TRENCHING and DIAMOND DRILLING REPORT

on the

PAVEY PROPERTY

Atlin Mining Division, British Columbia

N.T.S. 104 M / 15 W

Latitude: 59° 55' North Longitude: 134° 53' West

Claim Name	No. of Units	Record No.	Expiry Date	Registered Owner
PAVEY 1	20	2659	Aug 1, 1991	G. Harris
PAVEY 2	10	2660	Aug 1, 1991	G. Harris
PAVEY 3	20	2661	Aug 1, 1991	G. Harris
PAVEY 4	6	2662	Aug 1, 1991	G. Harris
PAVEY 5	12	2759	Nov 7, 1990	G. Davidson
PAVEY 6	12	2760	Nov 7, 1990	G. Davidson
LQ	15	3041	Jul 24, 1991	G. Davidson
BEN 1	15	1931	Jul 4, 1994	Esso Resources Canada
BEN 2	15	1932	Jul 4, 1994	Esso Resources Canada
BEN 3	9	3897	Nov 24, 1990	Texaco Canada
BEN 4	6	1934	Jul 4, 1994	Esso Resources Canada
WILLARD	20	3565	May 16, 1991	Lodestar Explorations
LILLIAN	20	N/A	Sep 25, 1991	B. Lueck

- Prepared For -

Owner and Operator: LODESTAR EXPLORATIONS INC.

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- Prepared By -

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November 2, 1990
Delta, British Columbia

J. Douglas Blanchf... .A.C.
Consulting Geologist

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SUMMARY

The **PAVEY** property is located between Bennett and Tutshi Lakes in northwestern British Columbia; approximately 28 kilometres south of the settlement of Carcross, Yukon Territory, or 55 kilometres northeast of Skagway, Alaska, U.S.A. Its geographic coordinates are 59° 55' North latitude by 134° 53' West longitude; N.T.S. 104 M / 15 W.

Vehicular access from Whitehorse, Yukon Territory is possible via the Klondike Highway, Highway 2. A recently-constructed four-wheel drive gravel and dirt access road leaves this highway approximately 30 kilometres south of the settlement of Carcross, and leads 4.75 kilometres westward along a local drainage to the centre of the property. In total, it is approximately 112 kilometres by road from Whitehorse to the field camp.

The property is comprised of 13 M.G.S. located mineral claims, totalling 180 units; all located in the Atlin Mining Division, British Columbia. Lodestar Explorations Inc. has an Option to Purchase a 100 per cent interest in the PAVEY 1 to 6 and LQ mineral claims from Messrs. G. Harris and G. Davidson, of Whitehorse, Yukon Territory, and an Option to Purchase a 100 per cent interest in the BEN 1 to 4 mineral claims from Texaco Canada Inc. Lodestar Explorations Inc. and Mr. Brian Lueck, a director of the Company, own all interests and rights in the WILLARD and LILLIAN mineral claims.

The claim holdings are situated within the Tagish Highlands, near the boundary of the Teslin Plateau and Boundary Ranges physiographic regions, in the Canadian Cordillera of northwestern British Columbia. Elevations range from 656 metres (2,153 feet) on Bennett Lake to 2,205 metres (7,235 feet) A.M.S.L. within the BEN 3 mineral claim. The climate is moderate and the field season can extend from late June to late September.

The Bennett Lake and Tagish Lake districts were first explored by prospectors during construction of the White Pass and Yukon Railroad in 1878, and later in the 1890's when prospectors travelled to the famous Klondike Gold Rush.

During 1982 and 1983, DuPont of Canada explored the GAUG claims which covered the area now held by the PAVEY 1 to 4 mineral claims. Geological and geochemical surveys were conducted and three old adits are located in the area of the present PAVEY 3 mineral claim. Fifteen of the thirty-three rock samples that were collected by DuPont contained gold values of 0.1 to 0.805 ounces per ton with silver values ranging up to 66 ounces per ton. Nevertheless, DuPont allowed the claims to lapse in 1986.

In 1983 Texaco Canada Ltd. staked the BEN 1 to 4 mineral claims following a limited prospecting and reconnaissance mapping program in 1982. Their 1983 exploration program included: prospecting, geologic mapping, geochemical sampling, geophysical surveying and trenching. This program identified seventeen occurrences with greater than or equal to 1000 parts per billion gold and 70 parts per million silver (Lhotka and Olson, 1983).

Lodestar Explorations Inc. optioned the PAVEY and BEN claims in 1987 and 1988, respectively. Their exploration work included prospecting, reconnaissance mapping, road building, trenching and sampling that were conducted during the 1987 and 1989 field seasons.

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

LOCATION MAP

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/16

DATE: October 1990	SCALE: 1: 10,000,000
DWN. BY: D. Miller	DWG. NO.: 1

The property overlies the regional contact between two geologic terranes: Stikinia and Nisling. The Llewellyn fault zone, a major dextral transcurrent extension of the King Salmon fault, crosses through the eastern mineral claims forming the western boundary of Stikinia terrane and the eastern boundary of the Nisling terrane.

The Nisling terrane is mainly comprised of pre-Permian metamorphic rocks, commonly termed the "Boundary Ranges metamorphics". This terrane marks the transition between the hornblende-biotite granitic and granodioritic rocks of the Cretaceous and earliest Tertiary-age Coast Crystalline Complex tectonic belt to the west, and the Upper Triassic Stuhini Group of the Intermontane tectonic belt to the east (Mihalynuk and Rouse, 1988). The Boundary Ranges metamorphic rocks underlie the central portion of the property as a northwesterly trending, gently plunging, tight to open folded synclinal sequence that has been variably metamorphosed to upper greenschist facies grade. This sequence has been intruded by pyroxenites, gabbros and mafic flows prior to final deformation. Porphyritic and foliated calc-alkaline intrusions cut the older Boundary Ranges metamorphic strata forming small stocks.

The eastern and western portions of the property are underlain by volcaniclastic, epiclastic and sedimentary rocks of the Upper Triassic Stuhini Group, part of the Stikinia terrane. Five distinct lithologies of the Stuhini Group have been recognized in the region by Mihalynuk and Rouse (1988); although, their deposition is generally confined to the region east of the Llewellyn fault.

Both the Boundary Ranges and Stuhini Group strata are unconformably overlain by sedimentary rocks of the Lower Jurassic Laberge Group, Inklin Formation. These sedimentary rocks are in turn overlain by Middle to Upper Jurassic intermediate to felsic volcaniclastics and intermediate to mafic flows.

Intrusives of Cretaceous to earliest Tertiary age occur throughout the property; especially near its western boundary where the Nisling terrane is in contact with the Coast Crystalline Complex.

The structural fabric of the property is dominated by the Llewellyn fault and the major fold hinge surfaces that trend north-northwesterly at 340°. The Llewellyn fault zone is an ancient major dextral transcurrent fault zone with a west-side-up motion at its southern end, southeast of the property, and a contrasting east-side-up motion displacement at its northern end, within and north of the property (Mihalynuk and Rouse, 1988).

Various exploration programs have identified five types of precious and base metal-bearing mineralization on the property. They include: 1) quartz-arsenopyrite ± pyrite, sphalerite and galena veins; 2) quartz-stibnite-arsenopyrite ± galena, sphalerite and chalcopyrite veins; 3) chalcopyrite and magnetite veins in shear zones; 4) boulders of massive pyrrhotite and pyrrhotite-chalcopyrite bearing amphibole skarn; and, 5) disseminated pyrrhotite, chalcopyrite and pyrite hosted by chlorite-actinolite altered volcaniclastics of the Stuhini Group with younger quartz-calcite-native gold veins cutting the metasomatized volcaniclastics.

The 1990 exploration program tested all of the more prospective showings and discovered two new gold occurrences. It included: prospecting (1:10,000 scale); lithogeochemical sampling (55 samples for gold assays, and silver and copper analyses and/or assays); road restoration (4.75 km. from the Klondike

Highway to the 1989 field camp) and road building (8.80 km. from the 1989 field camp to the various work sites); mechanical trenching (55 trenches totalling 2,463.7 m., geological mapping at a scale of 1:250, and collection of 122 lithogeochemical samples); NQ-core diamond drilling (11 holes totalling 694.18 m.(2,277.5 feet), geologic logging and the collection of 352 core samples); assaying and analyses (474 samples for 30-element I.C.P. and gold (FA/AA), and 88 check assays including 15 metallics assays); and summary report preparation. The results greatly enhance the exploration potential of both the new discoveries and the entire property.

Visible gold and disseminated copper mineralization was discovered at the Skarn Zone, near the sheared unconformable contact between the Upper Triassic Stuhini Group and the pre-Permian Boundary Ranges lithologic unit. Prospecting traced this zone for over 700 metres in a south-southeasterly direction along the unconformity. The reconnaissance samples that were collected for 300 metres south of the visible gold discovery all returned anomalous gold values.

Trenching and diamond drilling results from the Skarn Zone indicate that the gold occurs as native visible gold and/or electrum within multiple narrow en echelon quartz-calcite veins and probably as attendant values with gold-bearing sulphide mineralization. The gold mineralization is dominantly hosted by volcaniclastic rocks of the Upper Triassic Stuhini Group above, but in close proximity to, a shallow-dipping hornblende-feldspar porphyry sill. It occurs as a relatively consistent, near-surface, shallow-dipping layer which continues laterally to the south and west. The tenor of the gold mineralization ranges from more than 1 gram per tonne across 1 to 9 metres to over 100 grams per tonne across much narrower widths.

The Cowboy Zone was also discovered this year. Thirteen trenches and three diamond drill holes tested this zone. The trenches exposed several narrow sulphide-bearing quartz-carbonate vein structures hosting gold values that range from geochemically-anomalous to 6.42 grams per tonne across 0.5 metre. The drill holes intersected similar mineralization at depth with low gold and silver values over relatively narrow widths.

Extensive mechanical trenching within the previously-explored Stibnite, LQ and Plateau Zones did not expose any significant precious metal-bearing mineralization different from that already known to exist at these zones.

Based upon the results of the exploration program it is the writer's opinion that further work is certainly warranted and necessary to evaluate the economic potential of the known mineral occurrences and to test the more favourable gold exploration targets. Further work should include: airborne geophysical surveying; establishment of a detailed survey control grid over the central portion of the property; detailed geological, geochemical and geophysical surveying; prospecting, lithogeochemical sampling and geological mapping of gold exploration targets; road construction; trenching; and diamond drilling. The cost of the recommended program would be in excess of $500,000.00; depending upon the extent of the trenching and diamond drilling work.

INTRODUCTION

The **PAVEY** property is owned and operated by Lodestar Explorations Inc. of Suite 280 - 815 West Hastings Street, Vancouver, British Columbia. It is comprised of 13 M.G.S. mineral claims, totalling 180 units; all located between Bennett and Tutshi Lakes in the Atlin Mining Division of northwestern British Columbia, Canada.

At the request of the directors of Lodestar Explorations Inc., Minorex Consulting Ltd. was retained on August 28th to manage and supervise their trenching and diamond drilling work, and to document the 1990 exploration program. From July 11th to August 27th, the program was conducted under the supervision of Mr. Brian Lueck, geologist and Vice President of Lodestar Explorations Inc.

The 1990 exploration program included: prospecting (1:10,000 scale); lithogeochemical sampling (55 samples for gold assays, and silver and copper analyses); road restoration (4.75 km. from the Klondike Highway to the 1989 field camp) and road building (8.80 km. from the 1989 field camp to the various work sites); mechanical trenching (55 trenches totalling 2,463.7 m., geological mapping at a scale of 1:250, and collection of 122 lithogeochemical samples); NQ-core diamond drilling (11 holes totalling 694.18 m.(2,277.5 feet), geologic logging and the collection of 352 core samples); assaying and analyses (474 samples for 30-element I.C.P. and gold (FA/AA), and 88 check assays including 15 metallics assays); and summary report preparation.

This report documents the results of the exploration program and contains a Statement of Costs reporting the assessment credit expenses that were incurred from July 11th to November 2nd, 1990.

GENERAL DESCRIPTION

Location and Access

The **PAVEY** property is located between Bennett and Tutshi Lakes in the Atlin Mining Division of northwestern British Columbia; approximately 28 kilometres south of the settlement of Carcross, Yukon Territory, or 55 kilometres northeast of Skagway, Alaska, U.S.A. Its northern boundary is 5.7 kilometres south of the British Columbia - Yukon border and its southern boundary is 1.5 kilometres north of Paddy Pass. The geographic coordinates of the property are 59° 55' North latitude by 134° 53' West longitude; N.T.S. 104 M / 15 W.

Access from Whitehorse, Yukon Territory is possible via the Klondike Highway, Highway 2, which connects the capital city of Whitehorse to the tidewater city of Skagway, Alaska. A recently-constructed four-wheel drive gravel and dirt access road joins the highway approximately 30 kilometres south of the settlement of Carcross, Yukon Territory and leads 4.75 kilometres westward along a local drainage to the field camp at the centre of the property. In total, it is 112 kilometres by road from Whitehorse to the field camp.

The property is also accessible by vehicle from the city of Skagway which is within 73 kilometres via the Klondike Highway, or one may also utilize the helicopter services from either Whitehorse or Atlin, to the east. In addition, the White Pass and Yukon Railway trackage crosses the extreme western boundary of the property, along the eastern shores of Bennett Lake, connecting Whitehorse to Skagway. However, this railroad operation was terminated in 1982.

Property and Ownership

The property is comprised of 13 M.G.S. located mineral claims, totalling 180 units; all situated in the Atlin Mining Division, northwestern British Columbia. The regional location and configuration of these mineral claims are shown on Figure 2 (after B.C.M.M. Claim Map 104 M/15 W). Those mineral claims within the area of the exploration program have also been plotted on Figure 5. Furthermore all pertinent claim data, including the registered ownership of the claims as of November 2, 1990, have been summarized in the following table.

TABLE I

Mineral Claim Data

Claim Name	No. of Units	Record No.	Expiry Date	Registered Owner
PAVEY 1	20	2659	Aug 1, 1991	G. Harris
PAVEY 2	10	2660	Aug 1, 1991	G. Harris
PAVEY 3	20	2661	Aug 1, 1991	G. Harris
PAVEY 4	6	2662	Aug 1, 1991	G. Harris
PAVEY 5	12	2759	Nov 7, 1990	G. Davidson
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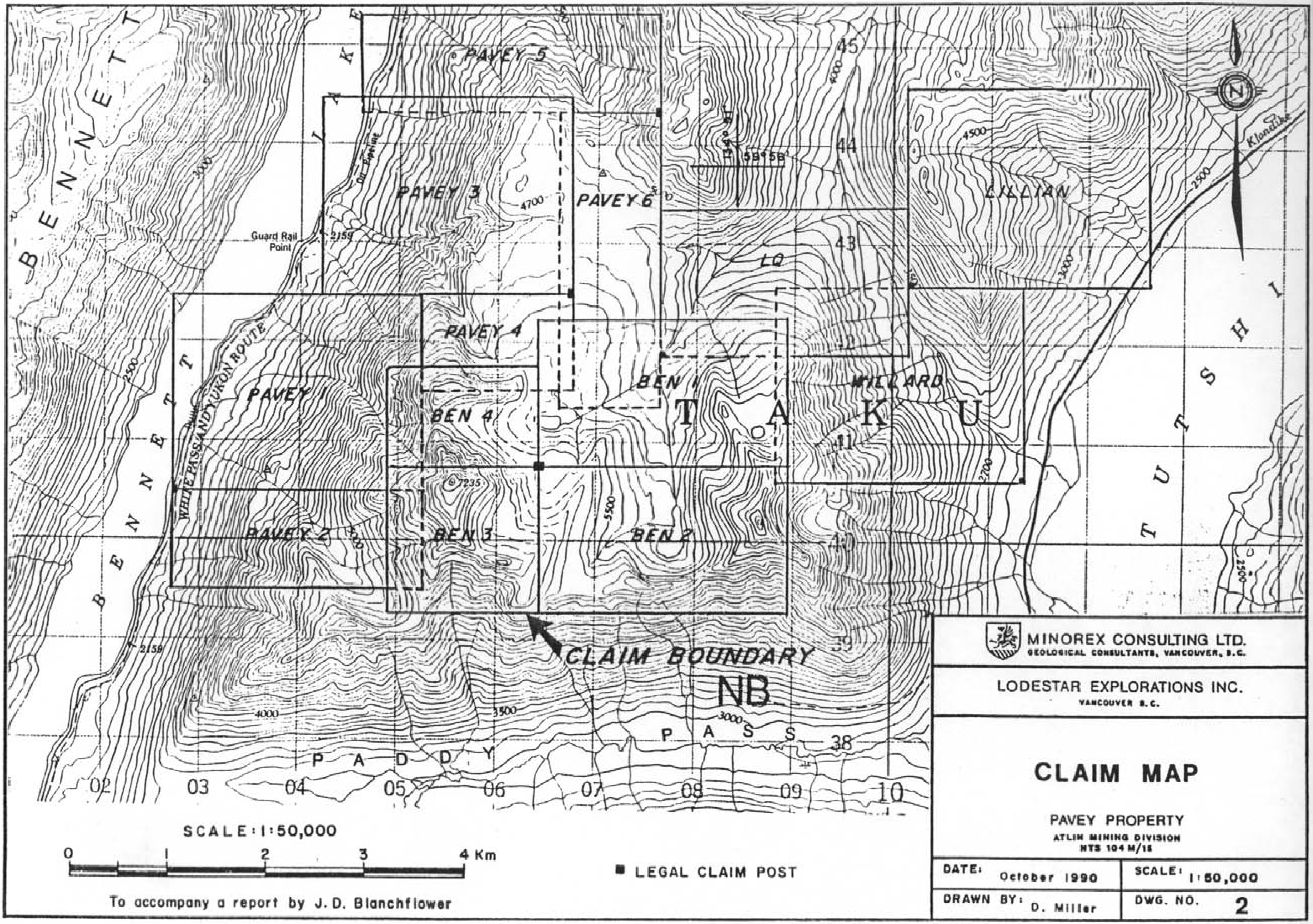
WILLARD	20	3565	May 16, 1991	Lodestar Explorations
LILLIAN	20	N/A	Sep 25, 1991	B. Lueck

According to the President of Lodestar Explorations Inc., the Company has an Option to Purchase a 100 per cent interest in the PAVEY 1 to 6 and LQ mineral claims from Messrs. G. Harris and G. Davidson, of Whitehorse, Yukon Territory. The Company also has an Option to Purchase a 100 per cent interest in the BEN 1 to 4 mineral claims from Texaco Canada Inc. It should be noted that Esso Resources (1989) Ltd., the registered owners of the BEN 1, 2 and 4 claims, merged with Texaco Canada Resources Ltd. in 1989, and Texaco Canada Inc. is now the sole owner of these claims.

In addition to the optioned mineral claims Lodestar Explorations Inc. and Mr. Brian Lueck, a director of the Company, own all interests and rights in the WILLARD and LILLIAN mineral claims that were located on May 19, 1989 and September 25, 1990, respectively.

It should be noted by the Company that the B.C. Ministry of Energy, Mines and Petroleum Resources has misinterpreted the LQ mineral claim document and plotted it on their claim map for N.T.S. 104 M/15 W as the "L8" mineral claim.

A Notice to Group document was recorded November 2, 1990 grouping the PAVEY 1 to 6 and LQ mineral claims as the "PAVEY GROUP". The BEN 1 to 4, WILLARD and LILLIAN mineral claims will be grouped as the "BEN GROUP" following the formal transfer of the PAVEY 1, 2 and 4 mineral claims from Esso Resources Canada to Texaco Canada Resources Ltd.



B E N N E T T L A K E
PAVEY 5
PAVEY 3
PAVEY 6
PAVEY 4
PAVEY 1
PAVEY 2
BEN 1
BEN 2
BEN 3
BEN 4
LQ
LILLIAN
WILLARD
T A K U
T U T S H I
Klondike
Oil Pipeline
Guard Rail Point
WHITE PASS AND YUKON ROUTE
59°58'
134°51'
4700
4500
7235
5500
3000
2500
2700
2159
4000
3500
CLAIM BOUNDARY
NB
P A D D Y P A S S
02
03
04
05
06
07
08
09
10
38
39
40
41
42
43
44
45
SCALE: 1:50,000
0
1
2
3
4 Km
LEGAL CLAIM POST
To accompany a report by J. D. Blanchflower
MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.
CLAIM MAP
PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104 M/15
DATE: October 1990
SCALE: 1:50,000
DRAWN BY: D. Miller
DWG. NO. 2

Physiography

The claim holdings are situated within the Tagish Highlands, near the boundary of the Teslin Plateau and Boundary Ranges physiographic regions, in the Canadian Cordillera of northwestern British Columbia. They cover the mountainous highlands between the steep westerly-facing slopes to Bennett Lake and the more gentle, easterly-facing slopes to Tutshi Lake. Two glaciers occur within the BEN 3 and 4 claims on the easterly-facing slopes of the highest peak.

The central claims encompass a broad, till-covered plateau across which several small creeks descend from three small tarns to Tutshi Lake. Elevations range from 656 metres (2,153 feet) on Bennett Lake to 2,205 metres (7,235 feet) A.M.S.L. on a small peak within the BEN 3 mineral claim.

The climate is moderate with annual temperatures ranging from -40° C. in the winters to +25° C. in the summers. The annual precipitation averages 75 cm. with winter snowpacks in the alpine areas, above 1,200 metres A.M.S.L., ranging from 2 to 3 metres deep. The field season can extend from late June to late September; although, snow flurries can occur at higher elevations at anytime throughout the summer.

Most of the property is situated above treeline where the native vegetation is mainly alpine scrub spruce and balsam trees, grasses and mosses. Below 1,400 metres elevation, the slopes are covered with a thin to moderate growth of spruce, balsam and an undergrowth of willow, alder and brambles.

Bedrock exposures are widespread but often limited to steeper slopes and ridge lines. Aside from the till-covered central plateau, many of the gentler slopes are covered by glacial deposits, felsenmeer, and/or poorly-developed soil.

History

The Bennett Lake district was first explored by prospectors during construction of the White Pass and Yukon Railroad in 1878 (Schroeter, 1986). Later in the 1890's, prospectors travelled through and explored the district en route to the famous Klondike Gold Rush in Dawson City, Yukon or the placer gold deposits in Atlin, B.C.

Gold- and silver-bearing quartz veins were first discovered around Bennett and Tagish Lakes, and in the Wheaton River area of the Yukon. The Engineer Mine on Taku Arm of Tagish Lake produced 18,058 ounces of gold and 8,950 ounces of silver between 1913 and 1952 (Schroeter, 1986). The Venus and Big Thing mines on Montana mountain, just north of the British Columbia-Yukon border, both had intermittent gold and silver production during the early 1900's and later in the mid 1960's.

The SILVER QUEEN and RUBY SILVER claims were staked by Fred H. Storey in 1913 near Pavey, British Columbia, on the White Pass and Yukon railway. These two claims which reportedly covered high grade silver mineralization were situated within the present PAVEY 2 mineral claim. A 300-metre long adit was driven at an elevation of 1,400 metres elevation to intersect the mineralization and a 1.2-kilometre tramway was installed from the adit to the railway on Bennett Lake. This adit is presently open and accessible. No records of production exist for the operation and, from the appearance of the adit, the mineralization was not mined (Lueck, 1990).

Three shorter adits are situated in a steep gully 2.5 kilometres north of the Ruby Silver adit on the present PAVEY 3 claim. The history of these workings is unknown; although they appear to have been driven along mineralized quartz veins which commonly host visible gold (Lueck, 1990). No records of production exist for any of these workings.

From the mid 1920's to the late 1960's, there was little significant exploration activity; however, in the mid-1960's and early 1970's many of the old showings were restaked when rising base and precious metal prices renewed interest in the area. The Venus reopened and produced gold and silver between 1969 and 1971, and the nearby Arctic Gold and Silver mine had a short production history during this period. In 1980 and 1981, the Venus mine was rehabilitated and a new mill was installed at the southern end of Windy Arm on Tagish Lake, approximately 7.5 kilometres northeast of the subject property. The mine has since ceased production but the newly refitted mill is very conveniently situated as a custom milling facility should the subject property prove to be viable.

During the 1980's the discovery and development of the Mount Skukum gold deposit in the Wheaton River area, located 45 kilometres northwest of the subject property, initiated a staking rush that resulted in the exploration of much of the Wheaton River and Bennett Lake districts. Gold production at the Mount Skukum mine commenced in 1986 and ceased in 1989 following a review of mineable reserves and depressed gold prices.

During 1982 and 1983, DuPont of Canada explored the GAUG claims which covered the present PAVEY 1 to 4 mineral claims. Geological and geochemical surveys were conducted on portions of the upland plateau and the steep westerly trending gully where the three old adits are located. Fifteen of the thirty-three rock samples that were collected by DuPont field personnel contained gold values of 0.1 to 0.805 ounces per ton with silver values ranging up to 66 ounces per ton. DuPont also outlined high precious and base metal geochemical anomalies in the gully and on the surrounding upland plateau. Peak gold-in-soil and silver-in-soil values were 1,150 parts per billion and 46 parts per million, respectively. DuPont ceased exploration in the region after the 1983 season and the claims were allowed to lapse in 1986.

In 1983 Texaco Canada Ltd. staked the BEN 1 to 4 mineral claims following a limited prospecting and reconnaissance mapping program in 1982. Their 1983 exploration program included: prospecting, geologic mapping, geochemical sampling, geophysical surveying and trenching. This program resulted in the identification of seventeen occurrences with greater than or equal to 1000 parts per billion gold and 70 parts per million silver. Most of the gold and silver anomalous zones were found to be associated with structurally-controlled quartz veins that host up to 0.66 ounces per ton gold and 0.21 percent silver. Although most of these mineralized zones were less than one metre wide, it was reported that larger gold-silver deposits may exist within or adjacent to the BEN claims (Lhotka and Olson, 1983).

The PAVEY claims were staked by Messrs. G. Harris and G. Davidson in August and November, 1986, and the LQ claim was staked by Mr. Davidson in July, 1987 to cover the area previously held by the lapsed GAUG claims. Shortly after, Lodestar Explorations Inc. optioned this claim group and began prospecting, reconnaissance mapping, trenching and sampling. A small survey control grid was also established. Following this work, the Ben Fault and LQ vein zones were recommended for future trenching and diamond drilling.

Lodestar Explorations Inc. optioned the adjoining BEN claims in 1988, but no exploration was conducted that year. The next year the Company carried out road building, prospecting and geological mapping, and the WILLARD claim was staked to cover the access road route and area underlain by the Llewellyn Fault. During this time, Texaco Canada had allowed the original BEN 3 claim to lapse but it was restaked by B. Lueck with a subsequent Bill of Sale to Texaco Canada. The LILLIAN claim was staked this year to cover a large altered and mineralized zone near the surface trace of the Llewellyn fault.

GEOLOGICAL SETTING

The Bennett Lake and Tutshi Lake map-areas have been studied by several geologists, including: Christie (1957) who compiled the geology of the Bennett Lake map-area and then studied its plutonic rocks; Monger (1975) who studied the Upper Paleozoic rocks; Werner (1977 and 1978) who studied the metamorphic terrane; and Schroeter (1986) who more recently compiled and classified the various precious metal deposits.

The following discussion of the regional geology is based largely on the recent geological studies of M. Mihalynuk and J. Rouse (1988).

Regional Geology

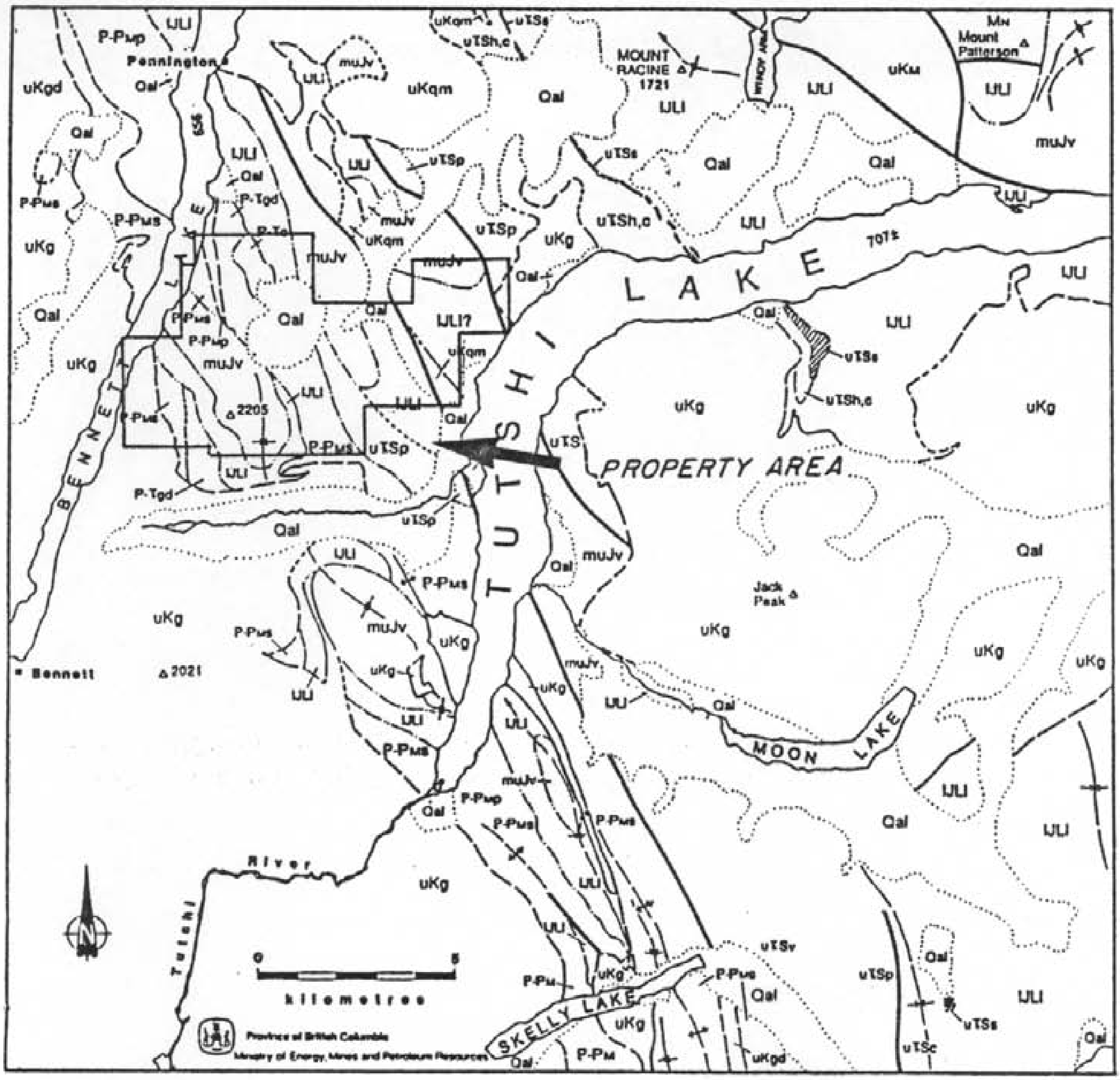
The property overlies the regional contact between two geologic terranes: Stikinia and Nisling. The Llewellyn fault zone, a major dextral transcurrent extension of the King Salmon fault, transects the northeastern mineral claims forming the western boundary of Stikinia terrane and the eastern boundary of the Nisling terrane (Schroeter, 1986).

The Nisling terrane is mainly comprised of pre-Permian metamorphic rocks, commonly termed the "Boundary Ranges metamorphics". This terrane marks the transition between the hornblende-biotite granitic and granodioritic intrusive rocks of the Cretaceous and earliest Tertiary-age Coast Crystalline Complex tectonic belt to the west and the upper Triassic Stuhini Group of the Intermontane tectonic belt to the east (Mihalynuk and Rouse, 1988).

Miogeosynclinal sedimentary rocks of the Lower Jurassic Inklin Formation, a subdivision of the Laberge Group, overlie the pre-Permian basement rocks with profound unconformity within the Nisling terrane. Together they have been extensively deformed sometime between middle and late Jurassic to late Cretaceous time (Mihalynuk and Rouse, 1988).

Beyond the property boundaries, strata of the allochthonous Mississippian Cache Creek Group have been juxtaposed with the Upper Cretaceous Montana Mountain volcanic complex by a possible northern extension of the Nahlin fault with considerable west-side-down motion (Mihalynuk and Rouse, 1988). The Montana Mountain suite of volcanic rocks postdate regional folding and the emplacement of the Coast Crystalline intrusions, but are crosscut by a late Cretaceous to Tertiary (64 Ma) quartz monzonite body.

See Figure 3 accompanying this report for the regional geologic setting of the property.



LEGEND
LAYERED ROCKS

QUATERNARY

Qal — *Alluvium – unconsolidated glacial till and alluvial sediments*

UPPER CRETACEOUS

uKu — *Montana Mountain Volcanics. Intermediate to felsic tuffs and flows*

MIDDLE TO UPPER JURASSIC VOLCANICS

muJv — *Volcanics of variable composition dominated by feldspar-phyric pyroclastics and lesser flows*

LOWER JURASSIC

LABERGE GROUP

INKLIN FORMATION

lJLi — *Siltstones arenaceous wackes, argillites and conglomerates; rarely fossiliferous*

UPPER TRIASSIC

STUHINI GROUP

uTS / uTSs — *Variegated feldspar-phyric tuffs and lesser flows (uTSv); green pyroxene porphyry tuffs and breccias (uTSp); conglomerates (uTSc); hornblende phyric lapilli ash tuffs and tuffites (uTSh); Norian carbonates displaying strong internal deformation, enclosed in conglomerates and argillites (uTSs)*

PALEOZOIC TO TRIASSIC

P-Tc — *Conglomerates (probably Triassic) contains clasts of P-Pus and P-Tgd*

PROTEROZOIC TO PALEOZOIC

"BOUNDARY RANGES METAMORPHICS"

P-Pu — *Dominantly siltstones, greywackes, minor carbonates and felsic tuffs metamorphosed to schists of upper greenschist grade (P-Pus); pyroxenites, gabbros and mafic flow successions, variably deformed (P-Pup)*

MISSISSIPPIAN CACHE CREEK GROUP

NAKINA FORMATION

MN — *Massive basic flows and tuffaceous sediments*

INTRUSIVES

UPPER CRETACEOUS

uK — *Granites (uKg) typically containing megacrystalline K-feldspars (2-4 centimetres and perthitic), biotite more common than hornblende; granodiorites (uKgd); and quartz monzonites (uKqm)*

PALEOZOIC TO TRIASSIC

P-Tgd — *Granodiorite (probably Triassic). Typically altered and/or slightly deformed, may be silicified; composition variable to leucogranite and quartz diorite*

To accompany a report by J.D. Blanchflower.

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

REGIONAL GEOLOGY MAP

PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104 M/15

DATE: October 1990	SCALE: 1:200,000
DWN. BY: D. Miller	DWG. NO.: 3

Property Geology

Since there has not yet been any detailed geological mapping over the entire claim holdings the following discussion of the property geology is based largely on the geological observations reported by Mihalynuk and Rouse (1988). See Figures 3 and 4 of this report for the geologic setting of the property.

1) Lithology

The oldest rocks within the property are Proterozoic to Paleozoic Boundary Ranges metamorphic rocks of the Nisling terrane. These strata underlie the central portion of the property as a northwesterly trending, gently plunging, tight to open folded synclinal sequence situated east of the Coast Crystalline Complex. The Boundary Ranges suite is comprised of: argillaceous siltstones, greywackes, lesser basalts, felsic pyroclastics and carbonates that have been variably metamorphosed to upper greenschist facies grade. These strata have also been intruded by pyroxenites, gabbros and mafic flows prior to final deformation. Porphyritic and foliated calc-alkaline intrusions cut the older Boundary Ranges metamorphic strata forming small stocks, two of which crop out within the property. These intrusives have been dated at 215 ± 5 Ma providing an Upper Triassic age limit for the metamorphic suite (Mihalynuk and Rouse, 1988).

The western portion of the property is underlain by volcaniclastic, epiclastic and sedimentary rocks of the Upper Triassic Stuhini Group, part of the Stikinia terrane. Mihalynuk and Rouse (1988) have recognized five distinct lithologies in the Tutshi Lake map-area; these are: variegated lapilli and ash tuffs with minor argillaceous wackes and limestones; cobble and boulder conglomerates; coarse pyroxene-porphyry pyroclastics; epiclastics overlain by hornblende-feldspar porphyry breccias and tuffs; and wackes, argillites and conglomerates enclosing continuous limestone intervals 20 to 150 metres thick. According to Mihalynuk and Rouse (1988), these lithologies are generally confined to the area east of the Llewellyn fault. However, since they occur in fault contact with the Boundary Ranges metamorphic rocks well within the property, west of the mapped trace of the Llewellyn fault, their deposition is inferred to have onlapped the Nisling terrane and been variably eroded prior to Laberge Group deposition.

According to Mihalynuk and Rouse (1988), the five distinct members of the Stuhini Group are described as follows:

a) **Variegated Tuffs and Sediments** (Map Unit 10 a) are comprised of red, brown and grey-green feldspar ± pyroxene-phyric lapilli tuffs, locally grading to immature sediments and thin (50 cm.), nonfossiliferous, marly limestone beds or pods (0.5 to 10 metres thick). The tuffs and lesser feldspar porphyry flows are pervasively chloritized and epidotized. These strata may be up to 2,500 metres thick or more.

b) **Green Pyroxene Porphyries** (Map Unit 10 b) are normally massive, coarse, monolithic lapilli tuffs and breccias containing roughly 20 per cent pyroxene and 40 per cent plagioclase. There are well-layered interbeds of maroon crystal and lithic ash tuffs (2 to 10+ metres thick) which may be have extensive alteration of pyroxene by actinolite, chlorite and epidote, and of plagioclase by white micas and prehnite.

c) **Conglomerates** (Map Unit 10 c) are widely distributed throughout the Stuhini Group stratigraphy. Clasts are variable in angularity and size, from mainly gravel to cobble. They are generally dominated by either pyroxene or hornblende porphyries, altered granodiorite to syenite, limestone, or lesser shale, volcanic rocks and metamorphic granules. These rocks are massive and thick bedded with coarse litharenite and wacke interbeds.

d) **Hornblende-Phyric Tuffs and Epiclastics** (Map Unit 10 d) occur in two localities beyond the property boundaries. This unit is characterized by grey-green to mauve and tan, dense, angular, hornblende-feldspar-phyric, fragmental volcanic rocks.

e) **Carbonate Unit** (Map Unit 10 e) probably represents patch-reef deposition, and is locally offset by small faults oriented nearly normal to its contacts. Its lower contact is locally gradational with argillites of decreasing carbonate content while its upper contact, and in places the lower one, is in abrupt contact with limestone-cobble conglomerates and greywackes.

The Boundary Ranges and the Stuhini Group strata are unconformably overlain by sedimentary rocks of the Lower Jurassic Laberge Group, Inklin Formation. This lithologic unit is comprised of: conglomerate, greywacke, diamictite, immature sandstone and siltstone and both noncalcareous and weakly calcareous argillite. The conglomerates and greywackes tend to form massive beds while the finer-grained sediments are normally thinly bedded and may be laminated (Mihalynuk and Rouse, 1988).

Middle to Upper Jurassic volcanic rocks overlie the Laberge Group within both the Nisling and Stikinia terranes. The volcanic rocks include intermediate to felsic volcaniclastics and intermediate to mafic flows. They are found coring synclines within the Nisling terrane and as isolated, often elongate, packages further to the east.

Intrusives of Cretaceous to earliest Tertiary age occur throughout the property, especially along its western boundary where the Nisling terrane is in contact with the Coast Crystalline Complex. Elsewhere there are apophyses and satellitic plutons of the main intrusive mass. Coarse-grained hornblende-biotite granite is predominant; however, compositions vary from granodiorite and quartz monzonite to alkali granite. Dykes are both temporarily and compositionally diverse. Variations to finer grain sizes are common and contacts are typically chilled for widths of over 30 centimetres to many metres, where they appear as quartz-eye porphyries (Mihalynuk and Rouse, 1988).

A suite of young porphyry intrusions, possibly related to the upper Cretaceous Montana Mountain Volcanics (Mount Nansen Group), form dykes, sills and stocks. These quartz-feldspar porphyries may have a genetic association to mineralization in the Tutshi Lake area (Schroeter, 1985).

2) **Structure**

The structural fabric of the property and the rest of the map-area is dominated by the Llewellyn fault and the major fold hinge surfaces that trend north-northwesterly at 340° (Mihalynuk and Rouse, 1988). This orientation also parallels the axis of the Whitehorse trough and bounding terranes.

According to Mihalynuk and Rouse (1988) the fold styles west of the Llewellyn fault, within the Nisling terrane, are dominantly isoclinal to open and upright horizontal. To the east, within the Stikinia terrane, the folds are horizontal to inclined-plunging, especially within the Laberge Group strata. In slight contrast the fold styles of the Boundary Ranges metamorphic rocks appear to be dominantly coplanar and tight to isoclinal, similar and upright with hingelines typically plunging less than 20 degrees both northerly and southerly. Multiple phases of veining, which are later crosscut, folded and rodded, point to a long and continuous deformational process.

The Llewellyn fault zone is singularly the most dominant structural feature of the property and the region. It is a major dextral transcurrent fault zone which marks the eastern limit of the Boundary Ranges metamorphic rocks and a westward facies change to much thinner Laberge Group strata. It has a west-side-up motion at its southern end southeast of the property, and a contrasting east-side-up motion displacement at its northern end within and north of the property (Mihalynuk and Rouse, 1988).

Several subsidiary or parasitic faults subparallel the Llewellyn fault well within the property as an en echelon zone of displacement juxtaposing both Stuhini Group and Laberge Group strata against Boundary Ranges metamorphic rocks. Along these faults the strata have been sheared, aligned, clay altered, and locally silicified and mineralized.

Past explorationists have recognized two major north-northwesterly trending fault zones within the BEN 1 and 2 mineral claims. They called the western most structure, the "Ben" fault, and the eastern structure the "Paddy" fault (Lhotka and Olson, 1983). According to Lhotka and Olson (1983) and Lueck (1990), the Ben fault separates the folded and sheared Boundary Ranges metamorphic rocks on the east from the sheared and tilted sediments and volcaniclastic rocks of the Stuhini Group on the west along the low ridge western portion of the BEN 2 claim. The Paddy fault separates the Boundary Ranges metamorphic rocks on the west from green pyroxene porphyritic volcaniclastic rocks of the Stuhini Group on the east along the steep ridge in the eastern portions of the BEN 1 and 2 claims.

Recent trenching work has exposed the geology along and adjacent to the surface trace of the Ben fault zone. It now appears from the geological results that this structure is probably not responsible for the disconformity between the older metamorphic and younger volcaniclastic rocks but that there is coincident shearing, parallel to the regional fold axes and Llewellyn fault structure, superimposed on the stratigraphic angular unconformity that exists between these two lithologic units. Furthermore, it is the opinion of the writer, that the Paddy fault zone is probably a similar case.

3) Alteration

All of the Mesozoic and pre-Permian strata have been regionally altered to, at least, lower greenschist facies grade and most of the country rocks, especially the Boundary Ranges metamorphic rocks, exhibit upper greenschist facies alteration. Chloritization and patchy epidotization is pervasive throughout the geologic section. Argillic alteration, secondary biotitization and silicification, commonly with attendant sulphide mineralization, are usually restricted to or in close proximity to the numerous sheared and fractured zones.

The 1990 prospecting work discovered a large north-northwesterly trending zone of intense chlorite-actinolite ± hornfels alteration parallel to, but generally east of, the surface trace of the "Paddy" fault contact between the Boundary Ranges metamorphic rocks and the green pyroxene porphyritic volcaniclastic and flow rocks of the Stuhini Group. This zone has been traced from the Skarn gold-silver-copper showing south-southeastward along the ridge in the eastern portions of the BEN 1 and 2 mineral claims (see Figure 5). According to Mr. B. Lueck (1990), the chlorite-actinolite±hornfels alteration occurs within both lithologic units but it is more pervasive and evident within the Stuhini Group volcaniclastic rocks. It is within this zone that fracture-controlled quartz-calcite veinlets occur with notable visible gold mineralization.

4) Mineralization

Regional metallogenic studies by both Mihalynuk and Rouse (1988) and Schroeter (1985) indicate that the known precious and base metal occurrences of the Tutshi Lake map-area are hosted, almost exclusively, by the Boundary Ranges metamorphic rocks of the Nisling terrane and the volcaniclastic units of the Stuhini Group along the extreme western limits of the Stikinia terrane. Past exploration of this region has focused on two major types of mineralization, including: stibnite and/or pyrite, galena, sphalerite and arsenopyrite-bearing veins within dilatant zones with or without concomitant shearing in metamorphic rocks, and sheared quartz-carbonate altered zones with attendant galena and sphalerite within Triassic-age mafic-rich volcaniclastic rocks (Mihalynuk and Rouse, 1988).

Schroeter (1985) notes that several mineral prospects, including the Engineer Mine, occur along or are associated with subsidiary fault splays of the Llewellyn fault system. The subject property, located 60 kilometres northwest of the Engineer Mine, occurs along this same structural trend as do the intervening Moon Lake and Happy Sullivan showings; located 15 and 59 kilometres south-southeast of the property, respectively. Furthermore, Mihalynuk and Rouse (1988) indicate the structural setting of the Tutshi Lake map-area is similar to that occurring near the past-producing Polaris Taku mine to the southeast. They consider the structural metallogenic environment of the Llewellyn fault zone to be a very attractive exploration target, particularly where it cuts Stuhini Group volcanic rocks that appear to have anomalous gold values with respect to the other units in the region.

According to Lueck (1989 and 1990) past exploration work has identified four types of precious and base metal-bearing mineralization on the property. In order of their significance, they are:

a) **Quartz - arsenopyrite ± pyrite, sphalerite and galena veins** are commonly hosted by dilatant shear or fault zones cutting sedimentary, volcanic and intrusive rocks. These vein structures vary in thickness from a few centimetres to 2 or 3 metres, but they generally average 0.5 to 0.7 metres.

The "LQ" quartz-arsenopyrite-galena vein that is exposed along the banks of Ben Creek is a good example of this type. At the LQ showing the vein strikes 033°, dips -57° southeastward, and is 70 centimetres wide. Previous chip and grab sampling results from this vein returned values of 0.084 and 0.114 ounces per ton gold and 10.44 and 10.55 ounces per ton silver, respectively (Lueck, 1989). This vein was trenched this year but the trenches flooded before mapping or sampling could be carried out (see Figures 5 and 9).

There are also a number of other similar vein structures within the BEN 3 and 4, and PAVEY 1, 2 and 3 mineral claims that host low to quite significant gold and silver values genetically associated with sulphide mineralization. These were the veins that attracted most of the earliest exploration attention since they were exposed in the westerly-facing cliffs above the White Pass and Yukon railway. See Lueck (1989) for detailed descriptions and analyses of the various veins.

b) **Quartz - stibnite - arsenopyrite ± galena, sphalerite and chalcopyrite veins** are commonly hosted by dilatant shear or fault zones cutting metamorphic and intrusive rocks within the PAVEY 3 and 4 mineral claims. These veins commonly trend north-northwesterly, dip steeply westward, and vary from a few centimetres to 1 metre wide.

The quartz-stibnite-arsenopyrite veins of the Stibnite Zone within the BEN 1 and PAVEY 4 mineral claims are examples of this type of mineralization. Within this zone fracture-controlled quartz veins host disseminated or lenses of semi-massive and massive, fine-grained to coarse-bladed stibnite and fine-grained arsenopyrite. See Trenching results and Figures 8, and 12 to 17 of this report for detailed geological and geochemical results.

c) **Chalcopyrite and magnetite veins in shear zones** occur on the west-facing cliffs in the PAVEY 3 mineral claim. According to Neelands and Holmgren (1982), disseminated and massive chalcopyrite and magnetite occur as a 30-centimetre band within a 4 metre wide sheared and altered section of granodiorite, for a surface strike length of 10 metres. This zone reportedly strikes east-southeastward with a moderate northeasterly dip. An adit has been driven easterly on the shear/vein structure for 7 metres. Grab samples from the copper mineralized shear structure at the adit returned 3.3 to 9.5 per cent copper (Lueck, 1989). Furthermore a grab sample of a sheared outcrop of malachite-stained granodiorite, 450 metres west of the adit, returned 0.5 per cent copper. According to Lueck (1989 and 1990) this evidence suggests that fracture-controlled and porphyry-style copper mineralization may be spatially- and genetically-related to the Coast Crystalline Complex granodiorites that have intruded the Boundary Ranges metamorphic rocks within the westernmost mineral claims.

d) **Boulders of massive pyrrhotite and pyrrhotite-chalcopyrite bearing amphibole skarn** were discovered within the BEN 1 and PAVEY 2 mineral claims during the exploration work reported by Lhotka and Olson (1983). The analytical results from several of these float samples returned gold values 1 to 9.91 ppm gold.

It appears that the discovery this year of the Skarn Zone has probably solved the question of the source location of some of the gold-bearing actinolite skarn boulders. At the Skarn Zone, disseminated pyrrhotite, chalcopyrite and pyrite mineralization occur within chlorite-actinolite altered volcaniclastics of the Stuhini Group. Quartz-calcite veins cut the metasomatized and mineralized volcaniclastic rocks and host notable visible gold.

1990 EXPLORATION PROGRAM

The purpose of the 1990 exploration program was to carry out the recommendations in the report by Mr. J. Wallis (1989). Mr. Wallis recommended: the establishment of a survey control grid; detailed geological, geochemical and geophysical surveying over the known mineral showings; basal till sampling; excavator trenching; and later diamond drilling. The estimated cost of this recommended program was $175,000.00.

On July 11th, the 1990 exploration program commenced under the supervision of Mr. Brian Lueck, a geologist and director of Lodestar Explorations Inc. During July, the Plateau, Stibnite and LQ mineralized zones were prospected initially while the main road was being restored from the Klondike Highway. During this period, Mr. Lueck discovered visible gold mineralization at two new localities, called the "Cowboy" and "Skarn" Zones. These new discoveries were subsequently prospected and lithogeochemical samples were collected from each new showing. As a result of these discoveries, Mr. Lueck directed the excavator and bulldozer to construct access roads to both the known and new mineral showings, and the excavator proceeded to trench each of the showings once the access roads were passable. This work extended into the latter half of August when it was decided by the Company to proceed to drill testing of the Skarn and Cowboy Zones. Thus, one drill pad was constructed at the Skarn Zone from which to initiate the forthcoming diamond drilling work.

Mr. Brian Lueck employed his wife, Tricia Lueck, as a geological assistant and cook for the field camp during the initial phase of the exploration program. A Hitachi UH-172 tracked excavator was contracted from I-Can-Dig-It Ltd. of Whitehorse, Yukon to restore sections of the access road, help the bulldozers construct sections of the access road to the various work sites, and excavate 55 trenches at all five mineralized zones. In addition, two different Caterpillar D-7 bulldozers were contracted at various times to restore and construct the access roads, build rough access trails for trenching, and construct the access road and site for diamond drill holes 90-01 to 07. The bulldozers were contracted from Gonder & Sons Ltd. and H. Coyne & Sons Ltd., both of Whitehorse, Yukon. During his reconnaissance prospecting work, Mr. Lueck collected 55 lithogeochemical samples from various sites on the property. These samples were submitted to Northern Analytical Laboratories Ltd. in Whitehorse, Yukon for metallics gold assays, and silver and copper analyses and assays.

On August 28th, Minorex Consulting Ltd. was retained by Lodestar Explorations Inc. to manage and supervise the remainder of the exploration program, and to document the results of the entire program. At that time, there was more excavator trenching planned for the Cowboy Zone and a proposed 3,000 feet of NQ-size diamond drilling planned for both the Skarn and Cowboy Zones.

Minorex Consulting Ltd. employed Mr. J. Douglas Blanchflower, an experienced and qualified consulting geologist, to manage and supervise all aspects of the exploration program. Mr. Brian Lueck was contracted by Minorex Consulting Ltd. from August 28th to September 23rd to supervise the diamond drilling program, geologically log the drill core, and select the core samples for analysis and/or assaying. Mr. Steven F. Coombes, an experienced and qualified consulting geologist, was employed by Minorex Consulting Ltd. from August 30th to October 31st to survey, geologically map and chip sample all of the excavator trenches, supervise the trench reclamation work, and document the trenching work and results for this report.

In addition to the supervisory personnel, Messrs. Doug Middleton and Jim Salt were employed by Minorex Consulting Ltd. to assist both Messrs. B. Lueck and S. Coombes with their field duties. Mr. Middleton was employed from August 29th to September 24th to process the drill core, split the drill core samples, and assist Mr. Coombes with the trench reclamation and drill site surveying. Mr. Salt was employed from August 29th to September 13th to assist Mr. Coombes with the trench surveying, mapping and sampling.

The excavator trenching was carried out during the second phase of field work with the same Hitachi UH-172 tracked excavator and the same contractor, I-Can-Dig-It Ltd. of Whitehorse, Yukon. The NQ-core diamond drilling work was conducted with a Longyear Super 38 slid-mounted drill rig owned by Kluane Drilling Ltd. of Whitehorse, Yukon. In addition to the drilling contract, Kluane Drilling Ltd. provided the field camp, food and cook for the field personnel on a per diem basis. The road maintenance and drill rig support was provided by a Caterpillar D-7 bulldozer which was contracted from Oro Quest Inc. of Whitehorse, Yukon.

All of the trench lithogeochemical and drill core samples were shipped to the Eco-Tech Laboratories Ltd. assaying facilities in Kamloops, B.C. for initial 30-element I.C.P. and gold (F.A./A.A.) analyses and later check assaying.

The field work was terminated on September 27th due to early snow flurries and heavy rains that made the access and work site roads impassable. The decision to terminate the program followed the completion of diamond drill hole 90-11 within the Cowboy Zone, and the reclamation of several excavator trenches.

After all of the drilling and field personnel had demobilized an electrodistamat (EDM) survey of all roads, trenches and drill sites was conducted Mr. Roy Slade of Yukon Engineering Services in Whitehorse, Yukon. This work was supervised by Mr. S. Coombes.

The 1990 field exploration program included: prospecting (1:10,000 scale); lithogeochemical sampling (55 samples for gold assays, and silver and copper analyses); road restoration (4.75 km. from the Klondike Highway to the 1989 field camp) and road building (8.80 km. from the 1989 field camp to the various work sites); mechanical trenching (55 trenches totalling 2,463.7 m., geological mapping at a scale of 1:250, and collection of 122 lithogeochemical samples); NQ-core diamond drilling (11 holes totalling 694.18 m.(2,277.5 feet), geologic logging and the collection of 352 core samples); and assaying and analyses (474 samples for 30-element I.C.P. and gold (FA/AA), and 88 check assays including 15 metallics assays).

During the field and reporting periods, Minorex Consulting Ltd. employed Ms. Carol I. Ditson to collate and compile the analytical and assaying results with the geologic drill hole cross-sectional data, and plot the geological and analytical results.

Upon receipt of all field and analytical results, this report was prepared by the writers to document the exploration program with a Statement of Costs reporting the assessment credit expenses that were incurred from July 11th to November 2nd, 1990, and recommendations for further exploration on the property.

A detailed description of each phase of the exploration program follows.

Prospecting and Lithogeochemical Sampling

The prospecting work was carried out by Mr. Brian Lueck while he supervised the road construction and excavator trenching. During the period from July 11th to August 21st, he prospected and sampled the gold-bearing mineralization near and within the known Plateau, Stibnite and LQ Zones. He also discovered the visible gold mineralization at the Skarn Zone and gold- and silver-bearing sulphide mineralization at the Cowboy Zone.

The prospecting sample sites and gold analytical and/or assay results have been plotted on Figures 18, 19 and 28 of this report. The Assay Certificates for the gold, silver and copper analyses, and the analytical procedures utilized by Northern Analytical Laboratories Ltd. accompany this report as Appendix IV and V, respectively.

Surveying

Since no survey control grid has been established it was decided that upon completion of the program all of the physical work sites would be surveyed by an experienced and qualified consulting surveyor. Yukon Engineering Services, a consulting surveying firm in Whitehorse, Yukon, was contracted to survey all of the trenches and drill sites, and plot them relative to identifiable topographic features and established legal control points.

Prior to the professional surveying work, Mr. S. Coombes had established several survey control points throughout the property from which he surveyed, mapped and sampled the 55 excavator trenches at the five mineral zones. In addition, he had established chain and compass reference lines through the Stibnite, Cowboy and Skarn Zones from which he had surveyed the various trenches. He also flagged and marked any claim identification or legal corner posts while carrying out his field duties. These various survey control points were picketed, flagged and painted during the course of his work for later field identification and legal surveying.

On September 26th Mr. Roy Slade, a professional surveyor with Yukon Engineering Services, and his assistant travelled to the property accompanied by Mr. S. Coombes. By this time many of the work site roads were impassable to conventional four-wheel drive traffic so a four-wheel drive motorcycle was utilized to move the surveyor, his assistant and surveying equipment to and from the various surveying control points. An electrodistamat (E.D.M.) laser-based surveying instrument was utilized for the surveying work to provide accurate departure and elevation readings over relatively long distances.

All of the survey control points with U.T.M. coordinates and elevations (metres A.M.S.L.) were referenced to Geodetic Survey Canada monument "Weasel", which is located at U.T.M. coordinates 6643704.114 North by 506032.651 East at an established elevation of 1,455.115 metres A.M.S.L. This monument is established within the northeastern quadrant of the PAVEY 3 mineral claim.

All of the surveyed control points are plotted on Figure 6 of this report, and the tabulated U.T.M. coordinates and elevations for each of the control points accompany this report as Appendix VII.

Trenching

The mechanical trenching work was carried out from July 11th to September 5th, 1990; under the supervision of Mr. B. Lueck. Lodestar Explorations Inc. contracted a Hitachi UH-172 track excavator from I-Can-Dig-It Ltd. of Whitehorse, Yukon initially to restore and construct access roads in poorly-drained areas and sections of the existing or proposed roads with large boulder till cover. It was later utilized to dig all of the trenches and, in some cases, backfill several of these trenches in partial fulfilment of the reclamation requirements. In addition, three different Caterpillar D-7 bulldozers were utilized to build rough access roads to the various trench sites from which the excavator carried out its work. These bulldozers were contracted from Gonder & Sons Ltd., H. Coyne & Sons Ltd. and Oro Quest Inc., all of Whitehorse, Yukon.

All of the excavator trenches exposed bedrock, except in areas of deep overburden (i.e. Plateau and upper Stibnite Zones) and permafrost (parts of Cowboy Zone). A total length of 2,463.7 metres of trenching was carried out at 55 trench sites with an average width of 1.6 metres and to depths of up to 5 metres. Five mineralized zones were trenched during the program including: the Cowboy, Stibnite, LQ, Skarn and Plateau Zones. Figure 5 of this report shows the locations of the mineralized zones. In addition, Table II of this report documents the length of each trench.

Geological mapping and lithogeochemical sampling were carried out by Mr. S. Coombes and his assistant, Mr. J. Salt. This work began on September 1, 1990 and continued intermittently until the completion of the field program on September 26, 1990. Geological mapping was inhibited by frequent and extensive caving of various trench walls, and the flooding of those trenches that were excavated near Ben Creek and a small tarn in the Stibnite Zone. Figures 7 to 20 show the detailed geological mapping and lithogeochemical sampling results.

A total of 122 chip samples were collected from the excavator trenches in the Cowboy (32 samples) and Stibnite Zones (90 samples), and shipped to Eco-Tech Laboratories Ltd. in Kamloops, British Columbia for analysis and/or assaying.

Each of the samples was initially dried, crushed, riffled to pulp size and pulverized to approximately -140 mesh at the Eco-Tech Laboratories Ltd. assaying facilities under the supervision of a professional assayer. From each pulverized sample, 10 grams of pulp was selected for roasting at 600° C. and then the resultant bead was digested with hot aqua regia. The gold content of the bead was extracted by MIBK and determined by atomic absorption methods. The gold content of each sample was then calculated from the atomic absorption results.

While the gold analyses were being conducted a 10-gram sample of each pulp was selected and analyzed for: silver, aluminum, arsenic, boron, barium, bismuth, calcium, cadmium, cobalt, chromium, copper, iron, potassium, lanthanum, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, antimony, tin, strontium, thallium, uranium, vanadium, tungsten, yttrium and zinc; using induced coupled plasma (I.C.P.) procedures.

Any of the initial analytical results exceeding: 1,000 ppb gold, 20 ppm silver, and/or 4,000 ppm copper, lead, zinc, arsenic, or antimony was check-assayed using conventional fire assay techniques. In addition, any sample suspected of containing visible gold was treated with special gold metallics assay procedures which are described in Appendix III of this report.

TABLE II

Summary of Excavator Trenching Data

Cowboy Zone

Trench No.	Length (m)
Tr-C-01	133.8
Tr-C-02	105.6
Tr-C-02 a	40.2
Tr-C-03	113.5
Tr-C-04	151.4
Tr-C-05	44.1
Tr-C-06	73.2
Tr-C-07	237.4
Tr-C-08	234.9
Tr-C-09	30.8
Tr-C-10	46.5
Tr-C-11	71.0
Tr-C-12	7.5
Tr-C-13	7.0
Subtotal	1,296.9

LQ Zone

Tr-L-01	21.4
Tr-L-02	17.3
Tr-L-03	11.3
Tr-L-04	13.2
Subtotal	63.2

Plateau Zone

Tr-P-01	27.2
Tr-P-02	18.4
Tr-P-03	30.0
Subtotal	75.6

Skarn Zone

Tr-SK-01	15.9
Tr-SK-02	17.0
Tr-SK-03	15.0
Subtotal	47.9

Stibnite Zone

Trench No.	Length (m)
Tr-S-01	8.8
Tr-S-02	44.1
Tr-S-03	37.5
Tr-S-04	41.4
Tr-S-05	25.0
Tr-S-06	22.8
Tr-S-07	39.8
Tr-S-08	41.2
Tr-S-09	42.2
Tr-S-10	31.8
Tr-S-11	28.7
Tr-S-12	71.2
Tr-S-13	21.2
Tr-S-14	50.0
Tr-S-15	88.0
Tr-S-16	53.3
Tr-S-17	28.0
Tr-S-18	32.5
Tr-S-19	20.5
Tr-S-20	31.8
Tr-S-21	44.0
Tr-S-22	13.1
Tr-S-23	40.7
Tr-S-24	7.0
Tr-S-25	22.5
Tr-S-26	12.0
Tr-S-27	10.5
Tr-S-28	12.0
Tr-S-29	27.5
Tr-S-30	7.5
Tr-S-31	13.5
Tr-S-32	10.0
Subtotal	980.1

TOTAL TRENCHING 2,463.7 metres

Eighteen lithogeochemical samples were check-assayed for anomalous gold, silver or base metal values, and one sample was assayed using gold metallics procedures.

The lithogeochemical samples are documented in Appendix I; as described by either Mr. B. Lueck or S. Coombes. Furthermore, the Certificates of Analysis for these samples and the assay and analytical procedures utilized by Eco-Tech Laboratories Ltd. accompany this report as Appendices II and III, respectively.

Diamond Drilling

Kluane Drilling Ltd. of Whitehorse, Yukon was contracted by Lodestar Explorations Inc. to carry out NQ-core diamond drilling using a skid-mounted Longyear Super 38 drill rig. The drilling company also provided the field camp, food and cook for the field personnel on a per diem basis. Lodestar Explorations Inc. also contracted Oro Quest Inc. of Whitehorse, Yukon to provide a Caterpillar D-7 bulldozer for road maintenance, drill site preparation and drill rig support.

Eleven diamond drill holes from 4 drill sites were completed from August 29th to September 24th; totalling 694.18 metres (2,277.5 feet). It took the drilling contractor 3 days to mobilize and set up the drilling camp, 21 days to drill 11 holes from 4 drill sites, and a minimum of 4 days to demobilize from the property. The average drilling rate (two 12-hour shifts per day) for the drilling period was an unproductive 33.5 metres (109.9 feet) per day.

The core from DDH 90-01 was jointly logged by Messrs. J.D. Blanchflower and B. Lueck. Mr. B. Lueck logged the cores from DDH 90-02 to 90-08, and Messrs. B. Lueck and S. Coombes logged the core from DDH 90-09. The cores from DDH 90-10 and 90-11 were logged by Mr. J.D. Blanchflower. The split core for DDH 90-01 to 90-08 are stored at Mr. B. Lueck's residence and the split cores for DDH 90-09 to 90-11 are properly stacked on site. The geologic logs, sampling intervals and analytical results accompany this report as Appendix VI.

All of the drill core was split in half using a Longyear core splitter and samples were collected at intervals not exceeding 2 metres. A total of 352 core samples were split, bagged and shipped to Eco-Tech Laboratories Ltd. in Kamloops, British Columbia for analysis and/or assaying.

The samples were initially dried, crushed, riffled to pulp size and pulverized to approximately -140 mesh under the supervision of a professional assayer. From each of the pulverized samples, a 10 gram sample pulp was selected for roasting at 600° C. and then the resultant bead was digested with hot aqua regia. The gold content of the bead was extracted by MIBK and determined by atomic absorption methods. The gold content of the sample was then calculated from the atomic absorption results.

While the gold analyses were being conducted a 10-gram sample of each sample pulp was selected and analyzed for: silver, aluminum, arsenic, boron, barium, bismuth, calcium, cadmium, cobalt, chromium, copper, iron, potassium, lanthanum, magnesium, manganese, molybdenum, sodium, nickel, phosphorus, lead, antimony, tin, strontium, thallium, uranium, vanadium, tungsten, yttrium and zinc; using standard induced coupled plasma (I.C.P.) procedures which are described in Appendix III of this report.

Any of the initial analytical results exceeding: 1,000 ppb gold, 20 ppm silver, and/or 4,000 ppm copper, lead, zinc, arsenic, or antimony were check-assayed using conventional fire assay techniques. In addition, any sample suspected of containing visible gold was treated with special gold metallics assay procedures which are described in Appendix III of this report. Seventy drill core samples were check-assayed for anomalous gold, silver and/or base metal values, and fourteen drill core samples were assayed using gold metallics procedures. The Certificates of Analysis for these samples and the assay and analytical procedures utilized by Eco-Tech Laboratories Ltd. accompany this report as Appendices II and III, respectively.

TABLE III

Summary of Diamond Drill Hole Data

1) Skarn Zone

Drill Hole	Northing (UTM)	Easting (UTM)	Elevation (m.)	Azimuth	Dip	Length (m.)
90-01	6641845.970	508257.935	1,522.024	300°	-45°	66.14
90-02	6641845.663	508258.315	1,521.995	300°	-60°	49.38
90-03	6641845.211	508258.873	1,522.003		-90°	31.09
90-04	6641843.813	508257.329	1,522.089	247°	-45°	59.13
90-05	6641843.959	508257.838	1,521.991	247°	-60°	45.72
90-06	6641844.096	508260.201	1,521.861	165°	-45°	49.07
90-07	6641844.647	508260.077	1,521.806	165°	-60°	52.43
90-08	6641835.168	508300.882	1,512.039	300°	-45°	67.36

2) Cowboy Zone

Drill Hole	Northing (UTM)	Easting (UTM)	Elevation (m.)	Azimuth	Dip	Length (m.)
90-09	6641140.664	507404.220	1,567.925	078°	-45°	93.42
90-10	6641132.911	507404.356	1,568.306	020°	-52°	73.46
90-11	6640959.691	507135.055	1,685.383	140°	-45°	106.98

Total Diamond Drilling <u>694.18 metres (2,277.5 feet)</u>

DISCUSSION OF RESULTS

The results of the exploration program are very interesting and they greatly enhance the exploration potential of this property; particularly those from the recently-discovered Skarn Zone.

The original intent of the 1990 exploration program was to evaluate the three or four zones of the gold- and/or silver-bearing sulphide mineralization. However, during the program Mr. Brian Lueck discovered both the Skarn and Cowboy gold-silver showings while prospecting the strike extensions of known geological and structural features. Based upon the anomalously high gold and silver values that were returned from the preliminary sampling much of the later work this season was concentrated on the two new discoveries.

It should be noted that this property had thirteen recorded mineral occurrences prior to this year and it has been the subject of relatively thorough exploration by two major mining companies since the early 1980's; yet Mr. Lueck discovered visible gold mineralization on surface at two locations well within the previously explored area. This certainly indicates the need for a thorough geological examination of the entire property; in addition to a detailed evaluation of the recent discoveries.

Prospecting and Lithogeochemical Sampling

Most of the prospecting and surface lithogeochemical sampling results for the Skarn and Cowboy Zones have been superseded by later detailed trenching, geological mapping, chip sampling and diamond drilling results. Nevertheless, there are several aspects of this early work that are noteworthy.

After Mr. Lueck prospected and sampled the known mineralization north of Ben Creek, he supervised the excavation of 3 trenches on the Plateau Zone, 32 trenches on the Stibnite Zone, and 4 trenches on the LQ Zone. These trenches were later surveyed, mapped and sampled in detail by Mr. Steven Coombes and his assistant, Mr. Jim Salt (see Figures 8, 9 and 10).

During the course of his work, Mr. Lueck discovered visible gold mineralization hosted by several quartz-calcite stringer vein structures within a slightly gossaneous 100- by 50-metre area along the northern extension of the inferred Paddy fault (?) structure. He called this zone, the "Skarn" Zone. This discovery led to the recognition of pervasively disseminated pyrrhotite, chalcopyrite and minor pyrite mineralization, and fracture-controlled gold mineralization, within the green pyroxene porphyry volcaniclastic unit of the Upper Triassic Stuhini Group. These rocks were found to be metasomatized and altered to chlorite, actinolite, and lesser epidote, secondary biotite, quartz and carbonate in close proximity to a small exposure of a very shallow-dipping hornblende-feldspar±biotite porphyry sill. Mr. Lueck traced the chlorite-actinolite alteration on both sides of the inferred Paddy fault structure for over 700 metres to the south-southeast (see Figure 28).

The sites from which Mr. Lueck collected grab and chip samples during the prospecting and early trenching of the Skarn Zone are plotted on Figure 18, and the sample sites and gold analyses for those samples collected along the northern end of the Paddy fault are shown on Figure 28 of this report. The Certificates of Assay for the gold, silver and copper analytical results accompany this report as Appendix IV.

Shortly after discovering the Skarn Zone Mr. Lueck began prospecting south-southeastward from the Stibnite Zone to search for similar gold-bearing sulphide mineralization along the mapped strike extensions of the inferred Ben fault structure. Approximately 400 metres south-southeast of Ben Creek, he discovered float of highly altered, silicified and limonitic Boundary Ranges metamorphic rocks hosting fracture-controlled arsenopyrite, stibnite and pyrite mineralization in an area of no bedrock exposure. He then collected several composite panel samples of similar altered, silicified and mineralized material to determine the precious and base metal contents of the felsenmeer at various localities. He called this showing the "Cowboy" Zone.

Upon receiving very anomalous gold values from the composite samples of the Cowboy Zone, Mr. Lueck directed the excavator to trench the zone after tracing the surface distribution of the mineralized float samples. It was at this time that Minorex Consulting Ltd. was contracted to supervise the trenching work. After evaluating the prospecting and geochemical results it was decided to complete the proposed trenching and diamond drill the exposed sulphide-bearing vein structures.

The sample sites for all of the prospecting work are shown on Figure 28 and those at the Cowboy Zone are shown in detail on Figures 7, 11, 19 and 20 of this report. The Certificates of Assay for the gold, silver and copper analytical results accompany this report as Appendix IV.

Trenching

A detailed description of the excavator trenching, geological mapping and lithogeochemical sampling results for each of the five mineralized zones follows.

1) Cowboy Zone

Thirteen trenches were excavated, each ranging from 7.0 to 237.4 metres long. These trenches were located to expose the bedrock source of the altered, silicified and mineralized felsenmeer material with highly anomalous gold and silver values (see Figures 7, 11, 19 and 20).

The excavator trenches exposed several narrow sulphide-bearing quartz-carbonate vein structures hosting geochemically-anomalous to low grade gold values. Thirty-two chip samples were collected from this zone of which six samples returned gold values exceeding 1,000 ppb, silver values exceeding 20 ppm, or base metals exceeding 4,000 ppm. These six samples are: No. 99004 - 1.48 g/T over 1.0 metre, No. 99008 - 2.26 g/T over 1.0 metre, No. 99012 - 1.23 g/T over 1.0 metre, No. 99015 - 2.29 g/T over 1.0 metre, No. 99021 - 1.01 g/T over 1.5 metres and No. 99025 - 6.42 g/T over 0.5 metre. These results have also been tabulated in Table IV of this report.

The sulphide vein mineralogy of the anomalous samples includes: stibnite, arsenopyrite, galena, and/or pyrite that were commonly hosted within a quartz-carbonate gangue. The vein widths generally range from less than 1 to 10 centimetres, and the vein structures are dominantly controlled by local fracturing, shearing or faulting.

Most of the bedrock in the trenches is quartz-chlorite-actinolite schist (Unit 8 a_1) with lesser actinolite-chlorite schist (Unit 8 a_2) and meta-wackes

(Unit 8 a_3). The foliation attitudes commonly strike north-south and dip moderately to steeply westward. In some places the actinolite has been mobilized, usually with quartz, to form small stringer zones (i.e. trench Tr-C-11). The western part of the Cowboy Zone is underlain by black argillite of the Laberge Group, Inklin Formation (Unit 11 b). The geological contact between these two major rock units is now thought to be an unconformity rather than a fault. Nevertheless, the contact is extremely sheared but no distinct fault surfaces were observed in the field.

Several shear zones cut this zone, characterized by intense limonitic and hematitic alteration and clay development. These shear zones usually trend approximately 060° with steep to vertical dips, but they also trend approximately north-south with variable dips, usually westward.

2) **Stibnite Zone**

Thirty-two trenches were excavated, each ranging from 7.0 to 71.20 metres (see Figures 8, and 12 to 17 inclusive). Six of these trenches failed to reach bedrock because of deep glacial till overburden (i.e. greater than 6 metres deep). The trenches were located to test the contact zone between the argillaceous rocks of the Laberge Group, Inklin Formation (Unit 11 b) to the west and the schistose rocks of the Boundary Ranges metamorphic unit (Unit 8 a) to the east. Earlier work by Texaco Canada had located anomalous gold values hosted by arsenopyrite-galena-stibnite vein structures along this contact (Lhotka and Olson, 1983).

The trenching revealed several intensely limonitic and hematitic zones spatially-related to local shearing within both lithologic units. Ninety chip samples were collected from apparently mineralized structures; three of which returned gold values exceeding 1,000 ppb. These are: No. 99109 - 1.47 g/T over 2.0 metres; No. 99115 - 3.02 g/T over 1.0 metre; and No. 99126 - 2.78 g/T over 1.0 metre (see Table IV). The anomalous samples were all collected from arsenopyrite-stibnite-galena veins that range in widths from 1.5 to 10 centimetres. According to Mr. B. Lueck (1990), Ben Creek is reportedly underlain by a zone of intense clay alteration (fault gouge ?) in the area of trench Tr-S-21; however, this alteration zone was not seen while mapping because the trench had flooded.

A relatively-wide and continuous dyke of medium-grained quartz monzonite (Unit 5 b?) occurs dominantly within argillaceous rocks of the Laberge Group in the northern portion of the Stibnite Zone. It is pervasively limonitic and hematitic, and locally sheared. Where the dyke has intruded the Boundary Ranges schistose rocks it tends to be less altered; although, the gossanous alteration increases in intensity towards its contact with the argillaceous rocks. The argillite-schist geologic contact is unconformable and highly sheared but, as at the Cowboy Zone, no distinct fault was observed.

After the geological mapping and lithogeochemical sampling several of the excavator trenches were backfilled and landscaped.

TABLE IV

Anomalous Trench Sample Assay Results

1) Cowboy Zone

Sample No.	Length (m)	Au (g/t)	Met	Au (opt)	Ag (g/t)	Ag (opt)	As (%)	Pb (%)	Sb (%)	Zn (%)
99004	1.0	1.48		0.043				0.66		
99006	0.8						0.94			
99007	1.5						0.61			
99008	1.0	2.26		0.066			0.80			
99012	1.0	1.23		0.036			0.62			
99015	1.0	2.29		0.067	32.2	0.94				
99019	1.0						0.93			
99021	1.5	1.01		0.029			0.93			
99025	0.5	6.42	*	0.187	43.6	1.27	6.28	1.15		
99029	1.0						3.11			

2) Stibnite Zone

Sample No.	Length (m)	Au (g/t)	Au (opt)	Ag (g/t)	Ag (opt)	As (%)	Pb (%)	Sb (%)	Zn (%)
99073	2.0			33.8	0.99	1.00	1.01	0.41	
99075	2.0			22.9	0.67				0.61
99082	2.0			23.9	0.70				
99084	1.0			89.6	2.61	0.44	2.48	1.89	0.68
99109	2.0	1.47	0.043			0.37			
99115	1.0	3.02	0.088	77.7	2.27	5.29			
99126	1.0	2.78	0.081	59.8	1.74	10.83			
99136	2.0			30.2	0.88				

* denotes sample screened and metallic gold assays

3) **LQ Zone**

Four trenches were excavated along the northern banks of Ben Creek. These trenches were excavated to trace the easterly extension of the quartz-carbonate-arsenopyrite-pyrite "LQ" vein structure (see Figure 9).

Three of the four trenches were flooded when the detailed geological mapping was being conducted, and the fourth trench had sloughed-in. According to Lueck (1990) the "LQ" vein was exposed in two of the three flooded trenches when they were being excavated but they quickly filled with water before he mapped or sampled the vein exposure (see Figure 9).

All four trenches were backfilled by the bulldozer later in the program.

4) **Skarn Zone**

Three trenches were excavated through the blocky felsenmeer to test the eastward extension of gold-bearing quartz-calcite vein structures that were exposed nearby in outcrop (see Figure 18).

Two of the three trenches were caved by the time detailed geological mapping was carried out. The third trench (Tr-SK-01) exposed upper greenschist facies meta-volcaniclastic rocks of the Stuhini Group (Unit 10 b) cut by a very shallow-dipping hornblende-feldspar porphyry sill (Unit 6 c). Visible gold was found to occur in this trench associated with actinolite-chlorite veinlets cutting the metasomatized host rocks near the intrusive sill.

5) **Plateau Zone**

Three trenches were excavated but none exposed bedrock. These trenches were located to test the northeasterly extension of the shear-controlled, sulphide-bearing veins that are exposed in the nearby canyon to the west. The glacial till in this area is apparently in excess of 6 metres deep (see Figure 10). All of these trenches were backfilled during the program.

Aside from the detailed geological and geochemical results, there are two important aspects of the work which should be considered during future exploration. They are:

a) The reported Ben and Paddy fault structures are probably zones of angular unconformity between the three major lithologic units. These unconformable geologic contacts have concomitant parallel and conjugate shearing within which there are local zones of silicification and argillic alteration. Gold- and/or silver-bearing sulphide mineralization occurs locally as fine-grained disseminations to semi-massive to massive bands within quartz-carbonate vein structures that often occupy fractures, shears and/or faults; and

b) Detailed geological, geochemical and geophysical surveying should be conducted along any and all zones of relatively intense alteration and/or structural incompetence.

Diamond Drilling

Only the recently-discovered precious metal mineralization at the Skarn and Cowboy Zones were drill tested during the program. Eleven NQ-core holes were drilled from four sites, totalling 694.18 metres (2,277.5 feet). This work, including mobilization and demobilization, was undertaken during the period of August 29th to September 24th. All of the geologic drill logs and core sampling intervals accompany this report as Appendix VI. The surface locations and survey coordinates of the drill hole collars have been plotted on Figures 18, 19 and 20, and the cross-sectional plots of the geologic, sample interval and anomalous gold, silver, or base metal analytical results have been plotted on Figures 21 to 27 of this report. The Certificates of Analysis for all of the drill core samples and the analytical procedures utilized to carry out the described analytical and/or assay work accompany this report as Appendix II and III, respectively.

1) Skarn Zone

Diamond drill holes 90-01 to 90-08 were drilled from two sites to test the downdip extensions of the exposed visible gold-bearing, quartz-calcite vein stringer zone(s). Due to steep relief within the zone and lack of readily-available road and drill site construction material, the drill sites and drill access roads were restricted to the immediate area of the showing where the felsenmeer could support the drill rig and vehicles. Further trenching and drilling work within this zone will require considerable blasting and road construction, or a helicopter-supported drilling program.

The first three drill holes of the program were directed at the loci of two quartz-calcite vein stringer structures which is located approximately 17 metres (at azimuth of 300°) from the collar of diamond drill hole 90-02. The first hole, DDH 90-01, was drilled at an azimuth of 300° and dip angle of -45°. It passed through an intercalated sequence of intensively metasomatized lapilli and lithic tuffs (Unit 10 b_1) and augite porphyry flows (Unit 10 b_2) belonging to the Upper Triassic Stuhini Group and intersected a shallow-dipping hornblende-feldspar ± biotite porphyry sill (Unit 6 c) at a drilling length of 32.14 metres. This hole was completed to a length of 66.14 metres within intensively metasomatized lapilli and lithic tuffs (Unit 10 b_1) of the Stuhini Group.

Visible gold crystals, less than or equal to 1 millimetre in size within 5 millimetre to 1 centimetre-wide quartz-carbonate veinlets, were observed in core at 29.35 and 31.50 metres. Furthermore, it was evident from the core that there was considerably more finely disseminated pyrrhotite, pyrite and lesser chalcopyrite mineralization pervasively hosted by the highly altered volcaniclastic rocks than was apparent on surface. Based upon these observations, it was recommended by the writer that any sections of core containing visible gold mineralization should be left in the core boxes to prevent extreme analytical biasing, and that those sections with visible gold mineralization should be specially handled and assayed using metallics gold assaying techniques. Whether these special handling measures resulted in unduly conservative analytical results will only be proven upon further testing.

The first hole intersected five anomalous sections of gold mineralization, in excess of 1,000 ppb or 1 gram per tonne, over an intercept length greater than one metre; including 9.90 metres (2.1 to 12.0 m.) grading 0.062 opt gold and 6.0 metres (28.0 to 34.0) grading 0.037 opt gold.

These intercepts have been tabulated on accompanying Table V with their weighted mean averages quoted in ounces per ton gold. It is, however, noteworthy that all of the gold-bearing intercepts occur above but in close proximity to the hornblende-feldspar porphyry sill, and that the sill itself and the underlying volcaniclastic and flow rocks do not host any significant gold values (see Figure 21 and Appendix VI).

Based upon the results of the first drill hole, the writer recommended two more holes be drilled from the same drill site but at steeper dips to test the extensions of the gold-bearing mineralization. Thus, drill hole 90-02, at an azimuth of 300° and angle of -45°, and vertical drill hole 90-03 (-90°) were completed to lengths of 49.38 and 31.09 metres, respectively. These holes intersected the same actinolite and chlorite-altered sequence of volcaniclastic and flow rocks of the Stuhini Group, and these strata were also intruded by the same, or very similar, hornblende-feldspar porphyry sill. Based on the geological evidence, it is apparent that the intrusive sill dips northwesterly at a -10° to -15° angle and, thus, it may intersect the angular unconformable contact between the Stuhini Group and Boundary Ranges metamorphic rocks in the vicinity of the inferred Paddy fault trace.

Visible gold was observed in drill holes 90-03 at 8.00, 10.00 and 15.00 metres; similar in size and occurrence as in DDH 90-01. There are two anomalous intercepts of gold-bearing mineralization in drill hole 90-02, including 6.0 metres (6.0 to 12.0) grading 0.059 opt gold and 1.0 metre (16.0 to 17.0 m.) grading 0.114 opt gold, and two intercepts in drill hole 90-03; including 2.0 metres (6.0 to 8.0 m.) grading 0.162 opt gold and 4.0 metres (10.0 to 14.0 m.) grading 0.215 opt gold.

Upon the completion of drill hole 90-03 Mr. Lueck decided that since the drill rig could not be moved southward along geologic strike of the vein stringer zone without exhaustive road and site construction that further drilling should be directed west-southwestward from the existing drill site towards the location of the higher gold-in-rock sample sites. Thus, hole 90-04, at an azimuth of 247° and a dip angle of -45°, and hole 90-05, at an azimuth of 247° and a dip angle of -60°, were drilled at an acute angle to the gold-bearing vein structure to lengths of 59.13 and 45.72 metres, respectively. Both of these holes intersected a similar geologic setting to that within the previous three holes; and they both intersected visible gold mineralization within the upper altered volcaniclastic sequence. The core samples from drill hole 90-04 returned four anomalous gold intercepts, including 7.0 metres (21.0 to 28.0 m.) grading 0.107 opt gold, and the core samples from drill hole 90-05 also returned five intercepts; including 4.0 metres (11.0 to 15.0 m.) grading 0.144 opt gold (see Figure 22, Appendix VI and Table V).

Drill hole 90-06, at an azimuth of 165° and a dip angle of -45°, and drill hole 90-07, at an azimuth of 165° and a dip angle of -60°, were directed by Mr. Lueck towards the southern trend of the gold-bearing mineralization. It was recognized by Mr. Lueck that these two holes would subparallel the strike of the quartz-calcite-visible gold vein stringer zone (010°), but he wished to test the stratiform continuity of the gold mineralization immediately above the hornblende-feldspar porphyry sill. Drill holes 90-06 and 90-07 were completed to lengths of 49.07 and 52.43 metres, respectively.

Both drill holes 90-06 and 90-07 intersected visible gold mineralization. The more noteworthy intercepts include: 8.0 metres (10.0 to 18.0 m.) in DDH 90-06 that graded 0.044 opt gold, and 8.0 metres (10.0 to 18.0 m.) in DDH 90-07 that graded 0.100 opt gold (see Figure 23, Appendix VI and Table V).

Upon completing drill hole 90-07 it was decided by Mr. Lueck to move the drill rig eastward along the drill access road and test the eastern updip extension of the hornblende-feldspar porphyry sill that had been exposed in a nearby trench. Hole 90-08 was drilled at an azimuth of 300° and dip angle of -45° to a length of 67.36 metres. This drill hole intersected the same intercalated volcaniclastic and flow sequence of the Stuhini Group, but it did not intersect the hornblende-feldspar porphyry sill nor any anomalous gold values (see Figure 24 and Appendix VI).

While holes 90-06 to 90-08 were being drilled the weather had deteriorated with frequent gusting winds and snow flurries, and the local surface water supply was being frozen more frequently. For these reasons and that further drilling along this zone would require extensive road building, it was decided by Mr. Lueck to move the drill rig and equipment to the Cowboy Zone.

2) *Cowboy Zone*

Drill holes 90-09 and 90-10 were located by Mr. Lueck from the same drill pad to test the eastern portion of this zone where he had discovered highly altered and locally mineralized Boundary Ranges metamorphic rocks in felsenmeer in close proximity to a poorly-exposed intrusive stock (Unit 1 ?). Trench C-11 had been previously excavated downslope of the proposed drill collars, and Mr. S. Coombes had mapped and sampled the exposed portions of this trench in detail with negligible results. Nevertheless, it was decided that two drill holes should test the area at depth. Thus, DDH 90-09 was drilled at an azimuth of 078° and dip angle of -45° to a length of 93.42 metres, and DDH 90-10 was drilled at an azimuth of 020° and dip angle of -52° to a length of 73.46 metres.

Both drill holes intersected interbedded sedimentary and volcanic rocks of the Boundary Ranges Group that have been variably metamorphosed from lower to upper greenschist facies grade. Local silificified shear zones were intersected with quartz-carbonate veining and narrow bands of arsenopyrite, pyrrhotite, pyrite, and/or chalcopyrite mineralization. There are also several zones within various rock units that host finely disseminated pyrrhotite, pyrite and/or trace chalcopyrite mineralization; but the analytical results from this drilling are disappointing (see Figures 25 and 26, and Appendix VI). No gold-bearing mineralization was intersected by DDH 90-09, and DDH 90-10 only intersected one quartz-carbonate vein structure with a narrow band of gold-bearing sulphide mineralization that returned one 2-metre intercept of 0.061 opt gold.

The last drill hole, DDH 90-11, was collared in the western Cowboy Zone. It was drilled to a length of 106.98 metres at an azimuth of 140° and dip angle of -45° to test several shear-controlled quartz-arsenopyrite-pyrite veins that had been exposed in trenches C-2, C-2a and C-3. It intersected three shear-hosted quartz-carbonate vein structures with very narrow bands of arsenopyrite and pyrite. The samples from these intercepts returned only low silver (1.09 and 0.72 opt) and arsenic values.

By the end of September heavy rains and snow had made the local access roads impassable to even a fully-chained four-wheel drive vehicle. Thus, it was mutually agreed by both the Company and the drilling contractor to terminate the diamond drilling work.

TABLE V

Anomalous Diamond Drill Hole Intercepts

DDH No.	Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wtd Au
90-01	100401	2.10	4.00	1.90	>1000	0.051	2.3		362	48	30		
90-01	100402	4.00	6.00	2.00	>1000	0.029	1.2		259	19	28		
90-01	100403	6.00	8.00	2.00	>1000	0.062	2.7		535	<2	28	9.90	0.062
90-01	100404	8.00	10.00	2.00	>1000	0.132	7.6		856	5	30		
90-01	100405	10.00	12.00	2.00	>1000	0.033	3.0		583	2	33		
90-01	100407	14.00	16.00	2.00	>1000	0.035	4.0		967	<2	46	2.00	0.035
90-01	100410	20.00	22.00	2.00	>1000	0.057	1.7		446	<2	41	4.00	0.050
90-01	100411	22.00	24.00	2.00	>1000	0.043	1.6		368	4	33		
90-01	100414	28.00	29.00	1.00	>1000	0.058	2.5		849	<2	45		
90-01	100415	29.00	30.00	1.00	>1000	0.064	1.1		477	<2	47	2.00	0.061
90-01	100416	30.00	31.00	1.00	>1000	0.023	<0.2		165	<2	48		
90-01	100417	31.00	32.00	1.00	>1000	0.057	0.2		200	<2	41	1.00	0.057
90-01	100418	32.00	33.00	1.00	>1000	0.007	<0.2		74	6	37	or	
90-01	100419	33.00	34.00	1.00	>1000	0.012	<0.2		46	31	159	6.00	0.037
90-02	100453	6.00	8.00	2.00	>1000	0.040	7.8		978	8	43		
90-02	100454	8.00	10.00	2.00	>1000	0.060	7.2		900	7	57	6.00	0.059
90-02	100455	10.00	12.00	2.00	>1000	0.078	8.0		1059	7	49		
90-02	100456	12.00	14.00	2.00	1020		3.6		569	8	53		
90-02	100459	16.00	17.00	1.00	>1000	0.114	2.8		560	7	45	1.00	0.114
90-03	100503	6.00	7.00	1.00	>1000	0.083	6.8		691	5	41		
90-03	100504	7.00	8.00	1.00	>1000	0.240	9.4		1078	6	48	2.00	0.162
90-03	100507	10.00	11.00	1.00	>1000	0.065	6.8		1076	4	37		
90-03	100508	11.00	12.00	1.00	>1000	0.113	10.8		1686	3	48	4.00	0.215
90-03	100509	12.00	13.00	1.00	>1000	0.255	5.6		680	4	23		
90-03	100510	13.00	14.00	1.00	>1000	0.427	10.8		1657	5	51		
90-04	100551	2.00	4.00	2.00	>1000	0.066	1.6		255	49	101		
90-04	100552	4.00	6.00	2.00	>1000	0.034	3.2		374	22	53	6.00	0.043
90-04	100553	6.00	8.00	2.00	>1000	0.030	0.5		149	11	67		
90-04	100556	12.00	14.00	2.00	>1000	0.050	8.2		1407	14	123	2.00	0.050
90-04	100562	21.00	22.00	1.00	>1000	0.085	4.0		831	14	73		
90-04	100563	22.00	23.00	1.00	>1000	0.119	8.0		1310	12	62		
90-04	100564	23.00	24.00	1.00	>1000	0.083	5.3		868	13	72		
90-04	100565	24.00	25.00	1.00	>1000	0.036	2.3		404	10	54	7.00	0.107
90-04	100566	25.00	26.00	1.00	>1000	0.114	3.4		736	15	78		
90-04	100567	26.00	27.00	1.00	>1000	0.117	6.3		902	15	87		
90-04	100568	27.00	28.00	1.00	>1000	0.198	7.2		1322	11	122		

TABLE V

Anomalous Diamond Drill Hole Intercepts

DDH No.	Sample No.	Interval From (m)	Interval To (m)	Int. (m)	Au (ppb)	Au (opt)	Analytical Summary Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wtd Au
90-04	100573	32.00	33.00	1.00	>1000	0.048	3.8		900	10	81	1.00	0.048
90-05	100602	4.00	6.00	2.00	>1000	0.033	1.0		374	8	43		
90-05	100603	6.00	8.00	2.00	>1000	0.034	1.9		351	51	38	5.00	0.039
90-05	100604	8.00	9.00	1.00	>1000	0.062	8.5		1477	49	52		
90-05	100607	11.00	12.00	1.00	>1000	0.079	3.8		715	55	45		
90-05	100608	12.00	13.00	1.00	>1000	0.069	1.4		361	76	43		
90-05	100609	13.00	14.00	1.00	>1000	0.388	7.9		1255	52	54	4.00	0.144
90-05	100610	14.00	15.00	1.00	>1000	0.038	4.2		1203	45	76		
90-05	100614	18.00	19.00	1.00	>1000	0.034	4.6		829	57	55	1.00	0.034
90-05	100617	21.00	22.00	1.00	>1000	0.042	1.7		533	62	50	1.00	0.042
90-05	100619	23.00	24.00	1.00	>1000	0.069	<0.2		304	61	50	1.00	0.069
90-06	100651	2.40	4.00	1.60	>1000	0.105	3.2		662	17	32		
90-06	100652	4.00	5.00	1.00	>1000	0.033	0.8		200	17	31	2.60	0.077
90-06	100656	8.00	9.00	1.00	>1000	0.032	0.5		191	20	38	1.00	0.032
90-06	100658	10.00	11.00	1.00	>1000	0.054	4.8		701	12	27		
90-06	100659	11.00	12.00	1.00	>1000	0.094	3.2		595	15	21		
90-06	100660	12.00	14.00	2.00	>1000	0.030	2.6		503	17	28	8.00	0.044
90-06	100661	14.00	16.00	2.00	>1000	0.032	3.0		447	21	25		
90-06	100662	16.00	18.00	2.00	>1000	0.038	1.9		418	20	26		
90-06	100665	22.00	24.00	2.00	>1000	0.032	0.5		180	20	23	2.00	0.032
90-07	100701	2.20	4.00	1.80	>1000	0.061	0.4		58	38	27	1.80	0.061
90-07	100706	10.00	11.00	1.00	>1000	0.190	0.6		129	29	37		
90-07	100707	11.00	12.00	1.00	>1000	0.057	3.5		619	37	45		
90-07	100708	12.00	13.00	1.00	>1000	0.032	4.4		755	40	30		
90-07	100709	13.00	14.00	1.00	>1000	0.088	11.4		1386	22	36		
90-07	100710	14.00	15.00	1.00	>1000	0.143	4.4		733	19	34	8.00	0.100
90-07	100711	15.00	16.00	1.00	>1000	0.062	1.3		346	29	24		
90-07	100712	16.00	17.00	1.00	>1000	0.111	2.4		380	30	29		
90-07	100713	17.00	18.00	1.00	>1000	0.120	1.8		368	37	31		
90-07	100718	22.00	23.00	1.00	>1000	0.106	<0.2		45	23	20	1.00	0.106
90-10	100855	18.00	20.00	2.00	>1000	0.061	<0.2		40	8	48	2.00	0.061
90-11	100898	33.00	34.00	1.00	830		>20.00	1.09	165	165	923		

TABLE V

Anomalous Diamond Drill Hole Intercepts

DDH No.	Sample No.	Interval			Analytical Summary								
		From (m)	To (m)	Int. (m)	Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wtd Au
90-11	98385	100.00	101.00	1.00	470		>20.00	0.72	250	13	38		
90-11	98386	101.00	102.00	1.00	880		9.3		104	38	74		
90-11	98387	102.00	103.00	1.00	470		7.9		75	<2	68		

EXPLORATION POTENTIAL

When further work was recommended by Wallis (1990) it was apparent that most of the thirteen known mineral showings had received considerable surface exploration; however, there was also reconnaissance geological and geochemical evidence to suggest that there may be other gold-bearing sulphide mineral occurrences elsewhere within the property. It was this evidence and diligent prospecting by Mr. Lueck that led to the discovery of the Skarn and Cowboy Zones. These two discoveries have significantly enhanced the exploration potential of the entire property.

The results of the reconnaissance prospecting and sampling work in and around the Skarn Zone indicate that there is a large, south-southeasterly trending skarn zone with pervasive moderate to intense actinolite-chlorite alteration along the sheared unconformity between the Stuhini Group and Boundary Ranges lithologic units. This unconformity is the same structural feature that previous workers have interpreted to be the Paddy fault. Furthermore, this exothermic skarn alteration assemblage has been traced by Mr. Lueck for over 700 metres, and the lithogeochemical grab samples that were collected within several 100 metres of the visible gold discovery all returned anomalous gold values.

The trenching and diamond drilling results in the immediate Skarn Zone suggest that anomalous gold values occur as visible native gold and/or electrum within en echelon quartz-calcite vein structures and as attendant values with the less obvious gold-bearing sulphide mineralization. These types of gold mineralization are hosted by exothermically-altered intercalated volcaniclastic and flow rocks of the Upper Triassic Stuhini Group. Furthermore, the gold-bearing mineralization occurs above but in close proximity to a shallow-dipping hornblende-feldspar porphyry sill. It is also apparent from the geological evidence that this rather thin intrusive sill could not have been responsible for the widespread skarn alteration along the length of the unconformity.

It is the writer's opinion that there is a relatively shallow buried intrusive stock, possibly related to Cretaceous or Upper Cretaceous-age intrusive activity, that is responsible for metasomatizing the Stuhini Group rocks and genetically-related to the pervasive sulphide mineralization and later gold-bearing vein structures. Such an intrusive body would have to be considerably larger than that exposed at the Skarn Zone proper, and it would probably be of calc-alkaline composition since the multi-element analyses do not indicate any significant potassic metasomatism in the vicinity of the sill body.

Whether there is a large buried intrusive beneath the unconformable contact between the Stuhini Group and Boundary Ranges metamorphic rocks or not, the drilling results show that there is a relatively consistent, near-surface, shallow-dipping layer of gold-bearing mineralization within the Skarn Zone which is open laterally to the south and west. The tenor of this mineralization appears to range from more than 1 gram per tonne across 1 to 9 metres to over 100 grams per tonne across much narrower widths. Moreover, the results show that the gold mineralization is much more pervasive than the surface sampling indicated and that it is not restricted solely to any single steeply-dipping stringer vein structure.

The geological and geochemical results from the Cowboy Zone are not as promising as those from the Skarn Zone. The trenching and drilling results from the Cowboy Zone show that the gold- and/or silver-bearing sulphide mineralization is hosted by rather narrow but continuous shear-related quartz-carbonate veins, and despite highly anomalous felsenmeer panel samples, the precious metal values within the exposed vein structures are quite low. Nevertheless, the Cowboy Zone has only received mostly surficial exploration and it may have a considerable strike length if it is spatially-related to the angular unconformity between the Boundary Ranges metamorphic rocks and the younger Laberge Group of fine-grained sedimentary rocks. This unconformity is now thought to be a stratigraphic feature with concomitant shearing rather than the transcurrent fault structure that previous workers interpreted it to be. Nevertheless, geophysical surveying and considerably more diamond drilling will be required to evaluate this zone.

Aside from the known and recently discovered mineral occurrences, there are a number of very interesting gold exploration targets elsewhere on the property. The most interesting of these is the area within and along the Llewellyn fault zone. During the staking of the LILLIAN mineral claim and later during a single day of prospecting within this claim, Mr. Lueck discovered a large gossanous zone with pervasive silicification and argillic alteration. He reported that this zone had the geologic setting and structural features commonly associated with other precious metal-bearing mineral occurrences in the region. This report and those of Schroeter (1985) and Mihalynuk and Rouse (1988) that were referenced earlier serve to confirm the gold exploration potential along the Llewellyn fault structure.

CONCLUSIONS

The 1990 exploration program was very successful. At the start of the field season there was a number of known mineral occurrences on the property that had been explored and tested. Upon its completion, all of the more prospective showings had been trenched, mapped and sampled, and two new gold discoveries had been trenched, mapped, sampled and drill tested with very encouraging results. Furthermore, these results greatly enhance the exploration potential of both the new discoveries and the entire property.

During the program, visible gold and disseminated copper mineralization was discovered within a pervasively altered and gossaneous area near the angular unconformable contact between the Upper Triassic Stuhini Group and the pre-Permian Boundary Ranges lithologic units. This discovery was called the Skarn Zone, and later prospecting traced this zone for over 700 metres in a south-southeasterly direction along the unconformity. The lithogeochemical samples that were collected within 300 metres south of the visible gold discovery all returned anomalous gold values.

Trenching and diamond drilling results from the Skarn Zone indicate that the gold occurs as native visible gold and/or electrum within en echelon quartz-calcite vein structures and as attendant values with less obvious gold-bearing sulphide mineralization. The gold mineralization is dominantly hosted by metasomatized volcaniclastic and flow rocks of the Upper Triassic Stuhini Group, and it occurs above but in close proximity to a shallow-dipping hornblende-feldspar porphyry sill as a relatively consistent, near-surface, shallow-dipping layer. More importantly, it appears to continue laterally to the south and west. The tenor of this mineralization ranges from more than 1 gram per tonne across 1 to 9 metres to over 100 grams per tonne across much narrower widths. The results also show that the gold mineralization is quite pervasive and not restricted to any single steep-dipping vein structure.

Some of the more significant and/or continuous drill intercepts of gold mineralization within the Skarn Zone include:

DDH 90-01 - 9.9 metres (2.1 to 12.0 m.) grading 0.062 opt gold, and 6.0 metres (28.0 to 34.0 m.) grading 0.037 opt gold;

DDH 90-02 - 6.0 metres (6.0 to 12.0 m.) grading 0.059 opt gold, and 1.0 metre (16.0 to 17.0 m.) grading 0.114 opt gold;

DDH 90-03 - 2.0 metres (6.0 to 8.0 m.) grading 0.162 opt gold, and 4.0 metres (10.0 to 14.0 m.) grading 0.215 opt gold, including 1.0 metre (13.0 to 14.0 m.) grading 0.427 opt gold;

DDH 90-04 - 7.0 metres (21.0 to 28.0 m.) grading 0.107 opt gold;

DDH 90-05 - 5.0 metres (4.0 to 9.0 m.) grading 0.039 opt gold, and 4.0 metres (11.0 to 15.0 m.) grading 0.144 opt gold;

DDH 90-06 - 8.0 metres (10.0 to 18.0 m.) grading 0.044 opt gold; and

DDH 90-07 - 8.0 metres (10.0 to 18.0 m.) grading 0.100 opt gold.

It is apparent from the geological results that the rather thin, shallow-dipping hornblende-feldspar porphyry sill at the Skarn Zone could not have been responsible for the pervasive skarn alteration along the length of the Stuhini Group - Boundary Ranges unconformity. It is postulated that there is a relatively shallow buried calc-alkaline stock beneath this unconformity that is responsible for metasomatizing the Stuhini Group rocks and may be genetically-related to the pervasive sulphide mineralization and later gold-bearing veins.

The Cowboy Zone was also discovered this year. Prospecting work discovered felsenmeer float with fracture-controlled gold and silver-bearing arsenopyrite, stibnite and pyrite mineralization along the unconformable contact between Boundary Ranges and Laberge Group rocks.

Thirteen trenches and three diamond drill holes tested the Cowboy Zone. These trenches exposed several narrow sulphide-bearing quartz-carbonate vein structures hosting geochemically-anomalous to low grade gold values. Of the 32 chip samples collected within the trenches, six samples returned gold values ranging from 1.01 grams per tonne across 1.5 metres to 6.42 grams per tonne across 0.5 metre.

The two diamond drill holes within the eastern Cowboy Zone only intersected one 1-metre intercept with 0.061 ounces per ton gold. The last hole of the program, drill hole 90-11, was drilled to test the exposed sulphide-bearing vein mineralization within the western Cowboy Zone. It intersected two quartz-carbonate veins with arsenopyrite and galena mineralization that returned silver values less than 1.09 ounces per ton. These veins vary from less than 1 to 10 centimetres wide.

Thirty-two trenches were excavated within the Stibnite Zone. Several limonitic and hematitic zones were exposed, and it was shown that these zones are spatially-related to local shearing within both lithologic units. Of the ninety chip samples that were collected, three returned gold values ranging from 1.47 grams per tonne across 2.0 metres to 3.02 grams per tonne across 1.0 metre.

Four trenches were excavated along the northern banks of Ben Creek to trace the easterly extension of the quartz-carbonate-arsenopyrite-pyrite "LQ" vein structure; however, all of the trenches were either flooded or sloughed-in when detailed geological mapping was being conducted.

Three trenches were excavated on the Plateau Zone to test the northeasterly extension of several reported shear-controlled, sulphide-bearing veins. None of these trenches exposed the bedrock and they were later backfilled.

The geological and geochemical results for the Cowboy and Stibnite Zones are not as promising as those from the Skarn Zone. The trenching and drilling results from both the Cowboy and Stibnite Zones indicate that the gold- and/or silver-bearing sulphide mineralization is hosted by rather narrow shear-controlled quartz-carbonate veins, and that the precious metal values within these veins are quite low. Nevertheless, these two zones have only received cursory exploration and they do have considerable strike lengths.

In addition to those known and recently discovered mineral occurrences on the property, there are also a number of very interesting gold exploration targets. The most interesting of these is along the Llewellyn fault zone.

In summary, this property has an excellent geologic and structural setting that is very favourable for the deposition of precious metal mineralization. Past operators have identified four distinct types of gold and/or silver-bearing mineralization that are hosted dominantly by fractured and altered Boundary Ranges metamorphic rocks. However, this year visible gold and disseminated copper mineralization hosted by metasomatized Stuhini Group rocks were discovered well within the previously explored area. Thus, it is very obvious that this property warrants thorough exploration and evaluation.

It is the writer's opinion that further reconnaissance and detailed exploration should be primarily directed towards the Skarn Zone, its southern and western extensions, and the area along Llewellyn fault zone. An integrated exploration program, including: airborne geophysical surveying, geological, geochemical and geophysical surveying, trenching and diamond drilling, is recommended to evaluate these targets and test the strike extensions of the Cowboy and Stibnite Zones.

Submitted by,

MINOREX CONSULTING LTD.

J.D. Blanchflower, F.G.A.C.
Consulting Geologist

RECOMMENDATIONS

Based upon the results of the exploration program and the level of exploration activity undertaken on this entire property, it is the writer's opinion that the following recommendations are both justified and necessary to evaluate the economic potential of the known mineral occurrences and to test the more favourable gold exploration targets. The work this year was accelerated from essentially a first phase reconnaissance prospecting and sampling program to one of detailed trenching and diamond drilling, without the usual intervening detailed geological, geophysical and geochemical surveying. For this reason, some of the following recommendations include work which would normally have been carried out prior to a diamond drilling program.

It is recommended that the following exploration program be conducted during the 1991 field season.

1) An airborne geophysical survey of the entire property, including electromagnetic and magnetic surveys, to delineate the favourable structural controls for the known mineralization and the possible limits of the metasomatized host rocks of the gold-bearing sulphide mineralization at the Skarn Zone. This survey could be carried out prior to the property becoming accessible in early Spring;

2) The establishment of a detailed survey control grid to cover most of the central plateau area, north and south of Ben Creek and covering both the Skarn and Cowboy Zones. This grid should be surveyed into existing geodetic monuments at various points along its length, and it should be picketed and labelled with aluminum tags to withstand the winter conditions at this locality;

3) Detailed geological, geochemical and geophysical surveying should be undertaken over those portions of the established survey control grid that require any or all of these exploration techniques. It is obvious from the most recent exploration work that geological and geochemical surveying will be restricted to those areas with minimal overburden. However, geophysical surveying, such as induced polarization or max-min electromagnetics, may penetrate the deep till cover and provide useful exploration data. On the other hand, the steep, barren ridge south of the Skarn Zone may be best explored by detailed geological and geochemical sampling;

4) Prospecting, soil and rock sampling and geological mapping should be conducted along the surface trace of the Llewellyn fault zone;

5) Combined road construction and trenching should be carried out along the southern strike extension of the Skarn Zone, including hand trenching, mapping and sampling along the well-exposed rocky ridgeline; and

6) Diamond drilling should be undertaken to test the projected extensions of the tested gold mineralization at the Skarn Zone, both west and south of this year's drilling, and it should test any anomalies resulting from the proposed surface work.

The cost of the recommended program would be in excess of $500,000.00; depending upon the extent of the trenching and diamond drilling work.

STATEMENT OF COSTS

The following assessment credit expenditures for the 1990 exploration program are based upon accountable costs supplied by Lodestar Explorations Inc. Furthermore, these expenditures have been prorated between those directly attributable to exploration work on the BEN Claim Group (i.e. BEN 1 to 4, WILLARD and LILLIAN claims) and the PAVEY Claim Group (i.e. PAVEY 1 to 6 and LQ mineral claims).

BEN Claim Group

1)	**Field Personnel Fees and Expenses**		
	J. D. Blanchflower - consulting geologist	$ 5,200.00	
	S. Coombes - consulting geologist	5,183.75	
	D. Middleton - geological assistant	6,075.00	
	J. Salt - geological assistant	2,340.00	
			$ 18,798.75
2)	**Road Construction and Restoration**		
	Bulldozer (Gonder & Sons Ltd. and H. Coyne & Sons Ltd.	$ 8,757.50	
	Excavator (I-Can-Dig-It Ltd.)	6,359.06	
	Supervision (B. Lueck fees and expenses)	4,002.27	
	Support Expenses (mobilization, demobilization, fuel, etc.)	691.31	
			$ 19,810.14
3)	**Mechanical Trenching**		
	Bulldozer (Gonder & Sons Ltd., H. Coyne & Sons Ltd. and Oro Quest Inc.)	$ 1,212.50	
	Excavator (I-Can-Dig-It Ltd.)	35,429.06	
	Supervision (B. Lueck fees and expenses)	11,381.45	
	Support Expenses (mobilization, demobilization, fuel, etc.)	691.31	
			$ 48,714.32
4)	**Diamond Drilling**		
	Bulldozer (Gonder & Sons Ltd. and Oro Quest)	$ 11,175.00	
	Diamond Drilling (Kluane Drilling Ltd.)	77,383.26	
	Supervision (B. Lueck fees and expenses)	8,034.00	
	Support Expenses (fuel for equip't, mob)	18,272.58	
			$ 114,864.84

5) **Surveying**

Legal Surveying Expenses (Yukon Engineering Services)		$ 720.00

6) **Analytical and Assaying**

Analytical and assaying expenses (Eco-Tech Laboratories Ltd. and Northern Analytical Laboratories Ltd.)		$ 8,135.60

7) **Data Compilation, and Report Preparation and Reproduction**

C. Ditson - consulting geologist	$ 3,688.44	
Report preparation, drafting, office expenses, and reproduction	4,660.85	
		$ 8,349.29

Total Assessment Credit Expenses on BEN Claim Group	$ 219,392.94

PAVEY Claim Group

1) **Field Personnel Fees and Expenses**

S. Coombes - consulting geologist	$ 2,791.25	
J. Salt - geological assistant	1,260.00	
		$ 4,051.25

2) **Road Construction and Restoration**

Bulldozer (Gonder & Sons Ltd. and H. Coyne & Sons Ltd.	$ 21,950.00	
Excavator (I-Can-Dig-It Ltd.)	11,809.69	
Supervision (B. Lueck fees and expenses)	8,989.69	
Support Expenses (mobilization, demobilization, fuel, etc.)	691.31	
		$ 43,440.69

3) **Mechanical Trenching**

Bulldozer (Gonder & Sons Ltd. and H. Coyne & Sons Ltd.)	$ 848.75	
Excavator (I-Can-Dig-It Ltd.)	19,077.19	
Supervision (B. Lueck fees and expenses)	6,430.01	
Support Expenses (mobilization, demobilization, fuel, etc.)	691.31	
		$ 27,047.26

4) **Surveying**

Legal Surveying Expenses (Yukon Engineering Services)	$	720.00

5) **Analytical and Assaying**

Analytical and assaying expenses (Northern Analytical Laboratories Ltd.)	$	1,005.53

6) **Data Compilation, and Report Preparation and Reproduction**

Report preparation, drafting, office expenses, photocopying and reproduction		4,660.85
Total Assessment Credit Expenses on PAVEY Claim Group	$	80,925.58
TOTAL COST of the 1990 EXPLORATION PROGRAM	$	300,318.52

STATEMENT OF QUALIFICATIONS

I, J. DOUGLAS BLANCHFLOWER, of the Municipality of Delta, Province of British Columbia, DO HEREBY CERTIFY THAT:

1) I am a Consulting Geologist with a business office at 11967 - 83A Avenue, Delta, British Columbia, V4C 2K2; and President of Minorex Consulting Ltd.

2) I am a graduate in Economic Geology with a Bachelor of Science, Honours Geology degree from the University of British Columbia in 1971.

3) I am a Fellow of the Geological Association of Canada.

4) I have practised my profession as a geologist for the past nineteen years.

   Pre-Graduate field experience in Geology, Geochemistry and Geophysics (1966 to 1970).

   Three years as Geologist with the B. C. Ministry of Energy, Mines and Petroleum Resources (1970 to 1972).

   Seven years as Exploration Geologist with Canadian Superior Exploration Limited (1972 to 1979).

   Three years as Exploration Geologist with Sulpetro Minerals Limited (1979 to 1982).

   Eight years as Consulting Geologist and President of Minorex Consulting Ltd. (1982 to 1990).

5) I own no direct, indirect or contingent interest in the subject claims, nor shares in or securities of LODESTAR EXPLORATIONS INC.

6) I supervised diamond drilling, trench mapping and lithogeochemical sampling and data compilation, and wrote this report which documents the results of the 1990 exploration program.

J. D. Blanchflower, F.G.A.C.

Dated at Delta, British Columbia, this 2nd day of November, 1990

STATEMENT OF QUALIFICATIONS

I, Steven F. Coombes, do hereby certify that:

1. I am a geologist employed by Minorex Consulting Ltd. with a business office at 11967 - 83A Avenue, Delta, British Columbia.

2. I graduated in Geology with a Bachelor of Science degree from the University of British Columbia in 1983.

3. I am a Fellow of the Geological Association of Canada.

4. I have practiced my profession throughout Canada, the western United States and Alaska continuously since 1983.

5. I carried out trench mapping and lithogeochemical sampling on the Pavey property between August 29 and September 27, 1990, compiled data and co-authored this report.

6. I have no interest, direct or indirect, in the property herein described, nor in the shares or securities of Lodestar Explorations Inc., nor do I expect to receive any such interest.

Steven F. Coombes, F.G.A.C.
October 31, 1990.

GEOLOGICAL ASSOCIATION OF CANADA
S. F. COOMBES
FELLOW

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APPENDIX I

Lithogeochemical Sample Descriptions

LITHOGEOCHEMICAL SAMPLE DESCRIPTIONS

Prospecting Lithogeochemical Samples

(described by B. Lueck)

Sample No.	Type	Description
07-15-01	Grab	Sample of talus boulder. Quartz-calcite-chalcedony veins with minor mariposite and stibnite within altered porphyry intrusive (Ice Zone).
07-15-02	Grab	Sample of float from quartz-calcite stringer zone at Skarn Zone. Quartz-calcite veinlets (< 1 cm. wide). Visible gold occurs in this sample but was not included in the bag.
07-15-03	Grab	Sample of talus. Fracture veinlets of quartz with pyrrhotite and chalcopyrite occur in float.
07-15-04	Grab	Sample of float boulders containing copper-bearing skarn from the Ice Zone. Pyrrhotite and chalcopyrite are disseminated in acicular, randomly-oriented actinolite. Malachite and azurite staining.
07-15-05	Grab	Quartz-carbonate vein material in altered felsic intrusive hosting mariposite. No visible sulphides. Sample taken from the Ice Zone.
08-01-01	Chip	Four-metre sample of shear fracture-controlled copper mineralization in granodiorite. The zone is highly fractured and located near andesitic dykes which cut the intrusive. May also be a porphyry zone.
08-01-03	Chip	Sample of a mineralized shear zone in granodiorite, 0.5 metres wide, located near an old caved adit.
08-01-04	Grab	A number of closely-spaced, weathered quartz-arsenopyrite veins in an intrusive body of quartz-eye rhyolite. An adit just down-stream of this vein is driven on another vein.
08-01-05	Grab	Disseminated pyrrhotite in brownish, altered chloritic tuff.
08-01-06	Chip	Two-metre chip sample of massive actinolite skarn adjacent to a felsic porphyry. Visible gold was found in this zone. Pyrrhotite and chalcopyrite are common.
08-03-01	Grab	Float sample of schist with minor pyrrhotite and very minor chalcopyrite in narrow actinolite seams (1-2 mm. wide) which are conformable to schistosity.
08-03-02	Grab	Sample of malachite-stained actinolite skarn from the Ice Zone.

Sample No.	Type	Description
08-05-01	Grab	Three pieces of near-source float. Quartz with 30 percent arsenopyrite from a 150° shear known as the Paddy Fault which forms the contact between schist to the southwest and graphitic slate or tuff to the northeast.
08-05-02	Grab	Sample of a narrow (10 cm.) arsenopyrite veinlet in actinolite-altered tuff.
08-05-03	Grab	Composite grab sample of boudined quartz with minor pyrite which occurs in abundance at the Paddy Fault contact.
08-05-04	Grab	Composite grab sample from a northeasterly-trending shear that crosscuts the Paddy Fault. A dilatant zone is filled with quartz-carbonate veining which is expressed as leached rubble on surface.
08-05-05	Grab	Sample from rusty zone adjacent to the Paddy Fault which contains minor chalcopyrite.
08-05-06	Grab	Large (20-30 pound) grab sample of actinolite skarn from edge of a dyke exposed in a trench where visible gold is known to occur in skarn material.
07-29-01	Grab	Composite chip sample of a gossanous zone near the Paddy Fault which parallels bedding in the lower schist. This zone is 2 to 6 metres wide and occurs in tuffaceous sedimentary rocks.
07-31-01	Grab	Sample containing talus fines taken below a bleached, gossanous and highly anomalous gold zone located behind the Ben Glacier.
07-31-02	Grab	Sample of talus fines from same gossanous zone as 07-31-01 but taken from another gully where zone is not bleached.
07-31-03	Grab	Composite grab sample of abundant float which contains arsenopyrite veinlets in sheared tuff taken from the vicinity of Ben Glacier.
07-31-04	Grab	Quartz with chalcedony and minor pyrite occurs in broken, silicified, brecciated and graphitic siltstone. Sample is taken from area adjacent to a zone of massive actinolite in altered dolomite.
07-31-05	Grab	Float occurrence of pyrrhotite-quartz veining in altered tuffaceous sediments at toe of Ben Glacier.
07-31-06	Grab	Talus sample taken from ridge top where a shear splay associated with the Ben Fault is exposed. Quartz veins containing arsenopyrite, stibnite and pyrite show cockade structure.

Sample No.	Type	Description
07-31-07	Grab	Pyritic actinolite skarn from float above trench area at site of DDH 90-01.
07-31-08	Grab	Five-piece grab sample from outcropping of limonitic zone that strikes roughly east-west, cross-cutting schists and containing brecciated schist fragments. Sample is from a sulphide-poor quartz-carbonate vein system with very minor pyrite in the wallrock.
ASZU-30	Grab	Sample from a shear which contains a narrow (approx. 20 cm.) arsenopyrite-quartz vein with some stibnite. Sample is taken from a high rock face overlooking Ben Creek.
ASZ-30	Grab	Sample of outcrop material located approximately 100 metres below sample ASZU-30.
RTV	Grab	Sample of arsenopyrite and quartz veining occurring near top of the ridge in a 30-cm. wide vein structure which trends 050°.
RSV-1	Grab	Sulphide-bearing intrusive rock occurring in float below snow patch.
CCB	Chip	1.5-metre chip sample from a silicified shear zone in brecciated slate at the Ben Fault contact. The zone appears to be 1 to 2 metres wide in outcrop.
SK-1	Grab	Sample of malachite-stained tuff with actinolite-pyrrhotite-chalcopyrite stringers. Actinolite content is approximately 25 percent.
SK-2	Grab	Float sample of pyritic, gossaneous hornfels with actinolite veining which contains pyrrhotite and chalcopyrite.
STRN-1	Channel	Two-metre channel sample of quartz-pyrrhotite-chalcopyrite stringers in actinolite-bearing hornfelsed tuff.
STRN-2	Chip	A 2.3-metre chip sample from the same zone as sample STRN-1, taken approximately 10 metres along strike from previous sample.
STRN-3	Chip	An 2.4-metre chip sample of the same zone as STRN-1 and STRN-2, taken approximately 10.7 metres along strike from sample STRN-2.
08-08-01	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.

Sample No.	Type	Description
08-08-02	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.
08-08-03	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.
08-08-04	Grab	Sample of barren (no arsenopyrite) quartz vein material.
08-08-05	Grab	Sample of bleached schist taken near the Ben Fault contact.
08-08-06	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.
08-08-07	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.
08-08-08	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.
08-08-09	Grab	Large composite grab sample taken from the End Vein. Sample of quartz vein float (subcrop) taken in an attempt to determine consistency of grade and distribution of values.

Trenching Lithogeochemical Samples

(described by S. Coombes)

1) Cowboy Zone

Sample No.	Trench No.	Length (m.)	Type	Description
99001	Tr-C-03	1.0	Chip	Unit $8a_1$ with limonite, hematite and minor arsenic oxide along fractures.
99002	Tr-C-03	1.0	Chip	Unit $8a_1$ with limonite, hematite and arsenic oxide along fractures. Includes a 0.15 m. silica-flooded section.
99003	Tr-C-03	1.0	Chip	Unit $8a_1$ with limonite, hematite along fractures.
99004	Tr-C-03	1.0	Chip	Unit $8a_1$ with limonite, hematite along fractures. Includes a 20-cm. shear and a 10-cm. arsenopyrite-stibnite-galena-quartz vein.
99005	Tr-C-02 A	2.0	Chip	Unit $8a_1$ with limonite, hematite along fractures with scattered quartz stringers up to 2 cm.. wide.
99006	Tr-C-02 A	0.8	Chip	Unit $8a_1$ with a 2-cm. arsenopyrite stringer.
99007	Tr-C-02 A	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99008	Tr-C-03	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures. Includes a 4-cm. arsenopyrite-quartz vein.
99009	Tr-C-03	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99010	Tr-C-03	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99011	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite and hematite, and antimony and arsenic oxides along fractures.
99012	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite/hematite and arsenic oxide along fractures.
99013	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures. Includes a 10 cm. shear zone.
99014	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures.

Sample No.	Trench No.	Length (m.)	Type	Description
99015	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite and hematite, and arsenic oxide along fractures.
99016	Tr-C-04	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99017	Tr-C-02	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99018	Tr-C-02	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures (same as Sample 08-17-01).
99019	Tr-C-02	1.0	Chip	Unit $8a_1$ with limonite and hematite, and arsenic oxide along fractures (same as first half sample 08-17-02).
99020	Tr-C-02	1.0	Chip	Unit $8a_1$ with limonite and hematite along fractures (same as second half sample 08-17-02).
99021	Tr-C-02	1.5	Chip	Unit $8a_1$ with limonite and hematite, and antimony and arsenic oxides along fractures (same as Sample 08-17-03).
99022	Tr-C-02	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures (same as 1st third of Sample 08-17-04).
99023	Tr-C-02	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures (same as 2nd third Sample 08-17-04).
99024	Tr-C-02	1.5	Chip	Unit $8a_1$ with limonite and hematite along fractures (same as 3rd third Sample 08-17-04).
99025	Tr-C-02	0.5	Chip	Unit $8a_1$ with limonite and hematite along fractures. Includes a 5-cm. arsenopyrite-stibnite-galena-quartz vein (same as Sample 08-17-05).
99026	Tr-C-10	2.0	Chip	Unit $8a_3$ (?) with slickensides and minor limonite staining.
99027	Tr-C-10	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99028	Tr-C-10	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99029	Tr-C-10	1.0	Chip	Unit $8a_2$ with limonite and hematite along fractures. Includes a 2- to 5-cm. wide arsenopyrite vein.

Sample No.	Trench No.	Length (m.)	Type	Description
99030	Tr-C-10	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99031	Tr-C-10	2.0	Chip	Unit $8a_1$ with limonite and hematite along fractures.
99032	Tr-C-10	2.0	Chip	Unit $8a_1$ with limonite and hematite along fractures.

2) Stibnite Zone

Sample No.	Trench No.	Length (m.)	Type	Description
99051	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite, and pervasive limonite and hematite alteration. Includes a 10-cm. shear zone.
99052	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite, and pervasive limonite and hematite alteration.
99053	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99054	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99055	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99056	Tr-S-07	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99057	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99058	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99059	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.

Sample No.	Trench No.	Length (m.)	Type	Description
99060	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99061	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99062	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99063	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99064	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99065	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99066	Tr-S-08	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99067	Tr-S-09	1.0	Chip	Unit 11a (fine grained) with poorly disseminated pyrite (may be dyke).
99068	Tr-S-09	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99069	Tr-S-09	2.0	Chip	Unit 5b (?) (0.7 m) and 11b (1.3 m) with pervasive limonite and hematite alteration. Includes a 5-cm. clay gouge shear zone.
99070	Tr-S-10	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99071	Tr-S-10	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99072	Tr-S-10	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.
99073	Tr-S-10	2.0	Chip	Unit 5b (?) with fracture-controlled pyrite and pervasive limonite and hematite alteration.

Sample No.	Trench No.	Length (m.)	Type	Description
99074	Tr-S-11	2.0	Chip	Unit 11a and 11b (siltstone to argillite), sheared.
99075	Tr-S-11	2.0	Chip	Unit 11a and 11b with limonite and hematite alteration.
99076	Tr-S-11	2.0	Chip	Unit 11b, sheared.
99077	Tr-S-11	2.0	Chip	Unit 11a and 11b (mostly siltstone) with pervasive limonite and hematite alteration, and disseminated pyrite.
99078	Tr-S-11	2.0	Chip	Unit 11a and 11b, sheared with limonite and hematite alteration.
99079	Tr-S-11	2.0	Chip	Unit 11a and 11b, sheared with limonite and hematite alteration.
99080	Tr-S-11	2.0	Chip	Unit 11b.
99081	Tr-S-12	2.0	Chip	Unit 11a and 11b, sheared and micaceous with limonite and hematite alteration. Includes a 1-cm. carbonate bed.
99082	Tr-S-12	2.0	Chip	Unit 5b (?) with minor 11b, sheared with limonite and hematite alteration.
99083	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99084	Tr-S-12	1.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration. Includes a +/-10-cm. massive arsenopyrite, galena and stibnite vein.
99085	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99086	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99087	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99088	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99089	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99090	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.

Sample No.	Trench No.	Length (m.)	Type	Description
99091	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99092	Tr-S-12	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99093	Tr-S-14	2.0	Chip	Unit 11b with limonite and hematite alteration.
99094	Tr-S-14	2.0	Chip	Unit 11b with limonite and hematite alteration.
99095	Tr-S-14	2.0	Chip	Unit 11b with limonite and hematite alteration.
99096	Tr-S-14	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99097	Tr-S-14	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99098	Tr-S-14	2.0	Chip	Unit 5b (?) with pervasive limonite and hematite alteration.
99099	Tr-S-14	2.0	Chip	Unit 5b (?).
99100	Tr-S-14	2.0	Chip	Unit 5b (?).
99101	Tr-S-14	2.0	Chip	Unit 5b (?).
99102	Tr-S-14	2.0	Chip	Unit 5b (?).
99103	Tr-S-14	2.0	Chip	Unit 5b (?).
99104	Tr-S-17	2.0	Chip	Unit 11a and 11b, micaceous with limonite and hematite alteration.
99105	Tr-S-17	2.0	Chip	Unit 11a and 11b, micaceous with limonite and hematite alteration.
99106	Tr-S-21	2.0	Chip	Unit $8a_3$ (coarse grained).
99107	Tr-S-21	2.0	Chip	Unit $8a_3$ (coarse grained).
99108	Tr-S-21	2.0	Chip	Unit $8a_3$, pervasive limonite and hematite alteration.
99109	Tr-S-21	2.0	Chip	Unit $8a_3$, pervasive limonite and hematite alteration. Includes 10-cm. arsenopyrite, galena and stibnite vein in a shear zone.
99110	Tr-S-21	2.0	Chip	Unit $8a_3$, pervasive limonite and hematite alteration.

Sample No.	Trench No.	Length (m.)	Type	Description
99111	Tr-S-22	2.0	Chip	Unit $8a_3$, sheared with pervasive limonite and hematite alteration.
99112	Tr-S-22	2.0	Chip	Unit $8a_3$, sheared with pervasive limonite and hematite alteration. Minor clay-gouge shear zones.
99113	Tr-S-22	2.0	Chip	Unit $8a_3$, very sheared with pervasive limonite and hematite alteration. Unit 11b for 0.5 m.
99114	Tr-S-21	1.3	Chip	Unit $8a_3$, pervasive limonite and hematite alteration. Includes a 5-cm. shear zone with arsenic oxide in clay gouge.
99115	Tr-S-23	1.0	Chip	Unit $8a_1$ with a 10-cm. arsenopyrite, pyrite, galena and stibnite vein.
99116	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99117	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99118	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99119	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99120	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99121	Tr-S-23	2.0	Chip	Unit $8a_1$ with limonite and hematite alteration along fractures.
99122	Tr-S-31	1.0	Chip	Unit $8a_3$ (?) with minor limonite and hematite alteration. Highly sheared.
99123	Tr-S-31	2.0	Chip	Large quartz boudin within unit $8a_3$.
99124	Tr-S-31	2.0	Chip	Unit $8a_3$, micaceous.
99125	Tr-S-31	2.0	Chip	Unit $8a_3$, micaceous.
99126	Tr-S-31	1.0	Chip	Unit $8a_1$, micaceous. Includes a 1.5-cm. arsenopyrite and stibnite vein.
99127	Tr-S-31	1.0	Chip	Unit $8a_1$, micaceous.
99128	Tr-S-32	1.0	Chip	Unit $8a_3$. Includes a 2.0-cm. arsenopyrite vein.

Sample No.	Trench No.	Length (m.)	Type	Description
99129	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99130	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99131	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99132	Tr-S-29	2.0	Chip	Unit $8a_1$ (graphitic) with limonite and hematite along fractures.
99133	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99134	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99135	Tr-S-29	2.0	Chip	Unit $8a_2$ (graphitic) with limonite, hematite and arsenic oxide along fractures.
99136	Tr-S-29	2.0	Chip	Unit $8a_2$ (graphitic) with limonite and hematite along fractures. Includes a 3.0-cm. arsenopyrite and galena vein.
99137	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99138	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99139	Tr-S-29	2.0	Chip	Unit $8a_2$ with limonite and hematite along fractures.
99140	Tr-S-23	2.0	Chip	Unit $8a_3$ with limonite and hematite along fractures. Includes a very iron-rich oxidized shear zone.

APPENDIX II

Eco-Tech Laboratories Ltd.

Certificates of Analysis

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 12, 1990

CERTIFICATE OF ANALYSIS ETK 90-532

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

P A R T I A L S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 60 ROCK/CORE samples received SEPTEMBER 6, 1990
PROJECT: P90 - 19

ET#			DESCRIPTION	AU (ppb)	AU (g/t)	AU (oz/t)
532	-	1	99001	285		
532	-	2	99002	350		
532	-	3	99003	25		
532	-	4	99004	>1000	1.48	.043
532	-	5	99005	335		
532	-	6	99006	290		
532	-	7	99007	100		
532	-	8	99008	>1000	2.26	.066
532	-	9	99009	210		
532	-	10	99010	330		
532	-	11	99011	50		
532	-	12	99012	>1000	1.23	.036
532	-	13	99013	365		
532	-	14	99014	145		
532	-	15	99015	>1000	2.29	.067
532	-	16	99016	50		
532	-	17	99017	105		
532	-	18	99018	240		
532	-	19	99019	1000		
532	-	20	99020	555		
532	-	21	99021	>1000	1.01	.029
532	-	22	99022	305		
532	-	23	99023	210		
532	-	24	99024	30		
532	-	25	99025	>1000	6.42*	.187
532	-	26	100401	>1000	1.75	.051
532	-	27	100402	>1000	.98	.029
532	-	28	100403	>1000	2.12	.062
532	-	29	100404	>1000	4.54	.132
532	-	30	100405	>1000	1.12	.033

Jutta Jealouse, Certified Assayer

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

MINOREX CONSULTING LTD. SEPTEMBER 12, 1990

ET#			DESCRIPTION	AU (ppb)	AU (g/t)	AU (oz/t)
532	-	31	100406	990		
532	-	32	100407	>1000	1.19	.035
532	-	33	100408	765		
532	-	34	100409	395		
532	-	35	100410	>1000	1.94	.057
532	-	36	100411	>1000	1.47	.043
532	-	37	100412	400		
532	-	38	100413	610		
532	-	39	100414		1.99*	.058
532	-	40	100415		2.19*	.064
532	-	41	100416		.79*	.023
532	-	42	100417		1.94*	.057
532	-	43	100418		.25*	.007
532	-	44	100419		.40*	.012
532	-	45	100420	85		
532	-	46	100421	85		
532	-	47	100422	365		
532	-	48	100423	150		
532	-	49	100424	80		
532	-	50	100425	30		
532	-	51	100426	<5		
532	-	52	100427	15		
532	-	53	100428	<5		
532	-	54	100429	360		
532	-	55	100430	20		
532	-	56	100431	65		
532	-	57	100432	<5		
532	-	58	100433	<5		
532	-	59	100434	20		
532	-	60	100435	<5		

NOTE: *Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B.LUECK
SITE 15, COMP 52
R.R.#1
WHITEHORSE, Y.T.
Y1A 5A5

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

September 13, 1990

CERTIFICATE OF ANALYSIS ETK 90-532

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 60 ROCK/CORE samples received SEPTEMBER 6, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)	AG (g/t)	PB (%)	AS (%)
532 - 4	99004	1.48	.043		.66	
532 - 6	99006					.94
532 - 7	99007					.61
532 - 8	99008	2.26	.066			.80
532 - 12	99012	1.23	.036			.62
532 - 15	99015	2.29	.067	32.2		
532 - 19	99019					.93
532 - 21	99021	1.01	.029			.93
532 - 25	99025	6.42 *	.187	43.6	1.15	6.28
532 - 26	100401	1.75	.051			
532 - 27	100402	.98	.029			
532 - 28	100403	2.12	.062			
532 - 29	100404	4.54	.132			
532 - 30	100405	1.12	.033			
532 - 32	100407	1.19	.035			
532 - 35	100410	1.94	.057			
532 - 36	100411	1.47	.043			
532 - 39	100414	1.99 *	.058			
532 - 40	100415	2.19 *	.064			
532 - 41	100416	.79 *	.023			
532 - 42	100417	1.94 *	.057			
532 - 43	100418	.25 *	.007			
532 - 44	100419	.40 *	.012			

NOTE: *Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B.LUECK
SITE 15, COMP 52
R.R.#1
WHITEHORSE, Y.T.
Y1A 5A5

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
532-25	6.3	28.1457	6.419482
39	1.84	5.250672	1.9922
40	1.47	76.57895	2.194769
41	.79	4.166667	.7937204
42	1.58	155.6452	1.949232
43	.19	2.986111	.2492728
44	.42	2.253944E-03	.4006191

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

September 13, 1990

CERTIFICATE OF ANALYSIS ETK 90-532

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 60 ROCK/CORE samples received SEPTEMBER 6, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)	AG (g/t)	PB (%)	AS (%)
532 - 4	99004	1.48	.043		.66	
532 - 6	99006					.94
532 - 7	99007					.61
532 - 8	99008	2.26	.066			.80
532 - 12	99012	1.23	.036			.62
532 - 15	99015	2.29	.067	32.2		
532 - 19	99019					.93
532 - 21	99021	1.01	.029			.93
532 - 25	99025	6.42 *	.187	43.6	1.15	6.28
532 - 26	100401	1.75	.051			
532 - 27	100402	.98	.029			
532 - 28	100403	2.12	.062			
532 - 29	100404	4.54	.132			
532 - 30	100405	1.12	.033			
532 - 32	100407	1.19	.035			
532 - 35	100410	1.94	.057			
532 - 36	100411	1.47	.043			
532 - 39	100414	1.99 *	.058			
532 - 40	100415	2.19 *	.064			
532 - 41	100416	.79 *	.023			
532 - 42	100417	1.94 *	.057			
532 - 43	100418	.25 *	.007			
532 - 44	100419	.40 *	.012			

NOTE: *Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B.LUECK
SITE 15, COMP 52
R.R.#1
WHITEHORSE, Y.T.
Y1A 5A5

SC90/MINOREX

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

September 13, 1990

CERTIFICATE OF ANALYSIS ETK 90-532A

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

S C R E E N S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 60 ROCK/CORE samples received SEPTEMBER 6, 1990
PROJECT: P90 - 19 SCREENS AS REQUESTED

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)
532 - 40	100415	1.29 *	.038
532 - 41	100416	.57 *	.017

NOTE: * = Entire sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B.LUECK
SITE 15, COMP 52
R.R.#1
WHITEHORSE, Y.T.
Y1A 5A5

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
532-40	1.23	1.517163	1.28596
532-41	.73	.3125351	.567562

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MINOREX CONSULTING LTD. - ETK 90-532
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

SEPTEMBER 13, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PAGE 1

PROJECT:P90-19
60 ROCK/CORE SAMPLES RECEIVED SEPTEMER 6, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
532 - 1	99001	285	1.8	1.66	1325	6	97	<5	.37	8	14	38	156	4.49	.19	24	.45	1202	3	.04	10	551	29	112	<20	38	.03	<10	34	<10	7	302
532 - 2	99002	350	1.0	.76	3495	5	76	<5	.20	10	14	53	68	3.14	<.01	28	.12	1452	3	<.01	10	365	24	63	<20	23	<.01	<10	12	<10	9	137
532 - 3	99003	25	.5	3.03	263	4	195	<5	.72	2	17	83	35	5.23	.76	28	1.09	1034	2	.06	37	1025	13	38	<20	71	.04	<10	72	<10	7	105
532 - 4	99004	>1000	14.8	1.75	2723	<2	108	<5	.36	54	15	47	97	5.65	<.01	13	.50	1307	2	.05	9	758	6422	3799	<20	39	.04	<10	50	<10	3	590
532 - 5	99005	335	4.2	1.60	2032	7	117	<5	.44	6	8	85	90	3.70	<.01	<10	.66	637	4	.04	12	393	53	78	<20	57	.03	<10	27	<10	2	94
532 - 6	99006	290	1.5	1.31	9400	7	124	<5	.25	28	10	140	70	3.59	<.01	<10	.36	272	9	.03	11	366	28	49	<20	46	.02	<10	18	<10	3	124
532 - 7	99007	100	2.3	.97	6024	7	73	<5	.13	15	4	150	110	4.34	<.01	12	.48	289	4	.01	10	568	35	59	<20	72	<.01	<10	28	<10	<1	47
532 - 8	99008	>1000	2.2	1.07	7941	7	82	<5	.21	20	9	144	87	3.94	<.01	<10	.35	264	9	.04	6	366	46	59	<20	74	.02	<10	22	<10	<1	58
532 - 9	99009	210	1.2	4.46	798	<2	100	<5	1.98	2	12	67	107	4.63	.68	<10	1.08	755	3	.22	8	755	28	20	<20	94	.08	<10	74	<10	3	69
532 - 10	99010	330	.6	5.78	330	<2	129	<5	2.75	2	10	87	74	4.15	1.12	<10	1.26	1088	7	.25	7	707	<2	6	<20	132	.11	<10	107	<10	3	67
532 - 11	99011	50	.8	3.98	642	5	131	<5	1.21	1	13	156	154	6.15	.65	<10	1.90	1102	6	.16	32	629	5	<5	<20	79	.09	<10	64	<10	2	68
532 - 12	99012	>1000	2.1	1.98	5812	7	108	<5	.57	10	15	182	189	4.78	<.01	<10	.95	554	16	.06	8	245	59	51	<20	49	.02	<10	14	<10	1	53
532 - 13	99013	365	1.4	3.20	2840	4	98	<5	1.03	28	9	40	97	4.15	<.01	<10	.96	499	2	.05	7	580	47	30	<20	89	.06	<10	72	<10	4	254
532 - 14	99014	145	1.8	1.96	1978	6	83	<5	.34	27	4	129	96	3.12	<.01	<10	.62	371	8	.01	6	335	43	33	<20	72	.03	<10	16	<10	6	434
532 - 15	99015	>1000	>30.0	.98	3527	5	54	<5	.27	69	3	67	120	4.20	<.01	<10	.27	312	3	.02	3	215	478	181	<20	272	<.01	<10	13	<10	4	536
532 - 16	99016	50	.9	3.01	516	3	52	<5	1.26	6	5	124	62	2.16	.10	<10	.68	518	7	.21	4	245	23	16	<20	101	.04	<10	16	<10	7	205
532 - 17	99017	105	1.6	2.25	1249	6	107	<5	.42	3	15	49	72	5.70	.03	18	.96	1150	2	.03	18	848	23	77	<20	67	.02	<10	65	<10	8	181
532 - 18	99018	240	4.0	.75	2145	7	72	<5	.22	4	13	53	71	4.02	<.01	19	.19	658	3	.01	13	718	16	75	<20	43	<.01	<10	17	<10	4	173
532 - 19	99019	1000	7.8	.54	9977	8	77	<5	.17	18	13	221	31	3.12	<.01	<10	.12	646	15	<.01	9	459	293	283	<20	96	<.01	<10	12	<10	2	174
532 - 20	99020	545	1.9	.54	7605	7	79	<5	.18	6	5	81	62	4.12	<.01	12	.10	246	4	.01	4	553	11	39	<20	64	<.01	<10	13	<10	2	100
532 - 21	99021	>1000	7.3	.70	9862	7	109	<5	.16	10	4	162	98	4.48	<.01	17	.12	195	10	.01	5	635	111	103	<20	43	<.01	<10	11	<10	3	175
532 - 22	99022	305	3.1	1.64	2108	7	111	<5	.25	4	20	93	161	4.86	<.01	16	.77	997	4	.02	23	737	28	54	<20	29	.03	<10	52	<10	5	209
532 - 23	99023	210	1.6	.96	1466	7	113	<5	.23	7	17	100	98	4.08	<.01	20	.20	2474	7	.01	23	546	30	54	<20	25	<.01	<10	27	<10	7	245
532 - 24	99024	30	.6	2.50	635	8	124	<5	.50	2	14	110	57	4.73	.46	27	1.00	1143	2	.03	27	712	12	23	<20	39	.05	<10	43	<10	12	119
532 - 25	99025	>1000	>30.0	2.42	>10000	<2	157	30	.81	124	27	46	70	9.28	<.01	<10	1.04	1009	2	.17	6	822	>10000	2766	<20	117	.05	<10	102	<10	2	319
532 - 26	100401	>1000	2.3	3.45	372	<2	94	<5	2.73	1	14	87	362	2.98	.09	<10	1.25	355	<1	.22	30	1440	48	24	<20	293	.11	<10	86	<10	5	30

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-532

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
532 - 27	100402	>1000	1.2	3.72	68	<2	59	<5	2.73	<1	12	113	259	2.87	.29	<10	1.18	316	1	.28	30	1399	19	7	<20	305	.17	<10	93	<10	7	28
532 - 28	100403	>1000	2.7	3.35	<5	<2	41	<5	2.92	1	15	86	535	2.26	.22	<10	.82	243	<1	.26	21	1329	<2	<5	<20	265	.14	<10	64	<10	7	28
532 - 29	100404	>1000	7.6	2.68	<5	<2	36	<5	2.34	1	14	59	856	1.98	.15	<10	.71	226	<1	.18	20	1406	5	<5	<20	199	.09	<10	49	<10	5	30
532 - 30	100405	>1000	3.0	3.68	<5	<2	85	<5	2.85	<1	16	65	583	2.77	.65	<10	1.08	315	<1	.27	18	1356	2	<5	<20	213	.13	<10	93	<10	6	33
532 - 31	100406	990	2.0	5.24	<5	<2	160	<5	2.84	<1	18	79	350	3.77	1.72	<10	1.82	350	<1	.26	23	1142	<2	<5	<20	224	.18	<10	143	<10	5	34
532 - 32	100407	>1000	4.0	4.55	<5	2	110	<5	1.89	<1	43	105	967	5.94	1.88	<10	2.33	368	1	.20	33	1052	<2	<5	<20	141	.16	<10	164	<10	2	46
532 - 33	100408	775	1.2	5.89	<5	<2	187	7	2.88	<1	25	95	340	4.38	2.03	<10	1.95	364	2	.39	24	1165	<2	<5	<20	215	.18	<10	210	<10	5	36
532 - 34	100409	395	.5	3.81	<5	<2	80	<5	2.46	<1	17	83	209	3.88	.57	<10	1.60	400	<1	.23	23	1111	<2	<5	<20	172	.15	<10	141	<10	5	32
532 - 35	100410	>1000	1.7	3.68	<5	4	135	6	1.74	<1	24	88	446	5.03	1.16	<10	1.90	417	<1	.25	26	1023	<2	<5	<20	190	.22	<10	147	<10	6	41
532 - 36	100411	>1000	1.6	3.23	<5	<2	56	<5	2.22	<1	12	80	368	3.14	.26	<10	1.29	350	<1	.20	24	1090	4	<5	<20	213	.13	<10	86	<10	4	33
532 - 37	100412	400	<.2	4.86	<5	<2	147	<5	2.75	<1	13	82	69	4.01	1.09	<10	1.76	411	<1	.38	27	1051	<2	<5	<20	340	.22	<10	130	<10	7	31
532 - 38	100413	670	.2	5.12	<5	<2	149	<5	2.39	<1	28	153	297	6.58	2.12	<10	2.29	569	<1	.20	35	1111	<2	<5	<20	268	.24	<10	192	<10	5	41
532 - 39	100414		2.5	3.73	<5	7	82	<5	1.40	<1	48	192	849	7.86	1.37	<10	2.22	547	<1	.08	37	1034	<2	<5	<20	144	.20	<10	148	<10	2	45
532 - 40	100415		1.1	6.07	<5	<2	171	<5	2.59	<1	28	117	477	6.37	2.56	<10	2.52	508	1	.38	26	1268	<2	<5	<20	250	.23	<10	241	<10	4	47
532 - 41	100416		<.2	6.75	<5	<2	208	<5	2.44	<1	28	80	165	6.45	3.36	<10	3.00	512	7	.41	21	1207	<2	<5	<20	178	.22	<10	236	<10	3	48
532 - 42	100417		.2	6.33	<5	<2	283	<5	2.62	<1	23	119	200	5.47	2.70	<10	2.41	492	4	.41	15	1211	<2	<5	<20	258	.21	<10	179	<10	5	41
532 - 43	100418		<.2	1.77	242	7	76	6	.91	<1	10	63	74	2.43	.16	13	.50	292	4	.17	2	584	6	<5	<20	67	.12	<10	23	<10	8	37
532 - 44	100419		<.2	1.71	314	5	57	<5	1.12	3	6	97	46	2.05	.07	11	.33	513	6	.14	3	462	31	<5	<20	67	.07	<10	6	<10	6	159
532 - 45	100420	635	<.2	2.01	998	4	85	<5	1.42	4	4	74	31	1.96	<.01	<10	.39	264	5	.16	2	432	8	<5	<20	77	.03	<10	3	<10	4	92
532 - 46	100421	105	<.2	1.47	531	<2	88	<5	2.00	2	5	102	25	1.51	<.01	13	.39	241	8	.10	<1	422	7	<5	<20	46	.01	<10	6	<10	6	29
532 - 47	100422	365	1.4	.61	1154	<2	56	21	2.85	3	25	71	293	2.42	<.01	14	.24	523	4	<.01	2	404	12	613	<20	48	<.01	<10	4	<10	7	45
532 - 48	100423	150	.8	.71	2341	<2	55	<5	3.29	5	10	66	62	1.71	<.01	15	.25	675	7	<.01	1	397	4	79	<20	69	<.01	<10	3	<10	8	47
532 - 49	100424	80	<.2	.97	1119	<2	74	<5	1.59	2	4	85	21	1.98	<.01	14	.27	386	5	.06	1	419	6	13	<20	53	.02	<10	6	<10	6	24
532 - 50	100425	30	<.2	2.06	327	<2	72	<5	2.30	1	7	79	41	2.67	.16	12	.61	383	6	.15	2	761	40	11	<20	123	.03	<10	26	<10	6	38
532 - 51	100426	<5	<.2	5.98	<5	<2	134	<5	4.62	<1	26	124	100	5.49	2.40	<10	2.61	842	2	.31	31	1328	<2	<5	<20	234	.16	<10	157	<10	4	53
532 - 52	100427	15	.5	5.17	685	<2	122	<5	3.92	2	20	143	63	4.84	1.70	<10	2.40	713	4	.43	32	1396	<2	7	<20	249	.13	<10	138	<10	5	47
532 - 53	100428	<5	<.2	4.48	<5	<2	162	<5	5.03	<1	15	119	50	4.55	1.73	<10	2.68	827	1	.25	28	1227	<2	<5	<20	228	.13	<10	130	<10	6	50
532 - 54	100429	360	<.2	5.29	709	<2	125	8	4.07	2	32	170	124	5.04	1.36	<10	2.38	460	5	.17	33	1304	<2	<5	<20	186	.12	<10	139	<10	4	37
532 - 55	100430	20	.2	5.18	<5	<2	138	<5	3.57	<1	14	145	77	4.59	2.48	<10	2.43	571	3	.28	30	1336	<2	<5	<20	255	.15	<10	138	<10	4	41
532 - 56	100431	65	<.2	4.27	<5	<2	140	<5	3.26	<1	19	142	72	4.55	2.33	<10	2.21	612	3	.35	31	1328	<2	<5	<20	159	.17	<10	140	<10	4	40
532 - 57	100432	<5	<.2	5.07	<5	<2	116	<5	5.22	<1	21	145	76	4.49	2.45	<10	2.28	766	10	.34	32	1242	<2	<5	<20	180	.19	<10	147	<10	4	48
532 - 58	100433	<5	<.2	4.43	<5	<2	83	<5	5.73	<1	26	142	101	4.14	2.14	<10	1.83	694	5	.15	29	1104	<2	<5	<20	161	.13	<10	124	<10	2	46
532 - 59	100434	20	<.2	3.46	<5	<2	112	<5	5.08	<1	20	117	90	3.11	1.14	<10	1.39	579	2	.20	47	1075	2	<5	<20	225	.12	<10	81	<10	4	35
532 - 60	100435	<5	<.2	3.96	<5	<2	82	<5	4.78	<1	21	60	83	2.94	1.47	<10	1.59	530	2	.25	17	1001	3	<5	<20	309	.09	<10	81	<10	2	36

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

SC90/MINOREX

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

September 21, 1990

CERTIFICATE OF ANALYSIS ETK 90-546

R E V I S E D

A S S A Y S

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 98 ROCK/CORE samples received SEPTEMBER 10, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)	AG (g/t)	AG (oz/t)	AS (%)	PB (%)	SB (%)	ZN (%)
546 - 1	100551	2.28	.066						
546 - 2	100552	1.18	.034						
546 - 3	100553	1.03	.030						
546 - 6	100556	1.73	.050						
546 - 12	100562	2.92	.085						
546 - 13	100563	4.08	.119						
546 - 14	100564	2.83	.083						
546 - 15	100565	1.23	.036						
546 - 16	100566	3.91	.114						
546 - 17	100567	4.01	.117						
546 - 18	100568	6.79*	.198						
546 - 23	100573	1.63	.048						
546 - 57	99073			33.8		1.00	1.01	.41	
546 - 59	99075			22.9					.61
546 - 66	99082			23.9	.70				
546 - 68	99084			89.6	2.61	.44	2.48	1.89	.68
546 - 93	99109	1.47	.043			.37			

NOTE: * = SAMPLE SCREENED & METALLICS ASSAYED

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B.LUECK
SITE 15, COMP 52
R.R.#1
WHITEHORSE, Y.T.
Y1A 5A5

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
546-18	6.67	43.23145	6.793812
546-15	1.18	3.485064	1.230466
546-16	2.69	391.2397	3.905725
546-17	3.7	11.12296	4.007381

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MINOREX CONSULTING LTD. - ETK 90-546
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

SEPTEMBER 21, 1990

R E V I S E D

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-19
98 ROCK/CORE SAMPLES RECEIVED SEPTEMER 10, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
546 - 1	100551	>1000	1.6	4.92	17	<2	156	5	3.56	<1	17	109	255	4.70	.77	<10	2.15	548	<1	.22	33	1674	49	<5	<20	320	.18	<10	162	<10	8	101
546 - 2	100552	>1000	3.2	3.51	21	<2	48	<5	2.62	<1	16	116	374	3.34	.18	<10	1.37	383	<1	.20	36	1591	22	<5	<20	268	.14	<10	100	<10	7	53
546 - 3	100553	>1000	.5	3.68	23	<2	81	<5	5.21	<1	17	144	149	5.05	.29	<10	2.32	652	<1	.05	41	1460	11	5	<20	191	.18	<10	181	<10	8	67
546 - 4	100554	990	.3	4.47	20	<2	146	<5	3.51	<1	14	123	91	3.71	.79	<10	1.75	427	<1	.24	31	1625	16	<5	<20	285	.18	<10	136	<10	7	49
546 - 5	100555	125	.9	3.98	16	<2	220	<5	4.62	<1	14	114	225	4.32	.34	<10	2.14	601	<1	.14	26	1579	8	6	<20	214	.12	<10	174	<10	7	65
546 - 6	100556	>1000	8.2	4.36	21	<2	100	<5	7.25	<1	47	105	1407	7.52	.34	<10	3.56	870	<1	<.01	36	961	14	24	<20	228	.12	<10	232	<10	6	123
546 - 7	100557	100	.5	6.31	25	<2	167	<5	4.07	<1	22	127	204	4.80	1.07	<10	2.20	518	3	.28	33	1391	12	<5	<20	252	.26	<10	197	<10	10	61
546 - 8	100558	420	.6	7.73	53	<2	254	<5	3.59	<1	36	125	327	6.22	2.37	<10	2.51	366	1	.39	37	1647	17	<5	<20	285	.23	<10	261	<10	6	42
546 - 9	100559	300	<.2	6.65	14	<2	249	<5	3.23	<1	30	105	137	5.88	2.84	<10	2.47	446	<1	.24	32	1437	14	<5	<20	166	.25	<10	246	<10	6	64
546 - 10	100560	310	1.8	6.15	28	<2	131	<5	4.27	<1	19	97	201	4.10	1.02	<10	1.92	434	3	.24	24	1373	9	<5	<20	203	.23	<10	169	<10	9	49
546 - 11	100561	250	.3	5.56	35	<2	130	<5	4.16	<1	25	104	147	5.29	1.01	<10	2.49	606	1	.19	34	1058	13	<5	<20	174	.23	<10	177	<10	7	59
546 - 12	100562	>1000	4.0	6.05	24	<2	154	<5	3.77	<1	23	102	831	4.97	1.36	<10	2.38	496	4	.29	36	1270	14	<5	<20	202	.22	<10	184	<10	7	73
546 - 13	100563	>1000	8.0	2.87	16	<2	34	10	2.87	1	13	103	1310	1.95	.11	<10	.70	282	3	.16	28	1386	12	<5	<20	120	.09	<10	54	<10	7	62
546 - 14	100564	>1000	5.3	2.88	21	<2	45	<5	2.63	<1	18	218	868	2.58	.09	<10	.91	341	4	.23	38	1998	13	<5	<20	169	.11	<10	49	<10	7	72
546 - 15	100565	>1000	2.3	2.53	11	<2	39	<5	2.44	<1	19	291	404	2.78	.11	<10	1.05	352	3	.24	40	2359	10	<5	<20	233	.10	<10	49	<10	7	54
546 - 16	100566	>1000	3.4	3.03	24	3	42	23	2.32	<1	15	314	736	3.28	.13	<10	1.52	380	11	.23	70	1949	15	<5	<20	200	.14	<10	64	<10	7	78
546 - 17	100567	>1000	6.3	3.86	16	<2	110	5	2.56	<1	20	181	902	3.55	.79	<10	1.92	397	5	.21	59	1230	15	<5	<20	276	.17	<10	91	<10	7	87
546 - 18	100568	>1000	7.2	4.43	31	<2	147	11	4.73	<1	38	201	1322	5.64	1.33	<10	2.94	632	9	.17	67	1038	11	19	<20	265	.17	<10	158	<10	6	122
546 - 19	100569	150	.6	5.38	21	<2	229	<5	2.40	<1	28	107	270	6.00	2.30	<10	3.05	476	<1	.29	37	1388	6	<5	<20	229	.22	<10	217	<10	5	92
546 - 20	100570	165	.6	3.37	19	<2	50	<5	4.08	<1	14	83	184	3.61	.15	<10	1.62	547	2	.21	23	1201	12	<5	<20	240	.12	<10	105	<10	7	65
546 - 21	100571	800	.7	4.63	7	<2	119	<5	3.34	<1	30	91	228	4.04	.70	<10	1.27	383	2	.37	36	1441	9	<5	<20	302	.15	<10	101	<10	6	54
546 - 22	100572	510	1.1	4.81	19	<2	97	<5	3.28	<1	40	197	386	4.53	.75	<10	1.20	327	2	.34	72	1539	11	<5	<20	217	.14	<10	108	<10	4	55
546 - 23	100573	>1000	3.8	4.39	34	<2	96	8	4.26	<1	36	185	900	4.34	.77	<10	1.30	416	4	.27	64	1439	10	<5	<20	226	.12	<10	102	<10	4	81
546 - 24	100574	275	<.2	6.01	<5	<2	78	<5	3.50	<1	36	131	262	5.15	1.27	<10	1.57	327	3	.50	39	1668	7	<5	<20	292	.20	<10	158	<10	6	62
546 - 25	100575	765	1.0	3.92	54	<2	65	<5	3.03	<1	33	97	390	4.84	.58	<10	1.27	375	<1	.36	49	1322	10	<5	<20	343	.21	<10	102	<10	7	70
546 - 26	100576	610	.6	3.72	37	5	59	7	2.16	<1	35	148	412	5.91	.69	<10	1.55	388	3	.30	56	1575	12	11	<20	305	.20	<10	117	<10	7	63

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-546

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
546 -27	100577	190	.3	3.88	22	2	67	<5	2.36	<1	24	66	171	4.33	.74	<10	1.16	294	12	.40	20	1496	9	<5	<20	313	.15	<10	81	<10	7	42
546 -28	100578	55	<.2	1.76	18	4	58	<5	.99	<1	8	68	74	2.75	.17	<10	.54	177	5	.17	2	706	6	<5	<20	95	.12	<10	32	<10	8	25
546 -29	100579	75	.3	1.29	11	7	57	<5	.85	<1	4	80	22	2.13	.20	12	.33	167	7	.11	3	524	10	<5	<20	67	.10	<10	13	<10	8	19
546 -30	100580	15	<.2	5.60	42	<2	196	<5	5.53	<1	21	163	85	4.75	1.62	<10	2.04	892	4	.19	28	1380	11	<5	<20	367	.23	<10	174	<10	9	93
546 -31	100581	50	<.2	6.29	269	<2	90	<5	5.04	<1	25	159	154	5.39	1.61	<10	1.99	575	3	.11	30	1355	12	<5	<20	299	.20	<10	188	<10	5	78
546 -32	100582	35	<.2	2.30	637	4	74	<5	1.97	<1	6	84	36	2.81	<.01	13	.59	275	7	.16	3	825	9	<5	<20	123	.11	<10	31	<10	8	34
546 -33	100583	30	.5	1.35	316	7	60	<5	.92	<1	3	112	11	1.94	.09	15	.27	196	10	.13	3	442	10	<5	<20	67	.07	<10	8	<10	7	16
546 -34	100584	15	.3	1.52	209	7	65	<5	1.07	<1	3	136	4	2.31	.18	19	.30	292	10	.14	2	479	10	<5	<20	88	.07	<10	8	<10	9	29
546 -35	99051	40	1.3	1.12	999	8	167	<5	.29	<1	7	120	20	2.46	<.01	17	.25	197	10	.05	10	735	149	104	<20	38	<.01	<10	8	<10	4	54
546 -36	99052	45	1.5	.52	2129	9	158	<5	.11	2	6	125	5	2.61	<.01	22	.05	204	8	.01	3	443	170	74	<20	17	<.01	<10	<1	<10	5	139
546 -37	99053	35	.8	.64	950	9	108	<5	.10	2	12	106	18	2.72	<.01	31	.06	710	9	.03	9	434	44	36	<20	13	<.01	<10	<1	<10	10	151
546 -38	99054	30	1.2	.73	1242	10	146	<5	.13	2	8	166	9	2.20	<.01	35	.06	572	11	.03	6	438	96	32	<20	19	<.01	<10	<1	<10	12	78
546 -39	99055	10	1.0	.84	1016	10	164	<5	.15	3	7	151	9	2.12	<.01	38	.09	681	11	.03	10	435	43	28	<20	17	<.01	<10	1	<10	10	132
546 -40	99056	10	.7	.83	669	10	121	<5	.14	2	3	98	7	1.96	<.01	34	.14	318	6	.04	4	458	38	20	<20	16	<.01	<10	1	<10	7	89
546 -41	99057	45	14.0	1.19	2276	5	365	<5	.19	5	10	140	50	4.12	<.01	32	.31	304	7	.02	13	595	3066	1828	<20	28	<.01	<10	6	<10	5	275
546 -42	99058	10	2.3	1.14	845	8	144	<5	.16	1	13	124	38	3.60	<.01	35	.22	420	11	.02	10	561	472	308	<20	27	<.01	<10	6	<10	6	203
546 -43	99059	10	1.2	.95	447	8	128	<5	.14	<1	6	104	28	2.72	.03	24	.21	267	6	.04	9	454	240	163	<20	21	<.01	<10	6	<10	5	175
546 -44	99060	5	1.3	.75	1036	7	178	<5	.16	3	4	131	16	1.80	<.01	23	.15	209	10	.03	5	436	208	103	<20	22	<.01	<10	5	<10	6	205
546 -45	99061	10	1.2	.96	675	8	135	<5	.15	2	4	95	21	2.33	<.01	30	.20	267	8	.02	6	487	205	96	<20	21	<.01	<10	8	<10	5	200
546 -46	99062	5	1.4	1.01	460	3	123	<5	.13	1	4	100	23	2.38	.04	23	.20	254	10	.03	6	446	277	168	<20	19	<.01	<10	6	<10	5	227
546 -47	99063	5	.6	.84	229	4	110	<5	.11	<1	5	298	11	1.85	.17	28	.16	304	8	.05	8	380	84	27	<20	13	<.01	<10	4	<10	6	120
546 -48	99064	5	1.0	.72	287	4	158	<5	.11	1	6	142	16	1.94	.12	26	.13	350	12	.04	5	408	111	49	<20	15	<.01	<10	2	<10	5	150
546 -49	99065	10	.9	.53	1301	3	144	<5	.11	2	7	101	11	1.61	<.01	19	.09	411	5	.03	4	379	154	50	<20	13	<.01	<10	3	<10	4	109
546 -50	99066	10	1.4	.72	642	4	154	<5	.15	3	7	96	20	2.60	<.01	31	.16	761	9	.03	6	455	187	86	<20	19	<.01	<10	4	<10	5	200
546 -51	99067	5	.3	2.29	90	<2	108	<5	.75	<1	26	56	41	5.97	.17	23	.93	1577	2	.03	29	1982	12	<5	<20	48	<.01	<10	70	<10	6	223
546 -52	99068	15	2.7	.95	413	3	163	<5	.18	7	6	138	19	2.33	.09	25	.17	361	11	.02	7	420	282	142	<20	21	<.01	<10	2	<10	5	297
546 -53	99069	10	2.6	1.04	883	<2	50	<5	.33	4	7	44	9	2.23	<.01	22	.29	360	5	<.01	8	384	443	241	<20	34	<.01	<10	2	<10	6	260
546 -54	99070	5	<.2	.88	62	3	93	<5	.23	2	4	62	21	2.39	.18	28	.16	143	6	.02	8	596	7	13	<20	33	<.01	<10	7	<10	5	120
546 -55	99071	20	.3	1.57	178	3	117	<5	.42	1	8	168	24	2.74	.19	26	.30	312	8	.04	14	588	42	17	<20	81	<.01	<10	15	<10	7	129
546 -56	99072	10	.7	2.11	506	<2	173	<5	.58	6	14	88	29	2.79	<.01	25	1.09	1555	7	.03	34	988	51	44	<20	90	<.01	<10	29	<10	7	409
546 -57	99073	45	>20.0	1.17	>4000	<2	92	<5	.35	15	10	104	66	5.07	<.01	18	.23	497	9	<.01	11	479	>4000	>4000	<20	88	<.01	<10	7	<10	4	454
546 -58	99074	10	3.7	1.06	1480	4	163	<5	.35	19	8	118	28	3.95	<.01	21	.36	332	8	.01	14	934	615	462	<20	42	<.01	<10	15	<10	4	774
546 -59	99075	15	>20.0	2.17	1450	<2	70	<5	2.05	127	11	71	53	5.39	<.01	13	.79	760	6	.08	12	1307	3351	3025	<20	105	.05	<10	23	27	5	>4000
546 -60	99076	10	.3	2.65	53	<2	68	<5	10.33	2	10	45	27	2.54	.25	<10	.65	1220	3	<.01	13	875	24	24	<20	208	.05	<10	35	<10	3	195
546 -61	99077	5	.5	2.79	161	<2	83	<5	10.98	<1	11	49	37	2.53	.33	<10	.95	1159	5	<.01	23	856	55	42	<20	206	.03	<10	35	<10	6	219
546 -62	99078	10	.7	1.95	680	3	91	<5	.80	<1	19	63	101	4.43	.13	21	.68	432	9	.04	38	1317	60	55	<20	136	<.01	<10	24	<10	<1	32
546 -63	99079	5	.3	3.04	87	<2	97	<5	2.81	<1	9	74	55	3.53	.33	17	.79	825	7	.08	4	981	15	19	<20	176	.04	<10	26	<10	7	54

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-546

PAGE 3

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
546 - 64	99080	5	.2	3.06	124	<2	435	<5	4.54	1	8	67	26	2.84	.69	18	.78	969	6	.16	6	964	36	26	<20	164	.10	<10	48	<10	11	148
546 - 65	99081	5	.7	3.83	210	<2	94	<5	3.04	21	10	78	43	3.53	.13	11	.71	693	6	.22	17	1000	89	115	<20	276	.04	<10	38	<10	5	1017
546 - 66	99082	5	>20.0	2.53	638	<2	115	<5	1.30	25	5	103	20	2.07	.01	13	.33	399	10	.17	4	618	3051	3020	<20	124	.02	<10	8	<10	7	908
546 - 67	99083	10	19.8	.62	1768	<2	134	<5	.32	13	3	177	12	1.60	<.01	20	.07	209	9	.02	4	418	3152	2826	<20	33	<.01	<10	1	<10	5	735
546 - 68	99084	35	>20.0	.72	>4000	<2	39	<5	.16	164	4	133	27	3.64	<.01	12	.15	565	9	<.01	4	365	>4000	>4000	29	11	<.01	<10	<1	26	<1	>4000
546 - 69	99085	10	4.4	.54	635	3	77	<5	.13	8	2	66	15	2.01	<.01	20	.13	341	5	.01	3	348	820	481	<20	12	<.01	<10	<1	<10	4	501
546 - 70	99086	10	3.0	.52	600	3	69	<5	.19	5	2	93	10	1.59	<.01	16	.10	438	5	.02	2	374	232	112	<20	15	<.01	<10	<1	<10	4	302
546 - 71	99087	20	.7	1.00	160	4	85	<5	.26	2	4	103	9	2.15	.18	26	.26	517	7	.05	3	439	151	42	<20	34	<.01	<10	6	<10	6	186
546 - 72	99088	5	.5	1.01	352	4	68	<5	.29	<1	3	58	4	2.05	.09	22	.27	340	5	.04	3	436	16	19	<20	45	<.01	<10	6	<10	6	54
546 - 73	99089	5	.7	1.04	148	4	102	<5	.49	<1	5	84	10	2.06	.17	20	.19	523	7	.04	6	450	26	21	<20	68	<.01	<10	12	<10	7	93
546 - 74	99090	5	2.2	1.27	177	5	86	<5	.30	2	5	140	10	2.36	.19	25	.25	529	12	.05	5	479	144	83	<20	52	<.01	<10	9	<10	6	225
546 - 75	99091	25	1.8	.69	433	5	61	<5	.34	2	3	114	4	1.85	.09	27	.11	459	6	.03	3	395	33	34	<20	33	<.01	<10	<1	<10	7	159
546 - 76	99092	10	2.0	.60	103	3	52	<5	.50	2	3	88	4	1.90	.16	27	.09	424	5	.02	3	392	147	47	<20	41	<.01	<10	<1	<10	7	194
546 - 77	99093	10	.5	3.40	832	<2	175	<5	2.50	4	17	69	46	3.16	.13	12	1.30	574	4	.11	26	1143	18	16	<20	292	.03	<10	31	<10	7	63
546 - 78	99094	5	.6	.97	168	<2	127	<5	1.27	1	5	61	15	1.92	.16	19	.25	278	5	.04	8	551	13	28	<20	71	<.01	<10	5	<10	8	26
546 - 79	99095	10	.3	4.26	93	<2	128	<5	3.41	1	11	76	33	3.73	.25	13	.87	361	6	.22	4	1277	6	<5	<20	237	.11	<10	26	<10	10	28
546 - 80	99096	15	.6	2.51	99	4	140	<5	1.38	<1	13	26	32	2.74	.32	14	.67	202	3	.13	23	1137	9	28	<20	163	.02	<10	20	<10	5	30
546 - 81	99097	60	.7	.56	350	<2	55	<5	1.15	2	2	59	12	1.43	.05	19	.14	249	5	.02	2	365	22	19	<20	45	<.01	<10	<1	<10	7	34
546 - 82	99098	95	.6	.58	366	<2	52	<5	.90	2	2	60	6	1.56	.02	21	.16	269	5	.02	3	368	24	21	<20	34	<.01	<10	1	<10	7	39
546 - 83	99099	5	.5	.90	291	<2	66	<5	.95	1	3	88	4	1.85	.14	26	.21	310	6	.03	3	373	25	21	<20	41	<.01	<10	2	<10	7	42
546 - 84	99100	5	.4	.73	214	<2	57	<5	.98	<1	2	82	3	1.57	.15	21	.16	288	6	.03	3	361	12	12	<20	31	<.01	<10	1	<10	7	39
546 - 85	99101	5	.4	.72	307	<2	68	<5	.81	1	3	76	3	1.72	.11	20	.17	299	4	.04	2	365	15	17	<20	28	<.01	<10	2	<10	7	41
546 - 86	99102	40	.6	.62	353	<2	50	<5	.75	2	3	70	5	1.72	.03	15	.17	281	4	.02	2	361	30	21	<20	28	<.01	<10	1	<10	7	55
546 - 87	99103	5	.5	.97	377	<2	78	<5	1.34	2	2	121	4	1.69	.20	24	.20	556	7	.05	2	368	18	18	<20	73	<.01	<10	3	<10	8	50
546 - 88	99104	80	4.9	1.82	986	3	160	<5	.61	6	11	77	54	3.97	<.01	17	.89	1061	4	<.01	11	1062	70	41	<20	26	<.01	<10	34	<10	10	131
546 - 89	99105	5	.7	2.79	416	<2	163	<5	1.64	2	22	217	54	4.65	.12	20	2.24	1108	8	<.01	75	1774	6	64	<20	83	.01	<10	65	<10	8	93
546 - 90	99106	5	.7	2.37	<5	<2	96	<5	1.75	<1	8	120	37	3.03	.70	13	1.18	936	9	.01	5	320	10	12	<20	42	.01	<10	23	<10	7	50
546 - 91	99107	5	.6	1.60	11	<2	95	<5	2.96	<1	8	134	32	3.06	.48	20	.79	1344	10	<.01	9	408	12	30	<20	76	<.01	<10	13	<10	10	65
546 - 92	99108	5	1.0	.88	338	5	83	<5	.21	1	<1	100	16	2.15	.28	35	.39	155	14	<.01	1	374	9	70	<20	28	<.01	<10	<1	<10	5	22
546 - 93	99109	>1000	10.3	1.09	>4000	<2	84	<5	.96	22	4	91	46	2.52	<.01	28	.60	878	9	<.01	7	356	1698	863	<20	27	<.01	<10	1	<10	7	352
546 - 94	99110	5	1.1	2.64	42	2	100	<5	1.13	<1	12	50	29	4.52	.52	16	1.74	548	5	<.01	10	1623	34	49	<20	28	<.01	<10	17	<10	5	108
546 - 95	99111	5	1.0	1.98	542	<2	69	<5	1.28	3	7	46	59	4.81	.14	32	1.13	1143	8	<.01	4	991	19	31	<20	54	<.01	<10	6	<10	11	90
546 - 96	99112	5	.8	1.98	21	<2	92	<5	.53	<1	8	78	38	4.29	.38	35	1.11	906	7	<.01	7	752	9	20	<20	35	<.01	<10	9	<10	11	73
546 - 97	99113	15	.5	2.39	7	3	127	<5	.59	<1	15	82	56	4.64	.65	24	1.28	942	3	.01	27	727	11	38	<20	31	.02	<10	45	<10	9	68
546 - 98	99114	85	1.2	1.13	251	6	85	<5	.42	1	7	87	35	4.61	.29	31	.32	580	8	<.01	7	1016	21	55	<20	59	<.01	<10	9	<10	6	68

NOTE: < = LESS THAN

C.C.: B. LUECK
SITE 15, COMP.52, R.R.#2
WHITEHORSE, Y.T.
[illegible]

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 21, 1990

CERTIFICATE OF ANALYSIS ETK 90-547

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 47 CORE samples received SEPTEMBER 10, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)
547 - 3	100453	1.36	.040
547 - 4	100454	2.05	.060
547 - 5	100455	2.66	.078
547 - 9	100459	3.90	.114
547 - 29	100503	2.84	.083
547 - 30	100504	8.24 *	.240
547 - 33	100507	2.22	.065
547 - 34	100508	3.87	.113
547 - 35	100509	8.74 *	.255
547 - 36	100510	14.65 *	.427

NOTE: < = LESS THAN
* = Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
547-30	7.49	23.85299	8.236301
547-35	8.05	880.6122	8.746571
547-36	11.74	231.0008	14.65342

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MINOREX CONSULTING LTD. - ETK 90-547

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

SEPTEMBER 21, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-19
47 CORE SAMPLES RECEIVED SEPTEMER 10, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
547 - 1	100451	325	1.2	4.41	25	24	150	<5	4.23	<1	24	122	133	4.64	.84	<10	2.86	691	2	.22	39	1650	7	30	<20	251	.12	<10	188	<10	3	72
547 - 2	100452	215	2.2	4.53	20	34	115	<5	3.22	<1	20	92	371	2.88	.69	<10	1.34	314	4	.48	31	1780	10	10	<20	325	.14	<10	101	<10	2	33
547 - 3	100453	>1000	7.8	2.54	20	32	30	5	2.79	<1	21	69	978	2.51	.09	<10	1.08	336	1	.24	21	1560	8	5	<20	183	.07	<10	78	<10	2	43
547 - 4	100454	>1000	7.2	3.15	30	28	50	<5	2.64	<1	31	88	900	3.16	.30	<10	1.33	358	<1	.30	31	1620	7	15	<20	187	.11	<10	93	<10	2	57
547 - 5	100455	>1000	8.0	4.26	20	46	70	5	3.08	<1	20	84	1059	2.42	.74	<10	1.05	298	3	.50	25	1420	7	10	<20	254	.15	<10	101	<10	2	49
547 - 6	100456	1020	3.6	5.48	20	26	195	<5	3.36	<1	21	98	569	3.49	1.24	<10	1.99	421	3	.46	30	1390	8	20	<20	228	.20	<10	151	<10	1	53
547 - 7	100457	710	7.8	6.73	24	30	257	15	3.13	<1	36	84	1448	5.17	2.19	<10	2.70	372	<1	.41	25	1451	7	<5	<20	214	.23	<10	212	<10	1	80
547 - 8	100458	770	8.2	5.39	10	18	100	10	3.17	<1	53	81	1636	4.66	1.63	<10	2.43	408	<1	.31	35	1240	6	15	<20	175	.18	<10	155	<10	1	77
547 - 9	100459	>1000	2.8	3.95	15	22	115	10	2.72	<1	25	129	560	3.36	.54	<10	1.55	387	4	.32	24	1320	7	5	<20	155	.15	<10	96	<10	2	45
547 - 10	100460	260	.4	.83	35	28	40	5	.44	<1	9	65	101	1.96	.18	10	.34	166	5	.09	2	450	8	5	<20	20	.06	<10	13	<10	3	7
547 - 11	100461	<5	.3	.69	35	20	43	<5	1.13	<1	6	80	66	1.61	.18	10	.26	188	5	.08	1	380	8	8	<20	31	.04	<10	9	<10	4	5
547 - 12	100462	15	.2	.78	25	23	40	5	.43	<1	6	65	46	1.77	.13	10	.25	173	7	.10	2	410	10	5	<20	22	.05	<10	11	<10	3	16
547 - 13	100463	15	.2	1.05	1120	30	70	<5	1.32	<1	5	105	26	1.94	.22	10	.29	257	8	.13	2	430	7	5	<20	51	.02	10	8	<10	3	38
547 - 14	100464	410	.2	1.34	1415	17	60	5	1.03	<1	10	97	30	1.57	.20	<10	.30	142	10	.24	2	420	7	5	<20	88	.04	<10	10	<10	2	23
547 - 15	100465	430	.2	.80	50	30	75	<5	.77	<1	9	88	81	1.66	.17	10	.29	178	5	.09	2	440	8	5	<20	32	.05	<10	11	<10	3	16
547 - 16	100466	270	.2	1.12	15	30	60	<5	1.18	<1	5	53	14	1.93	.29	10	.29	328	3	.10	2	450	6	5	<20	40	.08	<10	13	<10	3	26
547 - 17	100467	<5	.4	3.18	40	35	285	<5	3.92	<1	25	116	88	3.78	1.09	<10	1.50	712	3	.26	24	1130	9	10	<20	219	.12	<10	101	<10	3	47
547 - 18	100468	360	.4	1.15	70	18	45	5	.93	<1	14	46	89	2.39	.16	10	.51	246	3	.09	4	710	19	5	<20	42	.05	<10	26	<10	3	26
547 - 19	100469	15	.4	4.77	30	24	175	<5	3.07	<1	23	57	129	4.48	1.08	<10	1.81	463	4	.33	16	1430	9	10	<20	195	.11	<10	149	<10	2	46
547 - 20	100470	<5	.8	4.34	35	24	180	<5	6.71	<1	40	172	172	4.93	1.22	<10	2.43	975	1	.19	38	1270	4	20	<20	133	.12	<10	179	<10	2	60
547 - 21	100471	265	.4	6.26	25	33	300	<5	4.79	<1	33	159	112	4.02	1.59	<10	1.84	547	2	.32	45	1560	4	15	<20	181	.14	<10	166	<10	1	41
547 - 22	100472	<5	.4	6.80	35	25	335	<5	4.13	<1	31	79	141	4.31	1.66	<10	2.02	434	3	.34	28	1460	7	15	<20	217	.17	<10	170	<10	1	40
547 - 23	100473	125	.6	4.66	20	20	105	<5	4.66	<1	31	137	215	3.44	.94	<10	1.37	473	3	.27	48	1400	5	10	<20	169	.07	<10	93	<10	2	35
547 - 24	100474	<5	.8	5.24	10	27	180	<5	4.95	<1	31	56	171	4.76	1.15	<10	2.08	821	4	.30	32	1710	6	15	<20	164	.11	<10	140	<10	2	62
547 - 25	100475	<5	1.4	4.06	240	25	175	<5	10.38	<1	25	114	123	4.41	.81	<10	2.82	1750	6	.18	31	1800	7	30	<20	189	.10	<10	177	<10	3	67
547 - 26	100476	<5	.6	5.89	30	39	155	<5	5.36	<1	29	159	87	4.98	1.18	<10	2.44	800	4	.42	48	2260	6	15	<20	197	.13	<10	169	<10	3	66

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-547

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
547 - 27	100501	175	1.0	6.02	15	21	270	<5	3.93	<1	17	89	126	3.99	1.03	<10	1.80	463	1	.34	30	2120	7	15	<20	413	.16	<10	131	<10	2	46
547 - 28	100502	610	5.0	5.20	25	31	345	10	3.40	1	28	91	864	4.31	1.22	<10	1.90	473	3	.37	38	2300	8	15	<20	348	.15	<10	159	<10	2	67
547 - 29	100503	>1000	6.8	4.59	10	21	75	20	3.77	1	19	123	691	3.06	.30	<10	1.20	322	2	.29	41	2080	5	15	<20	326	.12	<10	98	<10	2	41
547 - 30	100504	>1000	9.4	4.34	15	25	115	<5	3.15	1	23	104	1078	2.94	.34	<10	1.05	288	2	.32	45	2190	6	10	<20	338	.12	<10	91	<10	2	48
547 - 31	100505	195	3.8	5.35	20	37	205	<5	3.08	1	43	129	555	4.99	1.20	<10	1.59	401	4	.42	52	2320	3	15	<20	334	.16	<10	177	<10	2	54
547 - 32	100506	415	1.6	4.40	10	24	225	5	2.81	<1	27	124	257	3.52	1.11	<10	1.61	348	1	.42	28	2160	4	10	<20	276	.12	<10	155	<10	2	31
547 - 33	100507	>1000	6.8	3.74	5	30	65	40	2.87	1	26	79	1076	2.95	.38	<10	1.26	314	1	.19	47	1500	4	10	<20	211	.10	<10	80	<10	1	37
547 - 34	100508	>1000	10.8	1.55	5	21	20	5	1.59	2	31	57	1686	2.45	.11	<10	.70	226	1	.10	35	1200	3	5	<20	79	.06	<10	35	<10	2	48
547 - 35	100509	>1000	5.6	1.67	5	29	20	35	2.11	1	9	59	680	1.18	.10	<10	.49	196	1	.10	13	1300	4	5	<20	97	.05	<10	30	<10	2	23
547 - 36	100510	>1000	10.8	3.35	5	31	75	80	2.68	2	27	108	1657	3.03	.32	<10	1.38	353	2	.18	45	1390	5	10	<20	167	.08	<10	86	<10	1	51
547 - 37	100511	430	3.0	3.65	10	27	55	<5	3.23	1	35	94	538	2.91	.10	<10	1.40	332	2	.21	40	1790	4	10	<20	188	.07	<10	88	<10	2	33
547 - 38	100512	100	1.4	5.13	5	31	160	5	3.32	1	45	63	335	5.73	1.04	<10	2.55	543	2	.24	24	1700	7	15	<20	220	.15	<10	177	<10	2	48
547 - 39	100513	50	<.2	.87	6	2	44	<5	1.00	<1	6	38	37	2.05	.11	51	.42	220	5	.10	<1	442	12	<5	<20	25	.02	<10	10	<10	<1	16
547 - 40	100514	20	.2	.66	20	<2	21	<5	1.03	<1	6	22	58	1.88	.09	49	.34	187	3	.10	<1	390	12	<5	<20	11	<.01	<10	7	<10	1	14
547 - 41	100515	365	.3	.60	58	<2	30	<5	1.36	<1	4	28	33	1.41	.10	42	.29	207	2	.18	1	391	9	13	<20	22	<.01	<10	6	<10	2	12
547 - 42	100516	5	.2	.60	54	<2	26	<5	1.36	<1	4	27	33	1.40	.10	41	.28	205	2	.21	2	392	9	13	<20	23	<.01	<10	6	<10	2	15
547 - 43	100517	<5	.5	.60	195	<2	26	<5	1.05	3	4	26	17	1.54	.04	44	.29	229	3	.24	2	402	12	18	<20	20	<.01	<10	6	<10	2	43
547 - 44	100518	<5	<.2	3.29	<5	<2	123	<5	2.57	<1	20	67	62	4.10	.78	67	1.66	478	4	.09	15	1286	28	<5	<20	122	.09	<10	114	<10	<1	34
547 - 45	100519	15	<.2	4.08	<5	<2	65	<5	4.68	<1	58	83	290	5.62	.25	89	2.20	631	22	.04	29	1084	29	<5	<20	160	.07	<10	117	<10	<1	38
547 - 46	100520	15	.3	3.81	<5	<2	70	<5	4.26	<1	34	55	143	3.96	.56	62	1.86	483	2	.06	28	1135	30	<5	<20	138	.06	<10	94	<10	<1	30
547 - 47	100521	5	<.2	3.40	<5	<2	36	<5	3.77	<1	24	58	77	3.66	.18	57	1.71	510	2	.06	20	867	25	<5	<20	215	.06	<10	96	<10	<1	27

NOTE: < = LESS THAN

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

Jutta Jealouse

ECO-TECH LABORATORIES LTD.
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ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

SEPTEMBER 26, 1990

CERTIFICATE OF ANALYSIS ETK 90-564

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

R E V I S E D
A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 37 CORE samples received SEPTEMBER 15, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)		AU (oz/t)
564 - 7	100602	1.13		.033
564 - 8	100603	1.18		.034
564 - 9	100604	2.14		.062
564 - 12	100607	2.71	*	.079
564 - 13	100608	2.38	*	.069
564 - 14	100609	13.29	*	.388
564 - 15	100610	1.32		.038
564 - 19	100614	1.17		.034
564 - 22	100617	1.43		.042
564 - 24	100619	2.36		.069

NOTE: * = Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
564-12	2	77.42236	2.710491
564-13	1.99	6.838832	2.384695

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10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
564-14	6.15	123.7803	13.2861

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MINOREX CONSULTING LTD. - ETK 90-564

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

SEPTEMBER 26, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-19
37 CORE SAMPLES RECEIVED SEPTEMBER 15, 1990

ETK	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)
564 - 1	100585	25	<.2	.66	809	<2	39	<5	.64	7	4	49	23	1.16	<.01
564 - 2	100586	30	<.2	.77	248	<2	30	<5	.56	2	3	36	14	1.00	.02
564 - 3	100587	160	<.2	.80	572	<2	35	<5	.76	6	5	37	25	.83	<.01
564 - 4	100588	10	<.2	.88	27	<2	52	<5	.84	<1	4	51	17	.84	.10
564 - 5	100589	5	<.2	.95	94	<2	36	<5	.74	<1	4	52	26	.95	.08
564 - 6	100601	280	.7	3.19	40	<2	111	<5	2.17	<1	12	52	192	2.29	.65
564 - 7	100602	>1000	1.0	4.28	<5	<2	108	<5	5.04	<1	28	117	374	5.55	.66
564 - 8	100603	>1000	1.9	5.08	46	<2	117	<5	3.23	<1	27	98	351	3.96	1.03
564 - 9	100604	>1000	8.5	4.66	40	<2	87	<5	3.19	<1	20	81	1477	2.98	.94
564 - 10	100605	140	.5	6.40	49	<2	336	<5	2.88	<1	26	85	220	4.90	3.15
564 - 11	100606	145	.8	5.85	66	<2	152	<5	4.60	<1	25	94	275	5.22	.69
564 - 12	100607	-	3.8	4.66	42	<2	83	<5	3.49	<1	25	79	715	3.55	.60
564 - 13	100608	-	1.4	8.21	58	<2	318	<5	3.71	<1	35	82	361	6.46	4.11
564 - 14	100609	>1000	7.9	5.75	34	<2	191	<5	3.58	<1	34	94	1255	5.91	1.84
564 - 15	100610	>1000	4.2	4.81	20	2	123	<5	2.71	<1	107	72	1203	10.20	3.41
564 - 16	100611	615	.4	5.74	36	<2	209	<5	6.52	<1	49	92	259	6.78	3.45
564 - 17	100612	960	.2	5.86	27	<2	197	<5	5.10	<1	29	87	149	5.49	2.11
564 - 18	100613	405	.9	6.37	40	<2	200	<5	3.60	<1	34	64	334	5.29	2.52
564 - 19	100614	>1000	4.6	5.80	43	<2	117	<5	3.33	<1	49	89	829	5.57	1.41
564 - 20	100615	50	<.2	6.97	49	<2	285	<5	3.57	<1	27	135	77	5.10	3.12
564 - 21	100616	560	3.5	7.46	74	<2	245	<5	3.48	<1	37	133	825	6.40	3.56
564 - 22	100617	>1000	1.7	7.00	51	<2	122	<5	3.33	<1	41	114	533	6.83	3.51
564 - 23	100618	655	<.2	7.98	45	<2	113	<5	3.64	<1	44	87	305	6.97	4.78
564 - 24	100619	>1000	<.2	6.76	56	<2	112	<5	3.11	<1	42	70	304	6.72	4.31
564 - 25	100620	85	<.2	6.05	52	<2	96	<5	2.79	<1	36	70	181	5.71	4.21
564 - 26	100621	110	<.2	4.87	37	<2	138	<5	2.57	<1	25	51	127	4.76	2.46

ETK	DESCRIPTION	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
564 - 1	100585	25	.16	89	5	.05	<1	301	13	<5	<20	24	.03	<10	4	<10	<1	9
564 - 2	100586	19	.15	69	3	.08	<1	258	12	<5	<20	29	.03	<10	2	<10	<1	7
564 - 3	100587	19	.17	83	4	.07	<1	286	15	<5	<20	37	.03	<10	3	<10	1	9
564 - 4	100588	22	.18	105	4	.09	<1	302	16	<5	<20	67	.04	<10	4	<10	3	11
564 - 5	100589	21	.18	84	6	.10	<1	300	16	<5	<20	56	.03	<10	3	<10	1	10
564 - 6	100601	34	.88	218	2	.17	17	1124	39	<5	<20	266	.10	<10	73	<10	<1	22
564 - 7	100602	79	2.66	693	2	.11	33	1253	8	15	<20	231	.13	<10	166	<10	<1	43
564 - 8	100603	61	1.55	387	3	.37	34	1669	51	<5	<20	432	.17	<10	114	<10	<1	38
564 - 9	100604	46	1.26	314	4	.35	40	1340	49	14	<20	392	.16	<10	92	<10	<1	52
564 - 10	100605	76	2.48	472	6	.47	31	1453	62	<5	<20	331	.25	<10	218	<10	<1	52
564 - 11	100606	84	2.56	617	6	.41	29	1382	55	8	<20	301	.22	<10	199	<10	<1	53
564 - 12	100607	56	1.63	407	4	.31	27	1343	55	<5	<20	260	.22	<10	119	<10	<1	45
564 - 13	100608	104	3.46	379	8	.48	31	1527	76	<5	<20	426	.34	<10	276	<10	<1	43
564 - 14	100609	94	2.99	507	5	.25	28	1154	52	<5	<20	266	.27	<10	227	<10	<1	54
564 - 15	100610	163	4.05	723	7	.03	46	866	45	<5	<20	83	.28	<10	151	<10	<1	76
564 - 16	100611	112	4.12	732	3	.10	41	1050	46	<5	<20	175	.25	<10	223	<10	<1	55
564 - 17	100612	91	2.95	571	4	.16	30	1476	54	<5	<20	217	.21	<10	228	<10	<1	48
564 - 18	100613	85	2.56	419	5	.23	25	1796	60	<5	<20	246	.21	<10	195	<10	<1	46
564 - 19	100614	89	2.17	432	5	.14	43	1274	57	<5	<20	183	.20	<10	158	<10	<1	55
564 - 20	100615	82	2.47	401	1	.22	40	1450	62	<5	<20	236	.20	<10	238	<10	<1	43
564 - 21	100616	106	2.92	436	7	.22	48	1327	70	<5	<20	260	.25	<10	267	<10	<1	60
564 - 22	100617	112	2.80	427	4	.21	41	1265	62	<5	<20	259	.24	<10	247	<10	<1	50
564 - 23	100618	118	3.18	417	4	.21	37	1492	66	<5	<20	209	.18	<10	257	<10	<1	51
564 - 24	100619	111	2.75	398	5	.16	29	1418	61	<5	<20	199	.18	<10	229	<10	<1	50
564 - 25	100620	95	2.48	370	9	.19	36	1566	56	<5	<20	182	.17	<10	186	<10	<1	44
564 - 26	100621	82	1.83	365	4	.26	19	1426	48	<5	<20	207	.18	<10	160	<10	<1	40

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-564

PAGE 2

ETK	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
564 - 27	100622	75	.3	.96	223	4	44	<5	.77	2	6	63	35	1.79	.18	44	.33	191	7	.07	1	526	16	5	<20	34	.05	<10	9	<10	1	15
564 - 28	100623	35	.6	.75	982	3	19	<5	1.39	12	3	54	26	1.53	<.01	41	.27	159	6	.03	3	483	13	12	<20	42	.01	11	4	<10	<1	14
564 - 29	100624	45	.5	.94	1073	2	53	<5	1.72	13	5	89	34	1.88	<.01	49	.33	204	10	.04	3	561	16	9	<20	50	.02	<10	5	<10	1	17
564 - 30	100625	135	.3	.91	2632	<2	48	<5	2.13	32	3	69	16	1.33	<.01	45	.28	157	5	.02	3	566	23	16	<20	47	<.01	<10	4	<10	5	15
564 - 31	100626	125	<.2	1.08	3189	3	68	<5	1.50	40	6	103	38	1.74	<.01	40	.32	151	10	.07	4	498	15	13	<20	29	<.01	<10	5	<10	<1	14
564 - 32	100627	5	.6	.86	168	3	63	<5	1.17	1	5	68	57	2.10	.12	63	.38	233	6	.04	3	501	14	<5	<20	31	<.01	16	10	<10	1	16
564 - 33	100628	5	.2	1.13	57	<2	29	<5	2.00	<1	10	63	59	2.80	.16	68	.57	324	9	.03	5	787	22	<5	<20	40	.04	<10	26	<10	<1	24
564 - 34	100629	5	<.2	4.40	47	<2	83	<5	3.13	<1	42	96	438	6.50	1.02	108	1.78	501	22	.29	32	1148	59	<5	<20	340	.12	<10	120	<10	<1	50
564 - 35	100630	5	1.2	4.53	41	<2	101	<5	3.34	<1	29	89	134	4.56	1.39	76	1.82	486	7	.25	25	1052	52	<5	<20	303	.15	<10	129	<10	<1	42
564 - 36	100631	5	<.2	4.66	35	<2	106	<5	4.50	<1	27	139	103	4.50	2.60	76	2.08	651	4	.19	47	1227	46	<5	<20	232	.17	<10	145	<10	<1	56
564 - 37	100632	5	.7	2.72	18	<2	79	<5	3.49	<1	28	94	115	3.69	1.21	63	1.44	496	5	.20	34	1337	32	<5	<20	373	.15	<10	99	<10	<1	43

NOTE: < = LESS THAN

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

OCTOBER 3, 1990

CERTIFICATE OF ANALYSIS ETK 90-578

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

R E V I S E D
A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 89 CORE samples received SEPTEMBER 17, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)	AG (g/t)	AG (oz/t)	AS (%)
578 - 1	9915	3.02	.088	77.7	2.27	5.29
578 - 12	9926	2.78	.081	59.8	1.74	10.83
578 - 22	9936			30.2	.88	
578 - 27	100651	3.61	.105			
578 - 28	100652	1.12	.033			
578 - 32	100656	1.11	.032			
578 - 34	100658	1.85	.054			
578 - 35	100659	3.21	.094			
578 - 36	100660	1.03	.030			
578 - 37	100661	1.11	.032			
578 - 38	100662	1.32	.038			
578 - 41	100665	1.11	.032			
578 - 57	100701	2.10	.061			
578 - 62	100706	6.50 *	.190			
578 - 63	100707	1.96	.057			
578 - 64	100708	1.10	.032			
578 - 65	100709	3.01	.088			
578 - 66	100710	4.90	.143			
578 - 67	100711	2.13	.062			
578 - 68	100712	3.79	.111			
578 - 69	100713	4.11	.120			
578 - 74	100718	3.65	.106			

NOTE: * = Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

OCTOBER 19, 1990

CERTIFICATE OF ANALYSIS ETK 90-578 A

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

R E V I S E D
A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 89 CORE samples received SEPTEMBER 17, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)	AG (g/t)	AG (oz/t)	AS (%)
578 - 1	99115	3.02	.088	77.7	2.27	5.29
578 - 12	99126	2.78	.081	59.8	1.74	10.83
578 - 22	99136			30.2	.88	
578 - 27	100651	3.61	.105			
578 - 28	100652	1.12	.033			
578 - 32	100656	1.11	.032			
578 - 34	100658	1.85	.054			
578 - 35	100659	3.21	.094			
578 - 36	100660	1.03	.030			
578 - 37	100661	1.11	.032			
578 - 38	100662	1.32	.038			
578 - 41	100665	1.11	.032			
578 - 57	100701	2.10	.061			
578 - 62	100706	6.50 *	.190			
578 - 63	100707	1.96	.057			
578 - 64	100708	1.10	.032			
578 - 65	100709	3.01	.088			
578 - 66	100710	4.90	.143			
578 - 67	100711	2.13	.062			
578 - 68	100712	3.79	.111			
578 - 69	100713	4.11	.120			
578 - 74	100718	3.65	.106			

NOTE: * = Sample screened and metallic assayed

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
578-66	3.395	11.66258	4.902904

ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING

10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

METALLIC CALCULATION

SAMPLE NUMBER	-140 VALUE	+140 VALUE	CALCULATED VALUE
578-27	3.6	3.761162	3.60585
578-35	3.3	1.689236	3.214314
578-57	1.88	4.223149	2.096837
578-62	4.3	22.31525	6.504101
578-74	2.4	70.86984	3.650336

ECO-TECH LABORATORIES LTD.

MINOREX CONSULTING LTD. - ETK 90-578

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

SEPTEMBER 28, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-19
89 CORE SAMPLES RECEIVED SEPTEMER 17, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
578 - 1	99115	)1000	)30.0	1.21	)10000	4	99	89	.57	372	47	34	317	9.65	(.01	111	.86	1180	6	(.01	40	1012	2168	1310	(20	30	.02	(10	36	(10	(1	3137
578 - 2	99116	180	2.9	2.85	887	(2	155	(5	1.62	3	13	115	43	3.91	.37	51	1.79	1599	4	.08	49	457	28	20	(20	90	.05	(10	46	(10	(1	78
578 - 3	99117	5	.3	3.18	225	(2	179	(5	1.57	(1	14	63	30	3.25	.83	41	1.44	904	4	.10	15	593	28	(5	(20	97	.08	(10	71	(10	(1	64
578 - 4	99118	10	(.2	2.96	250	(2	188	(5	1.62	(1	16	63	44	3.47	1.01	46	1.31	1521	4	.05	36	539	27	15	(20	99	.08	(10	76	(10	(1	77
578 - 5	99119	15	.5	1.04	679	(2	69	(5	.70	4	15	28	47	4.01	(.01	57	.70	1084	6	(.01	33	950	20	70	(20	38	(.01	(10	21	(10	(1	201
578 - 6	99120	5	(.2	1.35	216	(2	83	(5	1.14	(1	18	32	16	3.81	.09	57	.75	1306	3	.01	12	1766	11	15	(20	45	(.01	(10	29	(10	(1	75
578 - 7	99121	5	(.2	1.71	146	(2	93	(5	1.48	(1	16	35	14	3.75	.11	55	1.09	1176	3	.01	9	1532	12	5	(20	44	(.01	(10	36	(10	(1	62
578 - 8	99122	350	2.0	.60	3071	(2	94	(5	.39	18	13	67	54	4.21	(.01	60	.31	2778	8	(.01	20	636	70	75	(20	23	(.01	(10	7	(10	(1	99
578 - 9	99123	5	.3	1.26	226	4	95	(5	.18	(1	6	88	22	2.23	.21	34	.79	659	7	.03	10	228	14	5	(20	21	.03	(10	16	(10	(1	41
578 -10	99124	5	.6	1.22	376	3	78	(5	.22	2	6	57	32	2.58	.12	43	.91	568	4	(.01	11	309	15	15	(20	16	.01	(10	6	(10	(1	80
578 -11	99125	35	.7	1.44	1304	(2	90	(5	.87	12	15	92	33	3.90	(.01	60	1.10	2338	5	(.01	51	579	18	50	(20	32	(.01	(10	21	(10	(1	223
578 -12	99126	)1000	)30.0	.54	)10000	6	137	(5	.62	588	24	51	30	9.32	(.01	108	.48	1013	4	(.01	16	292	432	620	(20	46	.01	(10	7	(10	(1	325
578 -13	99127	65	1.5	.64	2349	(2	74	(5	1.70	15	9	63	17	3.38	(.01	48	.37	2108	6	(.01	15	619	14	40	(20	21	(.01	(10	5	(10	(1	243
578 -14	99128	45	1.0	2.88	1557	(2	135	(5	.84	12	17	108	96	4.38	(.01	53	1.61	797	5	.13	22	555	23	5	(20	54	.05	(10	77	(10	(1	166
578 -15	99129	10	1.2	2.98	113	(2	241	(5	1.62	(1	16	64	48	3.36	.46	42	1.33	852	6	.12	9	981	24	5	(20	164	.07	(10	72	(10	(1	68
578 -16	99130	50	2.8	4.47	510	(2	189	(5	1.78	16	25	60	62	4.94	1.07	63	2.19	1259	4	.19	22	1079	26	5	(20	144	.11	(10	146	(10	(1	378
578 -17	99131	805	3.2	3.77	157	(2	188	(5	1.33	3	22	94	90	4.43	.77	57	2.06	1168	4	.22	18	647	34	5	(20	124	.10	(10	134	(10	(1	134
578 -18	99132	90	4.8	2.67	856	(2	167	(5	1.05	7	19	66	86	4.34	.42	57	1.34	1210	6	.17	17	1140	82	45	(20	155	.10	(10	120	(10	(1	158
578 -19	99133	115	1.6	1.11	823	(2	172	(5	1.12	4	8	99	43	2.48	.05	39	.62	773	14	.04	31	552	19	55	(20	57	.01	(10	23	(10	1	52
578 -20	99134	10	1.2	1.20	242	(2	201	(5	.55	(1	9	90	50	2.69	.26	40	.67	589	15	.04	35	505	20	50	(20	36	.02	(10	29	(10	(1	81
578 -21	99135	360	6.9	.83	3412	(2	90	(5	.66	80	14	121	106	3.87	(.01	51	.62	762	31	(.01	27	453	41	50	(20	22	(.01	(10	29	(10	(1	1465
578 -22	99136	215	)30.0	.90	2466	(2	87	(5	.64	33	11	89	66	3.32	(.01	44	.68	498	9	(.01	17	471	1660	835	(20	25	(.01	(10	23	(10	(1	451
578 -23	99137	25	.8	1.57	187	(2	266	(5	.40	8	11	92	53	3.06	.10	41	1.27	486	8	(.01	21	425	23	15	(20	20	.01	(10	52	(10	(1	312
578 -24	99138	5	.6	1.56	179	2	126	(5	.36	(1	11	68	24	2.83	.42	52	.93	1572	5	(.01	13	579	19	10	(20	31	.03	(10	31	(10	2	63
578 -25	99139	25	.4	2.28	453	(2	145	(5	1.13	1	13	74	29	3.84	.61	54	1.48	1758	6	.01	25	913	17	10	(20	30	.05	(10	60	(10	(1	78
578 -26	99140	35	.8	4.18	381	(2	224	(5	1.58	(1	14	85	73	4.64	.86	59	1.83	1531	6	.08	43	624	25	5	(20	107	.10	(10	129	(10	(1	94

ET#		DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
578	-27	100651	>1000	3.2	3.80	63	<2	164	<5	2.42	<1	16	83	662	3.00	1.03	37	1.35	325	3	.16	22	1176	17	<5	<20	275	.14	<10	97	<10	<1	32
578	-28	100652	>1000	.8	3.98	71	<2	119	<5	2.65	<1	14	79	200	3.37	.78	41	1.63	394	2	.12	22	1222	17	<5	<20	224	.13	<10	83	<10	<1	31
578	-29	100653	585	<.2	5.03	72	<2	285	<5	2.51	<1	18	106	96	3.96	1.96	49	2.08	374	2	.20	29	1457	19	<5	<20	334	.17	<10	146	<10	<1	37
578	-30	100654	170	<.2	5.17	81	<2	220	<5	3.15	<1	14	63	70	3.18	1.47	39	1.47	332	3	.22	17	1730	22	<5	<20	363	.14	<10	92	<10	<1	26
578	-31	100655	635	.2	4.10	71	<2	118	<5	3.00	<1	15	75	94	2.89	.49	36	1.32	331	2	.19	23	1315	17	<5	<20	320	.13	<10	92	<10	<1	24
578	-32	100656	>1000	.5	4.94	77	<2	475	<5	2.44	<1	16	95	191	3.95	2.08	49	2.11	398	3	.20	27	1485	20	<5	<20	338	.19	<10	163	<10	<1	38
578	-33	100657	260	.5	6.09	101	<2	324	<5	3.22	<1	19	75	172	4.10	1.60	52	2.27	411	2	.26	27	1698	23	<5	<20	457	.16	<10	152	<10	<1	36
578	-34	100658	>1000	4.8	2.43	42	<2	40	<5	2.70	<1	9	56	701	1.75	.14	22	.89	256	2	.07	17	1279	12	5	<20	169	.09	<10	51	<10	<1	27
578	-35	100659	>1000	3.2	2.92	53	<2	30	<5	2.57	<1	7	59	595	1.18	.09	15	.59	174	2	.13	12	1423	15	<5	<20	262	.10	<10	39	<10	3	21
578	-36	100660	>1000	2.6	3.57	65	<2	45	<5	2.83	<1	16	85	503	2.30	.19	28	1.03	264	2	.12	30	1377	17	<5	<20	287	.13	<10	64	<10	<1	28
578	-37	100661	>1000	3.0	4.78	79	<2	87	<5	3.56	<1	19	88	447	2.28	.42	28	1.04	229	2	.16	35	1483	21	<5	<20	404	.11	<10	70	<10	<1	25
578	-38	100662	>1000	1.9	5.10	81	<2	123	<5	3.51	<1	24	120	418	2.56	.69	32	1.28	236	1	.20	39	1288	20	<5	<20	395	.11	<10	106	<10	<1	26
578	-39	100663	330	3.1	5.40	91	<2	118	<5	3.02	<1	55	106	682	5.24	1.27	67	2.66	397	2	.13	51	1316	20	<5	<20	323	.13	<10	136	<10	<1	41
578	-40	100664	55	<.2	4.71	74	<2	123	<5	7.06	<1	25	100	138	3.41	.97	45	2.63	615	2	.05	33	944	15	<5	<20	238	.13	<10	116	<10	<1	26
578	-41	100665	>1000	.5	4.44	76	<2	66	<5	3.37	<1	33	103	180	3.30	.33	42	1.28	312	6	.16	38	1209	20	<5	<20	271	.13	<10	99	<10	<1	23
578	-42	100666	195	<.2	6.45	102	<2	177	<5	3.55	<1	30	70	146	4.91	1.96	63	2.44	425	7	.18	28	1256	28	<5	<20	296	.16	<10	188	<10	<1	37
578	-43	100667	250	<.2	6.31	100	<2	148	<5	3.78	<1	24	68	119	3.67	1.55	46	1.65	301	6	.19	29	1253	34	<5	<20	267	.14	<10	117	<10	<1	28
578	-44	100668	10	<.2	5.75	97	<2	130	<5	3.26	<1	33	75	129	4.20	1.38	53	1.75	323	5	.17	27	1180	33	<5	<20	243	.14	<10	141	<10	<1	29
578	-45	100669	15	<.2	3.43	60	<2	106	<5	2.24	<1	28	47	155	3.54	.39	49	.92	277	11	.31	3	1241	26	<5	<20	261	.14	<10	55	<10	<1	24
578	-46	100670	5	<.2	1.63	63	<2	78	<5	1.09	<1	4	65	12	1.94	.27	31	.35	295	7	.16	<1	481	14	<5	<20	142	.07	<10	9	<10	<1	20
578	-47	100671	5	.2	1.06	265	<2	62	<5	1.90	1	4	59	13	1.71	.15	29	.26	327	6	.07	<1	422	12	5	<20	82	.03	<10	5	<10	<1	31
578	-48	100672	5	<.2	1.56	118	2	58	<5	.93	<1	5	71	16	1.83	.21	28	.34	284	7	.14	2	460	18	<5	<20	53	.06	<10	5	<10	<1	23
578	-49	100673	5	<.2	1.72	75	2	58	<5	1.02	<1	4	62	17	1.60	.26	24	.26	177	6	.17	1	443	19	<5	<20	65	.06	<10	3	<10	<1	20
578	-50	100674	5	<.2	1.69	149	<2	61	<5	1.32	<1	4	64	18	1.48	.21	25	.24	170	6	.12	2	439	19	<5	<20	116	.04	<10	3	<10	1	22
578	-51	100675	5	<.2	1.38	259	2	51	<5	1.01	2	4	70	9	1.74	.12	27	.28	307	6	.12	2	468	19	<5	<20	87	.06	<10	5	<10	<1	68
578	-52	100676	5	<.2	1.52	125	<2	46	<5	1.04	<1	4	77	14	1.72	.17	28	.31	198	8	.14	3	456	18	<5	<20	148	.06	<10	7	<10	1	19
578	-53	100677	5	<.2	4.02	85	<2	145	<5	2.89	<1	16	71	89	3.31	.75	45	1.02	319	6	.20	9	1105	34	<5	<20	232	.11	<10	56	<10	<1	26
578	-54	100678	5	<.2	4.44	194	<2	198	55	4.89	<1	24	84	64	4.18	1.31	55	1.96	567	5	.02	24	1756	35	<5	<20	216	.13	<10	161	<10	<1	36
578	-55	100679	40	<.2	5.21	129	<2	171	110	4.81	<1	21	60	73	4.02	1.34	52	1.78	440	3	.06	17	1533	43	<5	<20	289	.13	<10	133	<10	<1	29
578	-56	100680	20	<.2	5.62	114	<2	105	<5	3.25	<1	26	61	160	4.44	1.77	56	1.75	318	3	.10	20	1574	50	<5	<20	289	.14	<10	130	<10	<1	32
578	-57	100701	>1000	.4	4.03	76	<2	185	<5	2.60	<1	13	78	58	2.85	1.50	35	1.23	306	2	.20	21	1555	38	<5	<20	373	.14	<10	99	<10	<1	27
578	-58	100702	640	.3	4.23	85	<2	160	<5	2.84	<1	15	90	97	3.04	1.36	38	1.44	334	2	.19	19	1549	42	<5	<20	370	.13	<10	102	<10	<1	33
578	-59	100703	465	<.2	4.39	84	<2	314	<5	2.31	<1	20	81	87	3.73	2.55	46	1.75	350	3	.17	24	1831	41	<5	<20	312	.16	<10	137	<10	<1	37
578	-60	100704	105	<.2	4.66	89	<2	405	<5	2.45	<1	19	103	40	3.77	2.70	47	1.89	368	3	.17	28	1908	43	<5	<20	348	.17	<10	148	<10	<1	38
578	-61	100705	430	<.2	4.35	85	<2	284	<5	2.65	<1	14	75	34	2.95	1.62	37	1.38	304	3	.25	21	1865	42	<5	<20	424	.13	<10	101	<10	<1	28
578	-62	100706	>1000	.6	2.86	63	<2	49	15	2.47	<1	12	84	129	2.52	.23	31	1.18	288	1	.10	29	1377	29	<5	<20	204	.12	<10	65	<10	<1	37
578	-63	100707	>1000	3.5	3.70	84	<2	63	5	3.01	<1	22	125	619	3.74	.33	46	1.62	389	3	.07	60	1504	37	<5	<20	236	.12	<10	94	<10	<1	45

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-578

PAGE 3

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
578 -64	100708	>1000	4.4	4.15	84	<2	66	<5	3.22	<1	16	101	755	2.26	.38	28	.86	233	1	.22	40	1528	40	<5	<20	448	.12	<10	63	<10	<1	30
578 -65	100709	>1000	11.4	1.97	51	<2	33	<5	2.37	<1	43	56	1386	2.92	.11	35	.76	223	2	.04	94	1197	22	10	<20	155	.09	<10	40	<10	<1	36
578 -66	100710	>1000	4.4	1.64	42	<2	35	<5	2.15	<1	23	62	733	2.30	.11	28	.83	258	1	.01	50	1179	19	15	<20	126	.10	<10	47	<10	<1	34
578 -67	100711	>1000	1.3	2.60	60	<2	44	<5	2.62	<1	24	71	346	2.42	.18	30	.87	258	<1	.05	31	1207	29	<5	<20	214	.09	<10	51	<10	<1	24
578 -68	100712	>1000	2.4	2.63	49	<2	56	<5	2.18	<1	31	68	380	3.05	.28	37	1.02	249	2	.04	21	1240	30	<5	<20	167	.10	<10	51	<10	<1	29
578 -69	100713	>1000	1.8	3.53	78	<2	104	<5	2.73	<1	17	50	368	2.59	.75	32	1.14	284	2	.11	20	1597	37	<5	<20	261	.10	<10	62	<10	<1	31
578 -70	100714	490	5.3	3.68	100	<2	78	15	2.58	<1	35	114	922	3.75	.53	48	1.55	347	2	.11	36	1319	37	30	<20	292	.11	<10	103	<10	<1	48
578 -71	100715	30	<.2	6.34	79	<2	244	<5	3.12	<1	32	131	207	4.72	1.90	58	2.28	332	3	.18	39	1138	34	<5	<20	360	.17	<10	171	<10	<1	33
578 -72	100716	45	<.2	5.89	72	<2	201	<5	2.82	<1	31	92	117	4.58	2.06	56	2.02	314	2	.17	34	1104	34	<5	<20	326	.17	<10	162	<10	<1	29
578 -73	100717	155	<.2	5.52	69	<2	162	<5	3.53	<1	26	121	80	3.46	1.05	43	1.47	290	3	.15	37	1181	35	<5	<20	395	.12	<10	119	<10	<1	27
578 -74	100718	>1000	<.2	3.10	40	<2	116	58	1.99	<1	13	89	45	2.50	.49	33	.83	242	5	.19	16	1076	23	<5	<20	225	.11	<10	51	<10	<1	20
578 -75	100719	40	<.2	1.28	22	2	48	<5	.70	<1	4	58	14	1.81	.17	28	.29	202	6	.11	2	378	14	<5	<20	86	.07	<10	8	<10	<1	21
578 -76	100720	25	<.2	.97	41	4	38	<5	.51	<1	4	46	15	1.75	.11	29	.28	188	6	.07	<1	386	12	<5	<20	42	.06	<10	9	<10	<1	17
578 -77	100721	5	<.2	1.32	109	4	49	<5	.79	<1	4	66	5	1.78	.15	28	.26	234	6	.11	3	373	13	<5	<20	69	.06	<10	7	<10	<1	25
578 -78	100722	5	<.2	1.48	327	4	39	<5	1.17	2	4	53	7	1.58	.02	26	.24	169	6	.10	2	370	16	<5	<20	39	.05	<10	5	<10	1	14
578 -79	100723	5	<.2	5.62	72	<2	179	<5	3.53	<1	34	72	136	4.12	1.44	52	1.78	395	3	.10	28	1140	35	<5	<20	300	.13	<10	126	<10	<1	31
578 -80	100724	5	<.2	4.58	60	<2	114	<5	4.64	<1	39	71	199	4.25	.78	54	1.87	581	7	.04	29	922	28	<5	<20	214	.10	<10	107	<10	<1	37
578 -81	100725	5	<.2	6.29	72	<2	242	<5	3.02	<1	31	76	76	4.89	2.43	62	2.27	410	3	.14	30	1262	38	<5	<20	226	.18	<10	173	<10	<1	38
578 -82	100726	5	<.2	2.46	58	<2	90	<5	1.56	<1	8	52	30	2.46	.35	35	.62	293	5	.16	2	622	30	<5	<20	155	.10	<10	31	<10	<1	25
578 -83	100727	5	<.2	1.14	81	2	70	<5	.74	<1	4	49	2	1.82	.17	29	.29	243	5	.09	2	370	12	<5	<20	49	.07	<10	9	<10	1	20
578 -84	100728	5	<.2	5.62	69	<2	201	<5	3.12	<1	33	109	111	4.04	1.57	51	1.65	331	6	.15	36	1039	39	<5	<20	359	.14	<10	144	<10	<1	30
578 -85	100729	5	<.2	4.59	57	<2	59	<5	3.72	<1	22	110	71	2.79	.22	35	1.17	347	2	.13	34	1116	34	<5	<20	346	.08	<10	76	<10	<1	23
578 -86	100730	5	<.2	3.81	50	<2	27	<5	3.49	<1	32	114	229	3.31	<.01	42	1.23	386	2	.08	37	944	28	<5	<20	233	.05	<10	66	<10	<1	28
578 -87	100731	5	<.2	4.36	61	<2	32	<5	4.05	<1	20	116	61	2.87	.03	37	1.30	421	3	.07	33	1052	33	<5	<20	302	.06	<10	85	<10	<1	24
578 -88	100732	5	<.2	4.14	63	<2	28	<5	3.80	<1	23	87	88	2.69	.02	34	1.06	355	3	.04	31	1032	32	<5	<20	276	.05	<10	65	<10	<1	21
578 -89	100733	5	<.2	4.66	73	<2	81	<5	3.61	<1	20	168	69	2.79	.44	35	1.23	347	3	.06	23	1200	38	<5	<20	270	.08	<10	73	<10	<1	26

NOTE: < = LESS THAN
> = GREATER THAN

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

OCTOBER 4, 1990

CERTIFICATE OF ANALYSIS ETK 90-603

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

R E V I S E D

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 87 ROCK/CORE samples received SEPTEMBER 20, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AS (%)
603 - 4	99029	3.11

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX#2

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-603

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

OCTOBER 4, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

R E V I S E D

PROJECT: P90-19
87 ROCK & CORE SAMPLES RECEIVED SEPTEMBER 20, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
603 - 1	99026	5	.6	3.26	45	40	280	<5	1.30	1	28	179	47	3.67	1.09	<10	1.86	777	3	.40	43	1260	12	10	<20	137	.17	<10	115	<10	3	73
603 - 2	99027	10	2.4	3.35	120	28	300	<5	.90	<1	24	63	113	4.16	1.28	<10	1.65	645	4	.33	16	720	10	20	<20	127	.15	<10	174	<10	3	75
603 - 3	99028	50	1.4	3.31	70	42	135	<5	1.39	1	16	78	91	3.66	.81	<10	1.06	649	5	.49	8	590	10	15	<20	79	.12	<10	127	<10	3	77
603 - 4	99029	945	3.6	3.44	>10000	28	45	<5	1.14	2	25	75	157	6.34	.79	<10	1.39	744	4	.36	27	860	46	75	<20	77	.05	<10	89	<10	2	88
603 - 5	99030	20	.4	2.54	275	28	280	<5	.93	<1	26	261	10	3.44	1.14	<10	2.09	873	3	.24	58	1300	10	10	<20	75	.22	<10	106	<10	3	80
603 - 6	99031	45	2.0	4.37	220	20	235	<5	1.47	<1	27	41	117	5.28	1.36	<10	1.42	784	4	.40	7	900	20	20	<20	89	.12	<10	118	<10	5	96
603 - 7	99032	<5	.8	2.89	220	22	140	<5	.80	1	23	30	84	6.00	.85	<10	1.08	1406	4	.10	7	1020	24	25	<20	43	.04	<10	79	<10	8	114
603 - 8	100751	20	.4	5.95	30	24	165	<5	4.90	<1	34	23	129	4.67	1.44	<10	2.81	761	3	.34	22	1290	10	15	<20	199	.17	<10	222	<10	3	68
603 - 9	100752	10	.6	5.97	115	40	135	<5	5.58	<1	38	95	179	4.48	1.16	<10	2.52	755	3	.22	39	1440	12	30	<20	323	.15	<10	191	<10	2	58
603 -10	100753	15	.4	6.93	25	32	120	<5	4.75	<1	37	33	176	4.84	1.01	<10	2.47	575	5	.25	22	1580	6	15	<20	457	.18	<10	211	<10	2	60
603 -11	100754	5	.4	6.72	365	40	135	<5	5.29	<1	44	148	133	4.48	1.04	<10	2.20	652	6	.29	55	1480	8	20	<20	587	.21	<10	193	<10	2	55
603 -12	100755	<5	.8	5.28	165	34	135	<5	7.49	<1	29	70	158	3.86	.76	<10	2.42	852	2	.23	31	1260	4	15	<20	468	.17	<10	143	<10	2	54
603 -13	100756	20	.8	5.00	105	22	95	<5	6.54	<1	26	119	159	4.54	1.46	<10	2.93	922	8	.26	33	1310	6	15	<20	445	.15	<10	143	<10	3	67
603 -14	100757	15	.8	5.61	680	16	75	<5	6.31	<1	32	66	129	5.53	1.82	<10	3.28	902	5	.26	34	1190	6	15	<20	587	.15	<10	186	<10	2	70
603 -15	100758	115	.4	7.25	310	44	155	<5	5.10	<1	15	57	29	4.26	1.49	<10	2.64	720	5	.56	15	1090	4	15	<20	557	.13	<10	144	<10	2	52
603 -16	100759	90	.4	4.00	2495	30	95	<5	6.52	<1	25	87	49	3.87	1.09	<10	2.77	1000	8	.22	34	1530	6	10	<20	257	.11	<10	159	<10	2	49
603 -17	100760	105	.2	3.30	700	20	85	<5	4.17	<1	13	36	35	2.17	1.68	<10	1.50	432	2	.32	16	610	4	5	<20	268	.09	<10	113	<10	1	26
603 -18	100761	40	.2	2.86	300	18	85	<5	4.32	1	9	33	43	2.03	1.80	<10	1.49	443	5	.27	16	690	6	5	<20	245	.08	<10	84	<10	1	31
603 -19	100762	5	.2	1.99	215	8	70	<5	5.17	<1	10	71	43	1.81	1.08	<10	1.19	434	5	.13	18	590	4	5	<20	149	.07	<10	85	<10	1	25
603 -20	100763	35	.2	2.03	495	20	40	<5	4.35	<1	13	70	46	1.64	1.29	<10	1.00	398	4	.13	18	540	6	5	<20	186	.06	<10	68	<10	1	21
603 -21	100764	20	.2	1.31	850	16	30	<5	3.55	<1	9	32	29	1.16	.70	<10	.66	355	3	.15	15	780	2	5	<20	172	.04	<10	37	<10	1	14
603 -22	100765	5	.2	1.31	265	6	30	<5	4.61	<1	8	38	41	1.20	.74	<10	.86	343	3	.11	16	480	<2	5	<20	152	.05	<10	46	<10	1	13
603 -23	100766	15	.2	3.38	250	12	105	<5	5.78	<1	14	34	70	1.71	1.06	<10	1.09	295	2	.19	17	480	2	10	<20	423	.08	<10	74	<10	1	25
603 -24	100767	20	.4	2.91	75	32	130	<5	7.49	<1	17	87	83	2.32	1.04	<10	2.11	585	2	.10	29	610	<2	5	<20	466	.10	<10	84	<10	2	38
603 -25	100768	5	.2	4.20	50	30	145	<5	6.42	<1	16	124	14	1.81	.85	<10	1.23	460	2	.21	28	1040	2	5	<20	602	.12	<10	68	<10	2	26
603 -26	100769	5	.4	4.30	15	48	75	<5	5.30	<1	21	130	88	1.91	.45	<10	1.03	369	3	.26	35	1110	2	5	<20	629	.13	<10	70	<10	2	23

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-603

PAGE 2

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
603 - 27	100770	120	.2	6.57	25	48	185	<5	4.54	<1	35	123	76	4.03	1.16	<10	2.25	404	3	.24	50	1630	2	10	<20	668	.22	<10	183	<10	2	37
603 - 28	100771	10	.6	3.98	15	38	10	<5	5.20	<1	36	144	187	4.23	.05	<10	2.41	737	3	.11	33	1250	2	10	<20	312	.10	<10	140	<10	2	46
603 - 29	100772	<5	.4	4.24	20	48	15	<5	6.25	<1	29	165	107	4.34	.05	<10	2.59	834	5	.13	37	1380	4	15	<20	330	.11	<10	173	<10	3	47
603 - 30	100773	5	.2	5.99	20	40	130	<5	4.48	<1	25	112	62	3.66	.67	<10	2.18	470	4	.22	31	1470	2	10	<20	400	.17	<10	158	<10	2	32
603 - 31	100774	120	.4	4.31	2100	40	80	<5	7.64	<1	30	102	128	5.51	.28	<10	3.16	1134	2	.10	40	1160	4	25	<20	320	.08	<10	235	<10	5	47
603 - 32	100775	20	.2	4.57	305	30	60	<5	6.56	<1	26	50	50	4.16	.17	<10	2.45	1038	1	.17	31	1580	6	10	<20	401	.12	<10	133	<10	4	37
603 - 33	100776	10	.8	5.91	25	34	25	<5	5.72	<1	59	109	362	5.13	.05	<10	2.38	736	6	.21	39	1370	6	15	<20	384	.21	<10	159	10	3	42
603 - 34	100777	10	1.0	7.16	40	52	100	<5	5.02	1	74	85	421	5.49	.55	<10	2.15	546	4	.29	54	1770	4	10	<20	478	.24	<10	153	10	3	58
603 - 35	100778	20	.4	10.02	25	34	380	<5	5.09	<1	28	74	69	4.81	1.36	<10	2.59	471	4	.43	31	2230	6	25	<20	639	.25	<10	201	<10	3	51
603 - 36	100779	5	.4	6.92	15	54	80	<5	5.42	<1	37	80	145	3.88	.20	<10	1.67	532	6	.39	40	2020	4	15	<20	542	.18	<10	123	<10	3	39
603 - 37	100780	90	.6	6.29	15	52	145	<5	4.37	<1	35	57	200	3.24	.56	<10	1.20	367	5	.46	24	1380	4	10	<20	518	.16	<10	105	<10	2	32
603 - 38	100781	<5	.4	6.92	20	14	195	<5	4.24	<1	32	84	121	4.46	.70	<10	1.91	500	3	.52	25	1430	4	10	<20	426	.18	<10	147	<10	2	54
603 - 39	100782	<5	.6	7.73	20	32	185	<5	4.63	<1	34	117	168	4.68	.58	<10	2.17	558	4	.60	30	1770	4	20	<20	468	.19	<10	193	<10	3	57
603 - 40	100783	<5	.4	7.49	35	42	160	<5	4.18	<1	31	102	142	4.95	.49	<10	2.14	626	4	.42	34	1500	6	15	<20	376	.13	<10	211	<10	2	61
603 - 41	100784	5	.4	6.81	125	14	145	<5	4.34	<1	31	72	86	4.08	.47	<10	1.88	508	3	.39	25	1430	4	15	<20	457	.09	<10	196	<10	2	47
603 - 42	100801	5	.4	3.08	10	18	160	<5	1.69	<1	16	72	67	3.15	.42	<10	.82	399	2	.35	13	620	12	5	<20	98	.09	<10	84	<10	3	62
603 - 43	100802	<5	.8	3.08	15	22	145	<5	1.79	<1	23	49	89	3.53	.59	<10	1.15	436	4	.33	34	1030	16	10	<20	87	.17	<10	120	<10	3	76
603 - 44	100803	<5	.6	2.51	20	26	285	<5	1.35	1	25	153	39	2.85	.90	<10	1.19	361	3	.42	50	1330	12	5	<20	157	.20	<10	82	<10	3	60
603 - 45	100804	5	.8	2.45	85	18	260	<5	.94	<1	13	80	47	2.80	.53	<10	1.01	275	2	.26	28	900	10	5	<20	78	.12	<10	78	<10	4	47
603 - 46	100805	<5	.6	2.02	30	20	160	<5	.71	<1	8	65	27	2.68	.55	<10	1.12	308	4	.18	21	680	10	5	<20	38	.07	<10	49	<10	3	78
603 - 47	100806	<5	1.6	2.20	100	20	200	<5	.61	7	11	74	46	3.12	.59	<10	1.15	377	5	.14	25	1010	78	10	<20	40	.07	<10	54	<10	4	193
603 - 48	100807	<5	.4	2.53	45	44	335	<5	.95	<1	11	74	32	2.44	.61	<10	1.15	285	4	.25	16	720	10	5	<20	57	.12	<10	68	<10	4	59
603 - 49	100808	<5	.4	2.37	50	32	175	<5	.82	1	11	71	40	2.44	.63	<10	1.13	318	5	.26	19	640	6	5	<20	46	.09	<10	59	<10	3	59
603 - 50	100809	<5	.4	2.73	35	12	225	<5	1.13	<1	11	82	28	2.56	.90	<10	1.27	321	4	.32	20	750	8	5	<20	67	.09	<10	66	<10	3	51
603 - 51	100810	<5	.4	2.51	20	38	290	<5	1.11	<1	15	127	26	2.68	.92	<10	1.19	412	6	.35	26	930	8	5	<20	79	.14	<10	87	<10	3	70
603 - 52	100811	<5	.6	2.76	70	22	75	<5	1.44	<1	13	116	57	3.09	.84	<10	1.24	337	9	.34	36	2040	10	5	<20	76	.08	<10	100	<10	4	80
603 - 53	100812	5	.8	.12	48	26	<5	<5	<.01	<1	12	106	63	2.89	.60	<10	1.25	301	11	.17	28	1170	6	5	<20	1	.06	<10	67	<10	3	45
603 - 54	100813	<5	.8	1.69	80	24	75	<5	.73	<1	11	96	57	2.75	.29	<10	.95	273	10	.15	32	1690	8	5	<20	41	.04	<10	61	<10	4	49
603 - 55	100814	10	.6	1.65	255	22	225	<5	.46	<1	10	73	56	3.03	.27	<10	1.01	296	6	.09	25	1010	12	10	<20	32	.05	<10	63	<10	4	47
603 - 56	100815	<5	.8	1.63	95	28	70	<5	.85	<1	11	104	63	2.68	.32	<10	1.02	244	13	.19	29	1460	8	5	<20	36	.07	<10	81	<10	4	41
603 - 57	100816	<5	.6	2.12	150	42	85	<5	1.18	1	11	77	48	2.42	.30	<10	.88	234	11	.29	21	1120	10	5	<20	60	.07	<10	74	<10	3	39
603 - 58	100817	80	.4	2.43	65	30	120	<5	1.19	<1	10	89	35	2.26	.63	<10	.87	238	6	.32	18	870	8	5	<20	73	.09	<10	60	<10	3	44
603 - 59	100818	<5	.6	1.75	160	48	75	<5	1.32	1	9	61	54	2.15	.16	<10	.52	219	6	.27	21	1030	16	<5	<20	68	.04	<10	44	<10	3	36
603 - 60	100819	5	.6	2.62	105	46	85	<5	1.77	<1	16	68	89	2.49	.32	<10	.62	241	5	.39	18	850	16	5	<20	124	.09	<10	64	<10	2	36
603 - 61	100820	10	.6	3.44	20	34	125	<5	2.31	<1	25	32	94	4.39	.99	10	1.34	598	3	.46	18	1960	16	5	<20	149	.23	<10	154	<10	5	92
603 - 62	100821	15	.2	3.03	55	22	100	<5	1.93	<1	19	36	72	3.13	.54	<10	1.01	397	4	.37	16	890	14	5	<20	122	.11	<10	91	<10	2	58
603 - 63	100822	10	.4	4.58	890	22	160	<5	3.00	1	30	42	53	4.57	1.60	<10	2.37	717	2	.34	23	1220	12	10	<20	147	.10	<10	133	<10	3	115

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-603

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
603 - 64	100823	<5	.4	2.70	200	26	65	<5	2.57	1	15	59	75	3.50	.40	<10	1.34	589	6	.29	12	700	12	5	<20	106	.07	<10	84	<10	3	62
603 - 65	100824	15	.2	3.08	65	28	105	<5	2.17	<1	10	79	22	1.74	.29	<10	.81	289	7	.40	12	850	12	5	<20	115	.08	<10	74	<10	3	41
603 - 66	100825	<5	.4	2.32	200	32	110	<5	2.07	<1	15	98	57	2.14	.32	<10	.79	250	12	.26	39	2500	18	5	<20	106	.05	<10	64	<10	5	42
603 - 67	100826	<5	.2	3.05	75	18	115	<5	3.44	<1	20	52	33	4.13	.82	<10	1.57	778	2	.23	26	1040	12	10	<20	144	.10	<10	67	<10	5	91
603 - 68	100827	<5	.2	4.35	20	34	185	<5	2.19	<1	16	36	15	3.68	1.04	<10	1.53	558	2	.42	3	1250	12	5	<20	140	.15	<10	75	<10	3	90
603 - 69	100828	<5	.2	3.23	25	20	185	<5	1.74	<1	9	27	16	3.27	1.75	10	1.05	494	1	.32	2	1000	4	5	<20	105	.13	<10	50	<10	5	69
603 - 70	100829	<5	.6	3.93	15	24	150	<5	2.27	<1	19	43	56	4.05	1.20	<10	1.46	657	2	.44	6	1490	10	10	<20	154	.18	<10	95	<10	4	96
603 - 71	100830	<5	.4	4.48	20	32	175	<5	2.66	<1	16	48	62	4.01	1.45	<10	1.46	532	3	.46	9	1360	8	10	<20	190	.16	<10	79	<10	4	78
603 - 72	100831	10	.4	4.78	30	38	240	<5	2.44	<1	18	48	44	3.80	1.08	<10	1.49	514	2	.49	5	1390	6	10	<20	230	.19	<10	116	<10	4	88
603 - 73	100832	<5	.4	4.61	40	26	150	<5	3.02	<1	18	45	79	3.93	.89	<10	1.43	516	3	.49	5	1380	10	10	<20	185	.18	<10	80	<10	4	81
603 - 74	100833	40	.2	4.53	55	52	150	<5	3.08	<1	14	90	32	2.82	.77	<10	1.38	470	4	.50	26	760	8	10	<20	207	.12	<10	63	<10	4	62
603 - 75	100834	<5	.2	4.45	50	52	175	<5	3.58	<1	15	128	18	3.10	.71	<10	1.67	605	4	.51	32	930	14	10	<20	235	.12	<10	76	<10	4	70
603 - 76	100835	<5	.2	5.07	35	38	200	<5	3.85	1	21	153	30	3.67	1.19	<10	1.99	763	2	.49	41	1390	140	10	<20	225	.13	<10	114	<10	4	92
603 - 77	100836	40	.4	3.99	120	26	155	<5	4.98	<1	36	280	28	4.50	.96	<10	2.69	1152	1	.41	110	820	8	35	<20	314	.10	<10	106	<10	5	111
603 - 78	100837	<5	.2	4.23	40	26	140	<5	3.21	<1	13	97	13	2.59	.71	<10	1.42	541	3	.49	26	930	8	10	<20	218	.11	<10	65	<10	5	62
603 - 79	100838	<5	.2	2.91	15	56	80	<5	2.45	<1	6	52	19	1.58	.22	<10	.77	354	4	.44	11	560	12	5	<20	158	.07	<10	31	<10	2	38
603 - 80	100839	<5	.2	2.87	10	42	105	<5	2.75	<1	5	44	3	1.86	.36	<10	1.06	554	1	.35	3	700	12	5	<20	115	.06	<10	35	<10	3	45
603 - 81	100840	<5	.2	4.82	10	32	160	<5	3.36	<1	10	49	36	2.42	.54	<10	.91	387	3	.54	4	1260	8	10	<20	189	.12	<10	55	<10	4	49
603 - 82	100841	10	1.5	.02	30	48	<5	<5	.01	1	17	80	59	3.33	.67	<10	1.16	440	4	.52	32	1670	10	5	<20	<1	<.01	<10	68	<10	<1	72
603 - 83	100842	<5	.2	4.17	135	40	90	<5	3.01	<1	38	301	7	2.82	.28	<10	1.53	595	2	.48	87	1450	6	10	<20	183	.11	<10	127	<10	2	72
603 - 84	100843	<5	.2	3.17	70	34	255	<5	2.65	<1	27	166	45	3.24	.64	<10	1.70	594	2	.36	47	1340	8	10	<20	163	.15	<10	106	<10	3	80
603 - 85	100844	<5	.2	2.18	35	44	235	<5	1.46	<1	21	104	60	2.54	.60	<10	1.23	349	3	.25	38	380	6	5	<20	132	.11	<10	68	<10	2	59
603 - 86	100845	<5	.6	3.92	65	24	460	<5	1.60	<1	34	132	75	4.93	2.37	<10	3.32	685	4	.34	38	1120	4	10	<20	124	.25	<10	176	<10	3	119
603 - 87	100846	5	.6	2.87	85	32	80	<5	1.86	<1	25	50	94	5.26	.80	10	2.27	544	4	.14	25	1040	14	15	<20	63	.08	<10	145	<10	6	94

NOTE: < = LESS THAN

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

OCTOBER 9, 1990

CERTIFICATE OF ANALYSIS ETK 90-620

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 36 CORE samples received SEPTEMBER 24, 1990
PROJECT: P90 - 19

ET#	DESCRIPTION	AU (g/t)	AU (oz/t)
620 - 9	100855	2.10	.061

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.SC.T.
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX#2

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

MINOREX CONSULTING LTD. - ETK 90-620

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

OCTOBER 9, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-19
36 CORE SAMPLES RECEIVED SEPTEMBER 24, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
620 - 1	100847	15	.4	2.18	9	2	449	<5	.50	<1	13	43	48	3.93	.92	11	1.50	575	1	.05	6	378	8	<5	<20	19	..08	<10	80	<10	<1	34
620 - 2	100848	5	<.2	2.95	<5	2	586	<5	.64	<1	19	33	44	4.59	1.41	13	1.99	428	<1	.06	10	522	6	<5	<20	21	.09	<10	99	<10	<1	33
620 - 3	100849	15	<.2	3.38	20	<2	448	6	.94	<1	25	61	38	5.30	1.68	16	2.04	448	1	.10	21	809	7	<5	<20	61	.12	<10	102	<10	<1	56
620 - 4	100850	10	<.2	1.90	17	<2	261	<5	.73	<1	17	146	15	3.50	.99	14	1.49	363	<1	.07	36	1417	7	<5	<20	44	.12	<10	60	<10	1	47
620 - 5	100851	<5	<.2	1.87	28	<2	206	<5	.85	<1	17	135	13	3.19	.72	13	1.34	374	<1	.10	32	1396	7	<5	<20	51	.10	<10	57	<10	1	48
620 - 6	100852	5	<.2	3.04	63	<2	205	<5	2.08	<1	26	46	54	5.79	1.42	18	2.49	820	<1	.05	28	658	11	<5	<20	46	.09	<10	114	<10	<1	65
620 - 7	100853	15	<.2	2.56	62	<2	237	<5	2.62	<1	24	40	55	4.27	.68	38	1.52	852	1	.06	12	1634	16	9	<20	71	.09	<10	109	<10	3	85
620 - 8	100854	5	<.2	2.38	25	<2	213	<5	2.43	<1	25	7	56	4.18	.79	36	1.93	616	<1	.06	8	1410	13	<5	<20	85	.09	<10	120	<10	<1	<1
620 - 9	100855	>1000	<.2	3.40	<5	<2	498	<5	5.94	<1	27	19	40	5.22	2.41	15	2.97	757	<1	<.01	14	670	8	<5	<20	54	.15	<10	120	<10	<1	48
620 - 10	100856	45	<.2	3.21	19	<2	524	<5	4.49	<1	26	23	18	5.77	1.82	20	2.48	842	<1	<.01	14	860	6	<5	<20	96	.11	<10	116	<10	<1	60
620 - 11	100857	10	<.2	2.62	66	<2	203	<5	2.12	<1	24	11	35	6.94	.86	28	1.72	512	1	.05	8	1896	7	<5	<20	57	.11	<10	166	<10	3	69
620 - 12	100858	60	<.2	2.94	215	<2	69	<5	7.47	1	30	19	22	7.10	.10	30	2.07	1291	<1	<.01	20	681	9	25	<20	35	.02	<10	83	<10	3	93
620 - 13	100859	15	<.2	1.67	192	<2	45	5	10.35	1	45	8	4	5.52	.06	23	1.43	1511	<1	<.01	19	799	5	43	<20	77	<.01	<10	64	<10	6	90
620 - 14	100860	10	<.2	2.27	23	<2	199	5	7.64	<1	32	11	4	5.42	.67	19	2.38	1021	<1	<.01	17	911	5	20	<20	171	.04	<10	76	<10	1	65
620 - 15	100861	15	<.2	2.76	5	<2	484	<5	5.53	<1	27	16	12	4.47	1.70	14	2.49	774	<1	<.01	14	917	4	<5	<20	113	.10	<10	89	<10	<1	61
620 - 16	100862	<5	<.2	3.04	7	<2	440	<5	6.33	<1	27	16	13	4.06	1.90	11	2.38	741	<1	<.01	13	796	3	<5	<20	61	.10	<10	85	<10	<1	52
620 - 17	100863	35	<.2	3.40	<5	<2	438	<5	5.35	<1	24	40	14	4.92	2.39	14	2.58	902	<1	.02	17	824	5	<5	<20	78	.11	<10	87	<10	<1	68
620 - 18	100864	<5	<.2	1.69	29	<2	172	<5	1.60	<1	14	80	8	2.96	.32	11	1.49	400	1	.06	24	1182	6	<5	<20	51	.06	<10	56	<10	<1	27
620 - 19	100865	5	<.2	1.73	207	<2	139	<5	1.44	2	15	29	53	2.39	.24	18	.91	305	2	.05	8	428	15	<5	<20	45	.02	<10	51	<10	<1	34
620 - 20	100866	5	<.2	1.83	74	<2	237	<5	1.50	<1	19	104	15	2.48	.62	21	1.41	440	1	.07	28	1117	12	<5	<20	69	.09	<10	58	<10	2	47
620 - 21	100867	5	<.2	2.12	68	<2	239	<5	1.59	<1	18	112	19	2.76	.99	23	1.55	519	3	.08	31	1142	12	<5	<20	66	.10	<10	69	<10	1	57
620 - 22	100868	5	<.2	3.11	52	<2	130	<5	2.92	<1	25	65	32	4.90	.66	16	2.07	674	<1	.05	29	1312	11	6	<20	96	.06	<10	114	<10	<1	54
620 - 23	100869	5	<.2	2.78	11	<2	262	6	1.44	<1	22	18	46	5.44	1.44	20	1.66	474	<1	.08	10	1529	7	<5	<20	62	.18	<10	139	<10	2	60
620 - 24	100870	5	<.2	2.89	9	<2	489	<5	1.13	<1	20	16	52	5.43	1.89	22	1.69	391	<1	.11	6	1701	8	<5	<20	72	.21	<10	164	<10	4	57
620 - 25	100871	5	<.2	3.05	25	<2	123	5	1.28	<1	24	19	68	5.73	1.85	22	1.67	333	<1	.11	8	1690	8	<5	<20	65	.19	<10	164	<10	4	53
620 - 26	100872	5	<.2	2.94	51	<2	288	<5	1.62	<1	21	25	49	4.49	1.41	17	1.42	274	1	.08	10	1522	9	<5	<20	65	.15	<10	120	<10	3	36

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-620

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ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
620 - 27	100873	5	.2	1.06	12	2	263	<5	.61	<1	5	67	18	1.52	.32	<10	.50	82	17	.04	14	402	5	<5	<20	33	.03	<10	25	<10	1	3
620 - 28	100874	5	.2	1.30	6	2	460	<5	.77	<1	4	42	12	1.79	.45	<10	.83	167	5	.03	9	368	7	<5	<20	24	.04	<10	21	<10	3	14
620 - 29	100875	5	<.2	1.96	22	<2	285	<5	1.29	<1	8	42	19	3.16	.59	11	1.34	263	1	.04	9	681	8	<5	<20	33	.05	<10	56	<10	3	28
620 - 30	100876	5	.3	1.85	37	<2	148	<5	1.40	<1	9	43	39	3.02	.53	<10	.94	175	2	.08	14	1250	7	<5	<20	51	.06	<10	75	<10	1	16
620 - 31	100877	5	<.2	2.16	14	<2	164	<5	1.34	<1	9	51	31	3.30	.71	<10	1.33	225	2	.08	15	1714	7	<5	<20	42	.06	<10	61	<10	2	27
620 - 32	100878	10	<.2	1.50	27	<2	220	<5	1.98	<1	9	62	28	2.87	.47	10	1.14	293	3	.00	17	393	6	5	<20	16	.04	<10	50	<10	3	38
620 - 33	100879	5	<.2	2.75	17	<2	267	<5	1.27	<1	9	62	23	3.05	1.08	9	1.35	232	3	.08	13	463	8	<5	<20	70	.08	<10	64	<10	<1	30
620 - 34	100880	15	.2	1.77	48	<2	256	<5	1.33	<1	7	50	33	1.60	.25	<10	.58	141	3	.07	9	636	13	<5	<20	55	.03	<10	29	<10	1	7
620 - 35	100881	5	.2	1.31	35	<2	141	<5	1.45	<1	5	84	30	2.53	.35	9	.81	190	4	.02	10	839	6	<5	<20	23	.03	<10	31	<10	4	10
620 - 36	100882	5	.2	1.20	30	<2	126	5	1.24	<1	6	54	25	2.93	.35	10	.93	178	3	.00	13	776	13	<5	<20	13	.02	<10	32	<10	3	16

NOTE: < = LESS THAN

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

ECO-TECH LABORATORIES LTD.
FRANK J. PEZZOTTI, A.SC.T.
B.C. CERTIFIED ASSAYER

SC90/MINOREX

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

OCTOBER 10, 1990

CERTIFICATE OF ANALYSIS ETK 90-640

MINOREX CONSULTING LTD.
11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

A S S A Y S

ATTENTION: DOUG BLANCHFLOWER

SAMPLE IDENTIFICATION: 57 CORE samples received SEPTEMBER 27, 1990
PROJECT: P90 - 16

ET#	DESCRIPTION	AG (g/t)	AG (oz/t)	AS (%)
640 - 35	98385	24.7	.72	1.17
640 - 36	98386			.89
640 - 37	98387			.67
640 - 55	100898	37.4	1.09	1.18

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

C.C.: B. LUECK
SITE 15, COMP. 52
R.R.#2
WHITEHORSE, Y.T.

SC90/MINOREX#2

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

OCTOBER 9, 1990

MINOREX CONSULTING LTD. - ETK 90-640

11967 - 83A AVENUE
DELTA, B.C.
V4C 2K2

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: P90-16
57 CORE SAMPLES RECEIVED SEPTEMER 27, 1990

ET#		DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
640	- 1	98351	5	<.2	4.79	63	<2	159	<5	2.83	<1	13	69	40	3.09	1.09	12	1.09	784	5	.14	6	457	21	5	<20	98	.12	<10	54	<10	<1	72
640	- 2	98352	95	3.1	2.93	743	<2	130	<5	1.98	1	14	80	53	3.51	.67	14	1.02	1033	5	.08	11	523	71	53	<20	48	.08	<10	66	<10	<1	146
640	- 3	98353	10	<.2	4.62	44	<2	172	<5	2.25	<1	14	62	53	3.65	1.47	14	1.13	765	4	.23	8	519	21	5	<20	93	.12	<10	61	<10	<1	63
640	- 4	98354	5	<.2	4.61	46	<2	178	<5	1.98	<1	18	86	51	4.09	1.76	15	1.18	765	3	.28	14	668	20	<5	<20	86	.16	<10	123	<10	<1	72
640	- 5	98355	10	<.2	4.71	52	<2	131	<5	2.68	<1	12	63	49	3.13	1.10	12	1.02	781	5	.24	5	494	21	<5	<20	91	.11	<10	52	<10	<1	64
640	- 6	98356	5	<.2	3.73	69	<2	82	<5	2.12	<1	11	104	47	2.55	.58	10	.73	607	5	.21	8	395	20	9	<20	103	.08	<10	40	<10	<1	46
640	- 7	98357	5	<.2	4.55	35	<2	132	<5	2.53	<1	14	83	57	3.40	1.19	12	.98	811	5	.28	9	593	19	<5	<20	104	.12	<10	66	<10	<1	62
640	- 8	98358	70	<.2	4.75	33	<2	134	<5	2.68	<1	14	77	70	3.65	1.10	14	1.00	909	4	.28	10	535	19	<5	<20	99	.11	<10	65	<10	<1	58
640	- 9	98359	95	<.2	4.91	53	<2	199	<5	2.62	<1	14	70	41	3.38	1.38	13	1.12	878	4	.25	9	612	21	<5	<20	106	.12	<10	61	<10	<1	69
640	-10	98360	330	.6	4.61	1426	<2	187	<5	2.38	<1	13	82	57	3.94	.65	15	1.15	1053	5	.22	9	513	23	23	<20	87	.10	<10	57	<10	<1	75
640	-11	98361	5	<.2	3.53	36	<2	200	<5	1.66	<1	14	61	45	3.57	1.05	13	1.22	901	3	.22	11	473	15	<5	<20	55	.11	<10	75	<10	<1	68
640	-12	98362	10	<.2	4.36	49	<2	423	<5	2.09	<1	12	70	61	3.50	1.16	20	1.10	691	5	.26	<1	438	24	<5	<20	98	.11	<10	47	<10	<1	65
640	-13	98363	15	<.2	3.34	42	2	472	<5	1.32	<1	14	56	63	3.59	1.21	20	1.24	640	5	.21	<1	470	18	<5	<20	80	.12	<10	86	<10	<1	62
640	-14	98364	35	<.2	2.85	8	<2	223	<5	1.30	<1	20	62	76	3.63	.87	12	1.28	742	2	.18	11	602	11	<5	<20	69	.16	<10	108	<10	<1	55
640	-15	98365	80	.4	2.97	12	2	354	<5	1.14	<1	17	54	60	3.64	1.07	12	1.36	693	3	.16	10	601	12	<5	<20	60	.13	<10	106	<10	<1	59
640	-16	98366	45	<.2	3.84	50	<2	259	<5	1.77	<1	16	70	36	3.12	.97	12	.99	646	3	.25	13	713	12	<5	<20	102	.12	<10	49	<10	<1	53
640	-17	98367	25	<.2	3.45	<5	<2	219	<5	1.73	<1	13	77	60	3.46	.99	12	.93	721	5	.25	5	534	14	<5	<20	81	.13	<10	47	<10	<1	62
640	-18	98368	30	<.2	1.74	<5	<2	113	<5	1.67	<1	12	53	66	2.92	.29	10	.76	733	2	.12	5	568	15	10	<20	41	.12	<10	30	<10	1	49
640	-19	98369	45	1.2	.78	45	<2	45	<5	2.44	1	13	65	61	3.51	.10	15	.88	1197	4	<.01	4	724	49	61	<20	55	.04	<10	19	<10	3	85
640	-20	98370	740	6.3	.21	3029	<2	35	<5	4.09	1	6	92	22	2.82	<.01	11	1.11	2639	5	<.01	4	586	100	2009	<20	69	<.01	<10	2	<10	3	109
640	-21	98371	30	.6	.26	48	<2	21	<5	11.89	<1	4	82	8	2.35	.09	11	1.24	3032	5	<.01	2	297	9	282	<20	111	<.01	<10	4	<10	4	31
640	-22	98372	5	<.2	3.02	10	<2	177	<5	2.00	<1	10	112	39	3.02	.78	10	.89	695	6	.20	6	470	14	7	<20	95	.11	<10	46	<10	<1	48
640	-23	98373	15	<.2	3.76	<5	<2	192	<5	2.16	<1	15	92	55	3.60	1.03	13	1.02	709	6	.29	10	512	17	<5	<20	139	.15	<10	63	<10	1	58
640	-24	98374	10	<.2	3.72	45	<2	192	<5	2.14	<1	13	72	55	3.25	.97	18	.97	728	4	.30	3	546	25	6	<20	156	.13	<10	59	<10	2	61
640	-25	98375	35	<.2	3.32	307	<2	184	<5	1.69	<1	11	52	52	3.22	.91	18	1.04	589	4	.17	3	433	22	5	<20	111	.09	<10	45	<10	1	54
640	-26	98376	135	.2	2.58	26	2	183	<5	1.02	<1	8	73	42	3.13	.88	11	.98	630	3	.15	5	506	11	<5	<20	49	.09	<10	31	<10	<1	50

ECO-TECH LABORATORIES LTD. MINOREX CONSULTING LTD. - ETK 90-640

PAGE 2

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
640 -27	98377	40	.5	4.00	93	(2	167	(5	1.69	(1	8	71	54	2.93	1.02	10	1.09	620	4	.24	5	350	18	(5	(20	77	.09	(10	31	(10	(1	47
640 -28	98378	5	(.2	3.75	7	(2	238	(5	1.43	(1	11	66	38	3.27	1.22	11	1.24	681	4	.23	5	325	14	(5	(20	91	.11	(10	50	(10	(1	54
640 -29	98379	55	(.2	3.43	29	(2	244	(5	1.78	(1	11	68	35	3.38	1.03	14	1.29	748	4	.18	5	409	14	(5	(20	79	.08	(10	44	(10	3	53
640 -30	98380	40	(.2	4.02	177	(2	206	(5	1.94	(1	11	72	38	3.49	1.17	12	1.34	717	4	.20	5	496	13	(5	(20	98	.09	(10	56	(10	(1	57
640 -31	98381	(5	(.2	4.55	20	(2	127	(5	1.87	(1	16	62	81	4.52	1.30	16	1.50	728	4	.20	8	496	15	(5	(20	86	.11	(10	86	(10	(1	59
640 -32	98382	295	4.1	2.26	3124	(2	97	(5	2.59	3	22	71	79	4.10	(.01	16	1.13	1190	4	.09	8	526	99	96	(20	96	.04	(10	57	(10	1	213
640 -33	98383	200	.8	2.76	1026	(2	116	(5	2.12	(1	20	57	77	4.58	.47	17	1.25	1365	3	.11	10	450	16	15	(20	96	.06	(10	93	(10	(1	73
640 -34	98384	155	.3	3.58	125	(2	289	(5	1.85	(1	13	78	29	4.04	1.15	16	1.32	1185	4	.15	13	524	14	6	(20	77	.10	(10	71	(10	1	68
640 -35	98385	470	)20.0	.38	)4000	6	50	(5	.25	(1	30	127	250	7.95	(.01	27	.29	446	8	.01	14	297	13	347	(20	15	.01	(10	(1	(10	(1	38
640 -36	98386	880	9.3	.29	)4000	2	61	(5	1.09	21	22	123	104	5.28	(.01	28	.33	1082	8	(.01	15	375	38	92	(20	15	(.01	(10	2	(10	(1	74
640 -37	98387	470	7.9	.83	)4000	(2	65	(5	.87	(1	13	104	75	3.84	(.01	15	.53	879	7	(.01	26	246	(2	83	(20	17	(.01	(10	11	(10	(1	68
640 -38	98388	275	(.2	2.33	81	(2	75	(5	2.74	(1	24	87	208	7.26	.41	27	1.87	1971	5	.09	43	261	(2	21	(20	61	.05	(10	82	(10	(1	40
640 -39	98389	50	(.2	4.00	379	(2	135	(5	2.47	(1	22	63	81	5.43	1.02	20	1.64	1755	3	.22	28	520	(2	13	(20	70	.11	(10	139	(10	(1	66
640 -40	100883	(5	(.2	4.43	36	(2	233	(5	2.52	(1	17	117	29	2.89	.96	14	1.18	481	3	.30	26	965	(2	(5	(20	238	.13	(10	52	(10	1	31
640 -41	100884	10	(.2	3.94	49	(2	133	(5	5.79	(1	21	124	38	2.71	.85	11	1.40	766	1	.20	50	774	(2	(5	(20	197	.10	(10	44	(10	(1	29
640 -42	100885	(5	(.2	2.63	36	(2	379	(5	2.05	(1	21	73	66	3.66	.97	24	1.36	442	4	.22	11	2505	(2	6	(20	157	.20	(10	85	(10	8	35
640 -43	100886	(5	(.2	3.18	55	(2	474	(5	1.50	(1	16	112	27	3.06	1.20	14	1.19	374	7	.28	17	836	(2	6	(20	137	.16	(10	65	(10	2	39
640 -44	100887	15	(.2	3.00	14	2	91	(5	1.42	(1	7	83	21	2.06	.82	10	.68	448	4	.20	4	156	(2	6	(20	68	.07	(10	13	(10	3	33
640 -45	100888	50	(.2	3.03	27	2	90	(5	1.44	(1	8	99	23	2.49	.93	12	.83	549	6	.20	8	202	(2	11	(20	51	.08	(10	37	(10	2	51
640 -46	100889	10	(.2	3.80	9	(2	335	(5	2.30	(1	15	64	42	4.53	2.02	29	1.33	479	4	.22	4	2652	(2	7	(20	147	.18	(10	91	(10	10	59
640 -47	100890	(5	(.2	3.63	10	(2	444	(5	2.58	(1	19	43	58	5.47	2.28	36	1.64	565	4	.20	2	3387	(2	9	(20	150	.22	(10	116	(10	13	62
640 -48	100891	(5	(.2	4.01	14	(2	415	(5	2.63	(1	19	42	50	5.43	2.40	36	1.63	549	4	.20	4	3405	(2	9	(20	147	.20	(10	115	(10	13	64
640 -49	100892	15	(.2	3.07	320	(2	232	(5	1.33	(1	16	36	84	4.81	.98	32	1.15	892	2	.10	5	2218	(2	10	(20	79	.10	(10	72	(10	8	71
640 -50	100893	5	(.2	3.71	196	(2	172	(5	2.21	(1	11	45	54	3.07	.47	15	.94	798	3	.24	7	380	(2	(5	(20	94	.06	(10	41	(10	3	39
640 -51	100894	(5	(.2	4.52	25	(2	137	(5	2.58	(1	11	72	23	2.99	.97	12	1.10	901	3	.27	8	126	(2	(5	(20	103	.08	(10	54	(10	1	40
640 -52	100895	5	(.2	3.56	75	(2	126	(5	2.01	(1	10	75	34	2.69	.63	11	.90	746	4	.26	7	184	(2	5	(20	87	.07	(10	36	(10	2	41
640 -53	100896	5	(.2	3.72	98	(2	117	(5	1.62	(1	12	83	32	2.90	1.19	11	.96	635	4	.28	8	283	(2	(5	(20	64	.09	(10	41	(10	1	44
640 -54	100897	90	(.2	5.22	440	(2	155	(5	2.58	2	21	121	48	5.05	1.30	18	1.36	1170	3	.24	21	680	(2	9	(20	118	.13	(10	117	(10	(1	160
640 -55	100898	830	)20.0	1.40	)4000	(2	110	(5	1.24	10	21	62	165	6.28	(.01	23	.61	1633	3	.05	20	476	165	258	(20	106	.01	(10	30	(10	(1	923
640 -56	100899	25	(.2	2.35	213	(2	78	(5	2.51	0	8	88	36	2.71	.16	12	.96	1039	6	.13	12	190	(2	6	(20	59	.03	(10	25	(10	4	40
640 -57	100900	100	(.2	3.68	1003	(2	125	(5	2.77	(1	14	84	40	4.25	.63	16	1.19	1114	5	.11	11	586	67	57	(20	68	.09	(10	51	(10	1	56

NOTE:) = GREATER THAN
(= LESS THAN

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

CC. B. LUECK
SITE 15, COMP. 52
R.R. #2 WHITEHORSE, Y.T.

SC90/MINOREX

APPENDIX III

Eco-Tech Laboratories Ltd.

Analytical Procedures

ECO-TECH LABORATORIES LTD.
ASSAYING • ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

GEOCHEMICAL LABORATORY METHODS

SAMPLE PREPARATION (STANDARD)

1. Soil or Sediment: Samples are dried and then sieved through 80 mesh nylon sieves.

2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.

3. Heavy Mineral Separation: Samples are screened to -20 mesh, washed and separated in Tetrabromothane. (SG 2.96)

METHODS OF ANALYSIS

All methods have either certified or in-house standards carried through entire procedure to ensure validity of results.

1. **Multi-Element** Cd, Cr, Co, Cu, Fe (acid soluble), Pb, Mn, Ni, Ag, Zn, Mo

Digestion	Finish
Hot aqua-regia	Atomic Absorption, background correction applied where appropriate

A) **Multi-Element ICP**

Digestion	Finish
Hot aqua-regia	ICP

2. **Antimony**

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

3. **Arsenic**

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

4. **Barium**

Digestion	Finish
Lithium Metaborate Fusion	I.C.P.

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5. Beryllium

Digestion	Finish
Hot aqua regia	Atomic Absorption

6. Bismuth

Digestion	Finish
Hot aqua regia	Atomic Absorption

7. Chromium

Digestion	Finish
Sodium Peroxide Fusion	Atomic Absorption

8. Fluorine

Digestion	Finish
Lithium Metaborate Fusion	Ion Selective Electrode

9. Mercury

Digestion	Finish
Hot aqua regia	Cold vapor generation - A.A.S.

10. Phosphorus

Digestion	Finish
Lithium Metaborate Fusion	I.C.P. finish

11. Selenium

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.

12. Tellurium

Digestion	Finish
Hot aqua regia	Hydride generation - A.A.S.
Potassium Bisulphate Fusion	Colorimetric or I.C.P.

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13. Tin

Digestion	Finish
Ammonium Iodide Fusion	Hydride generation - A.A.S.

14. Tungsten

Digestion	Finish
Potassium Bisulphate Fusion	Colorimetric or I.C.P.

15. Gold

Digestion	Finish
a) Fire Assay Preconcentration followed by Aqua Regia	Atomic Absorption

b) 10g sample is roasted at 600°C then digested with hot Aqua Regia. The gold is extracted by MIBK and determined by A.A.

16. Platinum, Palladium, Rhodium

Digestion	Finish
Fire Assay Preconcentration followed by Aqua Regia	Graphite Furnace - A.A.S.

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LABORATORY METHOD ASSAYS

Gold	-	Coventional fire assay with A.A. finish
Gold "Metallics"	-	A 300g re-split is taken from the rejects and pulverized in a ring and puck pulverizer. The entire split is screened to -140mesh. The entire +140 mesh oversize is assayed separately. Two replicate assays are performed on the -140 mesh fraction.
Ag Pb Sb Zn	-	Aqua regia digestion, A.A. finish
As	-	Aqua regia digestion, ICP finish

APPENDIX IV

Northern Analytical Laboratories Ltd.

Assay Certificates

Northern Analytical Laboratories ltd.

July 19,1990

Work Order # 34735

Brian Lueck
Lode Star
Suite 15 Comp 52 RR 2
Whitehorse, Yukon

Assay Certificate For Samples Provided

Sample	ppb Au	ppm Ag	ppm Cu
07-15-01	13	1.6	189
07-15-02	>5000	3.8	13
07-15-03	>5000	1.9	456
07-15-04	533	>100	>10000
07-15-05	124	5.0	237
07-15-06	61	1.4	346

Au -- 15g Fire Assay/AAS
Metals -- Aqua Regia Digestion/AAS Geochem

Applied Science Technologists and Technicians of British Columbia
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GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

July 24,1990 **Work Order # 34743**

Brian Lueck
Lode Star
Suite 15 Comp 52 RR 2
Whitehorse, Yukon

Assay Certificate For Samples Provided

Sample	oz/t Au	oz/t Ag	% Cu
07-15-02	0.810		
07-15-03	0.152		
07-15-04	0.019	10.45	1.27

Au -- 1AT Fire Assay/Grav
Ag -- 1AT Fire Assay/Grav
Cu -- Aqua Regia Digestion/AAS Assay

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Northern Analytical Laboratories ltd.

August 9,1990

Work Order # 08270

Lode Star Exploration

Assay Certificate For Samples Provided

Sample	+100 Au	-100 Au	oz/t Au	oz/t Ag	% Cu
ASZU - 30			0.130	1.36	
ASZ - 30			0.049	0.13	
RTV			0.137	18.75	
RSV - 1			0.056	0.15	
CCB			0.008	0.15	
SK - 1			0.198	0.44	0.381
SK - 2			0.080	1.51	1.180
STRN - 1	0.646	0.759	1.303	0.13	0.054
STRN - 2	0.087	0.184	0.261	0.06	0.043
STRN - 3	0.010	0.187	0.187	0.05	0.039

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Northern Analytical Laboratories ltd.

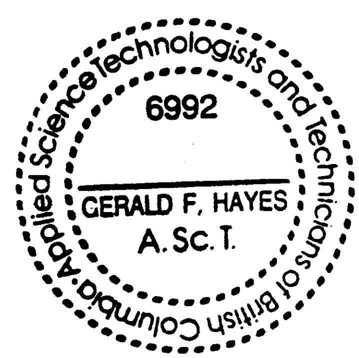
August 21,1990 **Work Order #** 08285

Lode Star Exploration

Assay Certificate For Samples Provided

Sample	oz/t Au	oz/t Ag	ppm Cu
08-01-01	0.032	0.42	3290
08-01-03	0.022	4.49	>10000
08-01-04	<0.002	<0.02	204
08-01-05	~0.005	<0.02	172
08-01-06			9570
08-03-01	0.027	0.40	354
08-03-02	0.005	5.53	>10000
08-05-01	0.044	<0.02	17
08-05-02	0.017	0.54	1910
08-05-03	0.008	<0.02	12
08-05-04	0.026	0.54	137
08-05-05	<0.002	0.52	1191
08-05-06	0.508	0.75	2249
07-29-01	0.018	0.33	506
07-31-01	0.030	0.30	34
07-31-02	0.005	0.43	26
07-31-03	0.009	<0.02	1600
07-31-04	<0.002	0.40	204
07-31-05	<0.002	0.41	143
07-31-06	0.063	1.02	161
07-31-07	0.007	0.43	448
07-31-08	<0.002	0.52	25

Au & Ag -- 1AT Fire Assay/Grav
Cu -- Aqua Regia Digestion/AAS Geochem



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August 21,1990 **Work Order # 08285**

Lode Star Exploration

Assay Certificate For Samples Provided

Sample	+100 Au	-100 Au	oz/t Au	+ 100 Ag	-100 Ag	oz/t Ag
08-01-06	1.580	1.514	2.963	0.34	1.55	1.71

Au & Ag -- Metallics Fire Assay

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August 21,1990

Work Order # 08285

Lode Star Exploration

Assay Certificate For Samples Provided

Sample	% Cu
08-01-03	6.97
08-03-02	2.53

Cu -- Aqua Regia Digestion/AAS Assay

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Northern Analytical Laboratories ltd.

August 10,1990

Work Order # 08291

Lode Star Exploration

Assay Certificate For Samples Provided

Sample	oz/t Au	oz/t Ag
End Vien	0.393	2.00
08-08- 01	0.274	1.82
08-08- 02	0.410	1.12
08-08- 03	0.102	35.22
08-08- 04	0.024	0.40
08-08- 05	0.059	3.35
08-08- 06	0.188	15.00
08-08- 07	0.063	1.01
08-08- 08	0.507	1.61
08-08- 09	0.066	1.33

Au & Ag -- 1AT Fire Assay/Grav

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Northern Analytical Laboratories ltd.

October 2,1990 **Work Order #** 08383

Lodestar Exploration

Assay Certificate For Samples Provided

Sample	+100 oz/t Au	-100 oz/t Au	oz/t Au
08-05-01	0.016	0.054	0.067
08-05-02	0.041	0.460	0.481
08-05-03	2.353	3.690	5.848
08-05-04	0.506	0.066	0.624
08-05-05	1.531	1.502	2.978
08-05-06	0.199	0.335	0.525
08-05-07	0.082	0.184	0.261
08-09-01	0.066	0.635	0.659
08-09-02	0.030	0.073	0.101
08-09-03	<0.002	<0.002	<0.002
08-09-04	0.112	0.022	0.134
08-09-05	0.033	0.067	0.099

Au -- Metallics Fire Assay

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Northern Analytical Laboratories ltd.

October 1,1990 **Work Order #** 08383

Lodestar Exploration **File #** 08383a

Assay Certificate For Samples Provided

Sample	oz/t Au	oz/t Ag
08-14-01	0.047	13.11
18-19-01	0.029	17.92

Au & Ag -- 1AT Fire Assay/Grav

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October 1,1990 **Work Order #** 08383

Lodestar Exploration **File #** 08383b

Assay Certificate For Samples Provided

Sample	ppm Ag	ppm Cu
08-05-01	2.0	955
08-05-02	11.1	1210
08-05-03	9.5	978
08-05-04		615
08-05-05	<0.1	366
08-05-06	3.6	970
08-05-07	0.5	578
08-09-01	1.5	561
08-09-02	<0.1	604
08-09-03	<0.1	475
08-09-04		329
08-09-05	<0.1	961

Metals -- Aqua Regia Digestion/AAS Geochem

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APPENDIX V

Northern Analytical Laboratories Ltd.

Analytical Procedure

Northern
Analytical
Laboratories ltd.

ATOMIC ABSORPTION ANALYSIS

Geochem Digestion [Trace Level Analysis]

0.500g of sample is weighed into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is placed in a boiling water bath for 20 minutes. 3 ml of HCl is added and the sample is heated for on hour. When digestion is completed, the sample is cooled in a cold water bath. The test tube is then bulked to 10 mls using a reference, mixed and allowed to settle. The sample is now ready to run on the A.A.

For ICP the sample is digested in one step using 5 mls of 3 parts HCl, 1 Part Nitric Acid and 2 parts water and heated for one hour in a hot water bath.

Assay Digestion [Ore Level Analysis]

1.000g of sample is weighed into a class A 100 ml volumetric flask. 5 mls of Nitric Acid is added and the flask is placed on a 400 F hot plate until the red fumes indicating reaction subside. 20 mls of water* and 10 mls of HCL are added and placed on the hot plate for 5 minutes. The flask is then bulked to the neck with water and brought to a boil. The flask is then cooled, bulked to the mark, shaken and allowed to settle prior to running on the A.A.

* Some elements require special treatment. For example, Sb requires 20 mls 10% Tartaric acid.

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TRACE LEVEL GOLD FIRE ASSAY

15g of sample is mixed with a suitable flux in a 30g crucible, inquarted with 2 mg Ag and fused at 1900 F. The contents of the crucible are poured into a mould and allowed to cool. The slag is broken off and discarded. The lead button is then pounded into a cube.

The lead button is placed into a bone ash cupel which has been preheated to 1800 F. When the lead is completely molten, the temperature is dropped to 1750 F. The dampers are opened to allow air inside the furnace. When cupelation is complete, the cupel is taken out and allowed to cool.

The silver-gold prill is picked out of the cupel and dropped into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is heated to dissolve the silver. 3 mls of HCl are then added to dissolve the gold. The test tube is made up to 10 mls using a reference, mixed and run on the A.A.

ORE GRADE GOLD FIRE ASSAY

The furnace procedure is identical to the above method except that 30g or one Assay Ton of sample is usually weighed.

The resulting silver-gold prill is picked out of the cupel and hammered flat and dropped into a porcelein crucible. 1:9 Nitric acid is added and the crucible is placed on a 250 F hot plate until all the silver is dissolved. Some Conc. Nitric is added to ensure complete dissolution of the silver. The Silver Nitrate solution is decanted off and the gold is washed three times with D.I. water. The crucible is then replaced on the hot plate to dry.

The gold is annealed using a propane torch and allowed to cool to room temperature. The gold is now weighed on a micro-balance to one microgram. After calculations, oz/t or g/t gold is reported.

Silver is calculated by weighing the bead prior to parting and subtracting the weight of gold.

FREE GOLD FIRE ASSAY

Free or metallic gold in the original sample pulp is screened off using a 100 mesh sieve. The -100 mesh pulp is assayed as above for ore grade gold fire assay. The entire +100 mesh fraction is fire assayed and the metallic gold is weighed. the result is a calculated weighted average with both the + and - 100 mesh assays reported.

APPENDIX VI

Geological Logs, Sampling Intervals and Analytical Results

for

Diamond Drill Holes 90-01 to 90-11

DIAMOND DRILL HOLE 90 - 01

Northing:	6641845.970	**Easting:**	508257.935	**Elev:**	1,522.024 m.
Azimuth:	300°	**Dip:**	- 45°	**Length:**	66.14 m.
Acid Test:	No Test	**Started:**	Sep 1/90	**Finished:**	Sep 2/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	J.D.B. and B. Lueck

Interval From (m)	To (m)	Description
0.0	2.10	OVERBURDEN.
2.10	8.10	Dark green, coarsely bedded, moderately fractured **LAPILLI and LITHIC TUFF** (Unit 10 b_1). Fractures at 30° to 45° and 80° to core axis, approximately 1 to 30 cm. apart. Mid-greenschist alteration with secondary hornfelsing. Fracture-filling pyrrhotite and chalcopyrite (+/- pyrite) veinlets less than or equal to 1 cm. wide, 0.3 m. or less apart, and 30° to core axis. **White quartz-calcite fracture fillings (1 to 3 mm. wide)** at 45° to core axis; subparallel to schistosity and postdating sulphides and Ep-Cl-Ca fracture fillings. Approximately 0.5% pyrrhotite, chalcopyrite +/- pyrite over interval.
8.10	9.45	**TRANSITION ZONE** between upper andesitic **LAPILLI** and **LITHIC TUFF** (Unit 10 b_1) and lower **AUGITE PORPHYRY FLOW** (Unit 10 b_2). The geologic contact with tuff is 50° to 60° to core axis. Similar structure and alteration to above interval. Approximately 0.5 to 1% local chalcopyrite, pyrrhotite ± pyrite. Clots of secondary hornblende less than 2 cm. across.
9.45	11.30	60° to core axis Stratigraphic Contact. Massive and equigranular **AUGITE PORPHYRY FLOW** (Unit 10 b_2) with fracture sets at: 10° to 15° to core axis with pyrite, chalcopyrite and pyrrhotite; and 30° and 60° to core axis with quartz and calcite fracture fillings (less than or equal to 0.3 m. apart). Greenschist facies with local sericitic alteration of plagioclase crystals. Microfracture-controlled pyrrhotite, chalcopyrite and pyrite infillings at 30° to 45° to core axis, less than 2 mm. wide, with local zones less than or equal to 1 cm. wide. Less than 1 % sulphide content.
11.30	32.14	25° to core axis Stratigraphic Contact. Dark grey-green, fractured, fine-grained to very fine-grained **LITHIC TUFF** (Unit 10 b_1, similar to 2.1 to 8.1 m.). - 11.30 to 12.55 metres: fracture sets at 10° to 15°, 30° and 80° to core axis spaced 0.3 m. apart or less.

- 12.55 to 12.88 metres: oxidized shear zone at approximately 45° to core axis. Alteration similar to above with increased secondary mottled hornblende and actinolite banding. Dominant 15° and 80° fractures contain chalcopyrite and pyrrhotite with quartz-calcite gangue, 1 to 3 mm. wide. Chalcopyrite and pyrite occur with actinolite banding. Shears with pyrrhotite and chalcopyrite are 1 to 3 cm. wide.

- 14.70 to 15.00 metres: increased chalcopyrite, pyrite, pyrrhotite and actinolite with hanging wall and footwall shearing at 35° to core axis. Microfractures at 45° with quartz, pyrrhotite and chalcopyrite fracture infillings, 1 to 20 cm. spacing.

- 15.60 metres: 30° to core axis quartz-calcite-actinolite shearing over 3 cm.

- 18.12 to 32.14 metres: chlorite and actinolite-rich hornfelsed andesite tuff. No real change in rock type but metasomatism much more evenly distributed.

- 28.00 to 29.00 metres: subparallel fractures with quartz-actinolite fracture infillings cut core axis at a 65°. Quartz-rich veining is approximately 1 cm. wide.

- 24.00 metres: 2 cm. seam of chalcopyrite, pyrrhotite, but decreased sulphides from 18.12 metres with depth.

- 70% recovery over 29.0 to 31.0 m. interval.

- 29.00 to 32.14 metres: increased 35° and 65° to c.a. quartz-calcite veining with chalcopyrite, pyrrhotite +/- pyrite, under 5 mm. width, similar to high grade stringer zone. Veins are 2 to 3 cm. apart and have good hornfelsing with locally banded actinolite zones. Fractured at 20 cm. intervals, cutting core at 60°.

- Gradational contact over 20 cm. at intrusive contact with sulphides healing fracture fillings.

- Visible Gold in 5 mm. wide quartz-calcite vein at 29.35 m., oriented 65° to c.a. and in 5 mm. quartz-calcite-chalcopyrite-malachite vein at 31.50 m. oriented at 70° to c.a.

32.14	45.70	35° to core axis Intrusive Contact. Light grey, massive HORNBLENDE-FELDSPAR PORPHYRY SILL (Unit 6 c) with secondary biotitization. Quartz-calcite-actinolite veining (2 to 3 mm.) spaced less than 10 cm. apart, oriented 45° to c.a.
		- 39.50 to 39.80 metres: shear zone at 30° to core axis with limonite, malachite, chalcopyrite and pyrite fracture infillings.

		32.14 to 45.70 metres: later 30° to 45° fracturing, spaced less than 15 cm. apart +/- limonite, quartz, calcite, skarn fracture filling. Crosscuts 30° to 35° to core axis sulphide rich veins. - Secondary biotite and apparent albitic alteration of fracture fillings with muscovite or sericite alteration of plagioclase feldspars.
45.70	59.00	35° to core axis Intrusive Contact. Medium grey-green intercalated **LAPILLI TUFF and ANDESITIC AUGITE PORPHYRY FLOW** (Units 10 b_1 and 10 b_2, 30:60 ratio) with gradual intravolcanic stratigraphic contacts. Local 45° to 60° to c.a., 2 to 4 mm. wide quartz-calcite veinlets about 10 to 15 cm. apart to 53.5 metres. Decreased quartz-calcite veins from 53.5 metres to bottom of section. - 52.30 metres: 10 cm. shear zone 30° to 45° to core axis with chlorite-actinolite rich slickensides. - Decreased lower greenschist alteration from 53.0 m. with local chlorite-epidote fracture filling alteration. - Only minor, very fine-grained disseminated pyrite with trace pyrrhotite and no apparent chalcopyrite.
59.00	66.14	Medium green-grey, mottled, chloritic **ANDESITIC LITHIC TUFF** (Unit 10 b_1) with secondary hornblende. Fracturing at 40° to 50° to c.a. spaced 30 to 60 cm. apart, cross-cutting healed chlorite-actinolite rich 2 to 10 mm. veining. Mottled secondary hornblende superimposed on greenschist alteration, similar to top of hole without actinolite-rich skarn. Disseminated pyrite (+/- pyrrhotite) with local sections up to 2 to 3% sulphides. Local sulphide sections proximal to 60° and 80° to c.a. chlorite-rich veining.
66.14		**END OF HOLE.** (No Acid Test)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 01
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample		Interval				Analytical Summary						
No.	From (m)	To (m)	Int. (m)	Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100401	2.10	4.00	1.90	> 1000	0.051	2.3		362	48	30		
100402	4.00	6.00	2.00	> 1000	0.029	1.2		259	19	28		
100403	6.00	8.00	2.00	> 1000	0.062	2.7		535	< 2	28	9.90	0.062
100404	8.00	10.00	2.00	> 1000	0.132	7.6		856	5	30		
100405	10.00	12.00	2.00	> 1000	0.033	3.0		583	2	33		
100406	12.00	14.00	2.00	990		2.0		350	< 2	34		
100407	14.00	16.00	2.00	> 1000	0.035	4.0		967	< 2	46	2.00	0.035
100408	16.00	18.00	2.00	775		1.2		340	< 2	36		
100409	18.00	20.00	2.00	395		0.5		209	< 2	32		
100410	20.00	22.00	2.00	> 1000	0.057	1.7		446	< 2	41	4.00	0.050
100411	22.00	24.00	2.00	> 1000	0.043	1.6		368	4	33		
100412	24.00	26.00	2.00	400		< 0.2		69	< 2	31		
100413	26.00	28.00	2.00	670		0.2		297	< 2	41		
100414	28.00	29.00	1.00	> 1000	0.058	2.5		849	< 2	45		
100415	29.00	30.00	1.00	> 1000	0.064	1.1		477	< 2	47	2.00	0.061
100416	30.00	31.00	1.00	> 1000	0.023	< 0.2		165	< 2	48		
100417	31.00	32.00	1.00	> 1000	0.057	0.2		200	< 2	41	1.00	0.057
100418	32.00	33.00	1.00	> 1000	0.007	< 0.2		74	6	37		
100419	33.00	34.00	1.00	> 1000	0.012	< 0.2		46	31	159		
100420	34.00	36.00	2.00	635		< 0.2		31	8	92		
100421	36.00	38.00	2.00	105		< 0.2		25	7	29		
100422	38.00	40.00	2.00	365		1.4		293	12	45		
100423	40.00	42.00	2.00	150		0.8		62	4	47		
100424	42.00	44.00	2.00	80		< 0.2		21	6	24		
100425	44.00	46.00	2.00	30		< 0.2		41	40	38		
100426	46.00	48.00	2.00	< 5		< 0.2		100	< 2	53		
100427	48.00	50.00	2.00	15		0.5		63	< 2	47		
100428	50.00	52.00	2.00	< 5		< 0.2		50	< 2	50		
100429	52.00	54.00	2.00	360		< 0.2		124	< 2	37		
100430	54.00	56.00	2.00	20		< 0.2		77	< 2	41		
100431	56.00	58.00	2.00	65		< 0.2		72	< 2	40		
100432	58.00	60.00	2.00	< 5		< 0.2		76	< 2	48		
100433	60.00	62.00	2.00	< 5		< 0.2		101	< 2	46		
100434	62.00	64.00	2.00	20		< 0.2		90	2	35		
100435	64.00	66.14	2.14	< 5		< 0.2		83	3	36		

DIAMOND DRILL HOLE 90 - 02

Northing:	6641845.663	**Easting:**	508258.315	**Elev:**	1,521.995 m.
Azimuth:	300°	**Dip:**	- 60°	**Length:**	49.38 m.
Acid Test:	- 61° at 48.20 m.	**Started:**	Sep 2/90	**Finished:**	Sep 3/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

Interval From (m)	To (m)	Description
0.00	2.00	OVERBURDEN.
2.00	17.00	Dense green, fine-grained LITHIC and CRYSTAL TUFF (Unit 10 b_1) with very minor augite porphyry flow intermixed. Structures are of three types: fine 1 to 5 mm. fracture veinlets of quartz-pyrrhotite-chalcopyrite-calcite that are at 60° to 70° to c.a.; felted actinolite replacements and metasomatic recrystallization with chalcopyrite-pyrrhotite-pyrite which criss-cross at all angles; and calcite +/- ankerite fracture healings at 0° to 30° to c.a. Alteration is greenschist with green actinolite growths predominating; hornfelsing gives rise to brownish patches of secondary biotite +/- hornblende. **Visible Gold** is noted in felted actinolite with pyrrhotite, chalcopyrite and pyrite at 15.50 metres.
17.00	28.00	60° to core axis Intrusive Contact. **HORNBLENDE-BIOTITE-FELDSPAR PORPHYRY SILL** (Unit 6 c) with possibly secondary biotite and partly oxidized. Superimposed structures include: 1 to 2 mm. calcite veinlets, 2 to 10 mm. quartz-amphibole veinlets, and pyrrhotite and pyrite are disseminated through much of the section (less than 1% sulphides). Phenocrysts are up to 2 mm. in size.
28.55	31.00	20° to c.a. Intrusive Contact. Dark green, fine grained **LITHIC TUFF** (Unit 10 b_1) with massive texture. Low angle fracturing with limonite at 30.00 to 31.00 metres.
31.00	32.00	60° to core axis Intrusive Contact. **HORNBLENDE-BIOTITE-FELDSPAR PORPHYRY SILL** (Unit 6 c, same as above).
32.00	49.38	Fine-grained **LITHIC and CRYSTAL TUFF** (Unit 10 b_1) with greenschist alteration, 20° and 70 to 80° to c.a. calcite veinlets and felted actinolite zones with pyrrhotite and pyrite.
49.38		**END OF HOLE.** (Acid Test at 48.20 m., -61°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 02
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100451	2.00	4.00	2.00	325		1.2		133	7	72		
100452	4.00	6.00	2.00	215		2.2		371	10	33		
100453	6.00	8.00	2.00	> 1000	0.040	7.8		978	8	43		
100454	8.00	10.00	2.00	> 1000	0.060	7.2		900	7	57	6.00	0.059
100455	10.00	12.00	2.00	> 1000	0.078	8.0		1059	7	49		
100456	12.00	14.00	2.00	1020		3.6		569	8	53		
100457	14.00	15.00	1.00	710		7.8		1448	7	80		
100458	15.00	16.00	1.00	770		8.2		1636	6	77		
100459	16.00	17.00	1.00	> 1000	0.114	2.8		560	7	45	1.00	0.114
100460	17.00	18.00	1.00	260		0.4		101	8	7		
100461	18.00	19.00	1.00	< 5		0.3		66	8	5		
100462	19.00	20.00	1.00	15		0.2		46	10	16		
100463	20.00	22.00	2.00	15		0.2		26	7	38		
100464	22.00	24.00	2.00	410		0.2		30	7	23		
100465	24.00	26.00	2.00	430		0.2		81	8	16		
100466	26.00	28.00	2.00	270		0.2		14	6	26		
100467	28.00	30.00	2.00	< 5		0.4		88	9	47		
100468	30.00	32.00	2.00	360		0.4		89	19	26		
100469	32.00	34.00	2.00	15		0.4		129	9	46		
100470	34.00	36.00	2.00	< 5		0.8		172	4	60		
100471	36.00	38.00	2.00	265		0.4		112	4	41		
100472	38.00	40.00	2.00	< 5		0.4		141	7	40		
100473	40.00	42.00	2.00	125		0.6		215	5	35		
100474	42.00	44.00	2.00	< 5		0.8		171	6	62		
100475	44.00	46.00	2.00	< 5		1.4		123	7	67		
100476	46.00	49.38	3.38	< 5		0.6		87	6	66		

DIAMOND DRILL HOLE 90 - 03

Northing:	6641845.211	**Easting:**	508258.873	**Elev:**	1,522.003 m.
Azimuth:	300°	**Dip:**	- 90°	**Length:**	31.09 m.
Acid Test:	- 89° at 30.48 m.	**Started:**	Sep 3/90	**Finished:**	Sep 4/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

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Interval From (m)	To (m)	Description
0.00	1.50	**OVERBURDEN.**
1.50	15.65	Fine-grained **LITHIC and CRYSTAL TUFF** (Unit 10 b_l) with no augite porphyry flow (like DDH 90-02). Very minor fracturing at 0.3 to 1.0 m. spacing. Very fine network of quartz-actinolite-pyrrhotite-chalcopyrite veinlets are seen throughout the section, crosscutting core axis at 70°, but increase in density toward the intrusive contact. Disseminated pyrite is common. **- Visible Gold** at 8.00, 10.00 and 15.00 metres.
15.65	25.11	20° to core axis Intrusive Contact. Same **HORNBLENDE-BIOTITE-FELDSPAR PORPHYRY SILL** (Unit 6 c) as in DDH 90-1 and 90-2. Unit becomes intensely fractured and limonitic toward the end of the section (18.0 to 25.0 metres). Phyllic alteration.
25.11	31.09	45° to core axis Intrusive Contact. **LITHIC and CRYSTAL TUFF** (Unit 10 b_l, same as in upper section). The first appearance of chalcopyrite is seen in core below the dyke at approximately 28.0 m. in actinolite with pyrrhotite. Seams of massive pyrite up to 1 cm. wide.
31.09		**END OF HOLE.** (Acid Test at 30.48 m., -89°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 03
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100501	1.50	4.00	2.50	175		1.0		126	7	46		
100502	4.00	6.00	2.00	610		5.0		864	8	67		
100503	6.00	7.00	1.00	> 1000	0.083	6.8		691	5	41		
100504	7.00	8.00	1.00	> 1000	0.240	9.4		1078	6	48	2.00	0.162
100505	8.00	9.00	1.00	195		3.8		555	3	54		
100506	9.00	10.00	1.00	415		1.6		257	4	31		
100507	10.00	11.00	1.00	> 1000	0.065	6.8		1076	4	37		
100508	11.00	12.00	1.00	> 1000	0.113	10.8		1686	3	48	4.00	0.215
100509	12.00	13.00	1.00	> 1000	0.255	5.6		680	4	23		
100510	13.00	14.00	1.00	> 1000	0.427	10.8		1657	5	51		
100511	14.00	15.00	1.00	430		3.0		538	4	33		
100512	15.00	16.00	1.00	100		1.4		335	7	48		
100513	16.00	18.00	2.00	50		< 0.2		37	12	16		
100514	18.00	20.00	2.00	20		0.2		58	12	14		
100515	20.00	22.00	2.00	365		0.3		33	9	12		
100516	22.00	24.00	2.00	5		0.2		33	9	15		
100517	24.00	25.00	1.00	< 5		0.5		17	12	43		
100518	25.00	26.00	1.00	< 5		< 0.2		62	28	34		
100519	26.00	28.00	2.00	15		< 0.2		290	29	38		
100520	28.00	30.00	2.00	15		0.3		143	30	30		
100521	30.00	31.09	1.09	5		< 0.2		77	25	27		

DIAMOND DRILL HOLE 90 - 04

Northing:	6641843.813	**Easting:**	508257.329	**Elev:**	1,522.089 m.
Azimuth:	247°	**Dip:**	- 45°	**Length:**	59.13 m.
Acid Test:	- 46° at 59.13 m.	**Started:**	Sep 4/90	**Finished:**	Sep 6/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

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Interval From (m)	To (m)	Description
0.00	2.00	OVERBURDEN.
2.00	37.50	Fine-grained LITHIC TUFF (Unit 10 b_1); very similar to DDH 90-01 but with less augite porphyry present. Fine stringer veinlets are common, usually 10 to 30 cm. apart. Actinolite-pyrrhotite-chalcopyrite stringers are also common. - **Visible Gold** seen between 25.0 and 26.0 metres. - Below 27.0 metres the section contains very little quartz, but actinolite stringers and disseminated sulphides continue to the intrusive contact. Chalcopyrite is present throughout the section, less than 1 %.
37.50	40.00	30° to core axis Intrusive Contact. **HORNBLENDE-FELDSPAR PORPHYRY SILL** (Unit 6 c, as in previous holes). Limonitic fracture is parallel to the core axis.
40.00	44.90	45° to core axis Intrusive Contact. Hornfelsed LITHIC TUFF (Unit 10 b_1) with a distinct brown colour from anastomosing green actinolite veinlets and minor sulphide content.
44.90	59.13	30° to core axis Intrusive Contact. Grey, massive **HORNBLENDE-FELDSPAR PORPHYRY SILL** (Unit 6 c, as above). Sulphide replacements and phyllic alteration are pervasive. Possibly silicified (post argillic alteration) since it is very brittle (difficult to drill).
59.13		**END OF HOLE.** (Acid Test at 59.13 m., -46°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 04
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100551	2.00	4.00	2.00	> 1000	0.066	1.6		255	49	101		
100552	4.00	6.00	2.00	> 1000	0.034	3.2		374	22	53	6.00	0.043
100553	6.00	8.00	2.00	> 1000	0.030	0.5		149	11	67		
100554	8.00	10.00	2.00	990		0.3		91	16	49		
100555	10.00	12.00	2.00	125		0.9		225	8	65		
100556	12.00	14.00	2.00	> 1000	0.050	8.2		1407	14	123	2.00	0.050
100557	14.00	16.00	2.00	100		0.5		204	12	61		
100558	16.00	18.00	2.00	420		0.6		327	17	42		
100559	18.00	19.00	1.00	300		< 0.2		137	14	64		
100560	19.00	20.00	1.00	310		1.8		201	9	49		
100561	20.00	21.00	1.00	250		0.3		147	13	59		
100562	21.00	22.00	1.00	> 1000	0.085	4.0		831	14	73		
100563	22.00	23.00	1.00	> 1000	0.119	8.0		1310	12	62		
100564	23.00	24.00	1.00	> 1000	0.083	5.3		868	13	72		
100565	24.00	25.00	1.00	> 1000	0.036	2.3		404	10	54	7.00	0.107
100566	25.00	26.00	1.00	> 1000	0.114	3.4		736	15	78		
100567	26.00	27.00	1.00	> 1000	0.117	6.3		902	15	87		
100568	27.00	28.00	1.00	> 1000	0.198	7.2		1322	11	122		
100569	28.00	29.00	1.00	150		0.6		270	6	92		
100570	29.00	30.00	1.00	165		0.6		184	12	65		
100571	30.00	31.00	1.00	800		0.7		228	9	54		
100572	31.00	32.00	1.00	510		1.1		386	11	55		
100573	32.00	33.00	1.00	> 1000	0.048	3.8		900	10	81	1.00	0.048
100574	33.00	34.00	1.00	275		< 0.2		262	7	62		
100575	34.00	35.00	1.00	765		1.0		390	10	70		
100576	35.00	36.00	1.00	610		0.6		412	12	63		
100577	36.00	37.00	1.00	190		0.3		171	9	42		
100578	37.00	38.00	1.00	55		< 0.2		74	6	25		
100579	38.00	40.00	2.00	75		0.3		22	10	19		
100580	40.00	42.00	2.00	15		< 0.2		85	11	93		
100581	42.00	44.00	2.00	50		< 0.2		154	12	78		
100582	44.00	46.00	2.00	35		< 0.2		36	9	34		
100583	46.00	48.00	2.00	30		0.5		11	10	16		
100584	48.00	50.00	2.00	15		0.3		4	10	29		
100585	50.00	52.00	2.00	25		< 0.2		23	13	9		
100586	52.00	54.00	2.00	30		< 0.2		14	12	7		
100587	54.00	56.00	2.00	160		< 0.2		25	15	9		
100588	56.00	58.00	2.00	10		< 0.2		17	16	11		
100589	58.00	59.13	1.13	5		< 0.2		26	16	10		

DIAMOND DRILL HOLE 90 - 05

Northing:	6641843.959	**Easting:**	508257.838	**Elev:**	1,521.991 m.
Azimuth:	247°	**Dip:**	- 60°	**Length:**	45.72 m.
Acid Test:	- 61° at 45.72 m.	**Started:**	Sep 6/90	**Finished:**	Sep 9/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

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Interval From (m)	To (m)	Description
0.00	1.83	OVERBURDEN.
1.83	26.00	Green to brown, fine grained LITHIC TUFF (Unit 10 b_1). Highly altered. Green coloration due to actinolite growth and brown colour from secondary biotite. Disseminated chalcopyrite in actinolite stringers begins at collar. Quartz-calcite microveinlet stringers cut core axis between 45° and 60°. **Visible Gold** in quartz vein at 11.50 metres. Actinolite +\- pyrrhotite, chalcopyrite and pyrite stringers are common and pervasive throughout the unit. No augite porphyry. -14.50 to 15.50 metres: band of approximately 20% sulphide (pyrite, pyrrhotite, chalcopyrite). Very thin pyrrhotite-chalcopyrite-quartz-calcite stringers are found with erratic frequency throughout the unit. - Near lower intrusive contact there is brown hornfelsing with stringers of actinolite-pyrrhotite-minor chalcopyrite (+/- minor quartz and calcite).
26.00	39.52	45° to core axis Fault Contact. **HORNBLENDE-FELDSPAR PORPHYRY SILL** (Unit 6 c) with hornblende phenocrysts in a fine grey-green groundmass of altered feldspars. Disseminated pyrrhotite and pyrite found throughout the unit. Unit is internally structureless but fractures are coated with pyrrhotite and minor chalcopyrite, or the sulphides are altered to limonite. Ankerite veinlets are more common in lower part of section.
39.52	45.72	10° to 30° Shear Contact. Fine-grained, brown LITHIC TUFF (Unit 10 b_1) which is mottled with green anastomosing veinlets of actinolite. Section of minor disseminated pyrrhotite and chalcopyrite at lower dyke contact. No quartz stringers. Moderately fractured at 5 to 40 cm. apart.
45.72		END OF HOLE. (Acid Test at 45.72 m., -61°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 05
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100601	2.00	4.00	2.00	280		0.7		192	39	22		
100602	4.00	6.00	2.00	> 1000	0.033	1.0		374	8	43		
100603	6.00	8.00	2.00	> 1000	0.034	1.9		351	51	38	5.00	0.039
100604	8.00	9.00	1.00	> 1000	0.062	8.5		1477	49	52		
100605	9.00	10.00	1.00	140		0.5		220	62	52		
100606	10.00	11.00	1.00	145		0.8		275	55	53		
100607	11.00	12.00	1.00	> 1000	0.079	3.8		715	55	45		
100608	12.00	13.00	1.00	> 1000	0.069	1.4		361	76	43		
100609	13.00	14.00	1.00	> 1000	0.388	7.9		1255	52	54	4.00	0.144
100610	14.00	15.00	1.00	> 1000	0.038	4.2		1203	45	76		
100611	15.00	16.00	1.00	615		0.4		259	46	55		
100612	16.00	17.00	1.00	960		0.2		149	54	48		
100613	17.00	18.00	1.00	405		0.9		334	60	46		
100614	18.00	19.00	1.00	> 1000	0.034	4.6		829	57	55	1.00	0.034
100615	19.00	20.00	1.00	50		< 0.2		77	62	43		
100616	20.00	21.00	1.00	560		3.5		825	70	60		
100617	21.00	22.00	1.00	> 1000	0.042	1.7		533	62	50	1.00	0.042
100618	22.00	23.00	1.00	655		< 0.2		305	66	51		
100619	23.00	24.00	1.00	> 1000	0.069	< 0.2		304	61	50	1.00	0.069
100620	24.00	25.00	1.00	85		< 0.2		181	56	44		
100621	25.00	26.00	1.00	110		< 0.2		127	48	40		
100622	26.00	28.00	2.00	75		0.3		35	16	15		
100623	28.00	30.00	2.00	35		0.6		26	13	14		
100624	30.00	32.00	2.00	45		0.5		34	16	17		
100625	32.00	34.00	2.00	135		0.3		16	23	15		
100626	34.00	36.00	2.00	125		< 0.2		38	15	14		
100627	36.00	38.00	2.00	5		0.6		57	14	16		
100628	38.00	40.00	2.00	5		0.2		59	22	24		
100629	40.00	41.00	1.00	5		< 0.2		438	59	50		
100630	41.00	42.00	1.00	5		1.2		134	52	42		
100631	42.00	44.00	2.00	5		< 0.2		103	46	56		
100632	44.00	45.72	1.72	5		0.7		115	32	43		

DIAMOND DRILL HOLE 90 - 06

Northing:	6641844.096	**Easting:**	508260.201	**Elev:**	1,521.861 m.
Azimuth:	165°	**Dip:**	- 45°	**Length:**	49.07 m.
Acid Test:	- 46° at 49.07 m.	**Started:**	Sep 10/90	**Finished:**	Sep 11/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

Interval From (m)	To (m)	Description
0.00	2.40	**OVERBURDEN.**
2.40	29.00	Mottled green and brown, fine-grained **LITHIC TUFF** (Unit 10 b_1). Parallel crosscutting calcite (+/- quartz, pyrrhotite and chalcopyrite) veinlets that are generally between 2 and 30 cm. apart and oriented at 30° to 60° to c.a. Stockwork actinolite (+/- pyrrhotite, pyrite, chalcopyrite) with no specific orientation to core axis. Alteration is upper greenschist with secondary biotite and actinolite-calcite common. Fine-grained pyrrhotite, pyrite and chalcopyrite disseminations are pervasive throughout most of the core with local concentrations in excess of 5 %. - Sulphides are closely associated with actinolite. Mineralization is found in actinolite veins and/or calcite-quartz veinlets which contain actinolite. Relationships show both crosscut each other and can even turn into one another along the same fracture. There appears to be a genetic relationship between stringers of quartz-calcite and actinolite-pyrrhotite-pyrite-chalcopyrite seams.
29.00	42.50	60° to core axis Intrusive Contact. Light grey **HORNBLENDE-FELDSPAR PORPHYRY SILL** (Unit 6 c) with hornblende phenocrysts with secondary biotite and greenish, altered feldspars. Structurally homogenous, even in grain size distribution. Fracture density is 10 to 40 cm. Alteration is phyllic with sericitic feldspar alteration followed by silicification and sulphide (pyrrhotite, pyrite, minor chalcopyrite) replacement and microfracture healings. Some minor narrow (1 to 3 mm.) carbonate seams are present crosscutting at 45° to core axis. Mineralization is otherwise restricted to narrow seams (less than 2 mm.) of sulphide including: pyrrhotite, pyrite, chalcopyrite. Intrusive contact with lower tuff is hornfelsed and shows cooling rim (fine grained at edge of hornfels margin).

42.50	49.07	60° to core axis Intrusive Contact. Grey-green **LITHIC TUFF** (Unit 10 b_1), includes cherty tuff. Microfractures show both distinct shears infilled with chalcedony-pyrrhotite-pyrite and, in one case, an unidentified soft grey mineral. Calcite seams up to 6 cm. occur in three places. Pyrrhotite and actinolite are common.
49.07		**END OF HOLE.** (Acid Test at 49.07 m., -46°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 06
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100651	2.40	4.00	1.60	> 1000	0.105	3.2		662	17	32		
100652	4.00	5.00	1.00	> 1000	0.033	0.8		200	17	31	2.60	0.077
100653	5.00	6.00	1.00	585		< 0.2		96	19	37		
100654	6.00	7.00	1.00	170		< 0.2		70	22	26		
100655	7.00	8.00	1.00	635		0.2		94	17	24		
100656	8.00	9.00	1.00	> 1000	0.032	0.5		191	20	38	1.00	0.032
100657	9.00	10.00	1.00	260		0.5		172	23	36		
100658	10.00	11.00	1.00	> 1000	0.054	4.8		701	12	27		
100659	11.00	12.00	1.00	> 1000	0.094	3.2		595	15	21		
100660	12.00	14.00	2.00	> 1000	0.030	2.6		503	17	28	8.00	0.044
100661	14.00	16.00	2.00	> 1000	0.032	3.0		447	21	25		
100662	16.00	18.00	2.00	> 1000	0.038	1.9		418	20	26		
100663	18.00	20.00	2.00	330		3.1		682	20	41		
100664	20.00	22.00	2.00	55		< 0.2		138	15	26		
100665	22.00	24.00	2.00	> 1000	0.032	0.5		180	20	23	2.00	0.032
100666	24.00	26.00	2.00	195		< 0.2		146	28	37		
100667	26.00	27.00	1.00	250		< 0.2		119	34	28		
100668	27.00	28.00	1.00	10		< 0.2		129	33	29		
100669	28.00	29.00	1.00	15		< 0.2		155	26	24		
100670	29.00	30.00	1.00	5		< 0.2		12	14	20		
100671	30.00	32.00	2.00	5		0.2		13	12	31		
100672	32.00	34.00	2.00	5		< 0.2		16	18	23		
100673	34.00	36.00	2.00	5		< 0.2		17	19	20		
100674	36.00	38.00	2.00	5		< 0.2		18	19	22		
100675	38.00	40.00	2.00	5		< 0.2		9	19	68		
100676	40.00	42.00	2.00	5		< 0.2		14	18	19		
100677	42.00	44.00	2.00	5		< 0.2		89	34	26		
100678	44.00	46.00	2.00	5		< 0.2		64	35	36		
100679	46.00	48.00	2.00	40		< 0.2		73	43	29		
100680	48.00	49.07	1.07	20		< 0.2		160	50	32		

DIAMOND DRILL HOLE 90 - 07

Northing:	6641844.647	**Easting:**	508260.077	**Elev:**	1,521.806 m.
Azimuth:	165°	**Dip:**	- 60°	**Length:**	52.43 m.
Acid Test:	- 59° at 52.43 m.	**Started:**	Sep 11/90	**Finished:**	Sep 11/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

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Interval From (m)	Interval To (m)	Description
0.00	2.20	**OVERBURDEN.**
2.20	22.86	Mottled brown and green **LITHIC TUFF** (Unit 10 b_1) of possibly andesitic composition. Fractures at 60° to core axis with 2 to 40 cm. density. Infrequent calcite stringers at 45° to core axis and 5 to 100 cm. density. More regular frequency of actinolite-pyrrhotite-chalcopyrite veinlets in section at no particular orientation. Alteration is greenschist facies with actinolite growth and secondary biotite and chlorite. Hornfels more prominent toward lower end of section. Mineralization consists of chalcopyrite-pyrrhotite-pyrite as disseminations and network sulphides sporadically distributed through the core. Sulphides (approx. 3%) occur in the following sections: 10.75 to 11.25, 13.5 to 14.5, 15.5 to 17.0 and 18.5 to 18.75 m.
22.86	33.83	70° to core axis Intrusive Contact. Fine-grained, massive **HORNBLENDE-FELDSPAR PORPHYRY SILL** (Unit 6 c). Fracture spacing is 5 to 10 cm. Minor disseminated pyrite and pyrrhotite. Minor rusty carbonate seams less than 3 mm wide. Contacts have chilled margins.
33.83	42.90	45° to core axis Intrusive Contact. Andesitic **LITHIC TUFF** (Unit 10 b_1) with some zones of lapilli-sized fragments. Moderately fractured at approximately 30 cm. apart. Pyrrhotite, chalcopyrite and pyrite are found in minor quantities (less than 1%) through the section in actinolite-calcite veinlets.
42.90	49.30	**AUGITE PORPHYRY FLOW** (Unit 10 b_2) with 1 to 2 mm. augite phenocrysts in a fine feldspathic matrix. Fractures at 45° to core axis, approximately 5 to 40 cm. apart. Very fine fractures at 45° to c.a. are filled with calcite and minor pyrrhotite, pyrite and chalcopyrite. Actinolite stringers, 1 to 4 cm. wide, host pyrrhotite, pyrite and chalcopyrite at all angles through the section. Sulphide content is approximately 1-2%.

49.30	52.43	Andesitic **LITHIC TUFF** (Unit 10 b_1, same as section 33.83 to 42.90 m.) is in gradational contact with above augite porphyry. Felted actinolite and calcite contain minor pyrrhotite, pyrite and chalcopyrite. Alteration is greenschist with secondary actinolite-chlorite and biotite. Narrow (30 cm.) crushed zone at 49.70 to 50.00 metres. Calcite veinlets (1 to 3 mm. wide) heal fractures. Pyrite is only sulphide present here.
52.43		**END OF HOLE.** (Acid Test at 52.43 m., -59°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 07
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample	Interval			Analytical Summary								
No.	From (m)	To (m)	Int. (m)	Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100701	2.20	4.00	1.80	> 1000	0.061	0.4		58	38	27	1.80	0.061
100702	4.00	6.00	2.00	640		0.3		97	42	33		
100703	6.00	8.00	2.00	465		< 0.2		87	41	37		
100704	8.00	9.00	1.00	105		< 0.2		40	43	38		
100705	9.00	10.00	1.00	430		< 0.2		34	42	28		
100706	10.00	11.00	1.00	> 1000	0.190	0.6		129	29	37		
100707	11.00	12.00	1.00	> 1000	0.057	3.5		619	37	45		
100708	12.00	13.00	1.00	> 1000	0.032	4.4		755	40	30		
100709	13.00	14.00	1.00	> 1000	0.088	11.4		1386	22	36		
100710	14.00	15.00	1.00	> 1000	0.143	4.4		733	19	34	8.00	0.100
100711	15.00	16.00	1.00	> 1000	0.062	1.3		346	29	24		
100712	16.00	17.00	1.00	> 1000	0.111	2.4		380	30	29		
100713	17.00	18.00	1.00	> 1000	0.120	1.8		368	37	31		
100714	18.00	19.00	1.00	490		5.3		922	37	48		
100715	19.00	20.00	1.00	30		< 0.2		207	34	33		
100716	20.00	21.00	1.00	45		< 0.2		117	34	29		
100717	21.00	22.00	1.00	155		< 0.2		80	35	27		
100718	22.00	23.00	1.00	> 1000	0.106	< 0.2		45	23	20	1.00	0.106
100719	23.00	24.00	1.00	40		< 0.2		14	14	21		
100720	24.00	26.00	2.00	25		< 0.2		15	12	17		
100721	26.00	28.00	2.00	5		< 0.2		5	13	25		
100722	28.00	30.00	2.00	5		< 0.2		7	16	14		
100723	30.00	32.00	2.00	5		< 0.2		136	35	31		
100724	32.00	34.00	2.00	5		< 0.2		199	28	37		
100725	34.00	36.00	2.00	5		< 0.2		76	38	38		
100726	36.00	38.00	2.00	5		< 0.2		30	30	25		
100727	38.00	40.00	2.00	5		< 0.2		2	12	20		
100728	40.00	42.00	2.00	5		< 0.2		111	39	30		
100729	42.00	44.00	2.00	5		< 0.2		71	34	23		
100730	44.00	46.00	2.00	5		< 0.2		229	28	28		
100731	46.00	48.00	2.00	5		< 0.2		61	33	24		
100732	48.00	50.00	2.00	5		< 0.2		88	32	21		
100733	50.00	52.43	2.43	5		< 0.2		69	38	26		

DIAMOND DRILL HOLE 90 - 08

Northing:	6641835.168	**Easting:**	508300.882	**Elev:**	1,512.039 m.
Azimuth:	300°	**Dip:**	- 45°	**Length:**	67.36 m.
Acid Test:	- 44° at 67.06 m.	**Started:**	Sep 12/90	**Finished:**	Sep 14/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck

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Interval From (m)	To (m)	Description
0.00	3.00	OVERBURDEN.
3.00	22.00	Mottled brown, fine-grained andesitic **LITHIC TO LAPILLI TUFF** (Unit 10 b_1) with lapilli tuff from 18.29 to 20.00 metres. Moderately fractured. Internal textures include autobrecciation and post-indurated brecciation with carbonate infillings. Structures are very complex breccia related fractures. Parallel, talcose shears in fine tuff (45° to core axis) have carbonate (matrix) breccia in dilatant zones. - Shears contain calcite-pyrrhotite-pyrite-chalcopyrite and offset breccia zones contain pyrite-pyrrhotite and a soft white metallic mineral (crystal form di-pyramid, probably orthorhombic). Breccia zones contain minor quartz blebs. Mineralization consists of pyrrhotite, pyrite, chalcopyrite and unidentified mineral in carbonate shears and breccia. - Alteration is upper greenschist with prominent secondary biotite. - Chalcopyrite is noted at 15.0 to 16.7 and 23.0 to 24.0 metres. Pyrrhotite +/- pyrite throughout breccia zone at 11.0 to 12.0, 13.0 to 18.0, and 23.0 to 24.0 metres. Unidentified soft white mineral at 15.0 to 18.0, 19.0 to 23.0, and, especially abundant, at 20.0 to 21.0 metres. Sequence of alteration: Brecciation, actinolite-pyrrhotite-pyrite-chalcopyrite growth, infilling and further shearing (calcite-pyrite-pyrrhotite-chalcopyrite-arsenopyrite), some soft grey-white metallics.
22.00	67.36	Andesitic **LITHIC TO LAPILLI TUFF** (Unit 10 b_1), same as above, with abundant sulphides (pyrrhotite, pyrite, arsenopyrite and chalcopyrite) seen in breccia infillings of calcite-actinolite at 24.0 to 25.0 metres. - 28.00 to 30.00 metres: good sulphide breccia in graphitic zone.

- 30.00 to 32.00 metres: mostly actinolite growth in graphitic zone. Grey calcite in some zones with good sulphide content (about 5%).

- 32.00 to 34.00 metres: good actinolite-calcite breccia zone (also graphitic).

- 34.50 metres: less graphite. Mainly brownish-red tuff with actinolite-calcite-sulphide stringers.

- 35.00 to 38.00 metres: strong breccia zone.

- 38.00 to 44.00 metres: sulphide-bearing lapilli tuff with actinolite-pyrrhotite-pyrite-minor chalcopyrite microveinlets.

- 44.00 to 48.00 metres: shearing predominates, calcite-pyrrhotite-pyrite-minor chalcopyrite microveinlets.

- 48.00 to 50.00 metres: small zone of andesitic augite porphyry with actinolite-pyrrhotite-chalcopyrite veinlets.

- 50.00 to 53.00 metres: bleached and partly silicified zone in fine-grained tuff hosting minor pyrite-pyrrhotite-arsenopyrite veinlets with some oxidized zones.

- 53.00 to 67.30 metres: lithic tuff as in previous holes. Minor chalcopyrite and pyrrhotite on fractures with actinolite-pyrrhotite-chalcopyrite zones (very similar to zone above monzonite sill.

67.36 **END OF HOLE.** (Acid Test at 67.06 m., -44°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 08
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100751	4.00	6.00	2.00	20		0.4		129	10	68		
100752	6.00	8.00	2.00	10		0.6		179	12	58		
100753	8.00	10.00	2.00	15		0.4		176	6	60		
100754	10.00	12.00	2.00	5		0.4		133	8	55		
100755	12.00	14.00	2.00	< 5		0.8		158	4	54		
100756	14.00	16.00	2.00	20		0.8		159	6	67		
100757	16.00	18.00	2.00	15		0.8		129	6	70		
100758	18.00	20.00	2.00	115		0.4		29	4	52		
100759	20.00	22.00	2.00	90		0.4		49	6	49		
100760	22.00	24.00	2.00	105		0.2		35	4	26		
100761	24.00	26.00	2.00	40		0.2		43	6	31		
100762	26.00	28.00	2.00	5		0.2		43	4	25		
100763	28.00	30.00	2.00	35		0.2		46	6	21		
100764	30.00	32.00	2.00	20		0.2		29	2	14		
100765	32.00	34.00	2.00	5		0.2		41	< 2	13		
100766	34.00	36.00	2.00	15		0.2		70	2	25		
100767	36.00	38.00	2.00	20		0.4		83	< 2	38		
100768	38.00	40.00	2.00	5		0.2		14	2	26		
100769	40.00	42.00	2.00	5		0.4		88	2	23		
100770	42.00	44.00	2.00	120		0.2		76	2	37		
100771	44.00	46.00	2.00	10		0.6		187	2	46		
100772	46.00	48.00	2.00	< 5		0.4		107	4	47		
100773	48.00	50.00	2.00	5		0.2		62	2	32		
100774	50.00	52.00	2.00	120		0.4		128	4	47		
100775	52.00	53.00	1.00	20		0.2		50	6	37		
100776	53.00	54.00	1.00	10		0.8		362	6	42		
100777	54.00	55.00	1.00	10		1.0		421	4	50		
100778	55.00	56.00	1.00	20		0.4		69	6	51		
100779	56.00	58.00	2.00	5		0.4		145	4	39		
100780	58.00	60.00	2.00	90		0.6		200	4	32		
100781	60.00	62.00	2.00	< 5		0.4		121	4	54		
100782	62.00	64.00	2.00	< 5		0.6		168	4	57		
100783	64.00	66.00	2.00	< 5		0.4		142	6	61		
100784	66.00	67.36	1.36	5		0.4		86	4	47		

DIAMOND DRILL HOLE 90 - 09

Northing:	6641140.664	**Easting:**	507404.220	**Elev:**	1,567.925 m.
Azimuth:	078°	**Dip:**	- 45°	**Length:**	93.42 m.
Acid Test:	- 46° at 91.74 m.	**Started:**	Sep 14/90	**Finished:**	Sep 16/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	B. Lueck and S. Coombes

Interval From (m)	To (m)	Description
0.00	2.40	**OVERBURDEN.** Note: core is badly ground from 2.44 to 3.67 metres (approximately 30 % recovery).
2.40	6.70	Light to medium grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_i) with wavy banding (every 2 to 5 mm.). It appears to be a meta-siltstone with sandstone laminae. Alteration is probably of upper greenschist. Foliation varies from 35° to 45° to core axis. Two sets of fractures: one at 40° to core axis with 30 cm. spacing, a second set subparallel to core axis with chlorite halo and filled with carbonate, and a 45° set of fractures has limonitic infillings. - Minor pyrrhotite disseminations and clots (less than 0.5%). - Note: 10 cm. of ground core at 5.79 to 5.90 metres.
6.70	8.53	55° to core axis Shear Contact. Dark green, massive **AUGITE PORPHYRY** dyke (Unit 8 b ?) with 2 to 3 mm. augite phenocrysts in dark green, fine grained groundmass. - Fractures at 5° to 10° to core axis at approximately 50 cm. intervals, and 40° to 50° fractures with 20 to 40 cm. spacing. Minor limonitic fractures but no alteration along fractures. Greenschist alteration; amphiboles altered to chlorite, epidote, and secondary biotite (?) with light green haloes. Very fine-grained, fracture-controlled pyrrhotite (less than 0.5 %).
8.53	21.70	45° to core axis Shear Contact (10 cm. wide). Wavy banded (subparallel to 60°), finely laminated, medium grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_i) - possible meta-siltstone/dirty sandstone. Similar to interval at 2.44 to 6.70 metres. Quite broken and oxidized. Pervasive quartz-chlorite augens (0.5 to 5 cm. in size). Jointing at 40° to 50° to core axis, less than 10 cm. apart. Foliation of biotite and/or quartz-rich segregations at 30° to core axis. Subparallel fracturing at 35° to 55° to core axis, spaced at 20 to 40 cm. apart, with limonite and occasional hematite.

		- 12.10 to 12.50 metres: subparallel to 30° to core axis shear zone with limonite and hematite (parallel to foliation). - 15.50 to 16.30 metres: fracturing at 15° to 30° to core axis; less than or equal to 5 cm. apart. - Alteration is upper greenschist regional metamorphism (mafics altered to chlorite and epidote, and plagioclase to sericite). - Pyrrhotite disseminations occur within mafic sections with trace pyrrhotite along microfractures parallel to foliation. Slight increase in quartz rich segregations from 12.50 metres to depth. Malachite along fracture at 45° to core axis at 21.0 metres. Minor fine grained, disseminated and fracture filling pyrrhotite in quartz-rich shear (45° to core axis) at 21.3 to 21.7 metres.
21.70	22.00	50° to core axis Intrusive Contact. Dark grey-green, aphanitic **AUGITE PORPHYRY** dyke (Unit 8 b ?). Augite crystals are altered to chlorite, quartz and calcite with 2 to 4 mm. light green alteration haloes. Very massive with no fracturing. No thermal metamorphism.
22.00	32.67	50° to core axis Intrusive Contact. Light to medium grey, foliated **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1), like 8.53 to 21.70 m. Continued oxidation of mafics to limonite along fractures. Secondary biotite-rich laminae, 1 to 2 mm. wide and under 1 cm. in width. - Subparallel shear with limonite at 22.50 to 23.0 metres. Subparallel to 30° shear at 27.0 to 29.7 metres with limonite along shear joints. Decreased limonite-rich shearing from 29.7 to 32.67 metres with subparallel and 45° fracturing at 30 to 40 cm. density. - Trace to minor very fine-grained pyrrhotite (+pyrite) disseminations and fracture fillings.
32.67	39.79	20° to core axis Stratigraphic Contact. Same light to medium grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1 meta-siltstone) but obvious increase in chlorite alteration and fracture fillings, and much lighter colour than 22.0 to 32.67 m. Rock has a mottled appearance with continued foliation but at 35° to 45° to core axis. Lamellae are biotite-rich (altering to chlorite) with prominent hematitic alteration. - Subparallel fracturing from 33.0 to 33.50 m. with 1 cm. limonite-chlorite alteration selvage. - 36.0 to 39.79 metres: increased subparallel and 45° to c.a. chlorite-rich shears. Secondary biotite and hematite fractures with increased pyrrhotite and pyrite (+/- chalcopyrite) disseminations associated with chlorite-rich fractures. Chlorite-pyrrhotite-pyrite fillings, less than 1 cm. wide, from 38.3 to 38.6 metres.

39.79	42.65	Sharp 40° to core axis Stratigraphic Contact. Dark green to black, variably altered, massive, aphanitic **META-ANDESITIC VOLCANIC FLOW** (Unit 8 b, possibly basaltic). Possibly meta-basaltic tuff but no obvious internal protolithic structures. Bands of chlorite, 10 to 15 cm., often associated with 2 to 4 mm. wide quartz-epidote-chlorite ± biotite (phlogopite) zones with 5 to 10 cm. wide chlorite-rich selvages. Shearing at 25° to core axis at 41.75 metres with 2 to 4 mm. quartz-calcite fracture fillings across 3 cm..
42.65	43.88	Sharp 55° to core axis Stratigraphic Contact. Light to medium grey-green, siliceous **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1 - like 32.67 to 39.79 metres). Two bands of black, fine grained basaltic to andesitic flow within 30 cm. of hanging wall contact are approximately 2 cm. wide. - 43.50 metres: shear zone at 30° to core axis with minor quartz-calcite fracture filling and limonite along shear over 1 cm.. Altered zone over 30 cm. of shear. - Trace to less than 1% local pyrrhotite (+/- pyrite, chalcopyrite) disseminations, usually associated with chlorite-rich streaming subparallel to and 30° to 40° to core axis.
43.88	45.00	Sharp 30° and 80° to core axis Stratigraphic Contact. Same aphanitic **META-ANDESITIC VOLCANIC FLOW** (Unit 8 b) as 39.79 to 42.65 metres. Shear at 44.4 metres (25° to 30° to core axis) with limonite and approximately 0.5 % very fine-grained, disseminated pyrrhotite (+/- trace chalcopyrite and pyrite).
45.00	52.50	Sharp 30° to core axis Stratigraphic Contact. Same wavy banded, chlorite-rich **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, same as 42.65 to 43.88 metres) with local secondary biotite and quartz rich segregations (40 cm. quartz zone at 45.7 to 46.1 metres). Foliation is at 35° to 50° to core axis with cross cutting 45° limonitic fractures. Fracture density is less than or equal to 35 cm. Cut by local 1 cm. chlorite +/- epidote, chlorite and pyrrhotite +/- chalcopyrite veinlets at 80° to core axis with approximate 1 m. spacing. - 52.20 to 52.50 metres: qz and cl alteration zone.
52.50	62.70	Sharp 70° to core axis Fault Zone with hanging wall quartz-chlorite veining over 6 cm. and talc in shear zone. Dark green-brown, finely laminated **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4) with upper greenschist grade regional metamorphism. Similar to above meta-sediments but finer-grained and with lesser quartz-rich bands. Local 1 to 10 cm. quartz-chlorite rich bands cutting felted actinolite rich segregations. Regular 60° to -70° to core axis, under 1 mm wide, calcite-infilled fractures spaced at approximately 20

		cm. or less. Trace to minor very fine-grained pyrrhotite (+/-pyrite, chalcopyrite) disseminations associated with chlorite-actinolite rich segregations. Poorly fractured and very brittle. - 61.2 metres: foliation at 45° quartz-rich layers have associated chlorite rims (1.5 to 3.5 cm. wide). - 52.4 metres: 4 cm. wide oxidized zone with quartz-chlorite schist.
62.70	67.50	Dark brown, schistose **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4) with intercalated quartz boudins (approximately 5 to 10 % quartz). Possibly meta-andesitic tuff. Schistosity is at 45° to core axis, defined by biotite layering and quartz boudins. Crenulation fabric is pervasive with amplitude of approximately 1 cm. and wavelength of about 2 cm.. Minor open folds are superimposed on both fabrics. Alteration is upper greenschist facies grade. Fracture veinlets of chlorite-calcite crosscut at about 60° to core axis and are 1-2 mm thick. Chloritically-altered areas are related to crosscutting fractures. Only very minor mineralization in this unit except for a 25 cm. band of actinolite-chlorite-pyrrhotite at 66.7 metres.
67.50	70.40	30° to core axis Stratigraphic Contact. Mixed light to medium green, wavy banded **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1) and dark green-brown **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4). Pervasive chlorite alteration with secondary biotite within the biotite schist unit. Each layer is approximately 30 to 40 cm. thick with foliation subparallel to 45° to core axis. Fracturing at 40° to 60° to core axis; approximately 20 to 30 cm. apart. Minor fine-grained pyrrhotite associated with chlorite-rich (+/- quartz) zones. - There is a 6 cm. shear zone at 69.8 metres with quartz-calcite-chlorite infilling at 70° to core axis.
70.40	77.50	45° to core axis Stratigraphic Contact. Dark brown-black **META-BASALTIC TO ANDESITIC VOLCANIC FLOW** (Unit 8b, **same as 62.7 to 67.5 m.). At 73.2 metres, there is a** shear zone oriented at 40° to core axis with a 30 cm. quartz-chlorite-calcite-mariposite alteration halo on both sides hosting trace pyrite disseminations. The fracturing is 30° to 45° to core axis; less than 30 cm. apart. Trace pyrrhotite with chlorite-quartz rich alteration.
77.50	78.90	70° to core axis Intrusive Contact. **HORNBLENDE-FELDSPAR DYKE** (Unit 6 c ?) with subparallel to 45° to core axis chlorite fracture filling (5 mm. wide). Mafics and plagioclase are altered to sericite (light green colour). There is a 1 cm. quartz vein at 78.75 metres oriented 45° to c.a.

78.90	83.30	50° to core axis Intrusive Contact with parallel shearing and quartz-calcite infilling over 4 cm. Dark brown to black **META-BASALTIC TO ANDESITIC VOLCANIC FLOW** (Unit 8b) with local 10 cm. segregations of quartz-chlorite ± calcite. The foliation is subparallel to 45° to core axis. Trace, very fine-grained pyrrhotite disseminations with quartz-calcite fracture fillings.
83.30	89.22	30° to core axis Stratigraphic Contact. Light to medium green **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4, possibly meta-tuff to siltstone). Prominent foliation subparallel to 30° to core axis. Fracturing is 60° to 70° to core axis and less than 40 cm. apart with trace pyrrhotite (+/- pyrite). - Pyrrhotite mineralization associated with 30° shearing at 87.50 metres with 2 mm. wide quartz-calcite fracture filling.
89.22	93.42	35° to core axis Stratigraphic Contact. Dark brown to black **META-BASALTIC TO ANDESITIC VOLCANIC FLOW** (Unit 8b) with subparallel to 30° wavy biotite-rich foliation. Trace pyrrhotite (+/- pyrite) with chlorite +/- quartz-rich laminae. - **92.70 to 93.41 metres:** intense subparallel fault zone, oriented at 45° to core axis with chloritic alteration. There is also a 3 cm. quartz vein at 92.7 m. with the same orientation.
93.42		**END OF HOLE.** (Acid Test at 91.74 m., -46°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 09
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100801	2.44	4.00	1.56	5		0.4		67	12	62		
100802	4.00	6.00	2.00	< 5		0.8		89	16	76		
100803	6.00	8.00	2.00	< 5		0.6		39	12	60		
100804	8.00	10.00	2.00	5		0.8		47	10	47		
100805	10.00	12.00	2.00	< 5		0.6		27	10	78		
100806	12.00	14.00	2.00	< 5		1.6		46	78	193		
100807	14.00	16.00	2.00	< 5		0.4		32	10	59		
100808	16.00	18.00	2.00	< 5		0.4		40	6	59		
100809	18.00	20.00	2.00	< 5		0.4		28	8	51		
100810	20.00	22.00	2.00	< 5		0.4		26	8	70		
100811	22.00	24.00	2.00	< 5		0.6		57	10	80		
100812	24.00	26.00	2.00	5		0.8		63	6	45		
100813	26.00	28.00	2.00	< 5		0.8		57	8	49		
100814	28.00	30.00	2.00	10		0.6		56	12	47		
100815	30.00	32.00	2.00	< 5		0.8		63	8	41		
100816	32.00	34.00	2.00	< 5		0.6		48	10	39		
100817	34.00	36.00	2.00	80		0.4		35	8	44		
100818	36.00	38.00	2.00	< 5		0.6		54	16	36		
100819	38.00	40.00	2.00	5		0.6		89	16	36		
100820	40.00	42.00	2.00	10		0.6		94	16	92		
100821	42.00	44.00	2.00	15		0.2		72	14	58		
100822	44.00	46.00	2.00	10		0.4		53	12	115		
100823	46.00	48.00	2.00	< 5		0.4		75	12	62		
100824	48.00	50.00	2.00	15		0.2		22	12	41		
100825	50.00	52.00	2.00	< 5		0.4		57	18	42		
100826	52.00	54.00	2.00	< 5		0.2		33	12	91		
100827	54.00	56.00	2.00	< 5		0.2		15	12	90		
100828	56.00	58.00	2.00	< 5		0.2		16	4	69		
100829	58.00	60.00	2.00	< 5		0.6		56	10	96		
100830	60.00	62.00	2.00	< 5		0.4		62	8	78		
100831	62.00	64.00	2.00	10		0.4		44	6	88		
100832	64.00	66.00	2.00	< 5		0.4		79	10	81		
100833	66.00	68.00	2.00	40		0.2		32	8	62		
100834	68.00	70.00	2.00	< 5		0.2		18	14	70		
100835	70.00	72.00	2.00	< 5		0.2		30	140	92		
100836	72.00	74.00	2.00	40		0.4		28	8	111		
100837	74.00	76.00	2.00	< 5		0.2		13	8	62		
100838	76.00	78.00	2.00	< 5		0.2		19	12	38		
100839	78.00	80.00	2.00	< 5		0.2		3	12	45		
100840	80.00	82.00	2.00	< 5		0.2		36	8	49		
100841	82.00	84.00	2.00	10		1.5		59	10	72		
100842	84.00	86.00	2.00	< 5		0.2		7	6	72		
100843	86.00	88.00	2.00	< 5		0.2		45	8	80		
100844	88.00	90.00	2.00	< 5		0.2		60	6	59		
100845	90.00	92.00	2.00	< 5		0.6		75	4	119		
100846	92.00	93.42	1.42	5		0.6		94	14	94		

DIAMOND DRILL HOLE 90 - 10

Northing:	6641132.911	**Easting:**	507404.356	**Elev:**	1,568.306 m.
Azimuth:	020°	**Dip:**	- 52°	**Length:**	73.46 m.
Acid Test:	- 50° at 73.46 m.	**Started:**	Sep 16/90	**Finished:**	Sep 18/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	J.D.B. and S. Coombes

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Interval From (m)	To (m)	Description
0.00	2.59	**OVERBURDEN.**
2.59	7.55	Medium to dark grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1) with variable wavy bands (0.5 to 3 mm. wide) subparallel to 45° to core axis. Bands are alternately siliceous and mafic (interbedded sandstone-siltstone protolith?). Occasional quartz augens up to 3 cm. Fractures at 15° and 75° to core axis, approximately 20 to 40 cm. apart. Usually limonitic along fractures. **Fracture at 5.61 metres (at 75° to core axis) is filled with a 3 mm. actinolite stringer with a 2 mm. quartz** halo. Alteration is upper greenschist facies with chloritization of mafic bands. Minor sulphides (pyrite?) usually confined to mafic layers associated with more massive siliceous sections. - 7.32 to 7.55 metres: Shear zone/contact, oriented at 20° to core axis.
7.55	11.98	20° to core axis Fault Contact. Medium grey **AUGITE PORPHYRY DYKE** (Unit 8 b) with altered augite (?) phenocrysts up to 2 mm. Fractures at 30°, 50° and subparallel to core axis. The 30° and subparallel sets are limonitic, and many of the 50° fractures are carbonate filled with chloritic haloes. Alteration is upper greenschist with replacement of augite by chlorite and biotite. The groundmass is pervasively chloritized. Pyrite and pyrrhotite are poorly disseminated throughout, much less than 0.5%. At 11.4 to 11.7 metres, the core is shattered.
11.98	14.12	30° to core axis Stratigraphic Contact. Medium grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, similar to interval from 2.59 to 7.55 metres) with alternating siliceous and mafic bands. Greenschist facies alteration with pervasive chloritization, epidotization, and weakly carbonitized. Core is extremely sheared and broken, most of surfaces are subparallel to 30° to the core axis, roughly coincident with foliation. Section contains some broken fragments of augite porphyry. Limonite is pervasive, coating all surfaces. Core is

		intact from 13.35 to 14.12 metres. This section is mostly mafic-rich with very thin siliceous laminae.
		- 13.35 to 14.12 metres: fractures at 30° to 50° to core axis, spaced every 20 cm. and limonitic.
		- 13.60 metres: carbonate stringer 8 mm wide shows two phase infilling. Stringers at 30° to core axis with wall rock are bleached light grey over 1 cm.
		- 13.6 to 13.9 metres: 1 mm (or less) carbonate stringers at 5 cm. intervals with minor pyrrhotite-chalcopyrite (+/- pyrite) at 30° to core axis. Pyrrhotite is poorly disseminated throughout mafic sections.
14.12	17.40	40° to core axis Shear Contact with 1 to 2 cm. limonitic gouge. Dark grey to black, massive, aphanitic **META-BASALTIC TO ANDESITIC VOLCANIC FLOW** (Unit 8 b). Greenschist facies alteration. Solid (unshattered) sections are fractured at 10° and 40° to core axis; approximately 10 to 20 cm. apart. Rock is extremely shattered at: 14.25 to 14.63, 15.75 to 16.46, and 17.15 to 17.40 metres.
		- 15.50 metres: calcite-actinolite vein 1 cm. wide at 10° to core axis.
		- 14.20 to 14.40 metres: dendritic pyrolusite along fractures.
		- 14.12 to 14.40 metres: core bleached.
		- 17.15 metres: minor pyrite along 10° fracture.
17.40	17.85	**TRANSITIONAL ZONE** from **META-VOLCANIC FLOW TO QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1). Greenschist facies alteration; variably bands oriented 30° to 50° to core axis. Slickensides at 10° to core axis.
17.85	21.00	Medium to dark grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, similar to 2.59 to 7.55 metres) with 1 to 2 mm. alternating bands of mafic and siliceous rock. Foliation is at 5° to 40° to core axis. Greenschist facies is pervasive with chloritization and carbonitization. Fracturing at 50° and subparallel to core axis, approximately 10 cm. apart. Subparallel set has carbonate fracture filling. Occasional bands of secondary actinolite. At 19.50 to 21.00 metres, there is increasing mafics with scattered large clasts of quartz with secondary actinolite rims, less than 4 cm. in size. Minor pyrite associated with quartz clasts in mafic sections.
21.00	21.55	**TRANSITIONAL CONTACT** between **QUARTZ-CHLORITE SCHIST** and **META-VOLCANIC FLOW** (?). Carbonate stringers less than 1 mm wide, and subparallel to core axis.

21.55	24.20	Dark grey-green to black, aphanitic **META-VOLCANIC FLOW** (Unit 8 b) similar to section from 14.12 to 17.40. Very fractured at various orientations, and limonitic. Carbonate fractures, less than 1 mm wide, subparallel to core axis. **Note:** core ground from 22.86 to 23.00, and 23.80 to 24.20 metres.
24.20	35.40	Fault contact (no orientation). The core is shattered with fragments of meta-volcanic and schist at contact. Grey-green to brown, wavy banded **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1) with foliation subparallel to 30° to core axis. **Note:** very broken sections at 24.2 to 24.4, and 25.1 to 25.4 metres. - 25.90 to 26.3 metres: core is ground and contains abundant clay fault gouge. Very limonitic. - 24.20 to 28.10 metres (except 26.50 to 27.00): completely limonitic, carbonitized and partially brecciated. Breccia fragments are altered to clay and cemented in a carbonate matrix, crosscut by later carbonate stringers much less than 1 mm in width. - The rest of the section is upper greenschist facies with chlorite replacing mafics, and carbonitized throughout. Subparallel shear zones at 27.84 to 27.95, 29.35 to 29.50 and 30.15 to 30.45 metres with epidote and chlorite on fracture surfaces. No visible mineralization.
35.40	37.30	Dark grey-green **META-VOLCANIC FLOW** (Unit 8 b?), similar to section from 14.12 to 17.40 metres. At 35.40 to 36.60 metres, the core is broken with minor carbonate stringers randomly oriented.
37.30	40.70	50° to core axis Shear Contact. Medium grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1) banded with mafic and siliceous laminae 1 to 3 mm wide. Foliation is subparallel to 40° to core axis. Greenschist facies alteration with chlorite replacement of mafics and secondary actinolite parallel to foliation, related to quartz augens. Fracturing is at approximately 10° and 40° to core axis; both sets are limonitic.
40.70	42.75	45° to core axis limonitic Shear Contact. Dark grey-green **AUGITE PORPHYRY** (Unit 8 b) with altered augite (?) phenocrysts, approximately 1 mm in size, in a fine-grained groundmass. Augite is altered to biotite-epidote with chloritic rims. Fracturing is at 45° and 10° to core axis, approximately 10 to 20 cm. apart, with carbonate fracture filling and narrow bleached alteration haloes less than 1 mm wide.

		- 42.38 metres: actinolite is associated with a 1 cm carbonate vein oriented 40° to core axis. No visible mineralization.
42.75	43.60	45° to core axis Shear Contact. **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, similar to section from 37.3 to 40.7 metres). Schist has disseminated pyrrhotite. Lower contact is also a shear contact, oriented 20° to core axis, with carbonate filling and minor pyrite.
43.60	54.00	20° to core axis Shear Contact. Fine grained, dark green **META-WACKE** (Unit 8 a_3 or possibly meta-tuff). At 44.0 to 46.5 metres, a low angle fracture zone crosscuts the core. There are 1 to 5 mm. calcite stringers with secondary chlorite-actinolite alteration and associated pyrrhotite-pyrite mineralization. The fracture density is 1 to 20 cm. apart. - 46.0 to 46.5 metres: bleached to dull greenish-beige colour. A 2 cm. calcite vein, at 40° to core axis, is responsible for bleaching and clay alteration. - Rest of section is very fine grained, almost black rock with minor chlorite-actinolite alteration. Fractures crosscut at 65° to core axis. Fine 1 mm. calcite stringers occur every 2 to 5 cm. Pyrrhotite mineralization is disseminated throughout section, much less than 1 %. - **Note:** 51.51 to 52.00 metres, no core.
54.00	73.46	30° to core axis Shear Contact. **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4) with calcite fracture filling and slickensides. Schist is similar to section from 2.59 to 7.55 metres. There are 1 to 3 mm. wide siliceous and mafic bands, subparallel to 45o to core axis. Fractures are at 35° to 50° and subparallel to core axis. Calcite veinlets at 40° to 50° orientation, up to 3 mm wide with secondary actinolite-chlorite. Mafics partially replaced by chlorite to actinolite to biotite. Pyrite is weakly disseminated throughout section with actinolite, especially associated with quartz veins. - 55.50 to 56.40 metres: approximately 80% quartz, metamorphosed quartz vein? - 58.1 to 58.2 metres: Shear zone, 30° to core axis. - 59.05 to 59.10 metres: Shear zone with limonitic gouge, 20° to core axis. - 63.95 to 64.15 metres: Meta-quartz vein (?) with secondary wisps of actinolite with pyrite throughout. - 64.05 to 64.20 metres: Shear zone, oriented 30° to core axis.

- 65.00 to 65.40 metres: Shear zone, 30° to core axis.

- 71.30 to 71.50 metres: Shear zone, 30° to core axis.

- 71.50 to 71.75 metres: Meta-quartz vein (?) with secondary wisps of actinolite with pyrite throughout.

73.46 **END OF HOLE.** (Acid Test at 73.46 m., -50°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 10
Diamond Drill Core Sampling Intervals and Analytical Summaries

Sample No.	Interval From (m)	To (m)	Int. (m)	Analytical Summary Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Int. (m)	Wgtd Au
100847	2.59	4.00	1.41	15		0.4		48	8	34		
100848	4.00	6.00	2.00	5		< 0.2		44	6	33		
100849	6.00	8.00	2.00	15		< 0.2		38	7	56		
100850	8.00	10.00	2.00	10		< 0.2		15	7	47		
100851	10.00	12.00	2.00	< 5		< 0.2		13	7	48		
100852	12.00	14.00	2.00	5		< 0.2		54	11	65		
100853	14.00	16.00	2.00	15		< 0.2		55	16	85		
100854	16.00	18.00	2.00	5		< 0.2		56	13	< 1		
100855	18.00	20.00	2.00	> 1000	0.061	< 0.2		40	8	48	2.00	0.061
100856	20.00	22.00	2.00	45		< 0.2		18	6	60		
100857	22.00	24.00	2.00	10		< 0.2		35	7	69		
100858	24.00	26.00	2.00	60		< 0.2		22	9	93		
100859	26.00	28.00	2.00	15		< 0.2		4	5	90		
100860	28.00	30.00	2.00	10		< 0.2		4	5	65		
100861	30.00	32.00	2.00	15		< 0.2		12	4	61		
100862	32.00	34.00	2.00	< 5		< 0.2		13	3	52		
100863	34.00	36.00	2.00	35		< 0.2		14	5	68		
100864	36.00	38.00	2.00	< 5		< 0.2		8	6	27		
100865	38.00	40.00	2.00	5		< 0.2		53	15	34		
100866	40.00	42.00	2.00	5		< 0.2		15	12	47		
100867	42.00	44.00	2.00	5		< 0.2		19	12	57		
100868	44.00	46.00	2.00	5		< 0.2		32	11	54		
100869	46.00	48.00	2.00	5		< 0.2		46	7	60		
100870	48.00	50.00	2.00	5		< 0.2		52	8	57		
100871	50.00	52.00	2.00	5		< 0.2		68	8	53		
100872	52.00	54.00	2.00	5		< 0.2		49	9	36		
100873	54.00	56.00	2.00	5		0.2		18	5	3		
100874	56.00	58.00	2.00	5		0.2		12	7	14		
100875	58.00	60.00	2.00	5		< 0.2		19	8	28		
100876	60.00	62.00	2.00	5		0.3		39	7	16		
100877	62.00	64.00	2.00	5		< 0.2		31	7	27		
100878	64.00	66.00	2.00	10		< 0.2		28	6	38		
100879	66.00	68.00	2.00	5		< 0.2		23	8	30		
100880	68.00	70.00	2.00	15		0.2		33	13	7		
100881	70.00	72.00	2.00	5		0.2		30	6	10		
100882	72.00	73.46	1.46	5		0.2		25	13	16		

DIAMOND DRILL HOLE 90 - 11

Northing:	6640959.691	**Easting:**	507135.055	**Elev:**	1,685.383 m.
Azimuth:	140°	**Dip:**	- 45°	**Length:**	106.98 m.
Acid Test:	-43° at 106.98 m.	**Started:**	Sep 19/90	**Finished:**	Sep 21/90
Core Size:	NQ	**Drilled by:**	Kluane Drilling	**Logged by:**	J.D.B.

Interval From (m)	To (m)	Description
0.00	3.25	**OVERBURDEN.**
3.25	4.70	Medium grey to grey-green **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1) foliated at 10° to 40° to core axis. Fine laminae (less than 1 mm wide) alternate with quartz-actinolite layers ranging from under 1 mm to 1 cm. in thickness. It was probably a siltstone protolith with sandy beds? Upper greenschist facies alteration with chlorite, quartz, actinolite and biotite. Weakly carbonitized. Fractured at 30° to 50° to core axis with limonitic fractures every 10 to 20 cm. Minor pyrrhotite associated with quartz-actinolite bands.
4.70	7.00	Orientation of lithologic contact varies but mainly 70° to core axis with quartz (under 1 cm. in width) along contact. Medium to dark grey, very fine-grained, massive **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4). Mid to upper greenschist facies metamorphism with chlorite, biotite, and amphibole alteration products. Very fine-grained white prismatic crystals in dark green-grey groundmass, possibly plagioclase feldspar. 6.2 to 7.0 metres: becomes more foliated with quartz-chlorite-actinolite segregations in same groundmass.
7.00	8.20	Sharp 20° to core axis Stratigraphic Contact cut by a 45° fault zone with milled volcanic pebbles (talcose). Lost 10 cm. of core in fault zone. No sulphide mineralization. Same quartz-chlorite-actinolite rich, light to medium green, foliated **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, as 3.25 to 4.70 metres). Foliation at 30° to core axis with 20° fracturing at less than or equal to 40 cm. apart. Trace limonite along fractures. Minor (much less than 0.5%) pyrrhotite disseminated along quartz-actinolite fractures.
8.20	9.85	25° to core axis Stratigraphic Contact cut by shear with limonite fracture filling. Very fine-grained, dark green **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4; like section 4.70 to 7.0 metres). White fractures less than 1 mm in width with 2 mm bleaching. Vague schistosity at

		40° to core axis with more argillaceous and siliceous banding. Trace, very fine-grained disseminated pyrrhotite.
9.85	16.25	30° to core axis Shear Contact (limonitic with fracture controlled malachite). Dark green-grey **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, like 7.0 to 8.2 m.). Probably meta-siltstone and cherty tuff sequence. 10.0 to 12.0 metres: transition zone with schist at 10.0 to 11.2 metres, meta-tuff at 11.2 to 11.4 metres, then back to schist. - Alteration is chlorite + actinolite (upper greenschist facies). Foliation is at 35° to 50° to core axis with fracturing crosscutting the foliation at 40° to 50° to core axis, up to 30 cm. apart. Trace disseminated pyrrhotite.
16.25	23.90	Sharp 40° to core axis Stratigraphic Contact. Very fine-grained to fine grained **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4, like 8.2 to 9.85 m.). Quite massive with vague foliation at 70° to 80° to core axis. Calcite-chlorite +/- quartz fracture fillings (1 to 3 mm.) are oriented at 30° to 70° to core axis; 1 to 8 cm. apart. - 16.76 to 17.00 metres: shearing at 20° to core axis. - 22.50 to 23.90 metres: shear zone at 30° to core axis with limonite along fractures. - Trace pyrrhotite (+/- trace pyrite) disseminations along fractures. Quite massive unit but has vague foliation in hand specimen. No malachite.
23.90	26.20	50o to core axis Stratigraphic Contact with subparallel to 30° to core axis shearing. **QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1, meta-siltstone/tuff) with quartz-chlorite bands. Shearing continues to 24.30 metres with quartz-rich vein from 24.3 to 24.6 metres. Footwall silicification. Chlorite veinlets in quartz. Section similar to 9.85 to 16.25 m. with a mosaic of chlorite-actinolite veinlets, usually 30° to core axis. - 25.00 to 25.30 metres: intense shearing at 30° to core axis with limonite coatings and local goethite with limonite.
26.20	32.90	25° to core axis Stratigraphic Contact. Mottled green to black **QUARTZ-BIOTITE-CHLORITE SCHIST** (Unit 8 a_4) with local bands of meta-siltstone up to 40 cm. wide. Similar to 16.25 to 23.40 m. with more frequent meta-siltstone bands at 28.1 to 28.5 and 29.26 to 29.40 metres. Frequent 5 cm. wide bands at 32.0 to 32.90 metres. More obvious 30° to 40° foliation.

- 28.3 to 28.5 metres: shearing at 20° to core axis.

- Poor recovery (20%) from 28.95 to 29.26 metres, and no core from 30.10 to 30.46 metres (ground up).

- Local fracturing at 20° and 45° to core axis; 30 to 70 cm. apart. No obvious sulphide mineralization. Possible trace pyrrhotite disseminations with fracturing (altered to limonite).

32.90 35.75 25° to core axis Shear Contact. Light green to medium green-grey chlorite-rich **META-WACKE** (Unit 8 a_3, more massive than quartz-chlorite schist). Same relationship as overlying quartz-chlorite schist.

- 32.90 to 33.70 metres: shear zone with intense limonitic and sericitic alteration and silicification at 25° to core axis. Possible fine- grained sulphides in quartz-chlorite sections. Goethite along younger shears at 20° to core axis.

- Rest of section is massive quartzite with stockwork of cross-cutting 30° to 60° chlorite +/- calcite veinlets with minor associated pyrrhotite (much less than 0.5%).

35.75 106.40 30° to 50° to core axis cross-bedded Stratigraphic Contact with increased chlorite-actinolite +/- quartz veining near contact. Dark grey to black, very fine grained, well indurated "dirty" waterlain **META-WACKE to QUARTZ-CHLORITE-ACTINOLITE SCHIST** (Unit 8 a_1). Prominent foliation at 30° to core axis. Black groundmass with 1 to 3 mm. siliceous banding, crosscutting and displaced up to 1 cm. by 60° to 70° dry fractures. Increased (up to 1%) pyrrhotite +/- trace pyrite and/or chalcopyrite with chlorite-quartz +/- actinolite rich veining at 15° to 20° to core axis. Fracturing at 45° to core axis, less than 40 cm. apart, with some 20° to 30° fracturing spaced up to 40 cm. apart. Trace disseminated pyrrhotite, much less than 0.5% over interval.

- 39.85 to 40.00 metres: quartz-chlorite veining at 45° to core axis.

- 48.00 to 48.77 metres: 20° to c.a shear zone. There is 40 cm. quartz vein at 20° to core axis on footwall side of fault zone, and there is quartz-sericite-chlorite alteration with very fine grained sulphide banding and 30 cm. core loss from 47.0 to 48.0 metres.

- 51.30 to 51.70 metres: silicified zone with 60° to 80° quartz-chlorite veining with patchy pyrrhotite-pyrite-chalcopyrite associated, approximately 3% sulphides in section.

- 55.60 to 55.96 metres: shear zone at 30° to core axis with quartz-chlorite alteration and pervasive limonitic alteration.

- 55.7 metres: several 1 to 2 mm. fracture fillings at 30° to core axis with very fine grained arsenopyrite-pyrite +/- trace chalcopyrite.

- 56.0 metres: sharp footwall alteration envelope contact.

- 60.00 metres: finely laminated at 30° to core axis.

- 67.60 to 67.70 metres: 30° shear zone with limonitic alteration.

- Varies only slightly to more tuffaceous laminae but intercalated with "dirty" siltstone, metamorphosed to lower greenschist meta-sedimentary quartz-chlorite schist?

- 71.62 to 74.0 metres: silicified fault zone.

- 71.62 to 72.50, progressively more siliceous hanging wall alteration envelope with very fine-grained dark grey to black sulphides associated with quartz-muscovite altered section. Advanced argillic alteration.

- 72.50 to 72.70 metres: rusty sheared fault breccia with brecciated quartz-muscovite vein material at 50° to core axis. Re-brecciated at 72.7 metres.

- 72.70 to 74.00, quartz-muscovite altered footwall with disseminated pyrite and black fine-grained sulphide (arsenopyrite ?). Sharp alteration envelope contact at 74.0 metres, 25° to core axis.

- 74.73 to 75.42 metres: quartz-chlorite vein at 60° to core axis with trace disseminated pyrrhotite.

- 75.42 metres: same finely foliated dark green to brown "dirty" meta-siltstone/tuff.

- 79.90 to 80.00 metres: 60° shear zone with limonite; no alteration halo.

- 83.30 to 83.50 metres: shear zone at 30° to core axis

- 88.00 to 89.40 metres: 20-30° shear zone with local quartz-sericite alteration of metamorphic rocks and limonite along fractures. Rock continues to be a dark grey-green finely foliated meta-siltstone/tuff but is becoming more like andesite tuff with depth. Trace pyrrhotite with quartz-chlorite rich laminae.

- 94.40 to 95.20 metres: 45° shear zone with 40 cm. hanging wall and footwall quartz-muscovite-limonite alteration. Pyrite-pyrrhotite veinlet (1 cm. wide) at 45° to core axis at 94.74 metres in centre of zone. Foliation at 35° to core axis.

		- 96.10 to 96.60 metres: patchy pyrrhotite or pyrite and trace chalcopyrite associated with 2 to 4 mm. quartz-calcite veining at 45° and 60° to core axis. Approximately 1% sulphides.
		- 97.40 to 98.00 metres: 70° shear zone at 97.62 metres with 30 cm. quartz-sericite-limonite alteration envelope.
		- 99.80 to 103.00 metres: large siliceous shear zone.
		- 99.80 to 100.3 metres: quartz-muscovite-limonite alteration envelope.
		- 100.30 to 100.4 metres: pyrrhotite, pyrite and minor chalcopyrite with 70° quartz-calcite vein.
		- 101.30 metres: 10 cm. pyrite associated with 45° quartz veining.
		- 101.49 metres: rounded black mafic dyke pebbles like 106.40 to 106.98 metres.
		- 101.60 metres: 10 cm. pyrite-pyrrhotite and fine grained sulphide band.
		- 102.00 to 102.41 metres: fault zone at 45° to core axis with mineralized gouge (post mineralization), chlorite-rich alteration.
		- 102.41 to 103.00 metres: quartz-muscovite altered footwall with sulphides at 102.5 metres.
106.40	106.98	25° to core axis Sheared Intrusive Contact. Very fine grained, highly fractured, black **GABBROIC or BASALTIC FLOW** (Unit 8 b) Like very fine-grained black flow with 45o to core axis fracturing, and no sulphides.
106.98		**END OF HOLE.** (Acid Test at 106.98 m., -43°)

PAVEY PROPERTY
Atlin Mining Division, British Columbia

Diamond Drill Hole 90 - 11
Diamond Drill Core Sampling Intervals and Analytical Summaries

	Interval			Analytical Summary									
	From (m)	To (m)	Int. (m)	Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (%)	Wgtd Au	:d
3.	3.25	6.00	2.75	< 5		< 0.2		29	< 0.2	31			
34	6.00	8.00	2.00	10		< 0.2		38	< 0.2	29			
3	8.00	10.00	2.00	< 5		< 0.2		66	< 0.2	35			
3	10.00	12.00	2.00	< 5		< 0.2		27	< 0.2	39			
37	12.00	14.00	2.00	15		< 0.2		21	< 0.2	33			
38	14.00	16.00	2.00	50		< 0.2		23	< 0.2	51			
3	16.00	18.00	2.00	10		< 0.2		42	< 0.2	59			
3u	18.00	20.00	2.00	< 5		< 0.2		58	< 0.2	62			
31	20.00	22.00	2.00	< 5		< 0.2		50	< 0.2	64			
3	22.00	24.00	2.00	15		< 0.2		84	< 0.2	71			
3.	24.00	26.00	2.00	5		< 0.2		54	< 0.2	39			
34	26.00	28.00	2.00	< 5		< 0.2		23	< 0.2	40			
3	28.00	30.00	2.00	5		< 0.2		34	< 0.2	41			
3	30.00	32.00	2.00	5		< 0.2		32	< 0.2	44			
37	32.00	33.00	1.00	90		< 0.2		48	< 0.2	160			
39	33.00	34.00	1.00	830		> 20.0	1.09	165	165	923	1.18		
3	34.00	36.00	2.00	25		< 0.2		36	< 0.2	40			
3u	36.00	38.00	2.00	100		< 0.2		40	67	56			
51	38.00	40.00	2.00	5		< 0.2		40	21	72			
5	40.00	42.00	2.00	95		3.1		53	71	146			
5	42.00	44.00	2.00	10		< 0.2		53	21	63			
54	44.00	46.00	2.00	5		< 0.2		51	20	72			
5	46.00	48.00	2.00	10		< 0.2		49	21	64			
5	48.00	49.00	1.00	5		< 0.2		47	20	46			
57	49.00	50.00	1.00	5		< 0.2		57	19	62			
59	50.00	52.00	2.00	70		< 0.2		70	19	58			
5	52.00	54.00	2.00	95		< 0.2		41	21	69			
6u	54.00	56.00	2.00	330		0.6		57	23	75			
61	56.00	58.00	2.00	5		< 0.2		45	15	68			
6	58.00	60.00	2.00	10		< 0.2		61	24	65			
6	60.00	62.00	2.00	15		< 0.2		63	18	62			
64	62.00	64.00	2.00	35		< 0.2		76	11	55			
	64.00	66.00	2.00	80		0.4		60	12	59			
	66.00	68.00	2.00	45		< 0.2		36	12	53			
67	68.00	70.00	2.00	25		< 0.2		60	14	62			
69	70.00	71.00	1.00	30		< 0.2		66	15	49			
	71.00	72.00	1.00	45		1.2		61	49	85			
70	72.00	73.00	1.00	740		6.3		22	100	109			
71	73.00	74.00	1.00	30		0.6		8	9	31			
	74.00	76.00	2.00	5		< 0.2		39	14	48			
3	76.00	78.00	2.00	15		< 0.2		55	17	58			
7	78.00	80.00	2.00	10		< 0.2		55	25	61			
	80.00	82.00	2.00	35		< 0.2		52	22	54			
	82.00	84.00	2.00	135		0.2		42	11	50			
77	84.00	86.00	2.00	40		0.5		54	18	47			

APPENDIX VII

Yukon Engineering Services

E.D.M. Survey Data

HVD TRANSLTR 1 1 1 90.09.28

PADDY 10 10 10 TRANSLATOR

WEASEL	-SU	51	6643704.114	506032.651	1455.115
TSROCK	-SU	1	6643600.691	506247.391	1486.261
TRP3	-OG	2	6643272.419	506303.980	1430.605
TRP3OM	-OG	3	6643245.478	506316.689	1440.640
YES#693	-SU	4	6641911.506	506543.809	1617.990
S001	-OG	5	6641765.116	506558.959	1622.600
STIBBL	-N0+00	7	6641604.615	506593.013	1626.939
S008	-SU	6	6641599.944	506564.397	1629.144
S007	-	8	6641482.625	506685.537	1619.695
S006	-SU	9	6641488.255	506743.174	1611.377
STIBBL	-S4+00	10	6641311.452	506861.570	1564.027
S003	-	11	6641205.466	506872.287	1580.790
STIBBL	-S4+76	12	6641255.596	506910.520	1558.330
YES#695	-SU	13	6641190.953	507699.360	1495.712
COMBOBL	-E12+25	15	6641036.794	507436.387	[illegible]
DDH9010	-OG	16	6641132.911	507404.356	[illegible]
DDH9009	-OG	17	6641140.564	507404.220	[illegible]
COMBOBL	-E10+00	18	6640970.137	507265.597	[illegible]
[illegible]	-OG	19	6641006.254	507231.951	[illegible]
DDH9011	-OG	20	6640959.991	507126.055	[illegible]
[illegible]	-SU	14	6641703.428	507721.902	[illegible]
[illegible]	-OG	21	6641844.579	507704.531	[illegible]
YES#720	-SU	22	6642053.088	508048.567	[illegible]
DDH9008	-OG	23	6641835.168	508300.892	[illegible]
DDH9006	-CG	24	6641844.096	508260.201	1521.961
DDH9007	-OG	25	6641844.647	508260.077	1521.806
DDH9003	-OG	26	6641845.211	508259.973	[illegible]
DDH9002	-OG	27	6641845.663	508258.315	[illegible]
DDH9001	-OG	28	6641845.970	508257.935	1522.024
DDH9004	-CG	29	6641843.313	508257.329	1522.039
DDH9005	-OG	30	6641843.059	508257.338	1521.991
A001	-OG	31	6641753.463	507615.849	1412.707
CP91597	-OG	32	6641842.615	507622.714	1409.363
LQBL	-N750	33	6641839.745	507683.247	1400.530
LQBL	-N825	34	6641898.113	507725.629	1382.498

UTM COORDINATES AND ELEVATIONS ARE DERIVED FROM GEODETIC SURVEY OF CANADA MONUMENT "WEASEL".

COMBINED SCALE FACTOR = .999364

ROY A. SLADE
YUKON
ENGINEERING
SERVICES

– LEGEND –

LAYERED ROCKS

QUATERNARY

15 Unconsolidated glacial till and poorly sorted alluvium

UPPER CRETACEOUS (?)

MONTANA MOUNTAIN VOLCANICS

14 Intermediate to felsic pyroclastics and flows; typically altered and orange weathering; crosscut by 64 Ma intrusive

MIDDLE TO UPPER JURASSIC (?)

13 Variegated pyroclastic lapilli tuffs; bladed feldspar porphyry flows

12 Clast-supported conglomerate derived primarily from Inklin Formation siltstones and argillites

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION (where undivided denoted as 11)

11 a Siltstones, arenaceous wackes (greywackes); may contain macrofossils

11 b Argillites (may be silty)

11 c Conglomerates; rarely contain macrofossils

UPPER TRIASSIC

STUHINI GROUP (where undivided denoted as 10)

10 a Variegated feldspar-phyric tuffs and lesser flows

10 b Green pyroxene-feldspar porphyry tuffs and breccias characteristic of this group

- 10 b_1 Lapilli, ash and lithic tuff
- 10 b_2 Augite porphyry flow and/or sub-aerial intrusive
- 10 b_3 Interbedded chert and tuff

10 c Conglomerates and associated sediments

10 d Hornblende-phyric lapilli ash tuffs and tuffites

10 e Norian carbonates commonly displaying strong internal deformation enclosed within conglomerates and argillites

– LEGEND –

LAYERED ROCKS

PALEOZOIC (?) TO UPPERMOST TRIASSIC

9 Conglomerates, mainly clast-supported, primarily of 8 a and 1

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS (where undivided denoted as 8)

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a_1 Quartz-chlorite-actinolite schist; secondary biotite common; probably sandstones and siltstone protolith

8 a_2 Actinolite-chlorite schist; probably argillaceous siltstone protolith

8 a_3 Meta-wacke; probably greywacke protolith

8 a_4 Quartz-biotite±chlorite schist; probably andesitic tuff protolith

8 a_5 Argillite

8 a_6 Quartzite

8 b Altered pyroxenites, foliated gabbros and mafic flow successions

MISSISSIPPIAN

NAKINA FORMATION (?)

7 Massive, greenschist-altered basic flows and tuffaceous sediments

INTRUSIVE ROCKS

UPPER CRETACEOUS

COAST INTRUSIONS (where undivided denoted as 6)

6 a Medium to coarse-grained hornblende and biotite granites; lesser granodiorite, quartz-eye feldspar porphyries

6 b Equigranular 6 a - lacking megacrystalline potassium feldspar with minor localized exceptions

6 c Granodiorite, quartz monzonite and diorite as compositional variants of 6 a and 6 b

– LEGEND –

INTRUSIVE ROCKS

CRETACEOUS

5 Granodiorite (5 a), quartz monzonite (5 b), granite (5 c) and diorite (5 d); Medium to coarse-grained and more altered than 6

MIDDLE TO UPPER JURASSIC

4 Hypabyssal andesites; medium-grained andesitic feldspar phenocrysts containing hornblende. Grey to green, weakly to strongly altered; probably coeval with 13

TRIASSIC (?)

3 Porphyritic granodiorite to quartz monzonite; foliated with potassium feldspar phenocrysts and hornblende up to 20 per cent. Minor secondary chlorite, epidote and quartz

MESOZOIC

2 Granodiorite; altered, sheared and brecciated felsic intrusive rocks primarily confined to the Llewellyn fault zone

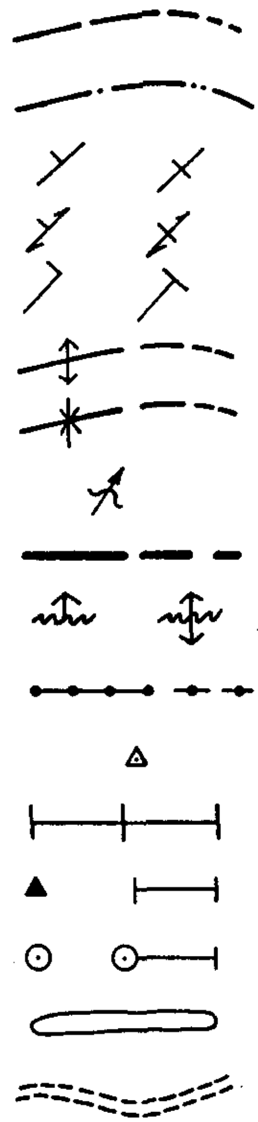
PALEOZOIC ? TO TRIASSIC

1 Altered and deformed intrusives. Typically altered and/or deformed weakly to strongly. Composition variable to leucogranite and quartz diorite; may be silicified

After M. Mihalynuk and J. Rouse, B.C. Ministry of Mines, Open File 1988-5

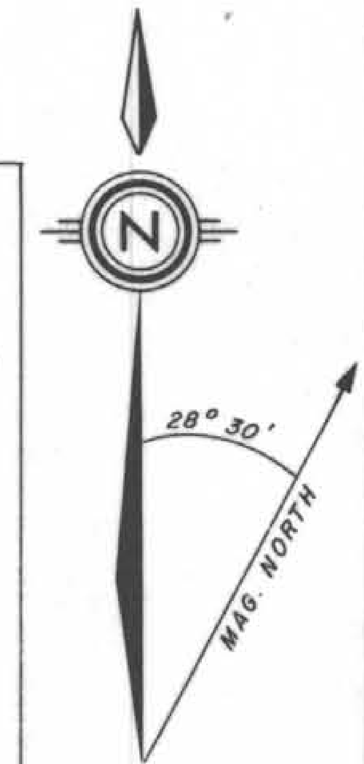
– SYMBOLS –

Geological boundaries (known, approximate, assumed)	
Unconformity (defined, assumed)	
Bedding (inclined, vertical)	
Schistosity, foliation (inclined, vertical)	
Joint (inclined, vertical)	
Anticline (defined, approximate, assumed)	
Syncline (defined, approximate, assumed)	
Minor fold hingeline	
Fault (defined, approximate, assumed)	
Shear zone (inclined, vertical)	
Vein (defined, assumed)	
Survey control point	
Survey grid baseline	
Sample location (grab, chip)	
Diamond drill hole (vertical, inclined)	
Excavator trench	
Road	

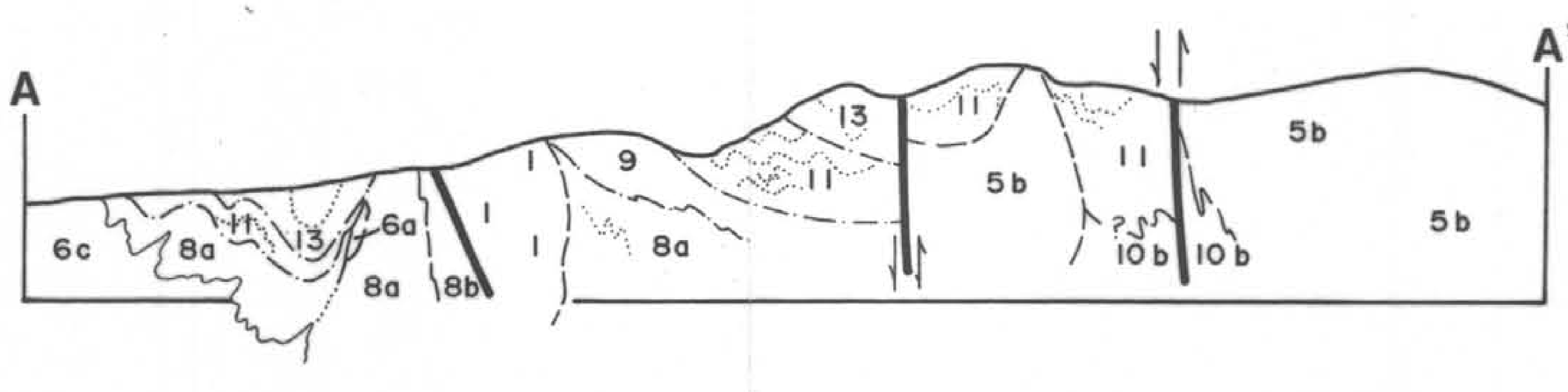


- MINERALOGY -

Actinolite	ak	Limonite	li
Albite	ab	Magnetite	mg
Amphibole	am	Malachite	mc
Ankerite	an	Maraposite	mp
Arsenopyrite	as	Orthoclase	kf
Augite	ag	Plagioclase	pf
Biotite	bi	Pyrite	py
Calcite	ca	Pyrrhotite	po
Carbonate	cb	Quartz	qz
Chalcedony	qc	Sericite	ms
Chalcopyrite	cp	Siderite	sd
Chlorite	cl	Silicification	qs
Epidote	ep	Specularite	hs
Fluorite	fl	Sphalerite	sp
Galena	gl	Stibnite	sb
Graphite	gf	Sulphide	sx
Gypsum	gy	Tourmaline	tl
Hematite	he	Tremolite	tr
Hornblende	hb	Visible gold	vg
Jarosite	ja	Zeolite	ze



SCHEMATIC CROSS SECTION



- LEGEND -

(See Property Geology Legend)

SCALE: 1:50,000

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

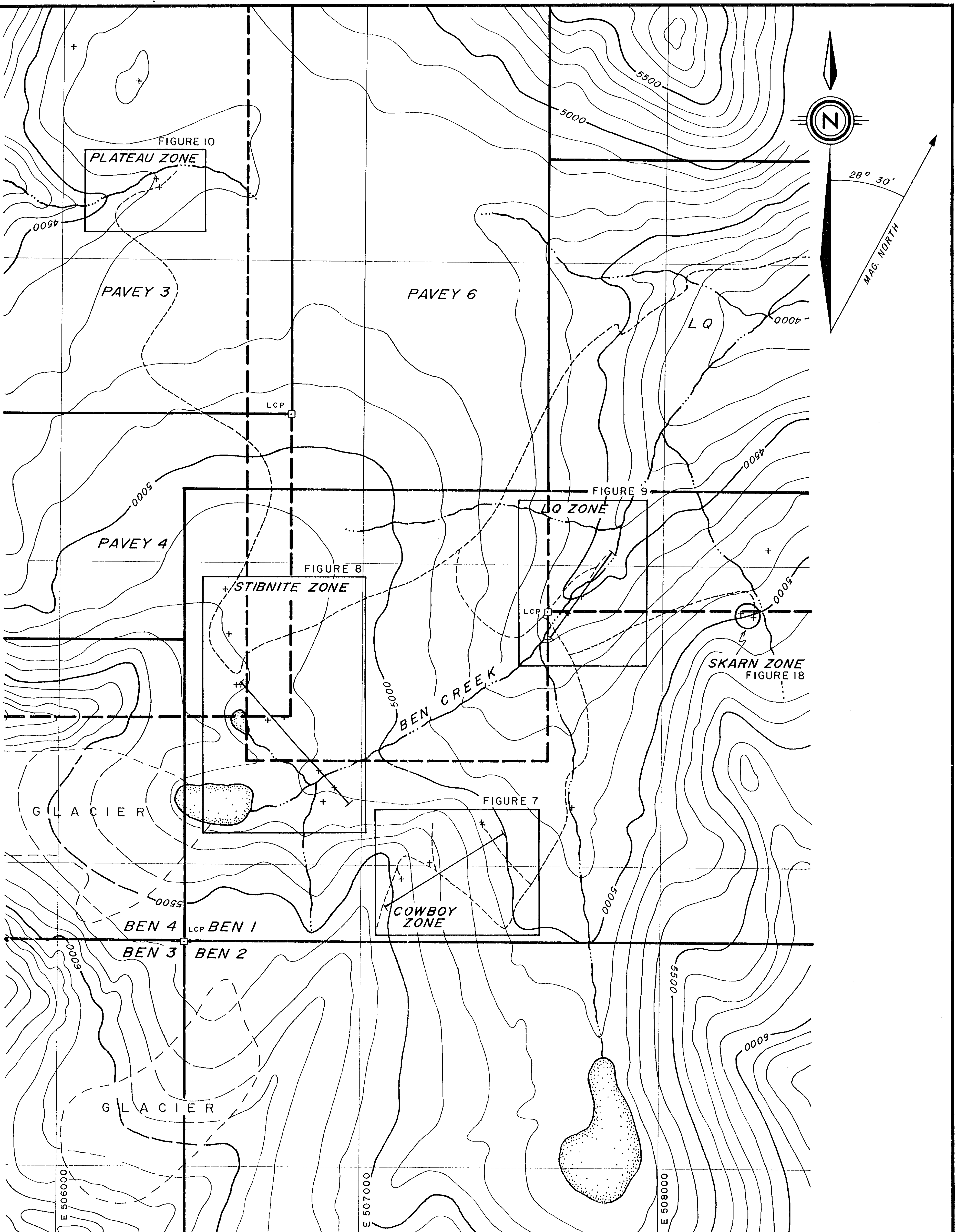
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

PROPERTY GEOLOGY MAP

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

After:	M. Mihalynuk and J. Rouse, B.C.M.M. O.F. 1988-5		
Drawn by:	D. Miller	Scale:	1: 50,000
Date:	October 1990	Figure No.:	4



- SYMBOLS -

Claim boundary ....

Legal corner post ....

Survey control point ....

Survey grid baseline ....

Road ....

Creek ....

Contour Interval is 100 feet

SCALE: 1:10,000

0 200 400 600 800 1000 metres

20581

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

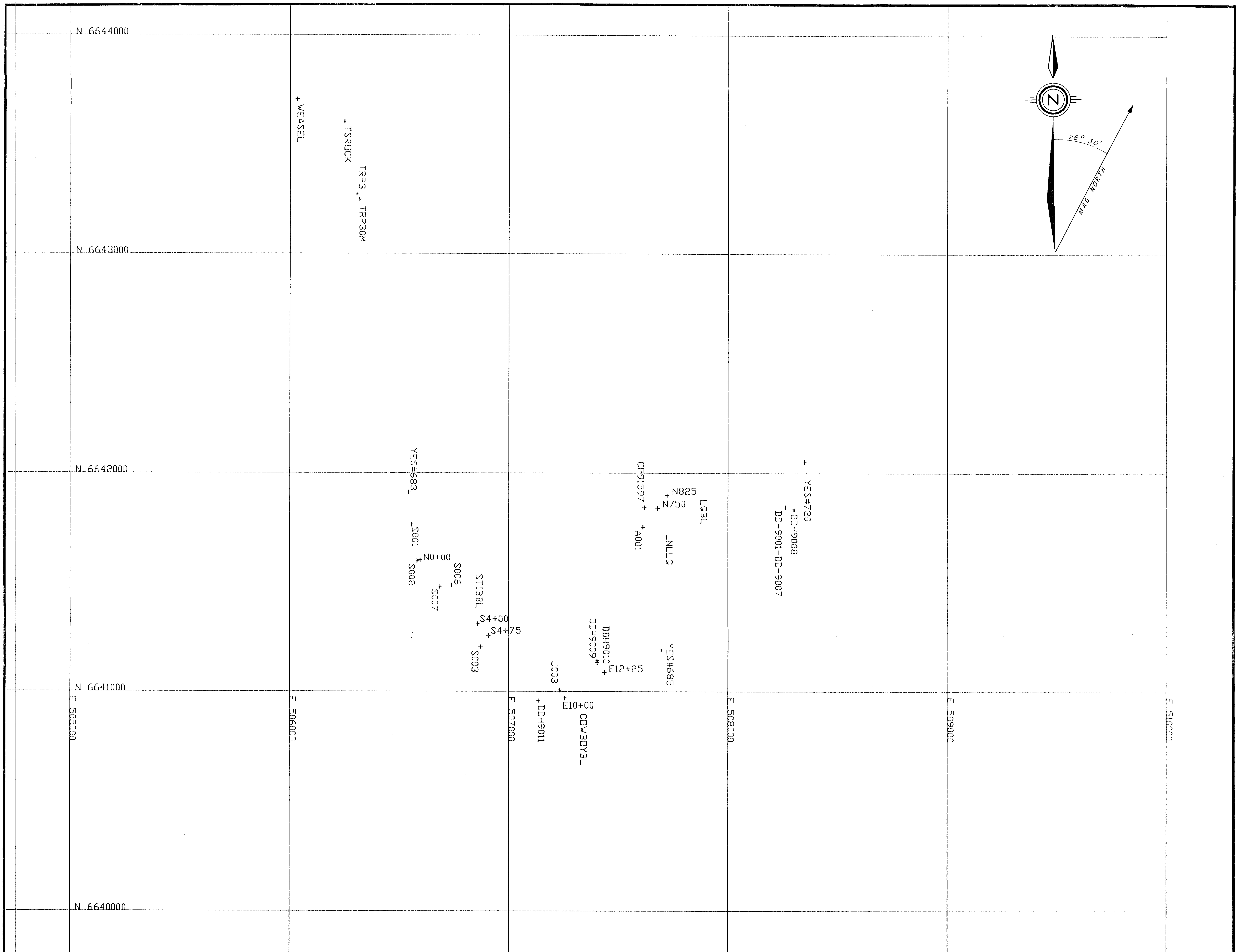
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

MINERAL ZONE LOCATION MAP

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:10,000
Date:	October 1990	Figure No.:	5



NOTE: See Appendix VII for Surveying Data

SCALE: 1:10,000

0 200 400 600 800 1000 metres

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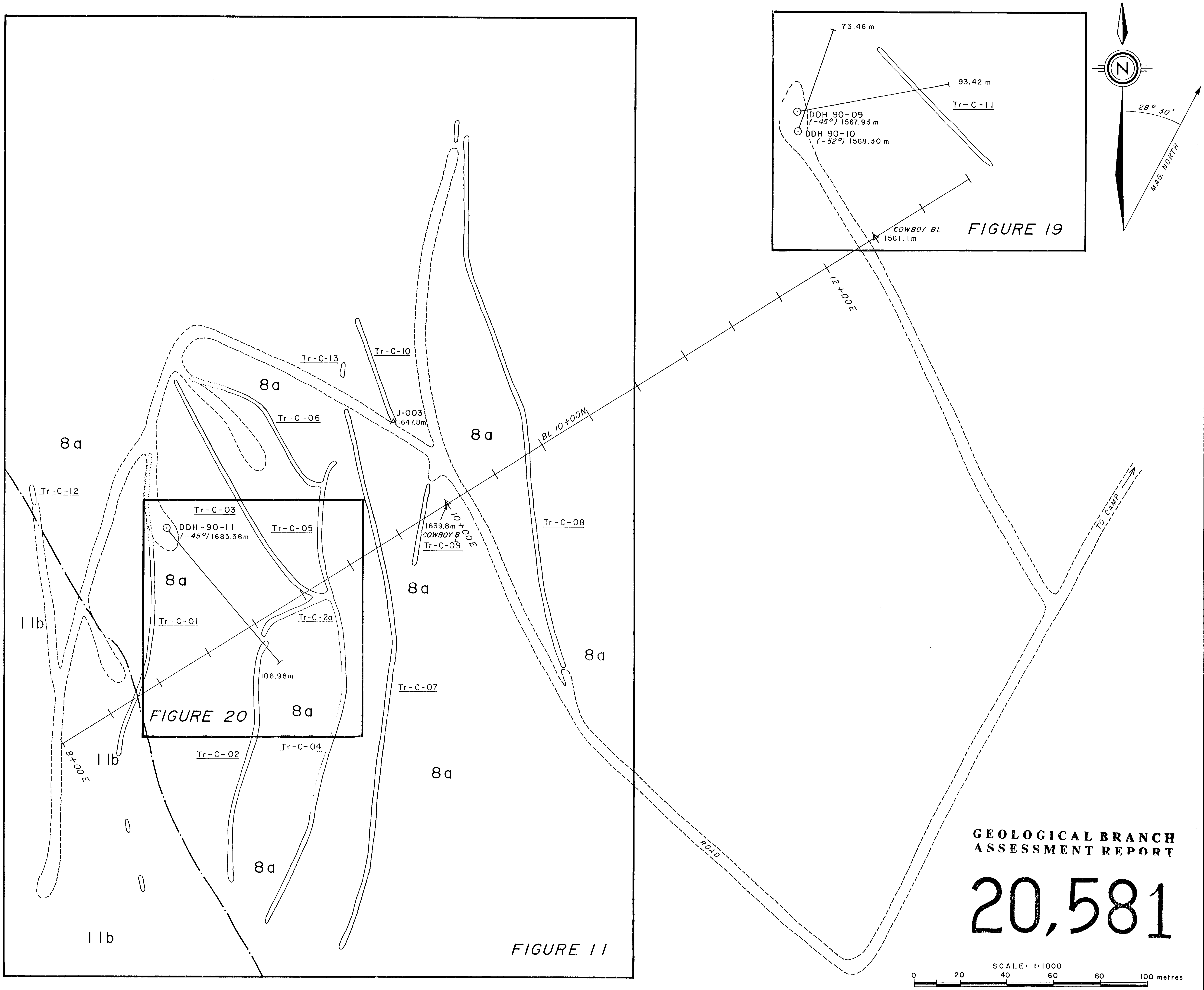
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

SURVEY PLAN

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104M/15

Technical work by:	R.A. Slade, Yukon Engineering Services		
Drawn by:	D. Miller	Scale:	1:10,000
Date:	October 1990	Figure No.:	6



– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION (where undivided denoted as 11)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS (where undivided denoted as 8)

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

After M. Mihalynuk and J. Rouse, B.C. Ministry of Mines, Open File 1988-5

– SYMBOLS –

Unconformity (defined, assumed) ....

Survey control point ....

Survey grid baseline ....

Sample location (grab, chip) ....

Diamond drill hole (vertical, inclined) ....

Excavator trench ....

Road ....

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

– COWBOY ZONE –

TRENCH LOCATION PLAN

Tr-C-01 to Tr-C-13

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes
Drawn by: D. Miller	Scale: 1:1000
Date: October 1990	Figure No.: 7

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581

NOTE: Outcrop mapping by Lhotka and Olsen, 1983
Contour interval : 5 metres

SCALE: 1:1000
0 20 40 60 80 100 metres

– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

INTRUSIVE ROCKS

CRETACEOUS

5 b Quartz monzonite; medium to coarse-grained, more altered than 6

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a₁ Quartz-chlorite-actinolite schist

8 a₂ Actinolite-chlorite schist

After M. Mihalynuk and J. Rouse,
B.C. Ministry of Mines, Open File 1988-5

– SYMBOLS –

Geological boundaries

Unconformity

Schistosity, foliation

Survey control point

Survey grid baseline

Excavator trench

Road

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

– STIBNITE ZONE –

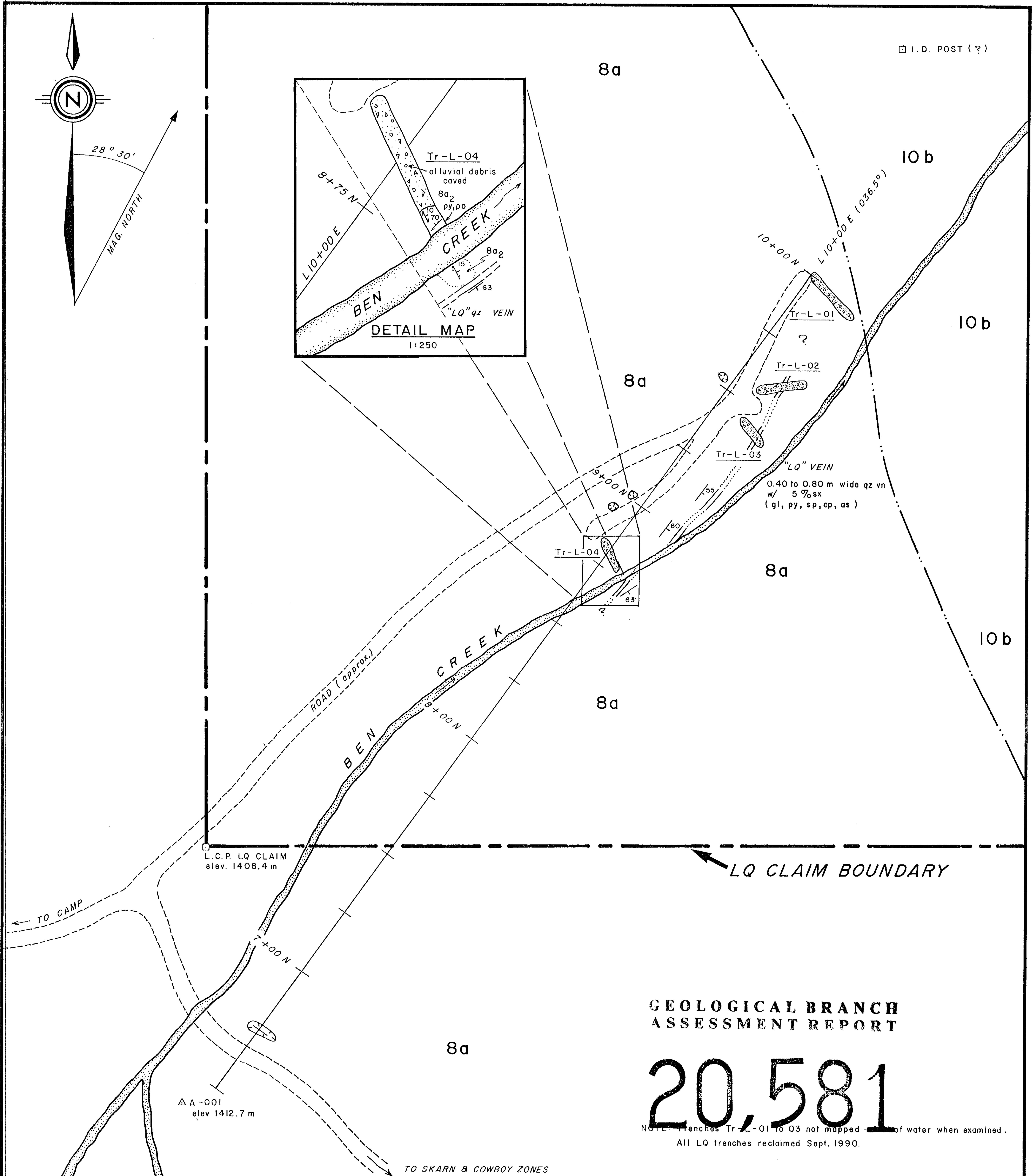
TRENCH LOCATION PLAN

Tr-S-01 to Tr-S-32

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by: S. Coombes	
Drawn by: D. Miller	Scale: 1:1000
Date: October 1990	Figure No.: 8



- LEGEND -

UPPER TRIASSIC

STUHINI GROUP (where undivided denoted as 10)

10 b Green pyroxene-feldspar porphyry tuffs and breccias

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS (where undivided denoted as 8)

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a2 Actinolite-chlorite schist; probably argillaceous siltstone protolith

SCALE: 1:1000

0 20 40 60 80 100 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

- LQ ZONE -

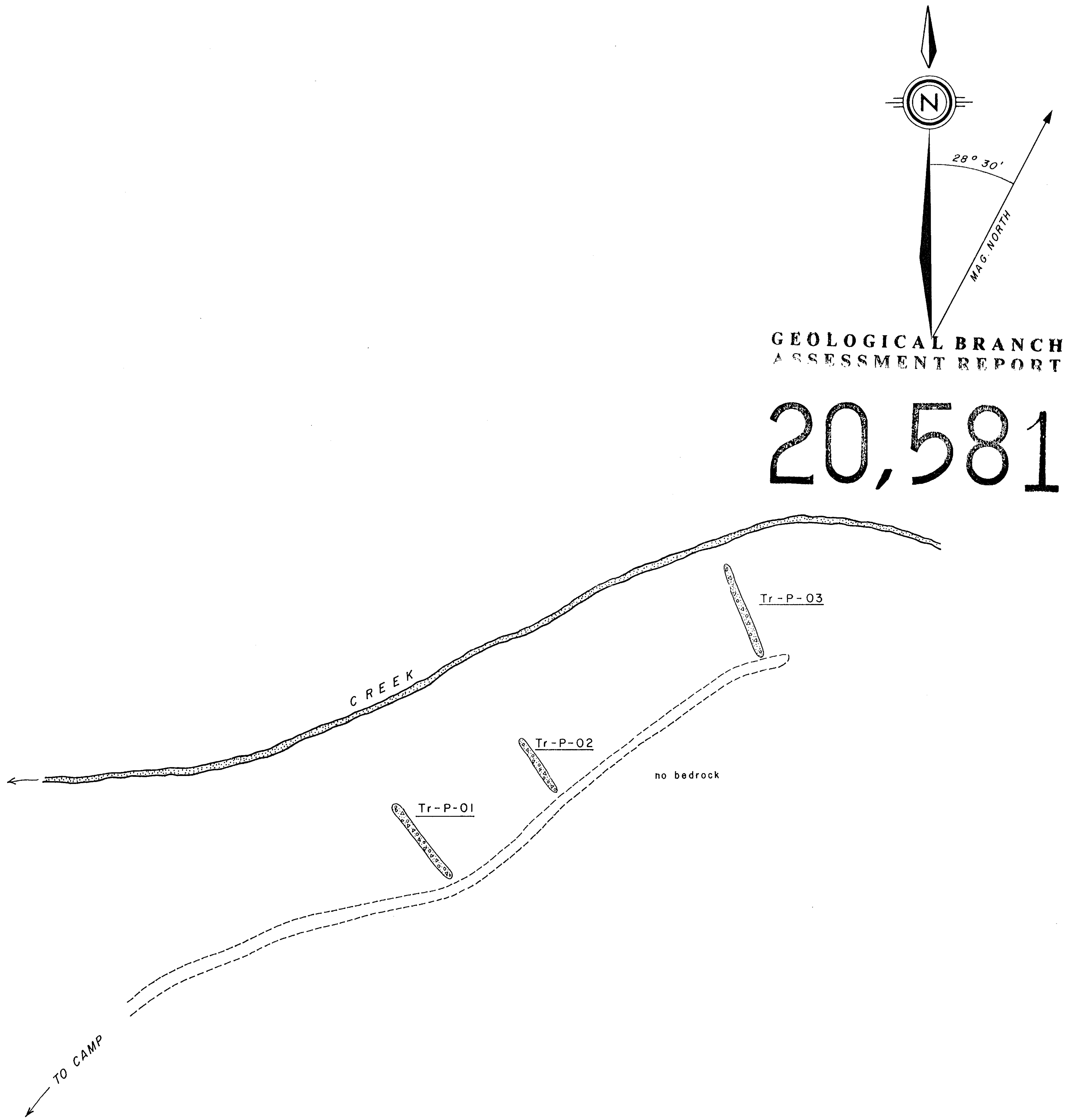
TRENCH LOCATION PLAN

Tr-L-01 to Tr-L-04

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:1000
Date:	October 1990	Figure No.:	9



NOTE: All trenches reclaimed Sept. 1990

– LEGEND –

QUATERNARY

15 Unconsolidated glacial till and poorly sorted alluvium

MIDDLE TO UPPER JURASSIC (?)

13 Variegated pyroclastic lapilli tuffs; bladed feldspar porphyry flows

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

INTRUSIVE ROCKS

CRETACEOUS

5 Granodiorite (5 a), quartz monzonite (5 b), granite (5 c) and diorite (5 d); Medium to coarse-grained

– SYMBOLS –

Geological boundaries ....

Survey control point .... △

Sample location (grab, chip) .... ▲

Excavator trench ....

Road ....

SCALE: 1:1000

0 20 40 60 80 100 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

- PLATEAU ZONE -

TRENCH LOCATION PLAN

Tr-P-01 to Tr-P-03

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104M/15

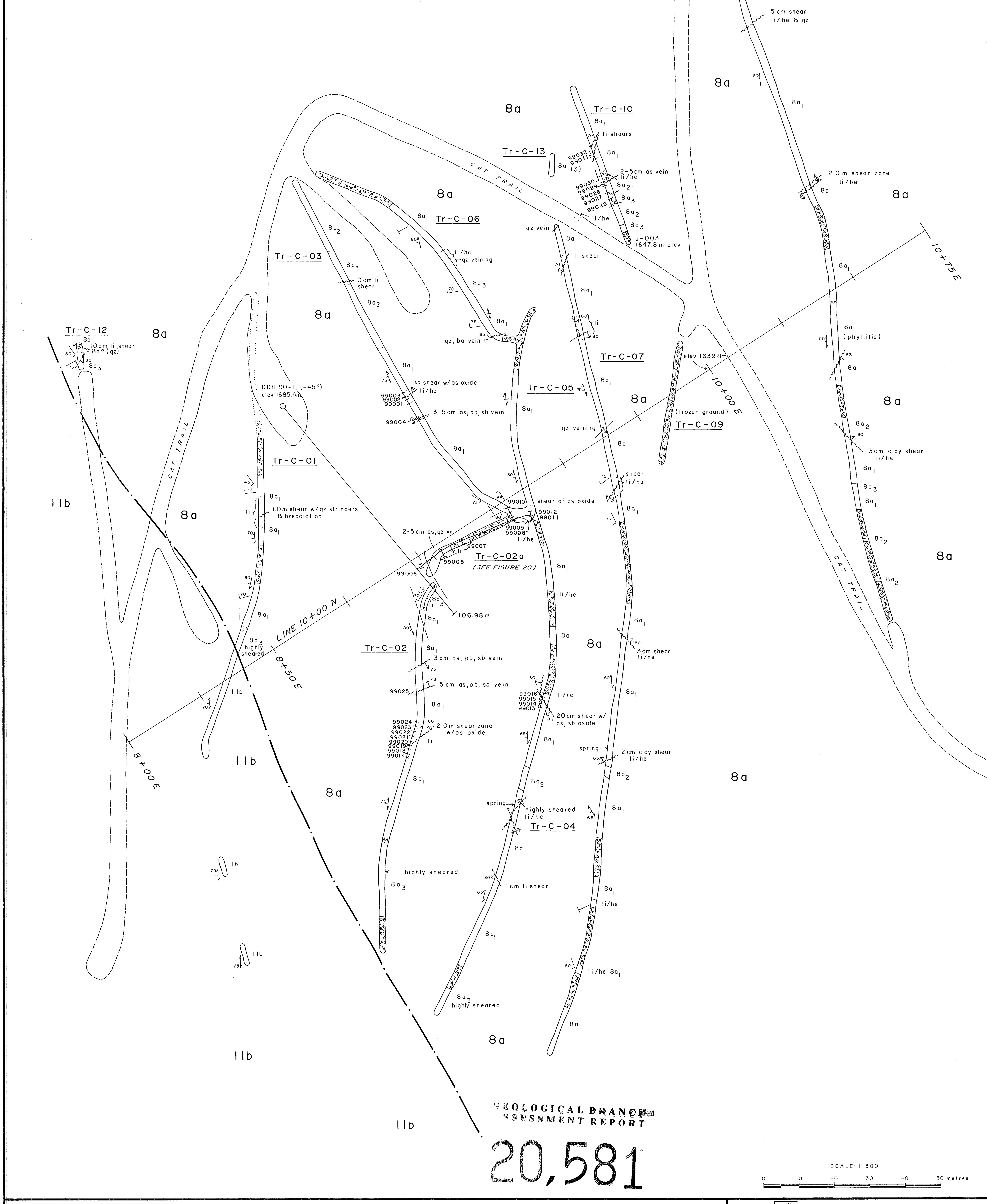
Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:1000
Date:	October 1990	Figure No.:	10

CHIP SAMPLE ANALYTICAL RESULTS

Sample No.	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99001	285	1.8	1325	97	156	1202	29	112	302
99002	350	1.0	3495	76	68	1452	24	63	137
99003	25	0.5	263	195	35	1034	13	38	105
99004	>1000	14.8	2723	108	97	1307	6422	3799	590
99005	335	4.2	2032	117	90	637	53	78	94
99006	290	1.5	9400	124	70	272	28	49	124
99007	100	2.3	6024	73	110	289	35	59	47
99008	>1000	2.2	7941	82	87	264	46	59	58
99009	210	1.2	798	100	107	755	28	20	69
99010	330	0.6	330	129	74	1088	<2	6	67
99011	50	0.8	642	131	154	1102	5	<5	68
99012	>1000	2.1	5812	108	189	554	59	51	53
99013	365	1.4	2840	98	97	499	47	30	254
99014	145	1.8	1978	83	96	371	43	33	434
99015	>1000	>30.0	3527	54	120	312	478	181	536
99016	50	0.9	516	52	62	518	23	16	205
99017	105	1.6	1249	107	72	1150	23	77	181
99018	240	4.0	2145	72	71	658	16	75	173
99019	1000	7.8	9977	77	31	646	293	283	174
99020	545	1.9	7605	79	62	246	11	39	100
99021	>1000	7.3	9862	109	98	195	111	103	175
99022	305	3.1	2108	111	161	997	28	54	209
99023	210	1.6	1466	113	98	2474	30	54	245
99024	30	0.6	635	124	57	1143	12	23	119
99025	>1000	>30.0	>10000	157	70	1009	>10000	2766	319
99026	5	.6	45	280	47	777	12	10	73
99027	10	2.4	120	300	113	645	10	20	75
99028	50	1.4	70	135	91	649	10	15	77
99029	945	3.6	>10000	45	157	744	46	75	88
99030	20	.4	275	280	10	873	10	10	80
99031	45	2.0	220	235	117	784	20	20	96
99032	<5	.8	220	140	84	1406	24	25	114

CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)		Au (opt)	Ag (g/t)	Ag (opt)	As (%)	Pb (%)	Sb (%)	Zn (%)
99004	1.48		0.043				0.66		
99006						0.94			
99007						0.61			
99008	2.26		0.066			0.80			
99012	1.23		0.036			0.62			
99015	2.29		0.067	32.2	0.94				
99019						0.93			
99021	1.01		0.029			0.93			
99025	6.42	*	0.187	43.6	1.27	6.28	1.15		



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581

SCALE: 1:500

0 10 20 30 40 50 metres

- LEGEND -

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

$8a_1$ Quartz-chlorite-actinolite schist

$8a_2$ Actinolite-chlorite schist

$8a_3$ Meta-wacke

- SYMBOLS -

Geological boundaries

Unconformity

Schistosity, foliation

Shear zone

Survey control point

Survey grid baseline

Sample location (grab, chip)

Diamond drill hole (inclined)

Excavator trench

- MINERALOGY -

Arsenopyrite	as
Calcite	ca
Chalcopyrite	cp
Chlorite	cl
Epidote	ep
Galena	gl
Hematite	he
Limonite	li
Magnetite	mg
Malachite	mc
Pyrite	py
Pyrrhotite	po
Quartz	qz
Sericite	ms
Sphalerite	sp
Stibnite	sb
Visible Gold	vg

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

- WEST COWBOY ZONE -

TRENCH GEOLOGY

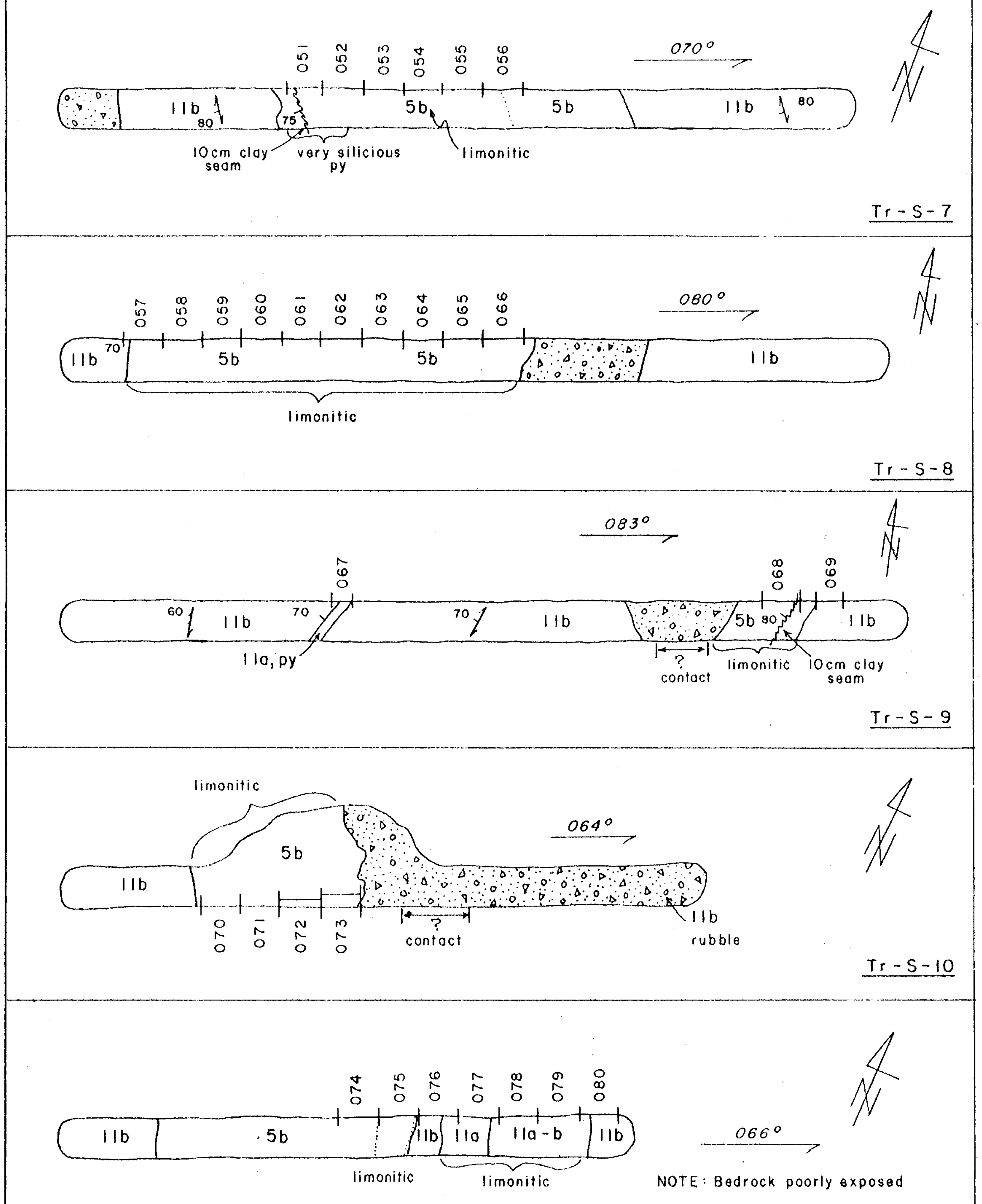
Tr-C-01 to Tr-C-13

PAVEY PROPERTY

ATLIN MINING DIVISION

NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:500
Date:	October 1990	Figure No.:	11



NOTE: All Sample Numbers prefixed by 99

CHIP SAMPLE ANALYTICAL RESULTS

Sample No.	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99051	40	1.3	999	167	20	197	149	104	54
99052	45	1.5	2129	158	5	204	170	74	139
99053	35	0.8	950	108	18	710	44	36	151
99054	30	1.2	1242	146	9	572	96	32	78
99055	10	1.0	1016	164	9	681	43	28	132
99056	10	0.7	669	121	7	318	38	20	89
99057	45	14.0	2276	365	50	304	3066	1828	275
99058	10	2.3	845	144	38	420	472	308	203
99059	10	1.2	447	128	28	267	240	163	175
99060	5	1.3	1036	178	16	209	208	103	205
99061	10	1.2	675	135	21	267	205	96	200
99062	5	1.4	460	123	23	254	277	168	227
99063	5	0.6	229	110	11	304	84	27	120
99064	5	1.0	287	158	16	350	111	49	150
99065	10	0.9	1301	144	11	411	154	50	109
99066	10	1.4	642	154	20	761	187	86	200
99067	5	0.3	90	108	41	1577	12	<5	223
99068	15	2.7	413	163	19	361	282	142	297
99069	10	2.6	883	50	9	360	443	241	260
99070	5	<.2	62	93	21	143	7	13	120
99071	20	0.3	178	117	24	312	42	17	129
99072	10	0.7	506	173	29	1555	51	44	409
99073	45	>20.0	>4000	92	66	497	>4000	>4000	454
99074	10	3.7	1480	163	28	332	615	462	774
99075	15	>20.0	1450	70	53	760	3351	3025	>4000
99076	10	0.3	53	68	27	1220	24	24	195
99077	5	0.5	161	83	37	1159	55	42	219
99078	10	0.7	680	91	101	432	60	55	32
99079	5	0.3	87	97	55	825	15	19	54
99080	5**	0.2	124	435	26	969	36	26	148

CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)	Au (opt)	Ag (g/t)	Ag (opt)	As (%)	Pb (%)	Sb (%)	Zn (%)
99073			33.8	0.99	1.00	1.01	0.41	
99075			22.9	0.67				0.61

NOTE: See Property Geology Legend

20581

SCALE: 1:250

0 5 10 15 20 metres

Technical work by S. Coombes

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

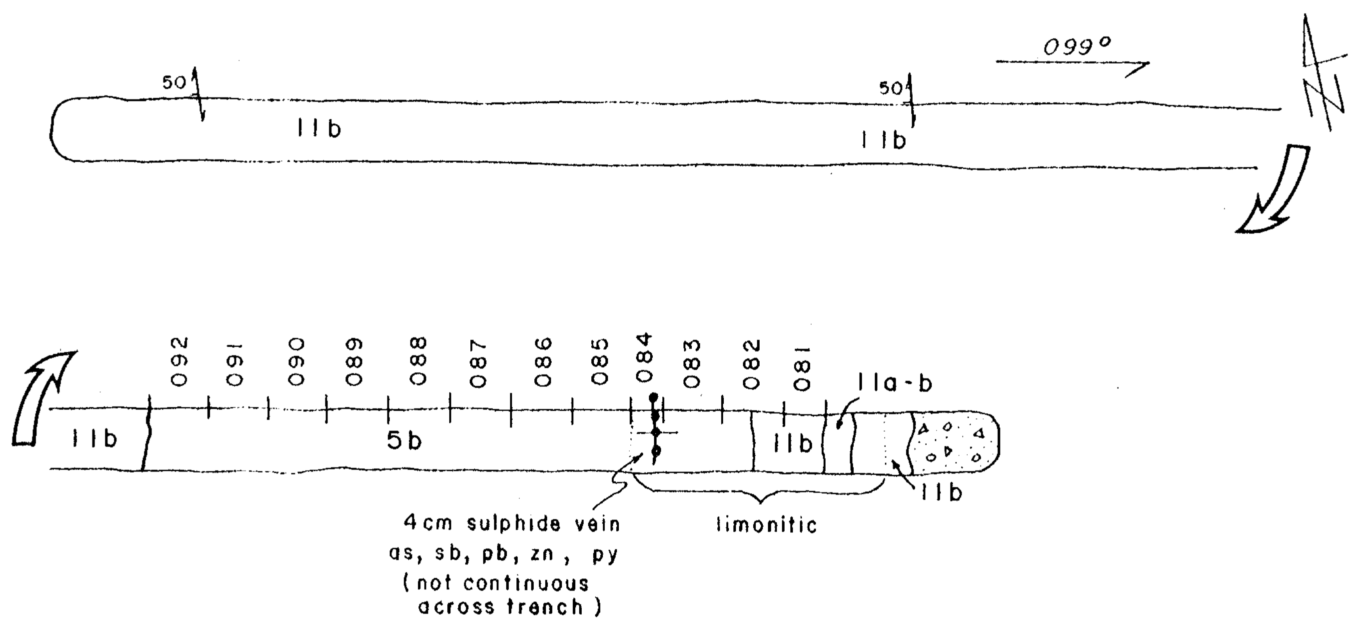
-STIBNITE ZONE-

TRENCH GEOLOGY

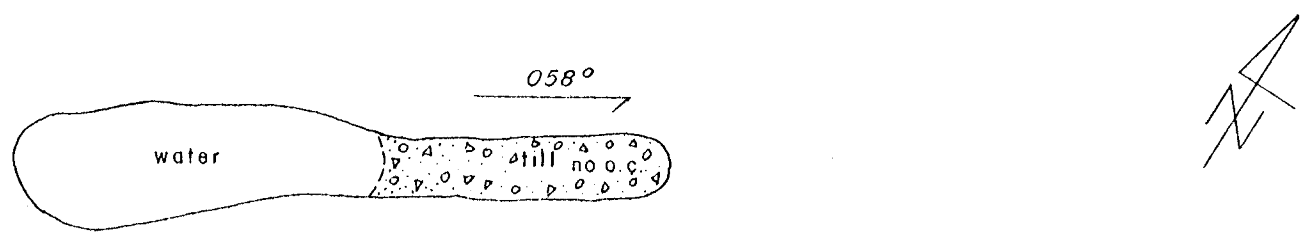
Tr-S-07 to Tr-S-11

PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104M/16

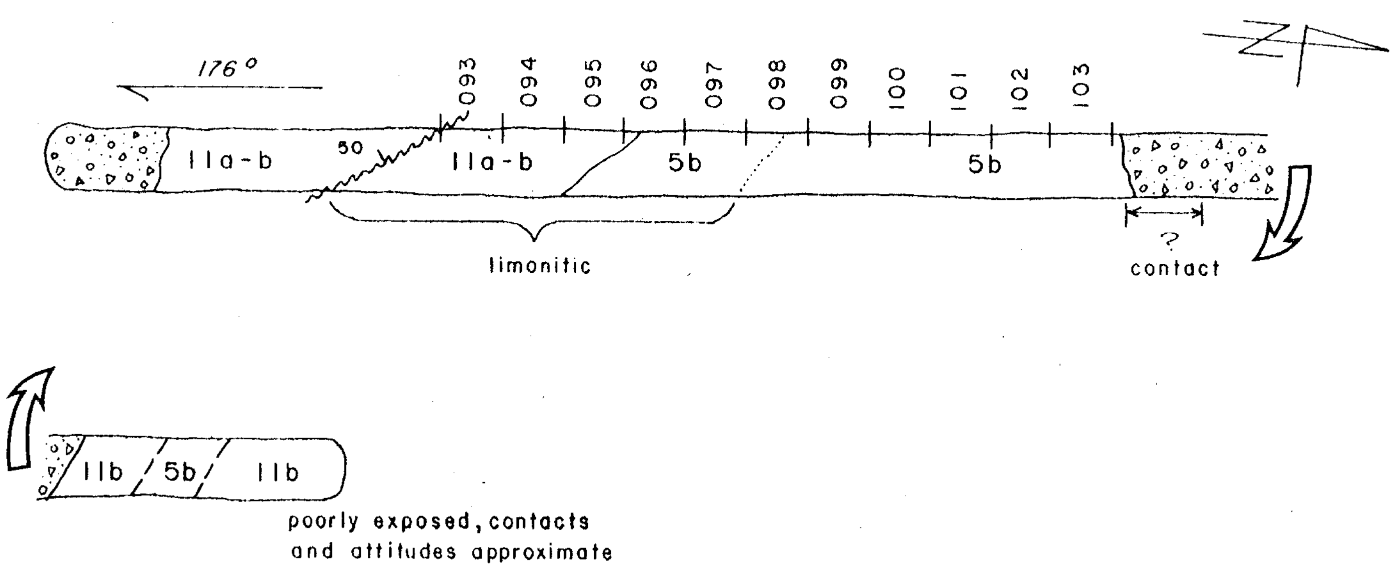
DATE: October 1990	SCALE: 1:250
DRAWN BY: D. Miller	DRAWING No. 12



Tr-S-12



Tr-S-13



Tr-S-14

NOTE: All Sample Numbers prefixed by 99

CHIP SAMPLE ANALYTICAL RESULTS

Sample No.	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99081	5	0.7	210	94	43	693	89	115	1017
99082	5	>20.0	638	115	20	399	3051	3020	908
99083	10	19.8	1768	134	12	209	3152	2826	735
99084	35	>20.0	>4000	39	27	565	>4000	>4000	>4000
99085	10	4.4	635	77	15	341	820	481	501
99086	10	3.0	600	69	10	438	232	112	302
99087	20	0.7	160	85	9	517	151	42	186
99088	5	0.5	352	68	4	340	16	19	54
99089	5	0.7	148	102	10	523	26	21	93
99090	5	2.2	177	86	10	529	144	83	225
99091	25	1.8	433	61	4	459	33	34	159
99092	10	2.0	103	52	4	424	147	47	194
99093	10	0.5	832	175	46	574	18	16	63
99094	5	0.6	168	127	15	278	13	28	26
99095	10	0.3	93	128	33	361	6	<5	28
99096	15	0.6	99	140	32	202	9	28	30
99097	60	0.7	350	55	12	249	22	19	34
99098	95	0.6	366	52	6	269	24	21	39
99099	5	0.5	291	66	4	310	25	21	42
99100	5	0.4	214	57	3	288	12	12	39
99101	5	0.4	307	68	3	299	15	17	41
99102	40	0.6	353	50	5	281	30	21	55
99103	5	0.5	377	78	4	556	18	18	50

CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)	Au (opt)	Ag (g/t)	Ag (opt)	As (%)	Pb (%)	Sb (%)	Zn (%)
99082			23.9	0.70				
99084			89.6	2.61	0.44	2.48	1.89	0.68

20581

NOTE: See Property Geology Legend

SCALE: 1:250

0 5 10 15 20 metres

Technical work by S. Coombes

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

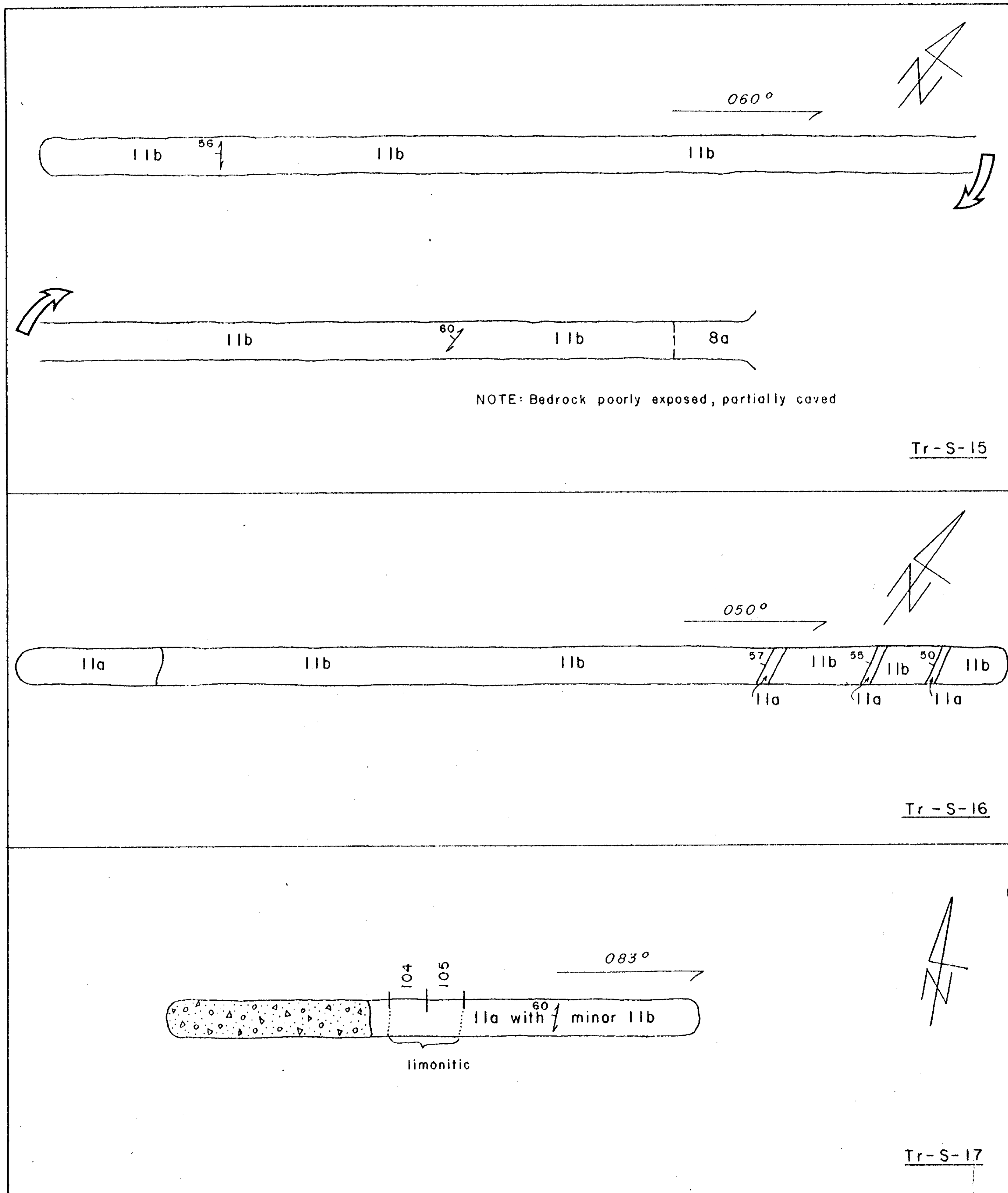
-STIBNITE ZONE-

TRENCH GEOLOGY

Tr-S-12 to Tr-S-14

PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104M/15

DATE: October 1990	SCALE: 1:250
DRAWN BY: D. Miller	DRAWING No. 13



– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

– SYMBOLS –

Geological boundaries ....

Unconformity (defined, assumed) ....

Schistosity, foliation (inclined, vertical) ......

Shear zone (inclined, vertical) ....

Sample location (grab, chip) .... ▲

CHIP SAMPLE ANALYTICAL RESULTS

Sample No.	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99104	80	4.9	986	160	54	1061	70	41	131
99105	5	0.7	416	163	54	1108	6	64	93

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581

SCALE: 1:250

0 5 10 15 20 metres

Technical work by S. Coombes

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

– STIBNITE ZONE –

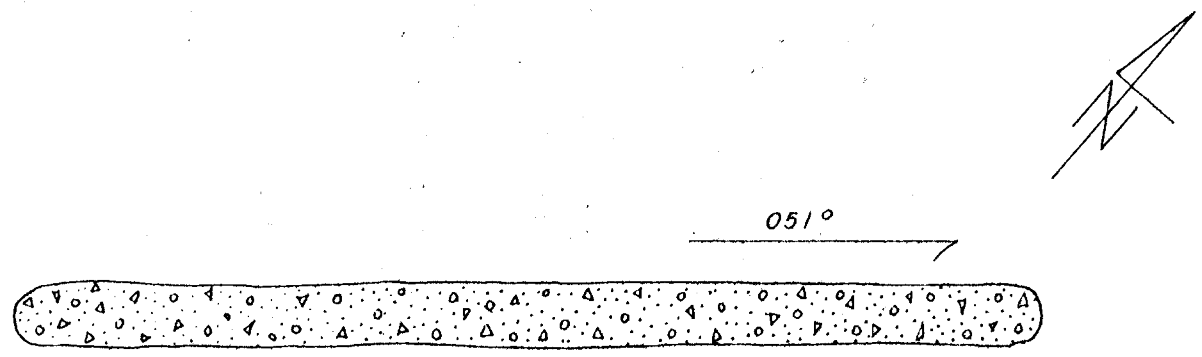
TRENCH GEOLOGY

Tr-S-15 to Tr-S-17

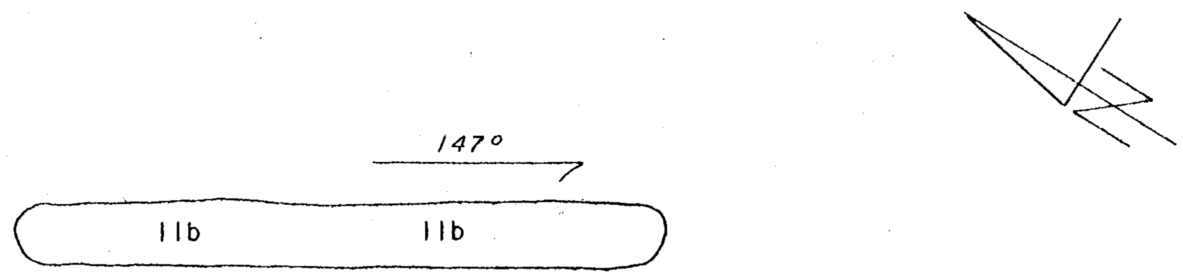
PAVEY PHOPERTY

ATLIN MINING DIVISION
NTS 104 M/16

DATE: October 1990	SCALE: 1:250
DRAWN BY: D. Miller	DRAWING No. 14

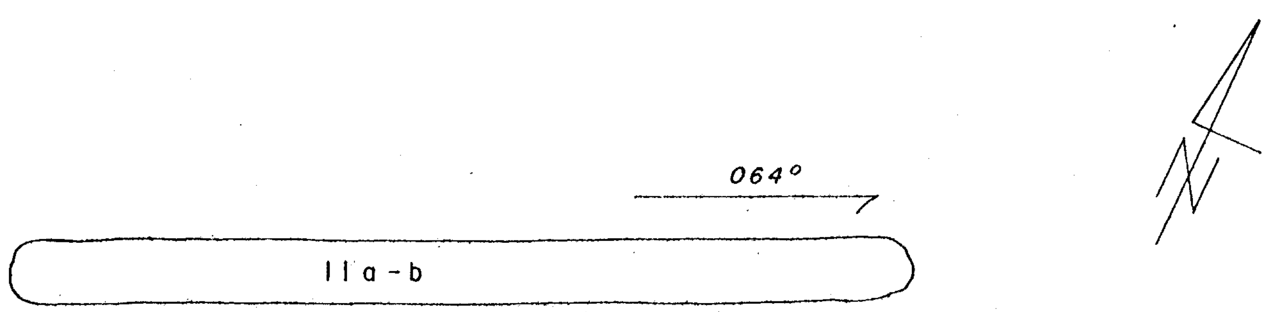


Tr-S-18



NOTE: Bedrock poorly exposed

Tr-S-19



NOTE: Bedrock poorly exposed

Tr-S-20

– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

– SYMBOLS –

Geological boundaries ....

Unconformity (defined, assumed) ....

Schistosity, foliation (inclined, vertical) ......

Shear zone (inclined, vertical) ....

Sample location (grab, chip) ....

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581

SCALE: 1:250

0 5 10 15 20 metres

Technical work by S. Coombes

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

-STIBNITE ZONE-

TRENCH GEOLOGY

Tr-S-18 to Tr-S-20

PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104M/15

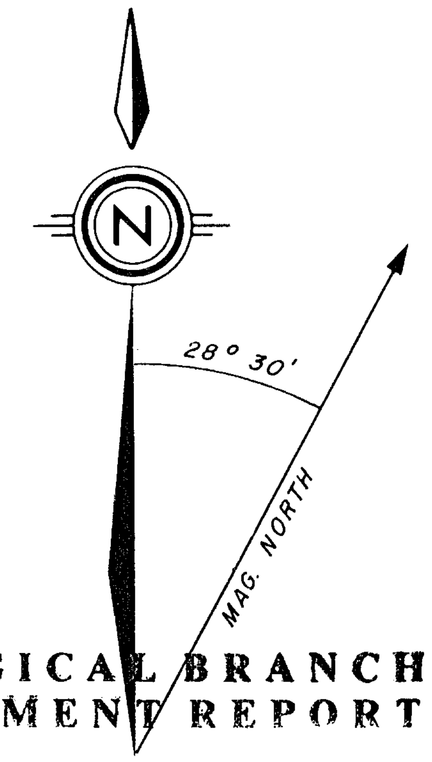
DATE: October 1990	SCALE: 1:250
DRAWN BY: D. Miller	DRAWING No. 15

CHIP SAMPLE ANALYTICAL RESULTS

	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99106	5	0.7	<5	96	37	936	10	12	50
99107	5	0.6	11	95	32	1344	12	30	65
99108	5	1.0	338	83	16	155	9	70	22
99109	>1000	10.3	>4000	84	46	878	1698	863	352
99110	5	1.1	42	100	29	548	34	49	108
99115	>1000	>30.0	>10000	99	317	1180	2168	1310	3137
99116	180	2.9	887	155	43	1599	28	20	78
99117	5	0.3	225	179	30	904	28	<5	64
99118	10	<.2	250	188	44	1521	27	15	77
99119	15	0.5	679	69	47	1084	20	70	201
99120	5	<.2	216	83	16	1306	11	15	75
99121	5	<.2	146	93	14	1176	12	5	62
99138	5	0.6	179	126	24	1572	19	10	63
99139	25	0.4	453	145	29	1758	17	10	78
99140	35	0.8	381	224	73	1531	25	5	94

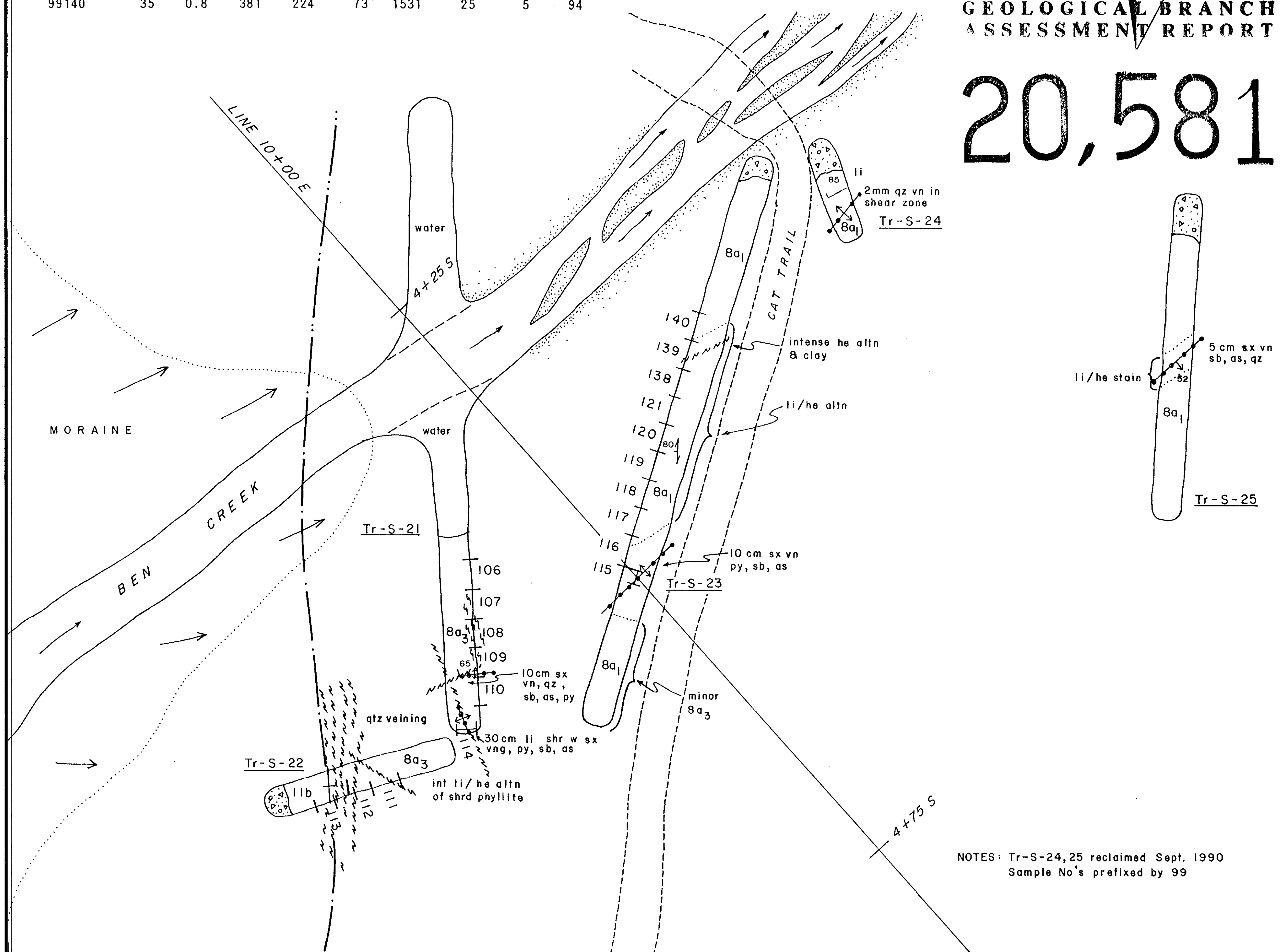
CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)	Au (opt)	Ag (g/t)	Ag (opt)	As (%)
99109	1.47	0.043			0.37
99115	3.02	0.088	77.7	2.27	5.29



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581



NOTES: Tr-S-24,25 reclaimed Sept. 1990
Sample No's prefixed by 99

– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a1 Quartz-chlorite-actinolite schist

8 a2 Actinolite-chlorite schist

8 a3 Meta-wacke

– SYMBOLS –

Geological boundaries ....

Unconformity (defined, assumed) ....

Schistosity, foliation (inclined, vertical) .....

Shear zone (inclined, vertical) ....

Vein (defined, assumed) ....

Sample location (grab, chip) ....

SCALE: 1:250

0 5 10 15 20 25 metres

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

– STIBNITE ZONE –

TRENCH GEOLOGY

Tr-S-21 to Tr-S-25

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by: D. Miller		Scale: 1:250	
Date: October 1990		Figure No.: 16	

– LEGEND –

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION

11 a Siltstones, arenaceous wackes (greywackes)

11 b Argillites (may be silty)

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a1 Quartz-chlorite-actinolite schist

8 a2 Actinolite-chlorite schist

8 a3 Meta-wacke

– SYMBOLS –

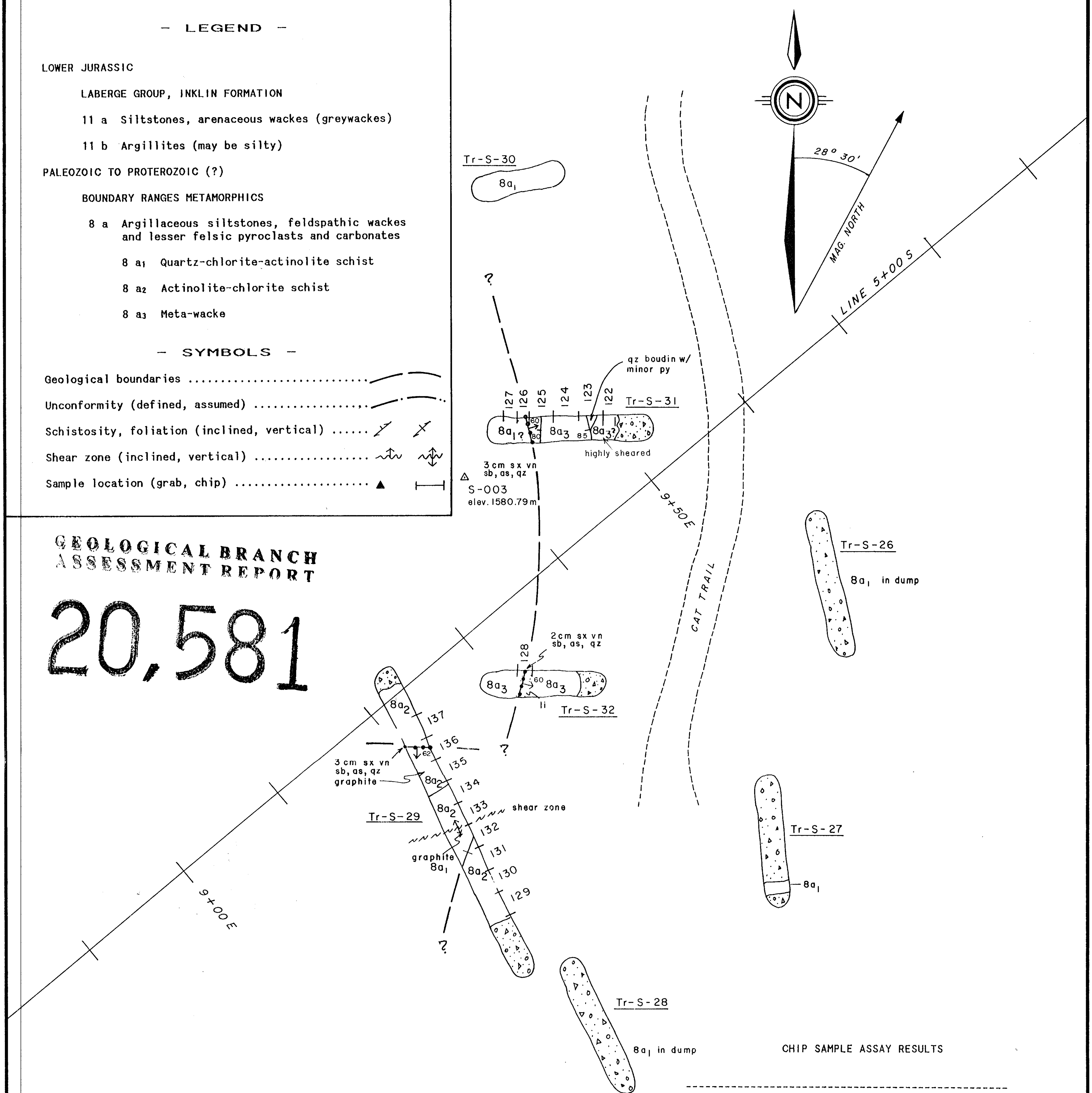
Geological boundaries ....

Unconformity (defined, assumed) ....

Schistosity, foliation (inclined, vertical) ......

Shear zone (inclined, vertical) ....

Sample location (grab, chip) ....



CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)	Au (opt)	Ag (g/t)	Ag (opt)	As (%)
99126	2.78	0.081	59.8	1.74	10.83
99136			30.2	0.88	

NOTE: Sample No.'s prefixed by 99
Tr-S-26,27,28 reclaimed Sept. 1990

SCALE: 1:250
0 5 10 15 20 25 metres

CHIP SAMPLE ANALYTICAL RESULTS

Sample No.	Au (ppb)	Ag (ppm)	As (ppm)	Ba (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)
99122	350	2.0	3071	94	54	2778	70	75	99
99123	5	0.3	226	95	22	659	14	5	41
99124	5	0.6	376	78	32	568	15	15	80
99125	35	0.7	1304	90	33	2338	18	50	223
99126	>1000	>30.0	>10000	137	30	1013	432	620	325
99127	65	1.5	2349	74	17	2108	14	40	243
99128	45	1.0	1557	135	96	797	23	5	166
99129	10	1.2	113	241	48	852	24	5	68
99130	50	2.8	510	189	62	1259	26	5	378
99131	805	3.2	157	188	90	1168	34	5	134
99132	90	4.8	856	167	86	1210	82	45	158
99133	115	1.6	823	172	43	773	19	55	52
99134	10	1.2	242	201	50	589	20	50	81
99135	360	6.9	3412	90	106	762	41	50	1465
99136	215	>30.0	2466	87	66	498	1660	835	451
99137	25	0.8	187	266	53	486	23	15	312

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

- STIBNITE ZONE -

TRENCH GEOLOGY

Tr-S-26 to Tr-S-32

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by: S. Coombes

Drawn by: D. Miller

Scale: 1:250

Date: October 1990

Figure No.: 17

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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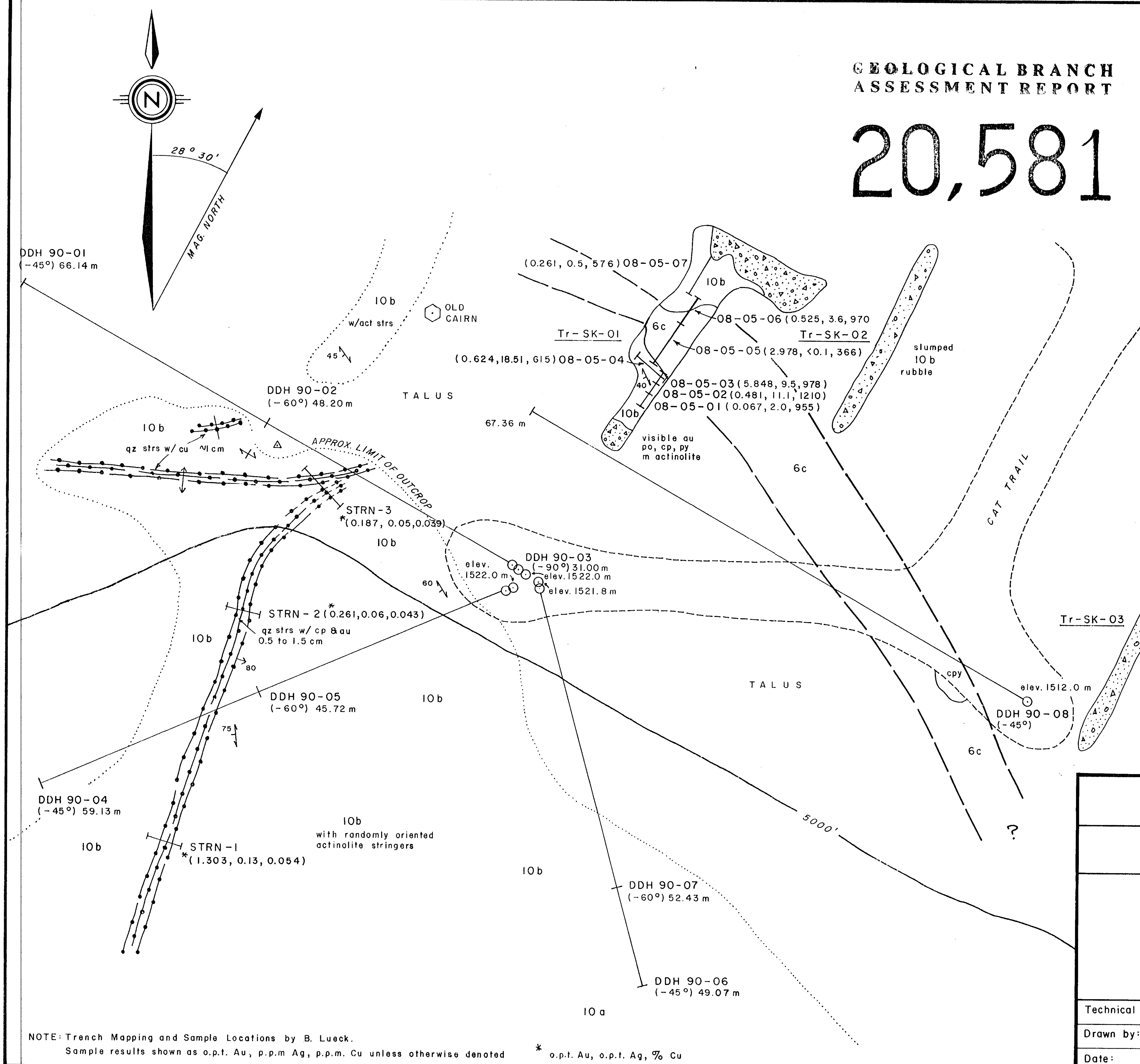

NOTE: Trench Mapping and Sample Locations by B. Lueck.
Sample results shown as o.p.t. Au, p.p.m Ag, p.p.m. Cu unless otherwise denoted * o.p.t. Au, o.p.t. Ag, % Cu

- LEGEND -

UPPER TRIASSIC

STUHINI GROUP

10 b Green pyroxene-feldspar porphyry tuffs and breccias characteristic of this group

10 b1 Lapilli, ash and lithic tuff

10 b2 Augite porphyry flow and/or sub-aerial intrusive

10 b3 Interbedded chert and tuff

INTRUSIVE ROCKS

CRETACEOUS (?)

6 c Hornblende-feldspar porphyry sill (?)

- SYMBOLS -

Geological boundaries ....
Schistosity, foliation ....
Vein (defined, assumed) ....
Sample location (grab, chip) ....
Diamond drill hole ....
Excavator trench ....

SCALE: 1:250
0 5 10 15 20 25 metres

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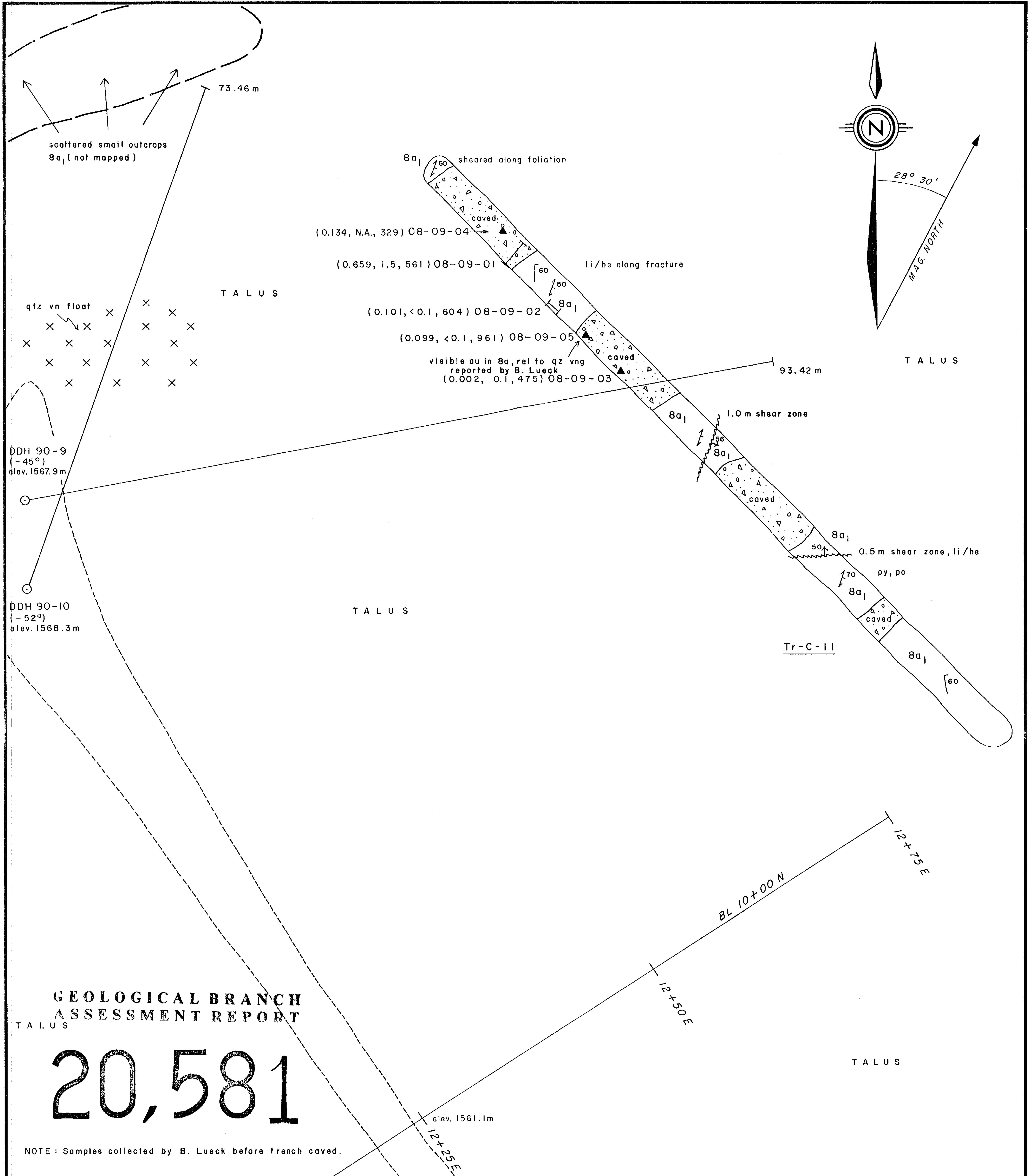
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

-SKARN ZONE-
DRILL PLAN
DDH 90-01 to DDH 90-08
PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	18



— LEGEND —

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS (where undivided denoted as 8)

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a1 Quartz-chlorite-actinolite schist; secondary biotite common; probably sandstones and siltstone protolith

NOTE: Sample results shown as o.p.t. Au, p.p.m. Ag, p.p.m. Cu unless otherwise denoted

SCALE: 1:250

0 5 10 15 20 25 metres

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VANCOUVER B.C.

– EAST COWBOY ZONE –

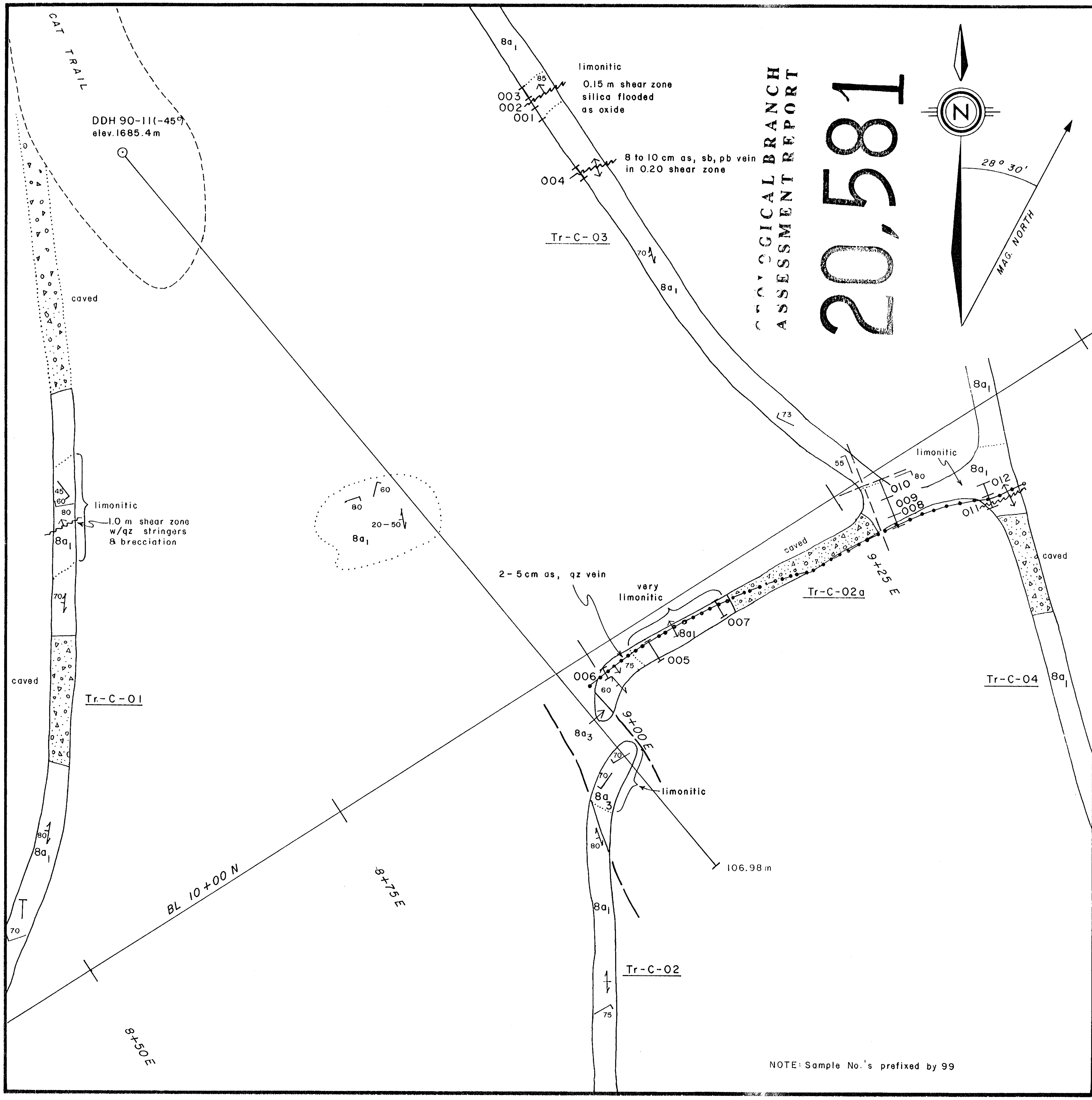
DRILL PLAN

DDH 90-09 and DDH 90-10

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	19



GEOLOGICAL BRANCH
ASSESSMENT REPORT
20,581

- LEGEND -

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

8 a1 Quartz-chlorite-actinolite schist

8 a2 Actinolite-chlorite schist

8 a3 Meta-wacke

- SYMBOLS -

Geological boundaries

Schistosity, foliation

Joint (inclined, vertical)

Shear zone (inclined, vertical)

Vein (defined, assumed)

Survey grid baseline

Sample location (grab, chip)

Diamond drill hole (vertical, inclined)

Excavator trench

CHIP SAMPLE ASSAY RESULTS

Sample No.	Au (g/t)	Au (opt)	As (%)	Pb (%)
99004	1.48	0.043		0.66
99006			0.94	
99007			0.61	
99008	2.26	0.066	0.80	

SCALE: 1:250

0 5 10 15 20 25 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

- WEST COWBOY ZONE -

DRILL PLAN

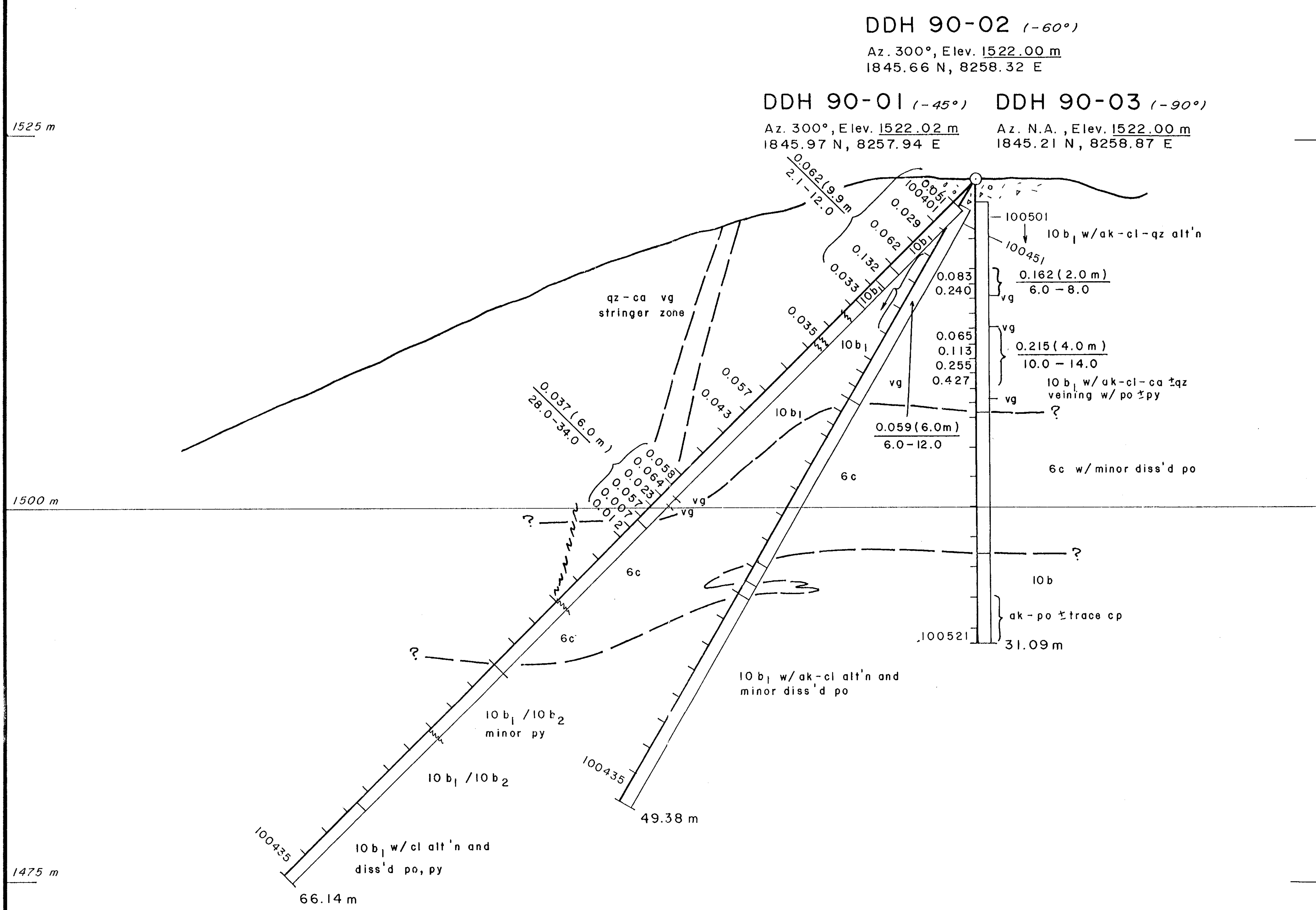
DDH 90-11

PAVEY PROPERTY

ATLIN MINING DIVISION

NTS 104M/15

Technical work by:	S. Coombes		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	20



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,581

1450 m

NOTE: Assay results >1,000 p.p.b. Au plotted as o.p.t. Au

– LEGEND –

UPPER TRIASSIC

STUHINI GROUP

10 b Green pyroxene-feldspar porphyry tuffs and breccias

10 b₁ Lapilli, ash and lithic tuff

10 b₂ Augite porphyry flow and/or sub-aerial intrusive

10 b₃ Interbedded chert and tuff

CRETACEOUS (?)

6 c Hornblende-feldspar porphyry sill (?)

SCALE: 1:250

0 5 10 15 20 25 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION

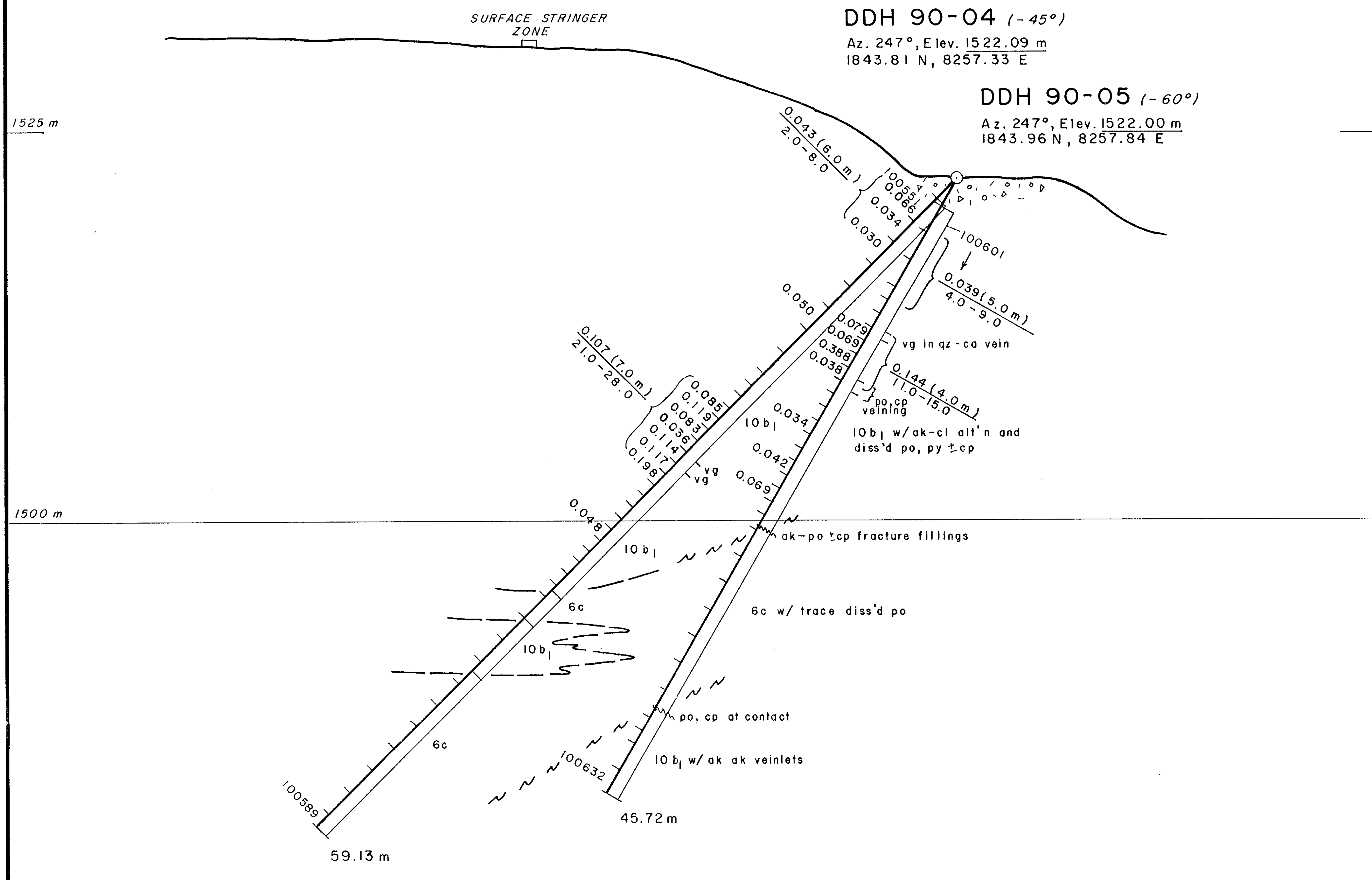
DDH 90-01, 90-02, 90-03

LOOKING NORTHEAST 030°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower
Drawn by: D. Miller	Scale: 1:250
Date: October 1990	Figure No.: 21



NOTE: Assay results >1,000 p.p.b. Au plotted as o.p.t. Au

– LEGEND –

UPPER TRIASSIC

STUHINI GROUP

10 b Green pyroxene-feldspar porphyry tuffs and breccias

10 b1 Lapilli, ash and lithic tuff

10 b2 Augite porphyry flow and/or sub-aerial intrusive

10 b3 Interbedded chert and tuff

CRETACEOUS (?)

6 c Hornblende-feldspar porphyry sill (?)

SCALE: 1:250

0 5 10 15 20 25 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION

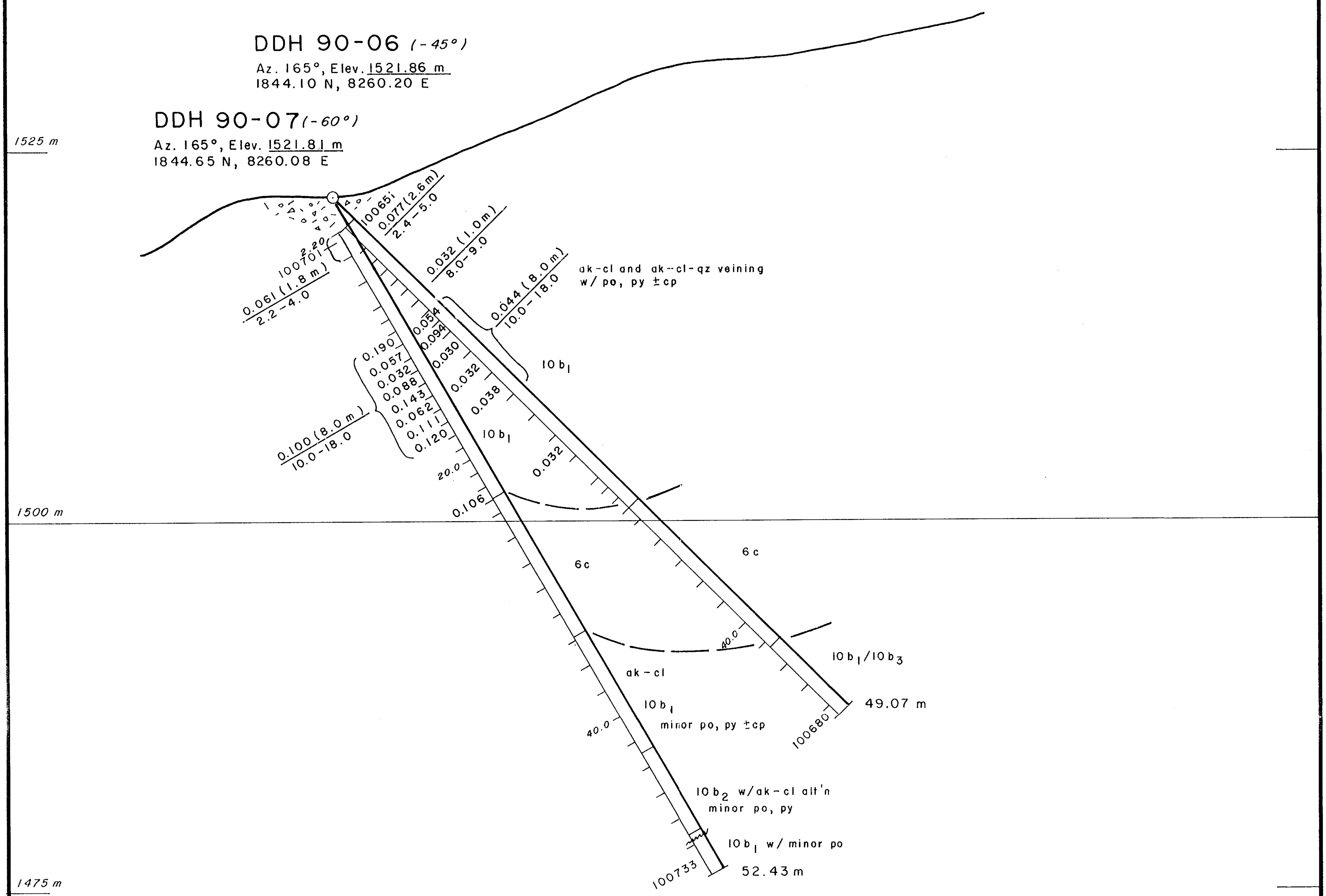
DDH 90-04, 90-05

LOOKING NORTHWEST 337°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	22



Assay results >1,000 p.p.b. Au plotted as o.p.t. Au

– LEGEND –

UPPER TRIASSIC

STUHINI GROUP

10 b Green pyroxene-feldspar porphyry tuffs and breccias

10 b_1 Lapilli, ash and lithic tuff

10 b_2 Augite porphyry flow and/or sub-aerial intrusive

10 b_3 Interbedded chert and tuff

CRETACEOUS (?)

6 c Hornblende-feldspar porphyry sill (?)

SCALE: 1:250

0 5 10 15 20 25 metres

MINOREX CONSULTING LTD.
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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

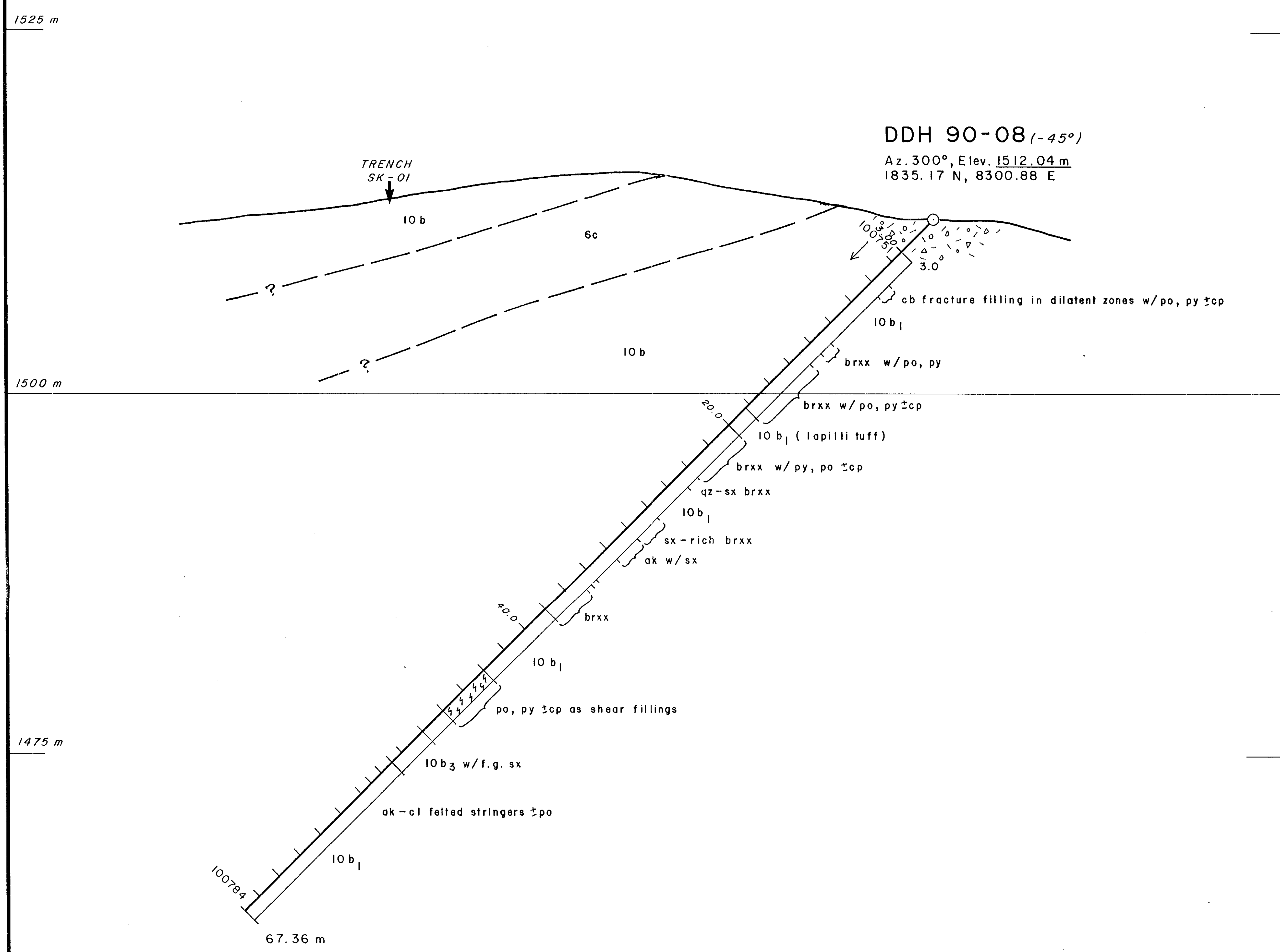
DIAMOND DRILL HOLE CROSS SECTION
DDH 90-06, 90-07

LOOKING NORTHEAST 075°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	23



- LEGEND -

UPPER TRIASSIC

STUHINI GROUP

10 b Green pyroxene-feldspar porphyry tuffs and breccias

10 b_1 Lapilli, ash and lithic tuff

10 b_2 Augite porphyry flow and/or sub-aerial intrusive

10 b_3 Interbedded chert and tuff

CRETACEOUS (?)

6 c Hornblende-feldspar porphyry sill (?)

SCALE: 1:250

0 5 10 15 20 25 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION

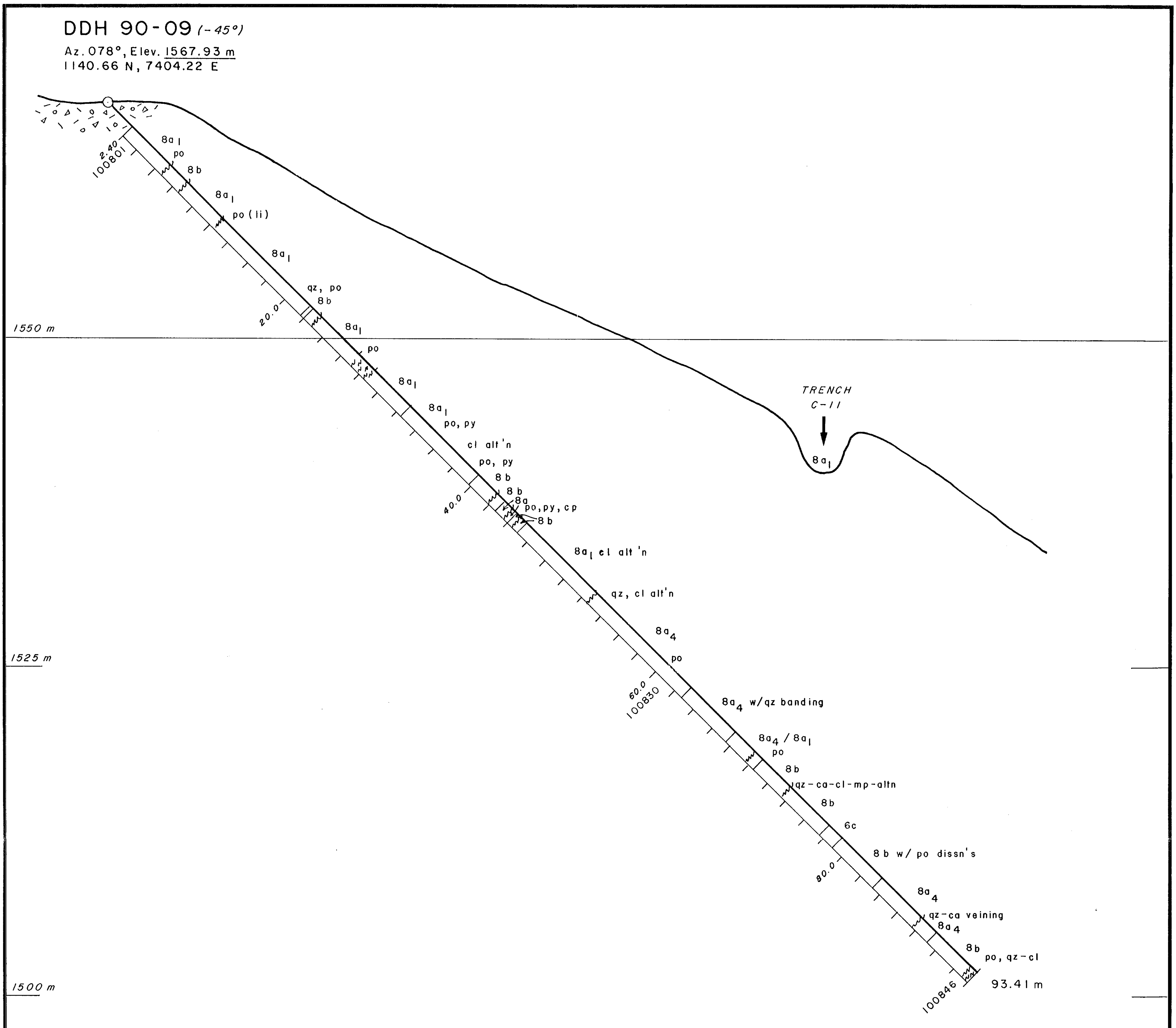
DDH 90-08

LOOKING NORTHEAST 030°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	24



– LEGEND –

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

- 8 a1 Quartz-chlorite-actinolite schist
- 8 a2 Actinolite-chlorite schist
- 8 a3 Meta-wacke
- 8 a4 Quartz-biotite +/- chlorite schist
- 8 a5 Argillite
- 8 a6 Quartzite

8 b Altered pyroxenites, foliated gabbros and mafic flow successions

SCALE: 1:250

0 5 10 15 20 25 metres

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION

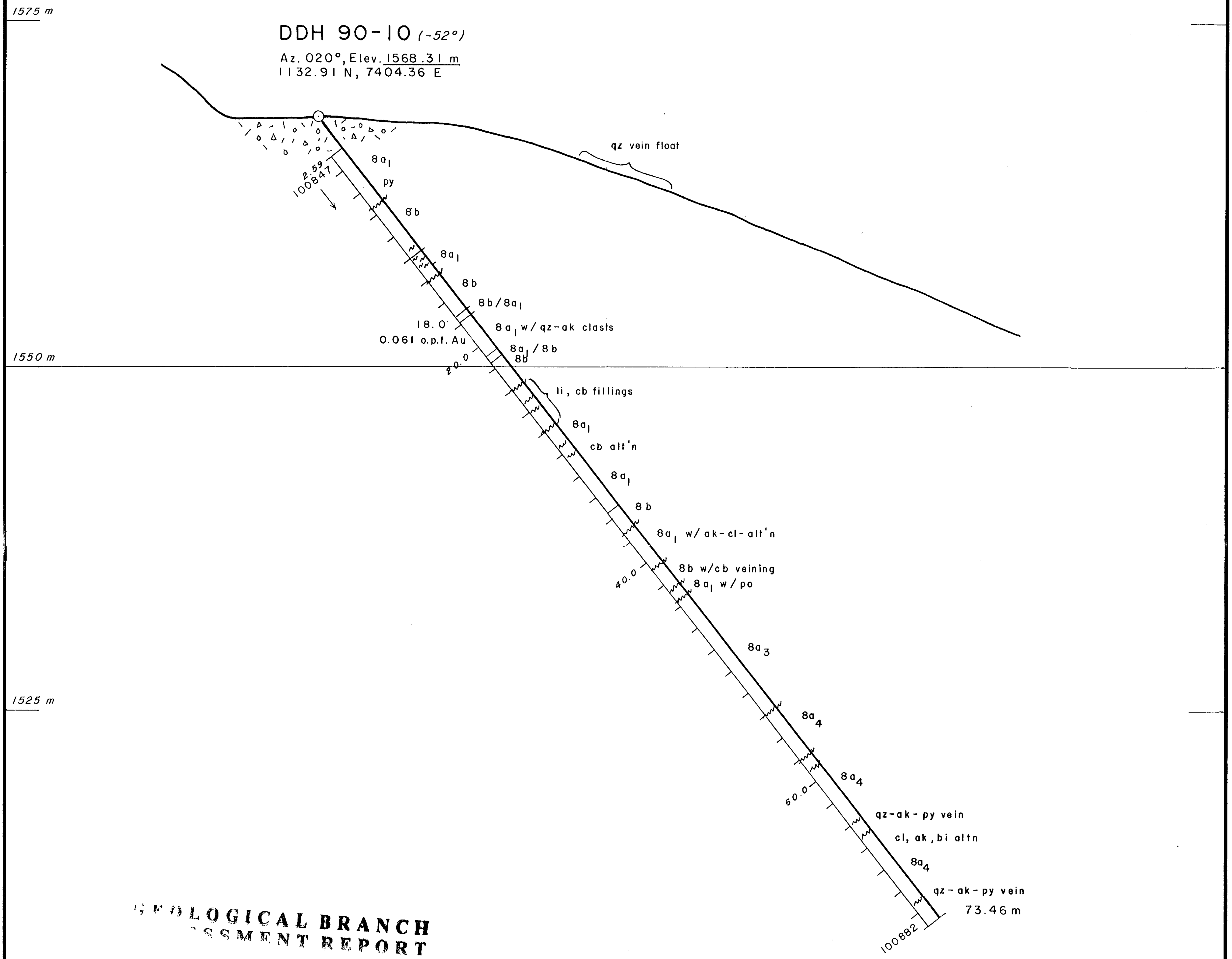
DDH 90-09

LOOKING NORTHWEST 348°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	25



— LEGEND —

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

- 8 a1 Quartz-chlorite-actinolite schist
- 8 a2 Actinolite-chlorite schist
- 8 a3 Meta-wacke
- 8 a4 Quartz-biotite +/- chlorite schist
- 8 a5 Argillite
- 8 a6 Quartzite

8 b Altered pyroxenites, foliated gabbros and mafic flow successions

0 5 10 15 20 25 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION

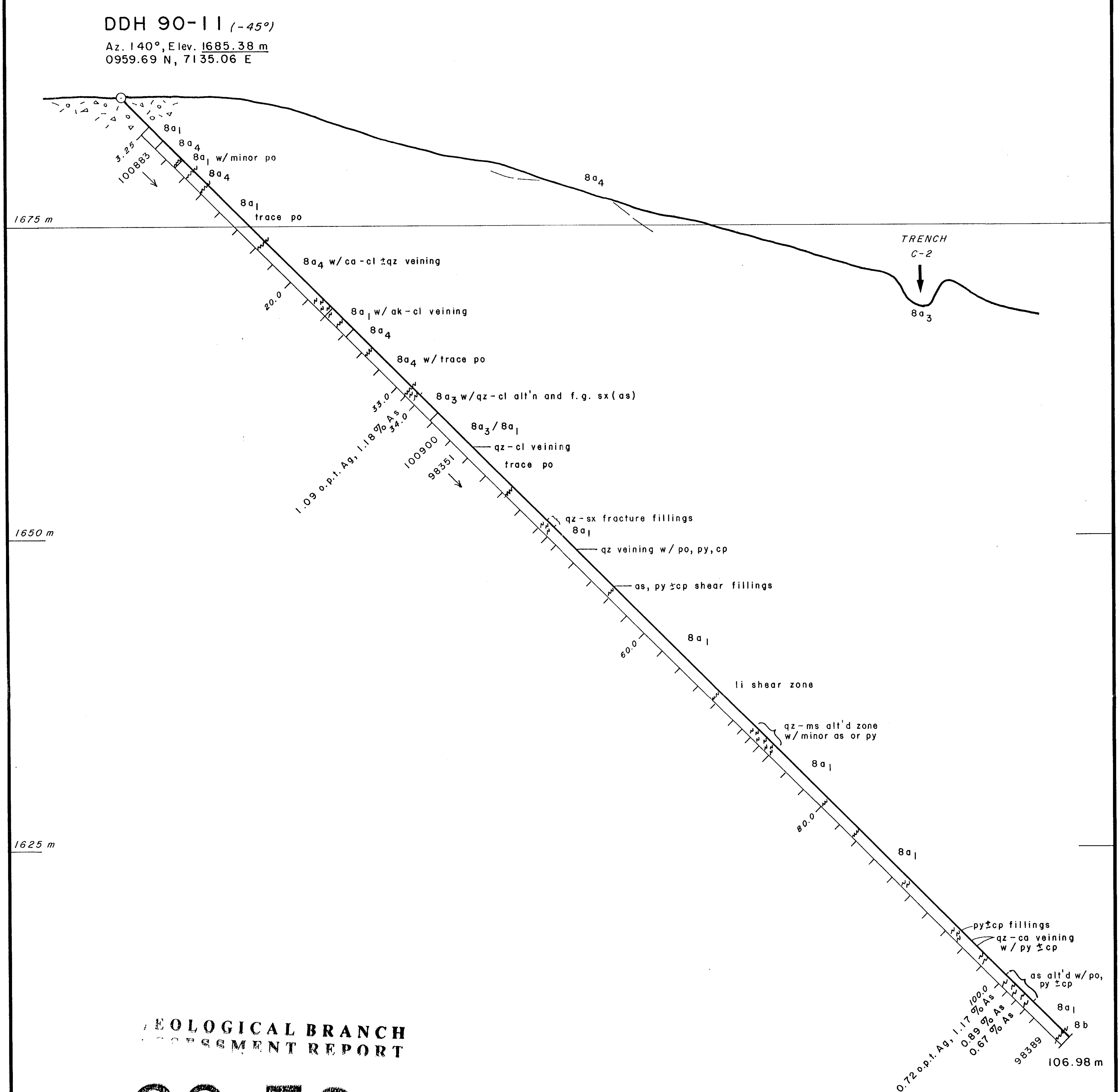
DDH 90-10

LOOKING NORTHWEST 290°

PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower
Drawn by: D. Miller	Scale: 1:250
Date: October 1990	Figure No.: 26



– LEGEND –

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS

8 a Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates

- 8 a1 Quartz-chlorite-actinolite schist
- 8 a2 Actinolite-chlorite schist
- 8 a3 Meta-wacke
- 8 a4 Quartz-biotite +/- chlorite schist
- 8 a5 Argillite
- 8 a6 Quartzite

8 b Altered pyroxenites, foliated gabbros and mafic flow successions

0 5 10 15 20 25 metres

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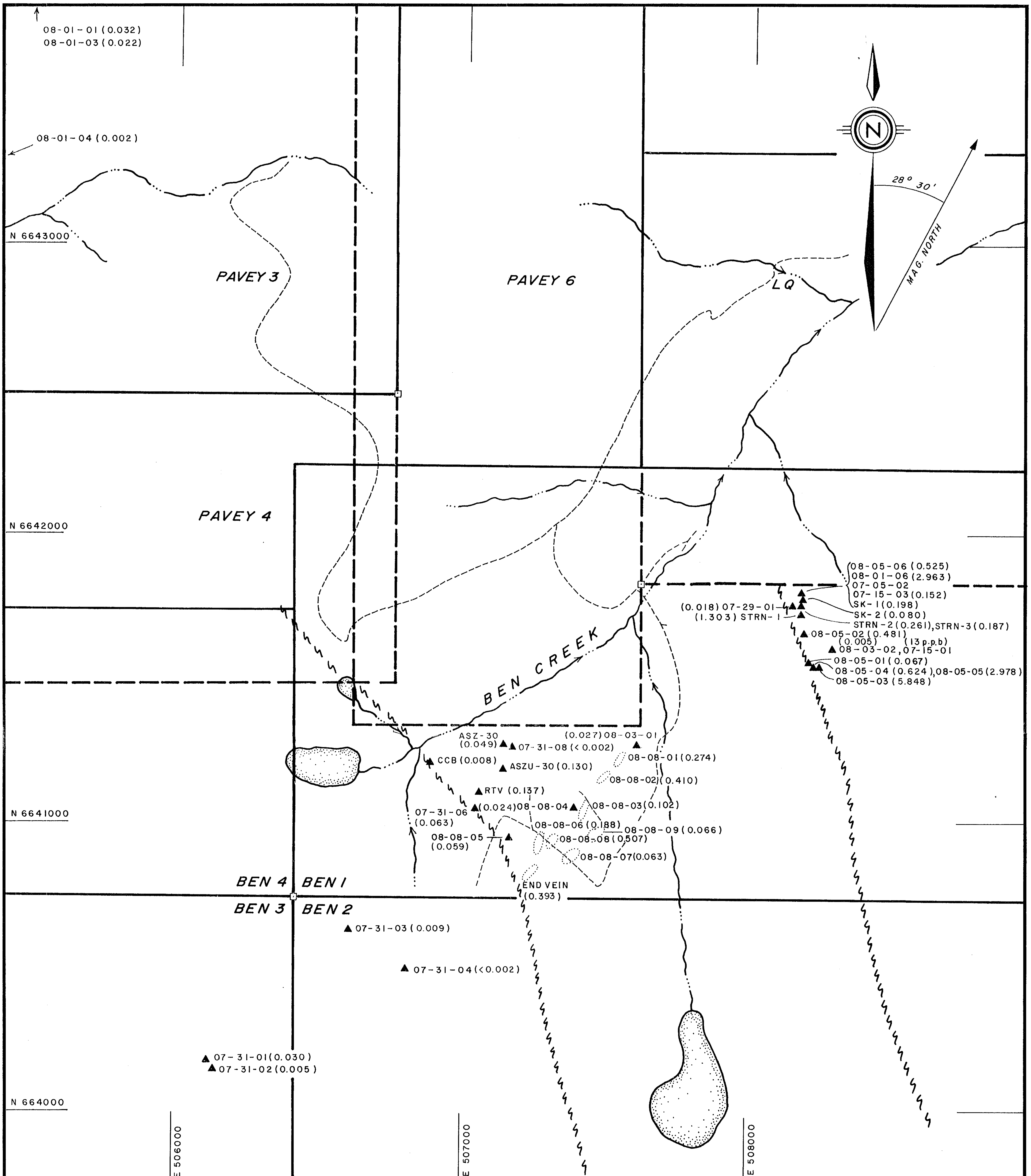
LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

DIAMOND DRILL HOLE CROSS SECTION
DDH 90-11

LOOKING NORTHEAST 050°
PAVEY PROPERTY
ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	J. D. Blanchflower		
Drawn by:	D. Miller	Scale:	1:250
Date:	October 1990	Figure No.:	27



— SYMBOLS —

Claim boundary ....

Legal corner post ....

Road ....

Creek ....

Fault ....

Sample location (grab, panel) ....

NOTE: Sample locations denoted with sample number and gold values (o.p.t.)

SCALE: 1:10,000

0 200 400 600 800 1000 metres

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LODESTAR EXPLORATIONS INC.
VANCOUVER B.C.

PROSPECTING PLAN

20581 PAVEY PROPERTY

ATLIN MINING DIVISION
NTS 104 M/15

Technical work by:	B. Lueck		
Drawn by:	D. Miller	Scale:	1:10,000
Date:	October 1990	Figure No.:	28