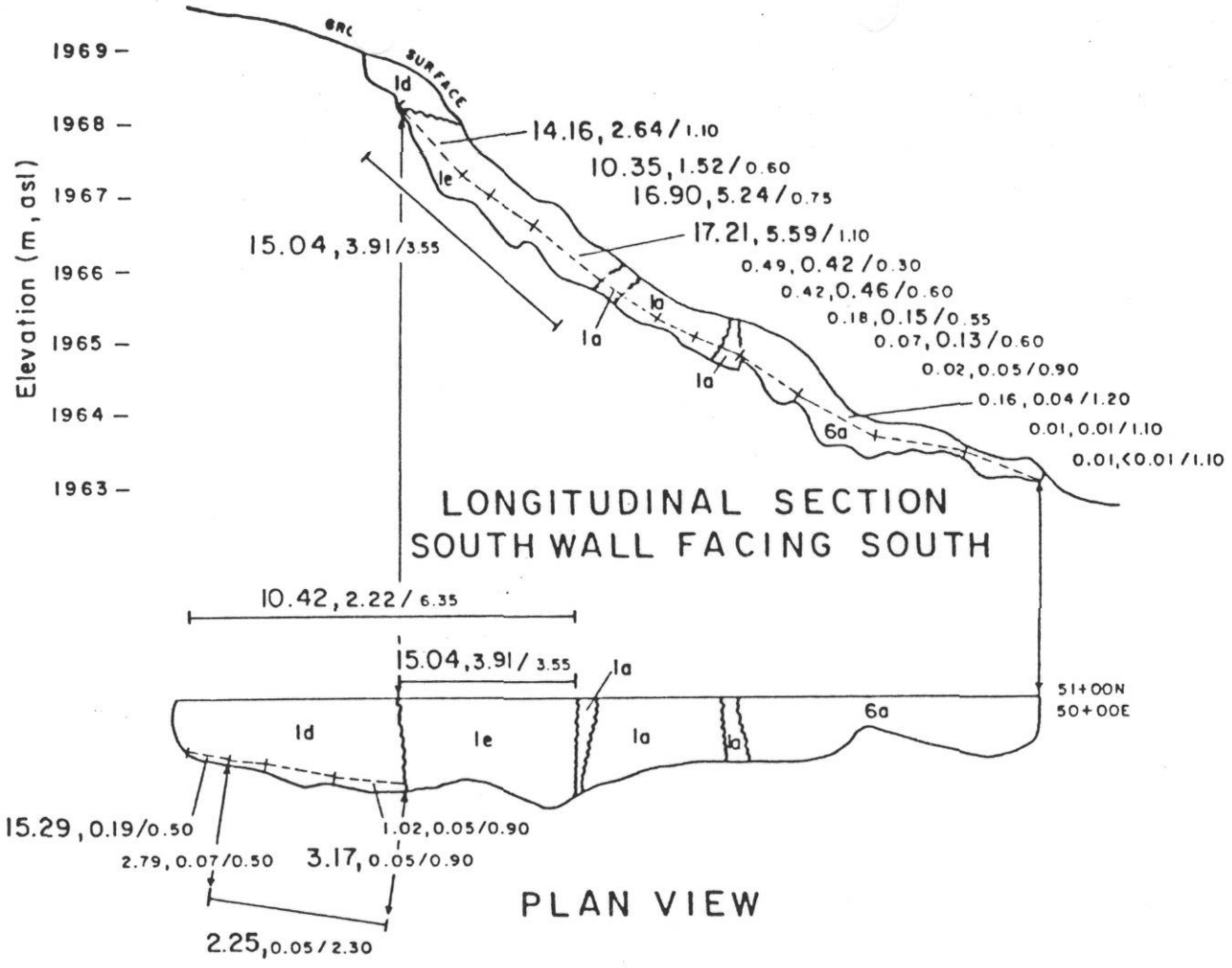
TRENCH T-3
GEOLOGY, SAMPLING

NTS 104 M/10E
ATLIN MINING DIVISION, B.C.

SCALE 1 0 1 2 METRES

TRIGG, WOOLLETT, OLSON CONSULTING LTD.
EDMONTON, ALBERTA MAY, 1987

DWG. 7217-7



LEGEND

JURASSIC

6a — Quartz-feldspar porphyry

PRE-PERMIAN

YUKON GROUP

1 — Quartz-chlorite-amphibole schist with minor amounts of marble
- 1a gneiss and schist
- 1d magnetite skarn
- 1e amphibole skarn

SYMBOLS

0.16, 0.01 / 1.10
4.08, 2.64 / 1.10

Rock chip sampled interval: gold in parts per million, cobalt in per cent/ sampled interval in metres. Where gold is greater than or equal to 3.0 parts per million or cobalt is greater than or equal to 0.1 per cent, the assays are in bold lettering.

Geological contact: defined

Fracture zone: defined

Note: < denotes less than

PROFESSIONAL ENGINEER — R. A. OLSON — BRITISH COLUMBIA

September 1987

NATIONAL HYDROCARBONS LTD.

TP MINERAL CLAIM

TRENCH T-4
GEOLOGY, SAMPLING

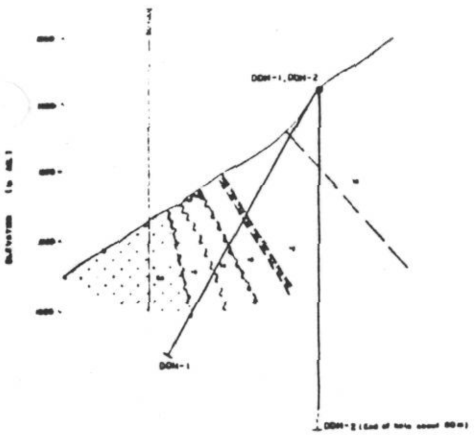
NTS 104 M/10E
ATLIN MINING DIVISION, B.C.

SCALE 1 0 1 2 METRES

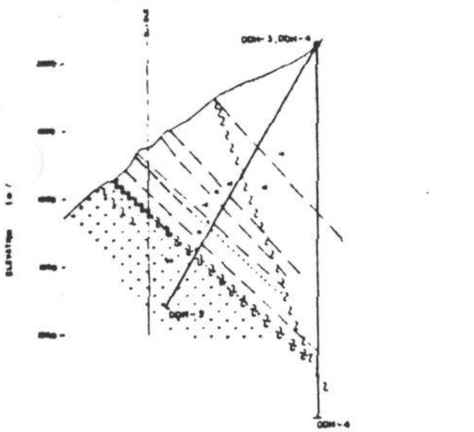
TRIGG, WOOLLETT, OLSON CONSULTING LTD.
EDMONTON, ALBERTA — MAY, 1987

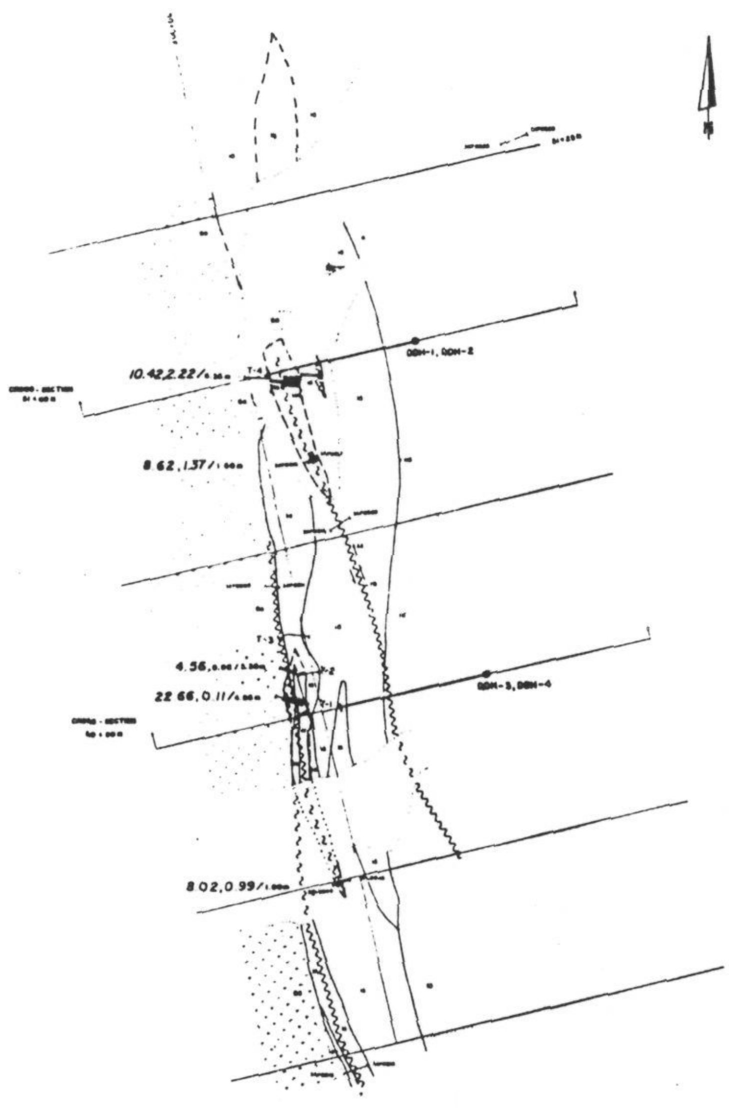
DWG. 7217-8

CROSS-SECTION 51+00N



CROSS-SECTION 50+50N





PLAN VIEW
GOLD- AND COBALT-BEARING ZONES

LEGEND

CRETACEOUS

Quartz-feldspar porphyry

PRE-PERMIAN
TAKU GROUP

gneiss and schist
calcsilicate-calcite chert
magnetite chert
amphibole chert

Note: Stratigraphic relationships are not implied by the sequence of lettered lithological units

SYMBOLS

Outcrop

Geological contact: defined, approximate or assumed

Bedding or metamorphic layering, tops unknown: inclined

Fracture zone: defined, approximate or assumed; arrows indicate displacement, dip shown

Lineation: direction and amount of plunge

Rock chip sample site: interval sampled; gold values are symbolically represented above the line while cobalt values are shown below the line. Sample identifiers indicate the series of samples taken for outcrop sites only

8.02, 0.99 / 1.00m — Gold and cobalt-bearing zone: gold in parts per million, cobalt in per cent/interval sampled in metres. Rock chip samples are taken from outcrop surface except for sites labelled T-1 to T-4 which are trenches

Gold- and cobalt-bearing zone: boundary is defined, approximate, assumed

PROPOSED DRILLING

DDH-1 — Diamond drillhole; identifier indicates recommended drilling sequence

DRILLHOLE IDENTIFIER	ESTIMATED INCLINATION	ESTIMATED LENGTH (m)
RECOMMENDED DRILLING		
DDH - 1	60	45
DDH - 2	90	80
DDH - 3	60	45
DDH - 4	90	55
		225
Contingency follow-up drilling		75
		300

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA

1987

NATIONAL HYDROCARBONS LTD.

PROPOSED EXPLORATION

ATLIN MINING DIVISION, BRITISH COLUMBIA

TRIGG, WOOLLETT, OLSON CONSULTING LTD.

EDMONTON, ALBERTA

DWG. 7217-9

CERTIFICATE

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus as required by the Securities Act and its regulations.

DATED at Vancouver, British Columbia this 26th day of November, 1987.

LAWRENCE ERWIN WEISDORN
Chief Executive Officer

MARK ANSON LAFLEUR
Chief Financial Officer

JAMES ALEXANDER DEREK DAVIDSON
Director

RON ALLEN EWING
Director

MARTINO CALABRETTI
Director

PROMOTERS

LAWRENCE ERWIN WEISDORN

MARK ANSON LAFLEUR

CERTIFICATE OF THE AGENT

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Prospectus, as required by the Securities Act and its regulations.

DATED at Vancouver, British Columbia, this 26th day of November, 1987.

PACIFIC INTERNATIONAL SECURITIES INC.

Per: _____