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REPORT ON THE

GEOLOGICAL AND GEOCHEMICAL SURVEY

OF THE

SPHALER EAST PROPERTY

CLIFF 1 - 9 CLAIMS

LIARD MINING DIVISION

N.T.S. 104B/14W, 1046/3W Latitude: 57°01'N Longitude: 131°21'W

For:

BRAIDEN RESOURCES LTD.

By:

Duane R. Lucas, B.Sc., F.G.A.C. Hi-Tec Resource Management Ltd. #1500 609 Granville St. Vancouver, B.C. V7Y 1G5 October 10, 1990



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1.0 INTRODUCTION

Commencing July 12, 1990 the writer with one assistant carried out a prospecting, mapping and sampling program on the Cliff 1 - 9 claims located in northwestern British Columbia (Figure 1). The purpose of the program was to follow up on recommendations made in the qualifying report prepared for Pezgold Resources (Awmack, June 1990), now known as Braiden Resources Ltd. Then, to assess the viability of the Cliff claims for future exploration. This was accomplished by:

- Geological reconnaissance mapping (1:10,000 scale) and prospecting of areas in which interesting or anomalous mineralization had been discovered in previous years. As well, to map and prospect those areas, access permitting, which had not been covered previously.
- 2. Establishing contour soil lines along appropriate breaks in slope across zones of anomalous or distinctive mineralization.
- 3. Heavy mineral concentrate sampling (field-sieved) from all accessible drainages which cut the Cliff 1-9 claims.
- 4. Lithogeochemical sampling of interesting zones of mineralization and/or alteration.

To this purpose, a total of 21 rock ship samples, 81 contour soil samples, 11 heavy mineral concentrates (field-sieved) and 5 back-up stream sediment samples were collected. The program and report were completed for Braiden Resources Ltd., 11th Floor, 808 West Hastings Street, Vancouver, B.C..



1.1 Location and Access

The Cliff 1-9 claims are located within the Coast Range of northwestern British Columbia approximately 100 kilometers south-southwest of Telegraph Creek and 155 kilometers northwest of Stewart (Figure 1) and are centered on 57[°] 01' North latitude and 131[°] 21' West longitude.

Access to the claims is available via light plane from Smithers, B.C. to the Porcupine airstrip, 360 kilometers to the northwest. From the sand and gravel airstrip at Porcupine, a short helicopter flight of 11 kilometers to the east brings one to the Cliff claims.

1.2 Claim Status

The Sphaler East property is composed of nine claims (Cliff 1 - 9) which cover 180 units for a total of 4500 hectares (Figure 2). The claims lie within the Liard Mining Division and are owned by Lacana Exploration Inc., an affiliate of Corona Corporation. The claims are now under option to Braiden Resources Ltd.

A possible discrepancy in the actual position of the claims and their plotted position on government maps was noted by H.J. Awmack in his qualifying report for Pezgold Resources Ltd. (June, 1990). An excerpt from his report is as follows:

"It should be noted that the Cliff 5, 6 and 9 claims have been incorrectly plotted on the government maps (Figure 2) with a 2400 metre north-south extent instead



of 2000 metres. If the legal corner posts are correctly plotted, this would result in a 300 metre gap between these claims and the Cliff 1, 2, 3, 4, 7 and 8."

Claim data is outlined in Table 2.2.1 below. The writer has not investigated the legal status of the claims or claim titles.

<u>Table 1.2.1</u>

Sphaler East Property - List of Claims

Claim <u>Name</u>	Record #	No.of <u>Units</u>	Record <u>Date</u>	Expiry <u>Date</u> *
Cliff 1	4836	20	July 21, 1988	1991
Cliff 2	4837	20	July 21, 1988	1991
Cliff 3	4838	20	July 21, 1988	1991
Cliff 4	4839	20	July 21, 1988	1991
Cliff 5	4840	20	July 21, 1988	1991
Cliff 6	4841	20	July 21, 1988	1991
Cliff 7	4842	20	July 21, 1988	1991
Cliff 8	4843	20	July 21, 1988	1991
Cliff 9	4844	20	July 21, 1988	1991

* Upon acceptance of this assessment report.

1.3 Topography, Climate and Vegetation

The Sphaler East property occupies an area of steep, mountainous and glaciated terraine typical of the Coast Range Mountains. Flanking Sphaler Creek, the claims extend up steep to shear slopes with elevations ranging from 300m at creek bottom to 1980m on the northern flank and 1825m on the southern flank. Sphaler Creek itself runs northeast to southwest across the claims and follows an impassable gorge until it reaches a





small flood plain on the western end of the property. A number of small creeks and waterfalls drain into Sphaler Creek, carrying runoff from glaciers which occupy high cirques along the northern and southern borders of the claims.

Situated in the "wet belt" of the Coast Range, the property receives an annual precipitation of 190 to 380 centimeters (Awmack, 1990). This is generally in the form of snow, except during the summer months. The lower slopes and flood plain are covered in thick stands of hemlock, spruce and fir with an undergrowth alder, devil's club and huckleberry. Steeper of sections are covered in slide alder and willow. The tree line is at the 1220m elevation on the southern slopes and 1370m elevation along the northern slopes. elevations carry heather and alpine The higher vegetation.

2.0 PREVIOUS HISTORY

The area around the Sphaler East property was first explored in the mid 1950's following the discovery of the Galore Creek copper - gold porphyry deposit in 1955. But more recently, it has seen a flurry of activity following a number of precious metal discoveries in close proximity to the Cliff claims.

Teck Corp. conducted a regional reconnaissance geochemical survey in the early 1980's which led to the Paydirt find located four kilometers northwest of the Cliff claims. This discovery defined 185,000 tonnes grading 4.11 grams of gold per tonne (Holtby 1985). As well, since 1986 several new finds such as the Gully Zone on the Trek property (adjoining Cliff 7 and 8 to the east) and the Deluxe Zone on the Wiser property which ajoins the Cliff claims in the west, have stimulated even greater activity.

The Cliff 1 - 9 claims were staked in July, 1988. Prospecting and sampling programs were carried out by Corona Corporation in 1988 with follow-up work in 1989 (Jones, 1989a, 1989b). Initial results from these two programs uncovered some anomalous base metal results, but nothing significant in the way of precious metals.

3.0 GEOLOGY

3.1 Regional Geology

The Sphaler East property area is situated at the western margin of the Intermontane Belt and bordered by the Coast Plutonic Complex. As described by Logan and 1989-1), it is (B.C.M.E.M.P.R., Paper Koyanagi underlain by rocks of the Stikine terrane which range in age from Upper Paleozoic to Tertiary (Figure 3). of marine sediments, limestones, This assemblage volcanics and volcanic derived sediments is cut by Mesozoic and Tertiary plutonic rocks of the main "Coast Complex", as well as the satellite Hickman, Yeheniko and Nightout plutons.

The oldest rocks in the area consist of Mississippian and older bimodal flows, volcanoclastics, interbedded carbonate and minor shale and chert. These rocks are capped by a Mississippian and Permian limestones with an apparent hiatus in deposition (i.e. licuna) between the Upper Paleozoic limestone and the Middle Triassic sediments.





LEGEND	
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	INTRUSIVE ROCKS
LAYERED ROCKS	TERTIARY
Qal UNCONSOLIDATED GLACIAL TILL AND POORLY SORTED ALLUVIUM	Tp PLAGIOCLASE PORPHYRITIC DIORITE
IDDLE JURASSIC(?)	Tm BIOTITE QUARTZ MONZONITE
mJs ARKOSE, SILTSTONES, ARENACEOUS WACKES	JURASSIC TO TERTIARY
UVER TO MIDDLE(?) JURASSIC	COAST INTRUSIONS
	JTg MEDIUM-GRAINED, PINK, BIOTITE GRANITE
ImJs LIMY SILTSTONES, FRIABLE SHALE, MAROON VOLCANIC CONGLOMERATE	
	JTm POTASSIUM FELDSPAR MEGACRYSTIC GRANITE TO MONZONITE
ImJcg POLYMICTIC, BOULDER CONGLOMERATE, GRANITE >> VOLCANIC CLASTS	
PPER TRIASSIC STUHINI GROUP (WHERE UNDIVIDED DENOTED AS uTSV)	
UTSS SILTSTONE, SANDSTONE, CONGLOMERATE, MINOR LIMESTONE CONTAINS Monotis	emggs Stenite, Orthoclase Pohphyhitic Monzonite
uTSt WELL-BEDDED GREEN AND MAROON LAPILLI-ASH TUFFS AND EPICLASTICS	eJm MEDIUM-GRAINED, HORNBLENDE, BIOTITE GRANODIORITE TO MONZONITE
	MIDDLE TRIASSIC HICKMAN BATHOLITH
UTSP PHORENCE ON PHILIP LOWS AND PRAGMENTALS	mTHd COARSE TO MEDIUM-GRAINED, BIOTITE, HORNBLENDE, AUGITE-DIO
UTSb INTERMEDIATE TO MAFIC FRAGMENTALS, BRECCIA, TUFF, LAHAR	
IDDLE TO UPPER TRIASSIC	P PYROXENITE
MASSIVE ANDESITE FLOWS AND THEES AMYODAL OIDAL BASALT	
IDDLE TRIASSIC	· · · · · · · · · · · · · · · · · · ·
IDDLE TRIASSIC CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY MTs SILTSTONES CONTAINING Haiobia	Geological contact (defined, approximate, assumed)
TIDDLE TRIASSIC CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY MTS SILTSTONES CONTAINING Haiobia STIKINE ASSEMBLAGE	Geological contact (defined, approximate, assumed) Uncontormable contact (defined, assumed)
IDDLE TRIASSIC mTs SILTSTONES CONTAINING Halobia STIKINE ASSEMBLAGE ERMIAN	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned)
IDDLE TRIASSIC mTs CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY SILTSTONES CONTAINING Haiobia STIKINE ASSEMBLAGE ERMIAN PI1 LIGHT GREY MASSIVE TO THICKLY BEDDED BUFF, BIOCLASTIC CALCARENITE	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned) Foliation
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned) Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed)
IIDDLE TRIASSIC The set of the s	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontat, inclined, overturned) Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed)
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned) Foliation Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed) Anticline (direction of plunge indicated) Syncline (direction of plunge indicated)
IDDLE TRIASSIC CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY SILTSTONES CONTAINING Haiobia STIKINE ASSEMBLAGE ERMIAN PI1 LIGHT GREY MASSIVE TO THICKLY BEDDED BUFF, BIOCLASTIC CALCARENITE DARK GREY TO BUFF THIN BEDDED, BIOCLASTIC LIMESTONE, CHERT INTERBEDS, ARGILLACEOUS NEAR BASE Pe FOLIATED MARCON AND GREEN EPICLASTICS AND LAPILLI TUFFITE ERMIAN AND OLDER	Geological contact (defined, approximate, assumed) Uncontormable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned) Foliation Fault (observed, interred) Thrust or high angle reverse fault (defined, assumed) Anticline (direction of plunge indicated) Syncline (direction of plunge indicated)
IDDLE TRIASSIC CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY TS SILTSTONES CONTAINING Haiobia STIKINE ASSEMBLAGE ERMIAN PI1 LIGHT GREY MASSIVE TO THICKLY-BEDDED BUFF, BIOCLASTIC CALCARENITE DARK GREY TO BUFF THIN BEDDED, BIOCLASTIC LIMESTONE, CHERT INTERBEDS, ARGILLACEOUS NEAR BASE Pe FOLIATED MARCON AND GREEN EPICLASTICS AND LAPILLI TUFFITE ERMIAN AND OLDER PV PLAGIOCLASE PORPHYRY FLOWS, VOLCANICLASTICS, PURPLE ASH TUFF, CHLORITE S	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontat, inclined, overturned) Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed) Anticline (direction of plunge indicated) Syncline (direction of plunge indicated) Minor fold axis. (S, Z, and M symmetry), lineation Joint
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontal, inclined, overturned) Foliation Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed) Anticline (direction of plunge indicated) Syncline (direction of plunge indicated) Minor fold axis. (S, Z, and M symmetry), lineation Joint SCHIST Dyke
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed) Unconformable contact (defined, assumed) Bedding (hor.zontat, inclined, overturned) Foliation Fault (observed, inferred) Thrust or high angle reverse fault (defined, assumed) Anticline (direction of plunge indicated) Syncline (direction of plunge indicated) Limit of geologic mapping (limit of permanent snow and ice)
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed)
IDDLE TRIASSIC CARBONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY TS SILTSTONES CONTAINING Haiddia STIKINE ASSEMBLAGE ERMIAN PI1 LIGHT GREY MASSIVE TO THICKLY BEDDED BUFF, BIOCLASTIC CALCARENITE DARK GREY TO BUFF THIN BEDDED, BIOCLASTIC LIMESTONE, CHERT INTERBEDS, ARGILLACEOUS NEAR BASE P0 FOLIATED MARCON AND GREEN EPICLASTICS AND LAPILLI TUFFITE ERMIAN AND OLDER FV PLAGIOCLASE PORPHYRY FLOWS, VOLCANICLASTICS, PURPLE ASH TUFF, CHLORITE S F3 C:LVEA PHYLLITE, SLATE AND PHYLLITG ARGILLITE RU UNDIVIDED GREEN AND MARCON FOLIATED METAVOLCANICS AND METASEDIMENTS IISSISSIPPIAN	Geological contact (defined, approximate, assumed)
IDDLE TRIASSIC The set of the se	Geological contact (defined, approximate, assumed)
IIDDLE TRIASSIC The set of the s	Geological contact (defined, approximate, assumed)
IIDDLE TRIASSIC TAREONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY TS CAREONACEOUS SILTY SHALE WITH ELLIPTICAL CONCRETIONS, SILICEOUS AND LIMY SILTSTONES CONTAINING Haidbia STIKINE ASSEMBLAGE ERMIAN PI1 LIGHT GREY MASSIVE TO THICKLY BEDDED BUFF, BIOCLASTIC CALCARENITE DARK GREY TO BUFF THIN BEDDED, BIOCLASTIC LIMESTONE, CHERT INTERBEDS, ARGILLACEOUS NEAR BASE P0 FOLIATED MAROON AND GREEN EPICLASTICS AND LAPILLI TUFFITE ERMIAN AND OLDER FY PLAGIOCLASE PORPHYRY FLOWS, VOLCANICLASTICS, PURPLE ASH TUFF, CHLORITE S FY CLIVER PHYLLITE, SLATE AND PHYLLITG ARGILLITE RU UNDIVIDED GREEN AND MAROON FOLIATED METAVOLCANICS AND METASEDIMENTS NISSISSIPPIAN MI1 DARK GREY, MASSIVE TO THIN BEDDED CALCARENITE, CHERT INTERBEDS MS PHYLLITE, TUFF, INTRAFORMATIONAL LIMESTONE CONGLOMERATE	Geological contact (defined, approximate, assumed)

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The oldest Mesozoic units are a sequence of Middle Triassic sediments composed of transitional silty shales, argillites and dolomitic siltstones. This sequence is overlain by the Stuhini Group which includes flows, tuffs, volcanic breccia and sediments and represents an emergent island-arc sequence. The Hickman Batholith and syentic porphyries of the Galore Creek Complex are coeval and comagmatic with the Stuhini volcanics. Mineral deposits in the area appear to be spatially and genetically related to these comagmatic alkaline plutons and the Stuhini. Middle Jurassic to Late Cretaceous successor-basin sediments (Bowser Lake Group?) overly the Stuhini Group and this sedimentary sequence is in turn overlain by a continental volcanic-arc package.

Cenozoic rocks are composed of bimodal subaerial volcanics from which most of the Quarternary fluvial and glacial deposits are derived.

The dominant tectonic fabric of the area trends north to northwest. Numerous faults striking north, north west, northeast and east have produced a fault-block mosaic of the area. The youngest faults (north to northeasterly trending) tend to dominate the immediate area of the Cliff claims.

3.2 Property Geology and Mineralization

The Cliff claims are underlain by a volcanosedimentary sequence of rocks which correlates with the Middle to Upper Triassic Stuhini Group. Lithologies within this Group consist of intermediate to mafic volcanic flows, tuffs, breccias and minor agglomerates overlain by



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thinly bedded shales, siltstones and occasional sandstones.

On the southern of flank Sphaler Creek, the sedimentary portion of the Stuhini predominates. These sediments consist of pyritiferous siltstones and shales with occasional interbeds of fine - grained grey sandstone. Pyritization appears to be diagenetic. The only mineralization of note encountered here was with a 1 m wide pod of stockwork - like quartz veinlets which contained visible sphalerite. Faulting along northeast, north. northwest and easterly trends produces a fault - block effect indentifiable within the sediments.

Along the southern border and southeastern quarter of the claims, volcanics are in contact with the sediments. The volcanics are composed of basalt to andesite flows, intermediate tuffs and agglomerates. Minor propylitic alteration was found within these volcanics in the southeast quarter of Cliff 9 claim. This alteration with occasional small zones of up to 5% pyrite bordered the trace of a northeasterly trending fault which runs onto the Trek property.

On the northern slope of the Sphaler (Cliff 1 & 2), a group of massive andesite and basalt flows are encountered as well as a unit of light to medium green dacitic tuff. This type of volcanic sequence appears to dominate most of the northern flank except for a small area in the southeastern portion of the Cliff 1 altered quartzite horizon claim where an was As well, a sequence of chert, siltstone encountered. and sandstone was found along the border of the Cliff 1 and 2 claim.



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Although occasional epidote alteration was discovered along discreet east-west trending shears in the volcanics, the most notable mineralization encountered on the northern flank of the Sphaler was found in the altered guartzite horizon. Located at the toe of a glacier, the pyritic, silicified quartzite contained a 3 - 5 metre wide shear zone which could be followed for approximately 300 metres along strike. The strike and dip of the shear is at 105 / 62°NE and it contained numerous thin quartz veinlets (1-3 cm thick) which were generally devoid of mineralization. One vein, the largest, which dilated and pinched (20 to 40 cm thick) down the centre of the shear zone did contain visible amounts of chalcopyrite (with malachite), sphalerite and possible galena. The shear zone appeared to pinch out abruptly in both strike directions.

In the southeast corner of the Sphaler East property (Cliff 9), evidence of a quartz monzonite stock was found in the form of float. The exact contact of this intrusive, which has been mapped as Tertiary in age, not determined due to permanent snow cover. was However, it should be noted that significant goldsilver showings on the Trek claims (bordering on the east of the Cliff claims) have been found in Stuhini rocks peripheral to this stock (Awmack, 1990). Previous mapping by Jones (1989) stated that this intrusive body on the Cliff claims was unaltered and economic mineralization found that was in no association with it.



4.0 GEOCHEMISTRY

4.1 Rock Samples

A total of 21 rock samples were collected during the nine day sampling program on the Cliff 1 - 9 claims. The samples consisted of approximately 2 to 3 kilograms of rock, placed in plastic bags and shipped to Eco Tech Laboratories in Kamloops, B.C. for analysis. Samples were analyzed for Au (10 gram fusion / F.A.), as well as Ag, Cu, Pb, Zn, and As (ICP). A description of analysis methods can be found in Appendix IV.

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The highest gold value returned at 780 ppb Au (0.023 oz/ton) was collected from a 1 metre pod of guartz veinlets in a pyritic shale on the Cliff 6 claim. This grab sample (#42222) also returned base metal values of 329 ppm Cu, 197 ppm Pb and 0.60 % Zn. The only other rock samples to show anomalous results were collected from the shear zone located in the southeast corner of Nine samples were collected from the Cliff 1 claim. the 20 - 40 cm wide quartz vein in the center of the shear, as well as the surrounding zone and the altered guartzite. Of these nine, 5 samples showed anomalous values in silver and base metals. Gold was only slightly anomalous in two of the nine samples.

Analysis for the nine samples from this zone are shown in the table 5.1.1 on the following page.



Table 4.1.1

SAMPLE#	SAMPLE TYPE	Au (pph)	Ag (α/t)	Cu	Pb (nnm)	Zn (% ppm)	As
	<u>JAMI DA III D</u>	Thhe	79/61	(o)ppm/	Thhml	(°, ppm)	(bbm)
42210	grab	35	0.2	62 ppm	13	88	15
42211	25 cm chip	30	94.2	0.448	675	276 ppm	23
42212	40 cm chip	265	106.8	0.13%	7	692 ppm	42
42213	grab	445	66.2	437 ppm	7	0.28 -	54
42214	1.5 m chip	80	34.4	441 ppm	56	116 ppm	234
42215	grab	10	1.5	33 ppm	2	28	23
42216	grab						19
42217	grab						12
42218	grab	15	4.8	0.15%	11	28 ppm	23

Sample locations can be found on the Sample Location and Geology Map (in pocket). Sample descriptions can be found in Appendix III.

4.2 Contour Soil Samples

Soil sampling was carried out at 50 metre intervals across slopes where spot anomalies had been previously defined (Jones, 1988, 1989). Samples were taken from "B" horizon soil when available, numbered and bagged in standard gusseted kraft soil bags. The contour interval was picked at the 1220 to 1250 metre (4000 to 4100 feet) level since at this elevation a natural break in slope occurred. This provided the opportunity to maintain an even soil line without running into impassable cliffs.

During the course of the program, a total of 81 soil samples were collected along three separate soil lines. Thirty-two soils were taken on Cliff 8 claim with two missed samples (4003, 4003) due to outcrop, 19 samples were collected on Cliff 3 and 4 claims and 30 soils were taken from the Cliff 6 claim. All samples were run on a five element ICP for Ag, Cu, Pb, Zn, and As plus gold fire assay. The highest gold value returned at 70 ppb was taken from the Cliff 8 soil line (Sample This soil line also provided some slightly #4014). anomalous base metal results such as sample #4023 at 308 ppm Cu, sample #4026 at 158 ppm Cu and 182 ppm Zn and sample #4032 at 232 ppm Cu and 186 ppm zn. Samples collected from Cliff 3 and 4 claims only provided one anomalous base metal value from sample #4054 at 693 ppm No anomalous gold values were detected. As for Cu. the soil line across Cliff 6, again no anomalous gold values were returned. The highest base metal value (#4068) was collected detected at 119 ppm Zn approximately 50 metres below a 1 metre wide stockwork of quartz veinlets which produced an anomalous zinc result of 0.6% Zn.

4.3 Heavy Mineral Concentrates

Eleven heavy mineral concentrates (field-sieved) were collected in the active portions of creeks which cut the claims from the north and south and drained into Sphaler Creek. A number of desired locations for sampling were inaccessible due to steep cliffs and high Sample HM90-006 and silt backup sample S4037 runoff. were found to be slightly anomalous in gold at 115 ppb and 55 ppb Au respectively. Both these samples were collected out of a creek which drains from a glacier on the Cliff 1 claim. This creek also cuts the east/west trending shear mentioned in section 5.1 which may account for the slightly anomalous result. The only other sample to produce anomalous results, at least in silver and base metals, was sample HM 90-004 taken from a creek which cut Cliff 5 claim. This sample returned values of 19.2 g/t Ag, 491 ppm Cu, 225 ppm Pb 683 ppm



Zn, and 416 ppm As. Sampling on the upper reaches of this creek in 1988 (Jones, 1989B) did not produce any correlative results in silver or base metals with HM 90-004. It should be noted, that the sample (HM90-004) was collected near the flood plain on Cliff 5 and may be the result of glacial or outwash debris.

4.4 Silt Sampling

A total of 5 silt samples were taken during the program. These silts were collected as backup samples for the heavy mineral concentrates especially in streams where insufficient material could be found for a valid heavy mineral concentrate sample. Of the 5 silts, sample S4037 produced the highest gold result at This sample was collected near HM90-006 55 ppb Au. which also produced the only anomalous gold result in heavy metals at 115 ppb. The only other silt to produce anomalous results in base metals was sample S4036 at 115 ppm Cu and 173 ppm Zn. This sample was produced collected near HM90-005 which slightly anomalous results 176 ppm Cu and 176 ppm.

Respectfully submitted, HI-TEC RESOURCE MANAGEMENT LTD.

October 10, 1990



5.0 REFERENCES

- Awmack, H.J. (1990): Pezgold Resource Corporation Qualifying Report on the Corona Option project; Galore Creek Area, Liard Mining Division (104B/14W, G/3W), June 1990.
- Brown, D.S., and Gunning, M.H. (1989a): Geology of the Scud River area, North Western British Colombia, (104G/5,6), <u>in</u> Geological Fieldwork 1988; British Colombia Ministry of Energy, Mines, and Petroleum Resources, Geological Survey Branch, Paper 1989-1, pp. 251-267.
- Continental Gold Corp. (1988): News Release dated April 5, 1988.
- Geological Survey of Canada (1988a): National Geochemical, Reconnaissance, Iskut River, British Columbia (NTS 104B); GSC Open File 1645.
- Jones, P.W. (1989a): Cliff #1, 2, 3, 4 Claims: Report submitted for assessment credit to the British Columbia Ministry of Energy, Mines, and Petroleum Resources.
- Jones, P.W. (1989b): Cliff #5, 6, 7, 8, 9 Claims; Report submitted for assessment credit to the British Columbia Ministry of Energy, Mines, and Petroleum Resources.
- Kerr, F.A. (1948): Lower Strikine and Western Iskut River Areas, British Columbia; Geological Survey of Canada, Memoir 246, 94 pp.
- Logan, J.M., and Koyanagi, V.M. (1989a): Geology and Mineral Deposits of the Galore Creek area, northwestern B.C., 104G/3,4, <u>in</u> Geological Fieldwork 1988; British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Survey Branch, Paper 1989-1, pp. 269-284.
- Logan, J.M., Koyanagi, V.M., and Rhys, D. (1989b): Geology and Mineral Occurrences of the Galore Creek Area; British Columbia Ministry of Energy, Mines and Petroleum Resources; Geological Survey Branch Open File 1989-8, Sheet 1 of 2.
- Monger, J.W.H. (1977): Upper Palaeozoic rocks of the western Canadian Cordillera and their bearing of Cordilleran evolution; Can. Jour. Earth Sci., B.14, pp. 1832-1859.

Panteleyev, A. (1976): Galore Creek map area, British Columbia, <u>in</u> Geological Fieldwork 1975; British Columbia Ministry of Energy, Mines, and Petroleum Resources; Geological Survey Branch, Paper 1976-1, pp. 79-81.

APPENDIX I

Statement of Costs



STATEMENT OF COSTS

BRAIDEN RESOURCE CORPORATION JOB 90BC025 SPHALER EAST PROJECT

<u>Salaries</u> Duane Lucas, Geologist, 7.50 days @ \$400/day \$1 Darwin Carstens, Assistant Geologist, 7.00 days @ \$300/day	3,000.00 2,100.00	\$ 5,100.00
Project Expense		
Project Preparation		1,016.50
Mobilization/Demobilization		5,485.64
Domicile 14.50 man days @ \$75/day		1,087.50
Geochemistry and Laboratory Service		
81 Samples @ \$1,00/sample preparation	81 00	
81 Samples @\$11.75/6 element ICP; Au Geochem	951.75	
Silts		
5 Samples 051.00/Sample preparation 5 Samples 0511 75/6 element ICP: Nu Geochem	5.00	
Bulk Stream	20.12	
11 Samples @\$2.25/sample preparation	24.75	
11 Samples @\$16.50/sample Ag, Cu, Pb, Zn, Mo, As, Geochem	181.50	
ROCKS 21 Samples 0\$3 75/sample preparation	70 75	
21 Samples @\$12.13/6 element ICP: Au Geochem	254.75	
2 Samples @\$6.50/sample Zn Assay	13.00	
3 Samples @\$6.50/sample Cu Assay	19.50	
4 Samples @\$8.50/sample Ag Assay	34.00	
Fax services 10 pages @\$.50/page	5.00	1,707.75
Helicopter Support		
Helicopter 3.60 hours @\$722.32/hour		2,600.36
Radio Rental .25 month @ \$250/month		62.50
Walkie Talkie		
2 units @ \$5/day/unit 14 days		140.00
Field Supplies		197.99
Expediting		175.00
Accounting, Communications, and Freight		275.05
Report Preparation, drafting and compilation		2,140.00
15% Management Fees		2,998.24
TOTAL COST		\$ 22,986.53

APPENDIX II

Statement of Qualifications

5

STATEMENT OF QUALIFICATIONS

- I, DUANE R. LUCAS, do hereby certify that:
- 1. I am a qualified geologist residing 3408 West 27th Avenue, Vancouver, B.C. V6S 1P6.
- 2. I am a graduate with a Bachelor of Science degree in Geology from the University of British Columbia and have practised my profession for 13 years.
- 3. I am a Fellow of the Geological Association of Canada.
- 4. The data contained within this report was oblained from personal field examination, published and unpublished reports and other sources of information acknowledged in the section on References.
- 5. I have no interest, nor do I expect to receive any interest in Braiden Resources Ltd. or the Sphaler East property.
- 6. The full text of this report as well as any accompanying maps may be reproduced in their entirety.

Dated in Vancouver, British Columbia, this 10th day of October 1990.

Lucas, B.Sc., F.G.A.C. Duane R.



APPENDIX III

Rock Sample Descriptions



ROCK SAMPLES

Cliff 1

SAMPLE #	SAMPLE TYPE	DESCRIPTION
42210	grab	fine-grained quartzite with interbedded bands of pyritic siltstone. Quartzite is med. grey to orange-brown. Py up to 20% in thin silty bands.
42211	25cm chip	Quartz vein (20cm thick) in silci- fied and pyritized quartzite. Quartz vein subparallel to bedding surface. Approx. <0.5% Py/Cpy in vein.
42212	40cm chip	Quartz as in 42211, but 20m west. Vein dilates to 40cm. <1% Cpy, <0.5% Py, trace Pb and Sph.
42213	grab	High grade grab of quartz vein at sample 42212
42214	1.5m chip	Silceous and altered (pyritized) quartzite in contact with sample 42211.
42215	grab	50cm quartz pod on siliceous, pyritic seds. 2% Py in quartz.
42216	grab	Orange-brown, pyritic interbedded fine grained quartzite. Py approx. 3%.
42217	grab	35m wide altered sed (fine grained quartzite) up to 5 - 8% Py.
42218	grab	Same vein zone as in 42211-13 but 350m west. Up to 25cm thick in a 5m wide zone of siliceous seds. <1% Py with minor Cpy.
42219	grab	Siliceous, chert, banded light tan to med. grey. Occasional thin laminae of pyrite rich sed.
42220	grab	Calcareous, green sandstone, fine to med. grained with occasional 1-2cm siliceous clasts.

-

SAMPLE #	SAMPLE TYPE	DESCRIPTION
42221	grab	Limonitic band of fine to med. grained sandstone. Approx 1m thick.
Cliff 3		
42208	grab	Siliceous light to med. grey andesite.
42209	grab	Epidotized, dark grey to med. green basalt.
Cliff 4		
No Samples	3	
Cliff 5		
No Samples	5	
Cliff 6		
42222	grab	Pyritic, rusty shales with 1m wide pod of thin anastomosing quartz veinlets.
Cliff 7		
No Samples	5	
Cliff 8		
42203	grab	Medium to dark grey mafic (basalt) volcanic. Very fine crystalline. No visible sulphides.
42204	grab	Fe-rich argillaceous seds., brown to orange-brown.
42205	grab	Mafic volcanic with thin epidote veinlets.
42206	grab	Fe-rich, Argillaceous seds, abundant limonite but no visable sulphides.
42207	grab	Siliceous andesite with very fine quartz veinlets. Trace of Py disseminated.

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APPENDIX IV

Sampling Methodology

and

Methods of Analysis



SAMPLING METHODOLOGY

A. <u>STREAM SEDIMENTS</u>

Silt Samples

Approximately 0.5 kg of silt was collected from the active stream channel, placed in a standard gusseted kraft bag and shipped to Eco Tech Laboratories in Kamloops. These samples were then dried and sieved to -80 mesh. A ten gram split of the sample was analyzed for gold by fire assay with atomic absorption finish. A one gram split of the remainder of the sample was analyzed for 30 elements using Aqua Regia extraction and ICP.

Heavy Mineral Samples

A sample of between 5 gm and 30 gm was panned in the field from two pans of -1.4 cm gravel and one pan of moss. The panned material was placed in 6 mil plastic bags and shipped to Eco Tech Laboratories Ltd. in Kamloops. A one gram split of this material was analyzed for silver, lead, copper and zinc using wet extraction and atomic absorption. The remainder of the sample was analyzed for gold using fire assay and atomic absorption finish.

B. LITHOGEOCHEMICAL SAMPLING

Approximately 2 kg of rock was collected and placed in 6 mm plastic bags and shipped to Eco Tech Laboratories in Kamloops. This material was crushed and pulverized to -140 mesh and a 1 assay ton split taken. The split was analyzed for gold using fire assay and atomic absorption finish. Another 10 gm split was analyzed for copper, lead, zinc and silver using wet extraction and atomic absorption finish.

C. SOIL SAMPLES

Approximately 0.5 kg of "B" horizon soil, where available, or talus fines where not, was placed in standard gussetted kraft bag and shipped to Eco Tech Laboratories in Kamloops. This material was dried and sieved to -80 mesh. A 14 gram sample was analyzed for gold using fire assay and atomic absorption finish. Another one gram split was analyzed for 30 elements using Aqua Regia extraction and ICP.



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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

Einish

Finish

Finish

Finish

Einish

ICP

Hot aqua-regia

Atomic Absorption, background correction applied where appropriate

Hydride generation - A.A.S.

Hydride generation - A.A.S.

A) Multi-Element ICP

Digestion

Hot aqua-regia

2. Antimony

Digestion

Hot aqua regia

3, Arsenic

Digestion

Hot aqua regia

4. Barium

Digestion

Lithium Metaborate Fusion I.C.P.

OUG 10 290 14.50

604 573 4557



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- - -

	5.	Beryl	lium	
			Digestion	Einich
			Hot aqua regia	Atomic Absorption
	6.	Bismu	th	
			Digestion	Finish
			Hot aqua regia	Atomic Absorption
	7.	Chrom	ui um 🗤	
			Digestion	Finish
·			Sodium Peroxide Fusion	Atomic Absorption
	8	Fluor	100	
	•••	6 6 4 4 4	Dicestion	Finich
			Lithium Motoborate Euciep	Lon Calentium Electroda
	•			ION SELECTIVE ELECTRODE
	9.	Nercu	lry	
			Digestion	Einish
			Hot aqua regia	Cold vapor generation - A.A.S.
ana - 5	10.	Phos	phorus	
			Digestion	Finish
			Lithium Metaborate Fusion	I.C.P. finish
	11_	Selen	Li 1100	
			Digestion	<u>Finish</u>
			Hot aqua regia	Hydride generation - A.A.S.
_	12.	Tellu	arium.	
			Digestion	<u>Finish</u>
			Hot aqua regia Potassium Bisulphate Fusion	Hydride generation - A.A.S. Colorimetric or I.C.P.

OUG 10 100 14.ED

DOCE BO



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13. **Tin**

Digestion

Finish

Finish

Ammonium Iodide Fusion

Hydride generation - A.A.S.

14. Tungsten

Digestion

Potassium Bisulphate Fusion Colorimetric or I.C.P.

15. Gold

Digestion

Finish

Atomic Absorption

Fire Assay Preconcentration followed by Aqua Regia

16. Platinum, Palladium, Rhodium

ALLA 10 100 14.001

Digestion

Finish

Fire Assay Preconcentration followed by Aqua Regia

Graphite Furnace - A.A.S.

APPENDIX V

Analytical Results

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ASSAYING - ENVIRONMENTAL TESTING 1004: East Trans Canada Hwy., Kamioopa, B.C. V2C 2J3 (804) 673-6700 Fax 573-4557

AUGUST 3, 1990

تورد الأسادم

CERTIFICATE OF ANALYSIS ETK 90-356

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SAMPLE	IDEN	TIFICATION:	16 ROCK	samp	oles re	ceived	JULY 25	, 1990		•
		• •=				PROJECT	: 90-B	C-025	CLIFF	
						SHIPMEN	IT NO.:			
			,	AU	AG	្រុំបុ	PB	ZN	AS .	
ET♯	Đ	escription	(p	(dq)	(ppm)	(ppm)	(mdd)	(ppm)	(ppm)	
- ====================================	===== 1	42203		155	.2	91	ـــــــــــــــــــــــــــــــــــــ	81		2
356 -	2	42204		10	.1	61	2	67	13	
354 -	З	42205		45	.1	120	Э	73	41	
356 -	4	42206		15	.2	108	14	89	9	
356	5	42207		20	.1	91	6	38	11	
356 -	6	42208		15	-1	74	2	74	5	
356 -	7	42209		190	.7	206	3	69	3	
386 -	8	42210		35	.2	62	13	83	15	
356 -	9	42211		30	>30	>1000	675	276	23	
356 -	10	42212		26,5	ं÷)30	>1000	7	672	42	
356 -	11	42213		445	> 30	437	7	>1000	54	
356 -	12	42214		60	> 30	441	56	116	234	
356 -	13	42215		10	1.5	5 33	2	23	23	
356 •	14	422.16		30	. 2	2 82	2 10	82	19	
356 -	15	42217		20	-1	67	' 15	70	12	
356 -	16	42218-		15	4,8	3 →1000	> 11	25	23	1

NOTE: > = GREATER THAN

ECH LABURATORIES LTD. ECP JUTTA JEALOUSE D.C/ Certified Assayer

FAX: J. FOSTER 1-687-2307 cc: V. KURAN HI-TEC

ABSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Ilwy., Kamioopa, B.C. V2C 2J3 (804) 573-5700 Fax 573-4557

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JULY 31, 1990

CERTIFICATE OF ANALYSIS ETK 90-353

RIME EXPLORATIONS LTD. .O. BOX 10, 10TH FLOOR 08 WEST HASTINGS STREET ANCOUVER, B.C. 6C 2X4

TTENTION: JIM FOSTER

AMPLE I	DENT	IFICATION:	5 ROCI	< sample	es rece	ived JU	LY 25,	1990	
					P	ROJECT:	90-BC	-025 CL	IFF
					31	HIPMENT	NO.:		
				AU	Ag	ດປ	PB	ZN	AS
ett	De	scription		(ppp)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
353 -	1	42219		25	.2	129	64	63	63
3 53 -	2	42220		< 5	<.1	42	12	97	6
253 -	3	42221		<5	<.1	20	15	62	11
353 -	4	42222		780	1.1	329	197	>1000	16
353 -	5	42223		<5	•7	210	15	43	6

NOTE:

CH LABORALOKIES LTD. JUTTA JEALOUSE B.C. Certified Kssayer

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FAX: J. FOSTER 1-587-2309

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V. KURAN HI-TEC ==:



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AUGUST 3, 1990

CERTIFICATE OF ANALYSIS ETK 90-356

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR BOB WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ASSAYS

ATTENTION: JIM FOSTER

SAMPLE	IDEN	TIFICATION:	16	ROCK	samples	re	ceived .	JULY 25	, 1990		
						1	PROJECT	: 900	C-025	CLIFF	
							Shipmen	T NO.:			
					1	AG	CU	7N			
ET#	(Description			(y/	t)	(%)	(mqq)			
=======	=====			=====	=======	===		2222222	=====	222222	22923
356	9	42211			94	.2	.44				
356 -	10	42212			106	.8	.13				
356 -	11	42213			66	.2		.28			
356	12	42214			34	.4					
356 -	16	42218			•						

NOTE: > = GREATER THAN

CH LABORATORIES LTO. JEALBUSE Cervified/Assayer B.C

FAX: J. FOSTER 1-687-2309

cc: V. KURAN HI-TEC

SC70/HIGH ICC 011

0° 1 0041 East Trans Canada Hwy.	Кетюорь, В.С. V2C 2J3 (804) 573-6700 Гах 570 4557
	JULY 31, 1990
	ERTIFICATE OF ANALYSIS ETK 90-353
RIME EXPLORATIONS LTD. .O. BOX 10, 10TH FLOOR OB WEST HASTINGS STREET ANCOUVER, B.C. 5C 2X4	. A S S A Y
TTENTION: JIM FOSTER	
AMPLE IDENTIFICATION: 5 ROCK samp	les received JULY 25, 1990 PROJECT: 90-BC-025 CLIFF
ET# Description	ZN (%)
53 - 4 42222	.60
OTE:< = LESS THAN > = GREATER THAN	ECO-TECH LABORATORIES LTD.
TAX: J. FOSTER 1-687-2309	B.C. Cortified Assayer
2C: V. KURAN HI-TEC	

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AUGUST 16, 1990

CERTIFICATE OF ANALYSIS BTK 90-351

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V5C 2X4

ATTENTION: JIM FOSTER

SAMPLE IDENTIFICATION: 7 PAN CONCENTRATE SAMPLES FOR HEAVY MINERAL CONCENTRATION received July 25, 1990 (3G 2.96)PROJECT: 90-BC-025 CLIFF SHIPMENT NO.: λIJ CU λĢ PB ZN λS MO BT 2 Description (bbw) (ppm) (gpp) (ppm) (ppm) (ppm) (ppm) 351 -HM 90 - 001 1 10 8.3 270 164 40 312 17 351 -HM 90 - 0025 2 7.4 67 27 92 72 20 351 -3 HM 90 - 003 25 .3 50 13 9 46 18 HM 90 - 00419.2 351 -4 5 491 225 683 416 21 KK 90 - 005 5 351 ~ 5 3.2 176 30 176 89 5 351 -6 . HM 90 - 006 115 70 .1 37 5 3 8 HM 90 - 007351 -7 5 <.1 188 11 48 14 3

NOTE: < = LESS THAN

ECO-TECH BABORATORIES LTD. PRANK J. PEZZOTTI, A.SC.T. B.C. Certified Assayer

FAX: J. FOSTER 1-687-2309

cc: V. KURAN HI-TEC



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ASSAYING - ENVIRONMENTAL TESTING 10041 East Trane Canada Hwy., Kamioope, B.C. Y2C 2J3 (004) 573-5700 Fax 573-455/

AUGUST 16, 1990

CERTIFICATE OF ANALYSIS ETK 90-358

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SAMPLE IDENTIFICATION: 2 PAN CONC. SAMPLES FOR HEAVY MINERAL CONCENTRATION RECEIVED JULY 25, 1990 (SG 2.96) PROJECT: 90-BC-025 SHIPMENT NO. : λU AG CU ¥2 PB ZN MÓ Description ET (ppb) (ppm) (ppm) (ppm) (ppm) (ppm) (ppm) #분원화 정법을 모수님의 조직 중 문제로 김 HM - 90 - 0085 <0.1 1 80 9 358 -52 11 9 2 HM - 90 - 009 15 <0.1 71 358 -10 54 11 4 NOTE: < = LESS THAN

ECO-TECH ABORATORIES LTD.

FRANK J. PEZZOTTI, A.SC.T. B.C. Certified Assayer

FAX: J. FOSTER 1-687-2309

cc: V. KURAN HI-TEC



ECO-TECH LABORATORIES LTD.

ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kambooda, B.C. V2C 2J3 (804) 573-9700 Fax 573-4557

AUGUST 16, 1990

CERTIFICATE OF ANALYSIS ETX 90-355

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PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH PLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SANPLE	IDENTIFICATION:	2 PAN CONC. received Ju	sample ly 25, P	s for HI 1990 ROJECT:	SAVY MI) 90-BC	NERAL C SG 2.95 -025	ONCENTR)	ATION	
et !	Description	AU (ppb)	8 AG (ppm)	HIPHENT Cu (ppm)	NO.: PB (ppm)	ZN (ppm)	AS (ppm)	H0 (ppm)	
355 - 355 -	1 HM - 90 - 2 HM - 90 -	010 S 011 20	••••••••••••••••••••••••••••••••••••••	64 70	23 24	112 87	27 36	6 9	*====
NOTE:	< - LESS THAN			1 and the second		1.			

ECO-TECH LABORATORIES LTD.

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

FAX: J. FOSTER 1-687-2309

cc: V. KURAN HI-TEC

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ASSAYING - ENVIRONMENTAL TESTING 10041 East Trong Coneda I Iwy., Kambopus, B.C. V2C 2J3 (804) 573-5700 Fax 5/34557

JULY 31, 1990

CERTIFICATE OF ANALYSIS ETK 90-350

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SAMPLE	IDENT	IFI.	CATION:	32	SOIL	samp	les re	ceived J	ULY 25,	1990	
						ΔU	٨G	CU	PB	7.N	P.4
ET#	De	sci	ciption			ppb)	(ppm)	(ppm)	(ppm)	(mgg)	(mad)
350 -	1	8	4001			<5	<.1	100	14	103	14
350 -	2	2	4002			<5	<.1	58	21	105	6
350 -	3	9	4004			<5	<.1	. 44	16	107	3
350 -	4	S	4005			<5	<.1	. 67	17	121	4
350 -	5	9	4006			<5	<.1	. 79	15	81	4
350 -	6	5	4007			<5	<.1	. 46	11	08	60
350 -	7	S	4008			5	<.1	. 18	9	48	13
350 -	8	g	4009			<5	۲.1	. 149	20	145	65
350 -	9	8	4010			<5	<.1	46	12	91	31
350 -	10	S	4011			<5	<.1	L 29	21	88	22
350 -	11	8	4012			<5	<.1	L 48	13	95	38
350 -	12	8	4013			10	<.:	L 40	11	101	23
350 -	13	S	4014			70	<.:	L 23	14	70	49
350 -	14	5	4015			15	<	1 109	19	145	. 65
350 -	15	5	4016			< <5	<	1 54	16	100	40
350 -	16	3	4017			<5	<.	<u>1</u> 46	10	76	25
350 -	17	5	4018			<5	く.	1 33	12	80	31
350 -	18	3	4019			<5	<.	1 35	9	79	22
350 -	19	3	4020			<5	<.	1 57	11	94	48
350 -	20	9	4021			5	<.	1 83	10	135	78
350 -	21	5	4022			< 5	<.	1 132	9	107	56
350 -	22	8	4023			5	く.	1 308	11	89	40
350 -	23	g	4024			< 3	<.	1 82	12	108	52
350 -	24	3	4025			<5	<.	1 49	14	87	60
350 -	25	Ē	4026			<5	<.	1 158	17	182	52
350 -	25	8	4027			<5	<.	1 141	. 12	97	45
350 -	27	S	4028			5	<.	1 127	15	5 157	32
350 -	28	S	4029			<5	<.	1 92	: 16	104	29
350 -	29	S	4030			<5	<.	.1 94	1 17	124	17
350 -	30	3	4031			<5	· · <,	.1 179) 16	5 · 172	20

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PRIME EXPLORATIONS LTD.

ET# D	escription	AU (dqq)	AG (ppm)	CU (ppm)	PB (ppm)	NZ (ppm)	AS (ppm)
350 ~ 31 350 - 32	S 4032 S 4034	<5 <5	<.1 <.1	232 26	17 10	185 56	49 8
NOTE: < = L	ESS THAN		E	TTA JE	LABOHA	Z Diles	2 LTD,
FAX: J.FC	STER 1-687-2309			.y. Cer	LIFIEd	мазаўсі	
cc: V. KU	JRAN HI-TEC		\bigcirc				

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SC90/HIGH TEC-011

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FRUM ECU-LECH KHALUUPS



ECO-TECH LABORATORIES LTD.

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JULY 31, 1990

CERTIFICATE OF ANALYSIS ETK 90-357

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

ATTENTION: JIM FOSTER

SAMPLE IDENTIFICATION: 19 SOIL samples received JULY 25, 1990 PROJECT: 90-BC-025 CLIFF

									S)	HIPMENT	NU.:			
	充 冗業		De	scr	ip	tior	r	ע (קקק)	AG (ppm)	CU (ppm)	PB (ppm)	ZN (ppm)	AS (ppm)	
								z = = = = = = = = = = = = = =	========		*******	******	スカマネオアダラ	•
-	: # * * * . <u>*</u> **		1	 c		<u>an</u>	39	10	. 2	74	9	86	10	
		-	⊥ 2	- -	_	70 70	40	15	< . 1	32	10	39	6	
\mathbf{i}		-	2	3	-	40		5	.7	58	8	60	. 5	
	357	-	5	3	-	40	41	5	~ 1	38	11	73	9	
	357	-	4	3	-	40	42	10	× • ±	105	6	57	8	
-	357	-	5	8	-	40	43			34	à	50	5	
	357	-	6	S	-	40	44			10	~ ~	56	Ă	
	357	-	7	S	**	40	45	10	<.1	74	, , , , , , , , , , , , , , , , , , ,	50	2	
	357	-	8	S	-	40	46	: 10	-1	55	3	80	2	
	357	-	9	S	-	40	47	10	<.1	35	13	52		
	357	-	10	3	-	40	48	10	<.1	33	9	23	2	
	357	_	11	3	-	40	49	<5	<.1	23	8	62	2	
	257	_	12	g	_	40	50	5	<.1	16	8	37	3	
	301 757		12	g	-	40	51	<5	<.1	40	6	40	1	
	32.1	-	2.4	0	_	30	52	<5	<.1	67	10	56	2	
	351	-	14		_	40	52	<5	<.1	49	7	76	2	
	357	-	TD	3	_	40	23 5 A	10	<.1	693	14	88	8	
	357	-	16	చ	-	40	74	25	2.1	17	10	43	2	
	357	-	17	S	_	40	33	<u>ح</u>	< . 1	37	7	59	6	
	357	-	18	3	~	40	20	ر ء ⁄	2 1	A7	ġ	53	5	
	357	-	19	3	-	40	57	50	N • •	-3 /	-	3.		

NOTE: < = LESS THAN

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

FAX: J. FOSTER 1-687-2309 CC: V. KURAN HI-TEC



JUTICHI LABUMAIWMICO LIW.

ASSAYING - ENVIRONMENTAL TESTING 10011 Gall Tama Canada Lawy., Kamiogra, 9 C. Vic 313 (2014) 573.5700 Eav 573.4557

JULY 31, 1990

CERTIFICATE OF ANALYSIS ETK 90-354

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4

OFTION

SPADLER EAST

ECH LABORATORIES LTD.

Certified Assayer

JEALOUSE

B.C

BRAIDEN

ATTENTION; JIM FOSTER

SAMPLI	E IDEN	TIF	ICATION:	30 SO:	IL samp	les rea	ceived J	ULY 25.	1990	
	***				-		PROJECT:	90-BC-	-025 C	LIFF
						1	SHIPMENT	NO.:		
					AU	AG	CU	PB	ZN	AS
et#	Ľ	esc	ription		(ppb)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
알 쓴 는 두 번 :	252248			· 말 및 조 및 및 :		****	********		======	222222222
354 -	1	3	4058		5	<.1	52	13	71	12
354 -	2	8	4059		<5	<.1	29	16	65	10
354 -	3	5	4060		<5	<.1	62	17	85	15
354 -	4	\$	4061		5	<.1	74	23	103	35
354 -	5	S	4062		<5	<.1	66	20	83	20
354 -	6	5	4063		10	<.1	45	18	84	38
<u> </u>	-7	ន	4064		くち	<.1	32	19	74	20
° 354 -	8	\$	4065		<5	<.1	60	18	71	34
354 -	9	Ŝ	4066		45	<.1	15	8	90	12
354 -	10	S	4067		10	<.1	92	13	91	72
354 -	11	5	4068		<5	<.1	62	21	119	41
354 -	12	S	4069		<5	<.1	19	10	41	38
354 -	13	5	4070		<5	<.1	62	19	92	34
354 -	14	5	4071		<5 ·	<.1	70	12	73	18
354 -	15	5	407Z		<5	<.1	44	14	77	23
354 -	15	3	4073		<5	<.1	74	15	110	50
354 -	17	3	4074		10	<.1	53	14	88	26
354 -	18	S	4075		<5	<.1	30	19	41	17
354 -	19	5	4076		<5	<.1	98	20	86	26
354 -	20	5	4077		10	<.1	111	26	101	29
354 -	21	9	4078		<5	くい	59	16	81	21
354 -	22	\$	4079		< 5	<.1	66	21	95	22
354 -	23	8	4080		<5	<.1	15	16	41	8
354 -	24	S	4081		<5	<.1	105	24	117	32
354 -	· 25	8	4082		5	<.1	47	21	77	22
354 -	- 26	5	4083		<5	<.1	92	17	92	29
354 -	- 27	3	4084		<5	<.1	31	19	54	24
354 -	- 28	S	4085		. 10	<.1	. 53	18	88	21
354 -	- 29	S	4086		5	<.1	69	16	99	17
354 -	- 30	8	4087		<\$	<.1	. 40	15	84	21
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NOTE:	; { =	LE	58 THAN				∕~i#d		1a Val	50

FAX: J. FOSTER 1-687-2309 cc: V. KURAN HI-TEC ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamiooos, B.C. V20 2J3 (004) 573-5700 Fax 573-4557

JULY 31, 1990

CERTIFICATE OF ANALYSIS ETK 90-349

PRIME EXPLORATIONS LTD. P.O. BOX 10, 10TH FLOOR 808 WEST HASTINGS STREET VANCOUVER, B.C. V6C 2X4 ATTENTION: JIM FOSTER SAMPLE IDENTIFICATION: 5 SILT samples received JULY 25, 1990 PROJECT: 90-BC-025 (; (----------SHIPMENT NO .: CU PB λŚ AU AG ZN Description ET# (ppb) (ppm) (ppm) (mgg) (ppm) (ppm) <.1 12 75 11 349 g 4032A <5 52 1 10 18 40 2 8 4035 <.1 . 77 92 349 -Ŝ 10 22 173 90 349 -3 4036 <.1 155 42 18 g 4037 55 <.1 62 8 349 -4 <.1 79 10 54 10 349 -3 4038 5 5 < = LESS THAN NOTE: Sen a TECH LABORATORIES LTD. BUTTA JEALQUSE B.C Cert/fied/Assayer J. FOSTER 1-687-2309 FAX: V. KURAN HI-TEC CC: SC90/HIGH TEC-011



ABBREV	VIATIONS	
cib - chlorite	sil. – silicified	🛆 Rock Sample
ep. – epidote	sed. – sediments	🗋 Representative Rock Sa
· goss.— gossan	vol. — volcanics	O Silt Samole
int. — intrusive	vns. — veins	
· qtz. — quartz		i < 5% Outcrop
		ii

2	
CR AU-PPB	
55 5 177 5 67 5 61 10 378 5	
175 5 65 5 60 5 175 5	
119 5 120 10 60 5 104 15 162 15	
158 5 67 5 111 15 62 10 73 10	
60 S 112 S 73 10	
CR AU-PPB 130 5 95 5 84 10	
119 5 54 10 74 5 123 20	
66 S 41 S 80 S 85 S	
103 5 73 5 106 10	
CR AU-PPB 85 10 72 5 115 5 48 5	
47 5 64 5 CR AU-PPB	
79 10 77 10 64 10 105 5	
138 5	
CR AU-PPB 49 10 64 5 59 5	
43 5 94 5 162 10	
CR AU-PP6 171 5 53 5 37 10	
61 5 58 5 90 5 81 10	
95 10 143 5 82 10 82 5	
101 5 81 5 93 5 147 60 145 30	
E4 5 108 5 77 5 87 5	
CR AU-PPB 76 S	
CR AU-PPS 72 15 63 20	
54 60 62 5 70 30 93 40 116 20	
81 5 86 5 65 5 85 10	
CR AU-PPB 72 5	
97 5 68 5 86 10 74 10	
99 5 105 5 81 10 123 5 67 5	
69 5 68 5	
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