Title: Geochemical and Geological Report on the *Jana-Butte-Royal-Standard Claim Group*

Claims:

Jana		1195(1)
Butte 1		1214(1)
Butte 2		1213(1)
Lion 1	L1940	788(5)
Lion 7	L1943	789(5)
Bulldog 7	L1945	790(5)
Royal 1	L5640	791(5)
Royal 2	L5643	792(5)
Royal 8	L5648	793(5)
Royal 9	L5649	794(5)
Royal 10	L5650	795(5)
Royal 11	L5681	796(5)
Royal B.Fr.	L5683	797(5)
Unicorn 4	L1941	800(6)
Trail 2	L1944	801(6)
Unicorn 6	L1942	802(6)
Royal	L5641	803(6)
Royal 3	L5642	804(6)
Royal 5	L5644	805(6)
Royal 4	L5645	806(6)
Royal 7	L5646	807(6)
Royal 6	L5647	808(6)
Royal A.Fr.	L5682	809(6)
Royal C.Fr.	L5684	810(6)
Energy 1		1589(11)
Energy 2		1590(11)
Energy 3		1591(11)

Mining Division: Lillooet

NTS Location: 50° 43'N 122° 39'W

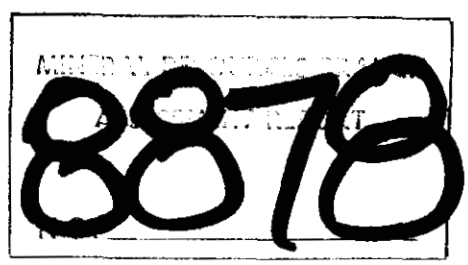
Owner: Hillside Energy Corporation

Consultant: Nevin Sadlier-Brown Goodbrand Ltd.

Author: John Ostler, M.Sc.; Consulting Geologist

Work Done: October 20th - 29th, 1980

Submitted:



SUMMARY

Nevin Sadlier-Brown Goodbrand Ltd. was retained by Hillside Energy Corporation as its technical consultant on the Jana-Butte-Royal-Standard property.

J.B.P. Sawyer, P.Eng.; the Hillside Energy Corporation engineer, recommended an exploration progam including a soil geochemical survey and geological mapping.

In May 1980, D.J. Brownlee conducted a soil geochemical survey on a 0.8 km^2 grid originating at the Jana legal corner post. The writer expanded the soil survey, conducted a program of geological mapping over the soil grid and sampled old workings on the property in accordance with the engineer's recommendations.

A sequence of Fergussen andesites and siltstones striking southeast and dipping steeply to the south underlies the soil grid. Andesites have been partially melted to diorites near the Royal Adit.

Soils were analysed for zinc, gold, arsenic, mercury, tungsten. The zinc distribution conforms to stratigraphic trends. Zinc anomalies near the central part of the grid seem to be due to stratabound metal-enriched zones; perhaps volcanogenic massive sulphide beds. Reportable gold concentrations in soils are grouped in northeast trending linear zones that may be related to vein mineralization during movement along the Cadwallader Break. The highest concentrations of gold in soils and the densest distribution of linear gold trends occurs at the north end of the grid along strike with the Butte - I.X.L. workings.

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Tungsten-bearing quartz veins at the Royal Adit indicate that there may be significant gold-tungsten vein mineralization associated with a Bralorne soda granite stock just below surface.

I recommend that mineralization beneath the soil grid be aggressively explored; and that more soil and geological investigations be conducted to define more new exploration targets.

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1.0 INTRODUCTION

1.1 Terms of Reference

Nevin Sadlier-Brown Goodbrand Ltd. was retained by Hillside Energy Corporation as its technical consultant on the Jana-Butte-Royal-Standard property. J.B.P. Sawyer, P.Eng.; the Hillside Energy Corporation engineer recommended an exploration program on the property including a soil geochemical survey and geological mapping (Sawyer, 1980).

In May 1980, D.J. Brownlee conducted a soil geochemical survey on a 0.8 km^2 grid originating at the Jana legal corner post (Brownlee and Fairbank, 1980). The writer expanded the soil geochemical survey, conducted a program of geological mapping over the soil grid and sampled old workings on the property in accordance with the recommendations of J.B.P. Sawyer, P.Eng.

1.2 Location and Access

The Jana-Butte-Royal-Standard claim group is located at 50° 43' north latitude and 122° 39' west longitude. The property is on NTS map sheet 92-J-10E near the confluence of Standard and Cadwallader Creeks about 15 km east of the town of Bralorne (Drawings 1 and 2).

Access to the Bralorne area is by a good gravel road from Lillooet to the east. In summer, access is also possible from the south by unimproved roads over the Hurley Pass or along Anderson Lake from the village of Pemberton. Roads are maintained to the Pioneer Mine 10 km from the property. Access to the property itself is by an old wagon road that is passable to the north boundary of the claims by high clearance 2-wheel drive vehicles

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from May until November. The wagon road crosses the property en route to McGillivray Pass. Near the pass it is passable only by tracked vehicles.

1.3 Terrain and Vegetation

The property is situated in the Coast Mountains of southern British Columbia. It is at elevations of between 1350 m and 1900 m ASL in a "U"-shaped ice-carved valley.

At lower elevations on the northern and western parts of the property, soils are well developed beneath a canopy of mixed coniferous and deciduous forest typical of the transition from the coastal rain forest to interior parkland. The forest changes upslope to stunted conifers near treeline at the southeast end of the property.

1.4 Property

The Jana-Butte-Royal-Standard claim group comprises three mineral claims and three two-post claims enclosing 21 Crown granted claims to form a contiguous group (Drawing 2, Appendix 1). Several claim lines were walked and posts of the Butte and Jana claims were inspected. The writer is satisfied that the property was staked in accordance with the laws of British Columbia.

Two post claims Energy 1-3 were staked by the writer on October 29, 1980 and recorded and transferred to Hillside Energy Corporation shortly thereafter. The reverted Crown grants and Butte claims are owned by W.A. Cook and optioned to Hillside Energy Corporation. The Jana and Energy claims are owned by Hillside Energy Corporation.

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1.5 Previous Work

The Bralorne-Cadwallader Creek area has a long colourful history of exploration and development. The following is an abridgement of J.B.P. Sawyer's excellent summary of the history of the Cadwallader Creek area and the Jana-Butte-Royal-Standard claim group (Sawyer, 1980).

The existence of gold in the Bridge River country had been known since the gold rush days of the B.C. Interior in the mid 19th century. The gold here was found to be coarser than in the Fraser and most of it less easily recoverable so that this area received relatively little attention for the next 50 years. Probably the most famous mine in the area, the Pioneer Mine, was staked in 1897 by Harry Atwood who had been grubstaked by the proprietor of the Hotel Lillooet, and in 1911 the property was taken over by a syndicate that spend the next 10 years trying to attract sufficient interest to develop the property. It was not until 1928 when two prominent Vancouver businessmen incorporated a new company that the property began to flourish. Later it became one of the major producers in the country having a yearly production reportedly in the millions of dollars. The second most famous mine of this area, the Bralorne, was first developed in the depression years when a 100 ton mill was erected. The first gold brick from the Bralorne was shipped to the Mint in 1932.

For a number of years in the mid thirties gold mining continued to grow and later to flourish. In 1933, some thirty companies were working on claims in the area and Minto boasted a population of 800 in 1934. The Bridge River area steadily

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grew to become the principal gold producing centre of the province, continuing production into the 1960's. More recently with improved precious metal prices the area has again begun to attract the attention of the mining fraternity and in 1976 the first new gold mine in B.C., and indeed in Canada, for many years, the Northair Mine, was opened.

The Pioneer property was originally located in 1897 and although some initial development was carried out to a depth of about 230 feet by means of a vertical shaft, the main developments date from 1923 when the shaft was unwatered and examined on behalf of New York interests. At that time the property was declined but in the following year new financing arrangements were completed under which new development was financed from ore out of old stopes. Further prudent management of the mine along these lines followed and later Pioneer Gold Mines of British Columbia Ltd. was organized with a capitalization of 2.4 million dollars. A new shaft was sunk and development carried out leading to establishment of ore reserves sufficient to warrant construction of a new cyanide treatment plant. Subsequently to this the mine continued to be developed and to prosper, and eventually became the principal producer in the district. The production of the Pioneer Mine for the period 1930 to 1945 (Joubin, 1948) was 777,588 ounces of gold and 135,698 ounces of silver. In the period 1932 to 1945 production from the Bralorne Mine, which property adjoins that of the Pioneer, was 996,383 ounces of gold and 190,709 ounces of silver.

Properties now included in or adjacent to the present claim holdings of Hillside Energy Corporation include the Red Hawk Group, the Royal Group, and the Standard Gold Mines properties.

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The original Red Hawk Group consisted of 18 claims and fractions located south of Cadwallader Creek opposite the mouth of Piebiter Creek. The original claims of the group were staked in 1931 and were owned by Malcolm McKenzie, Harry Ker, and Joe Myron who carried out much of the early exploratory work. Red Hawk Gold Mines Ltd. of Vancouver took over the property in 1932 and continued work on it. There has been a considerable amount of work done on the property including surface trenches and a number of short adits but no extensive underground workings have been completed.

The Royal Group, consisting of 15 surveyed claims and fractions, was acquired by Cadwallader Gold Mines Ltd. of Vancouver in 1932. The properties are located in the upper valley of Cadwallader Creek and are now included as part of the Cook Option. Most of the early work appears to have been done in 1932. The workings investigated quartz veins up to 4½ feet wide occupying shear zones in intrusive dioritic bodies. The gold values in the veins were reported to be associated with iron staining but, apparently, no sulphides were observed.

The Standard Gold Mines property consisted of 47 surveyed claims and fractions which extended for almost three miles at the head of Standard Creek, a tributary of Cadwallader Creek. These claims were immediately southeast of the present Butte claims and reverted Crown Grants of the Cook Option. The old camp and workings were on Standard Creek at an elevation of approximately 5675 feet. Workings developed on the property included two adits and a number of open cuts and trenches, the principal heading being a cross cut adit driven for approximately 670 feet northeasterly from above Standard Creek. The

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second adit is only a few feet long and is collared some 3700 feet further down the valley. Assays reported by the management (O'Grady, 1937) ranged from less than a dollar to as much as $240.00 a ton, gold being at $30.00 an ounce.

2.0 ADITS AND WORKINGS

The Royal Adit, near the centre of the property, was reopened by hand trenching near the portal and sampled by the writer. The Butte - I.X.L. workings and the Standard Adit dump were sampled.

2.1 Royal Adit

The Royal Adit extends 13.6 m into sheared diorite at a bearing of 040° (Drawing 3). Ten meters from the portal, the tunnel intersects a shear zone that strikes 240° and dips 60°N. The shear and accompanying tension gashes are filled with milky white quartz containing 2mm-long euhedral scheelite ($CaWO_4$) crystals. Small rusty pits, probably from weathered pyrite are common on vein surfaces exposed in the adit.

At the working face; 13.6 m from the portal, is a 5cm-thick quartz vein that strikes 031° and dips 68°SE. The vein contains up to 0.5% scheelite indentified by a U.V. lamp.

Samples from the shear zone and the vein at the working face were taken and assayed:

		Ag		Au	
	$\%WO_3$	oz/t	gm/mt	oz/t	gm/mt
Portal + 10m vein	0.25	0.10	2.58	<0.003	<0.08
Portal + 10m shear	0.08	0.20	5.15	<0.003	<0.08
Portal + 13.6m vein	<0.01	0.12	3.09	<0.003	<0.07

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A 20m-long trench was dug just up the hill from the portal. It exposed a large milky quartz vein. The adit may have been an attempt to cross-cut to the vein below surface. The writer suspects that the adit came close but did not intersect the vein exposed in the trench above.

A sample of vein-quartz from the trench was taken by T.L. Sadlier-Brown during a visit to the property and assayed. It contained no detectable economic minerals.

A quartz vein striking 080° and dipping 20°S is exposed in the partially melted andesite tuff in Royal Creek about 12m south of the Royal Adit portal. The vein appears to be an off-shoot from the vein trenched up hill from the Royal Adit.

Samples of the vein (H4-1) and the wall rock (H4-2) in the creek was taken and assayed. They contained no detectable economic minerals.

A disused wagon road connects the Royal Adit to the Standard Creek wagon road. Two trenches were dug 80m north of the adit near the disused road. They have subsequently sloughed in.

2.2 Standard Adit

The Standard Adit is located at the east end of the property at tree line near McGillivray Pass (Drawing 4).

The workings were completely caved in and could not be entered. From a depression on the hillside above the portal,

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it was deduced that the tunnel entered the hillside at a bearing of 060°.

The stratigraphy intersected by the adit is revealed by lithologies on the dump (Drawing 4).

Pelites and andesitic volcanics were excavated near the portal. Highly sheared talcose rocks were excavated from farther in. Two piles of mariposite-rich sheared rock from near the end of the tunnel were sampled and assayed (samples Stand.Adit Dump 95081-95087, 95089-95091). No economic minerals were delected in the numbered samples. Sample Stand. Adit Dump, a composite grab sample contained 0.10 oz/t Pb and 0.09 oz/t Zn (Appendix C).

2.3 Butte - I.X.L. Workings

The Butte and I.X.L. workings located northwest of the Royal Adit (Drawing 7) were briefly visited.

On the dump are pieces of white granular quartz vein rock containing andesitic xenoliths and small amount of chalcopyrite and sphalerite. Samples were collected and assayed (Appendix C). They ran 0.16% Pb and 0.19% Zn.

3.0 GEOLOGY

3.1 Regional Geology

The Jana-Butte-Royal-Standard claim group is in the Gold Bridge Bralorne-Cadwallader Creek gold camp area of southwestern B.C. J.B.P. Sawyer, P.Eng., summarized the regional geology of the area from the works of Cairnes (1934) and Woodward (1977) as follows:

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The area is underlain essentially by a northwesterly-trending belt of late Paleozoic and/or early Mesozoic rocks of the Bridge River or Fergusson Group, consisting of volcanic and sedimentary units and, in places their metamorphosed equivalents, as well as by younger Upper Triassic volcanics and sediments of the Noel, Pioneer, and Hurley Formations (Drawing 5). All of these have been intruded by rocks of the Bralorne Intrusions, which include augite-diorite, gabbro and some ultrabasic rocks.

3.2 Regional Structure and Mineralization

The Cadwallader Creek valley has been eroded into a fault system called the Cadwallader Break. Near the Pioneer Mine, 10 km northwest of the Jana-Butte-Royal-Standard property, the break is between two west-northwesterly trending anticlines (Drawing 6A). The northerly anticline has been intruded by the Bralorne soda granite (Joubin, 1948). Joubin recognized that gold mined in the Cadwallader Creek area was recovered from veins developed in competent rocks adjacent to the pluton. Also, he resolved the strain ellipse for the Cadwallader Creek area and discovered that mineralization occurs in tension gashes developed in the plane of least compressive stress (Drawing 6B). In the Cadwallader Creek area, the plane of least compressive stress strikes northeasterly and is sub-vertically dipping.

3.3 Property Geology

Geology was mapped in the area of the 1980 soil grids (Drawing 7,8). The grids are laid out over a south-facing, forest-covered slope with little rock outcrop except near the Royal Adit.

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The grids are underlain by a generally southeast-striking, steeply dipping sequence of andesitic pyroclastics and siltstones (Drawing 7).

The andesites are a sequence of fine-grained mafic volcanics that grade upward to coarse-grained tuffs, tuff breccias and agglomerates. Bedding tops are to the southwest. Clast compositions are similar to that of the matrix. Clasts are variably resorbed into the matrix making some of them difficult to recognize. Clasts are commonly stretched; attaining long-short axis ratios of 5:1. Axial ratios are as great as 15:1 near the Royal Adit.

Siltstones occur within the andesitic sequence. They are planar-bedded or have rippled laminae up to 2 cm thick (post-deformational thicknesses). They are texturally immature, having abundant layers of dark "heavy" mineral bands. Near the Royal Adit, the sediments are leached of metals and have a bleached appearance.

The rocks around the Royal Adit were mapped by Cairnes (1934) as Bralorne Intrusive comprising dioroite and "greenstone diorite". Rocks at the Royal Adit are diorite composed of plagioclase, amphibole, ±pyroxene or biotite with a phaneritic granoblastic texture. Elsewhere crystalline diorite is intimately associated with andesitic pyroclastics.

From textural relationships, it appears that the diorite is derived from the passive partial melting of andesite pyroclastics. A zone of almost total partial melting in which ghosts of breccia and agglomerate clasts are visible in diorite surrounds the adit. Farther from the workings, andesitic clasts appear to be suspended

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in a recrystallized dioritic matrix. At the margin of the zone of partial melting, only fine-grained interbeds in andesite have been significantly recrystallized.

A stockwork of tungsten-bearing quartz veins at the Royal Adit is the only material that has been intruded to surface in the zone of partial melting. Deflection of bedding and cleavage attitudes around the zone of partial melting indicate that significant material may have intruded just below the surface, and the zone may represent a granulite-facies metamorphic aureole above a granitic stock below.

4.0 SOIL GEOCHEMISTRY

4.1 Soil Grid: October 1980

In October 1980, 8.5km of grid lines were laid out on the Butte 2 claim and enclosed Crown Grants. The grid extended and increased line density on parts of the soil grid laid out by D.J. Brownlee in May 1980 (Brownlee and Fairbank, 1980) (Drawing 9).

Grid lines were laid out by compass and hip chain. Line spacings were generally 100m apart. Soils were taken at 50m intervals on lines resulting in 183 samples.

Samples were taken from the illuviated "B" soil horizon that is well developed in the grid area. Samples were dried in kraft paper envelopes and shipped to Chemex Labs Ltd. of North Vancouver, B.C. for analysis. Proceedure at the lab is described in Appendix B.

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4.2 Zinc Distribution in Soils

A total of 283 zinc determinations were made on soil samples from the grids (Appendices C,D). Zinc determinations above 200 ppm were higher than 89.02% of the total and 96.8% of the determinations had concentrations below 500 ppm. The writer considers zinc values over 200 ppm to be anomalous.

Anomalous zinc determinations are concentrated in two distinct elongate zones that trend northwest-southeast across the grid area (Drawing 10). One is at 4+00E, 7+00S and extends to the southeast off the grid. The other extends from 3+00E, 8+00S to beyond 12+00E, 11+00S.

4.3 Gold Distribution in Soils

A total of 286 gold determinations were made on soil samples from the grids (Appendices C,E). Gold content is below the detection limit of 10 ppb in 219 of the samples, representing 76.57% of the data.

Soils with detectable gold are in narrow northeast-southwest trending zones (Drawing 11). Near the Royal Adit, soils with detectable gold form a crescentic halo around the zone of tungsten-bearing quartz veins. Near the base line gold-rich soil zones are disrupted, possibly due to downslope migration of gold.

4.4 Arsenic Distribution in Soils

A total of 278 arsenic determinations were made on soils from the 1980 grids, of which 80.21% was below 50 ppm (Appendices C, F).

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Areas of high arsenic in soils seem to have two associations (Drawing 12). At the north end of the grid, areas of high arsenic are commonly downslope from those enriched in gold. Arsenic is also concentrated with zinc in the central part of the grid.

Some of the arsenic associated with zinc in the central part of the grid has been remobilized into a halo around the zone of partial melting in andesites near the Royal Adit.

4.5 Mercury Distribution in Soils

A total of 179 mercury determinations were made on soil samples from the grids. Mercury contents above 100 ppm exclude 77.65% of the data (Appendices C, G). High mercury concentrations in soils are very closely associated with the zinc anomaly in the central part of the grid. In this area it seems that mercury associated with vein gold is completely masked by volcanogenic mercury.

Near the zone of partial melting in andesites at the Royal Adit, mercury has been remobilized, forming a broad halo.

4.6 Tungsten Distribution in Soils

A total of 265 tungsten determinations were made on the soils from the 1980 soil grids of which 74.72% were below 5 ppm and 89.06% were excluded from the 10 ppm isoline.

Tungsten mineralization has three associations in soils on the grids (Drawing 14). It is down-hill from gold trends at the

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north end of the grids. It is down hill from high-zinc zones in the central part of the grid and it is down hill from the zone of tungsten-bearing quartz veins at the Royal Adit. Tungsten, like gold, mercury and arsenic, has been remobilized into a halo around the zone of partial melting in andesites.

5.0 INTERPRETATION OF GEOLOGY AND SOIL GEOCHEMISTRY

Geological and soil geochemical data suggest a succession of geological events, each with a distinctive metallogenesis.

5.1 Volcanogenic Zinc

Rocks in the grid area comprise a suite of Triassic age, coarse-grained andesitic pyroclastics and interbedded siltstones. The zinc soil anomalies are congruent with bedding attitudes and may be derived from metal rich beds within the pyroclastics, possibly from volcanogenic massive sulphide deposits (Drawing 7,10).

Zinc determinations in the anomalous areas are as high as 1200 ppm, indicating that there may be significant sphalerite (ZnS) in the rocks below. The anomaly was also high in arsenic and mercury, indicating that the rocks below have been enriched in several metals.

It is not yet known whether metal enrichment below the zinc anomaly is zoned or how much of the enriched area has been eroded. The zone may be enriched at depth in lead, copper, silver and gold.

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5.2 Vein Gold

Reportable gold values are concentrated in sub-parallel linear zones that cross the stratigraphy at a high angle (Drawing 11). There are fine well-developed northeast-southwest trending zones in the south and central part of the grid. Near the north end of the grid, high gold values are concentrated in a series of closely-spaced north-northeast, south-southwest trending zones. Gold values in soils at the north end of the grid are significantly higher than elsewhere.

The linear gold-bearing zones on the grid are parallel to the gold-bearing veins in the Bralorne soda granite and surrounding volcanics at the mines 10km to the west (Drawing 6). It is assumed by the writer that they are related to movement on the Cadwallader Break and emplacement of the Late Triassic Bralorne Intrusives.

On the Butte 2 claim soil gold anomalies could be due to gold mineralization along secondary offsets on tension fractures, caused by movements on the Cadwallader Break in Cadwallader Creek and a conjugate fault along Piebiter Creek.

5.3 Vein Tungsten

In the Late Triassic after the major fault systems in the area were well established, magma rose along the Cadwallader Break crystallizing into the Bralorne Intrusives. Intrusives near the Pioneer Mine were mapped by Cairnes (1934) as soda granite. Elsewhere, intrusives vary from granitic to dioritic compositions.

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The rocks around the Royal Adit were mapped as diorite colluvial with the Bralorne Intrusives (Cairnes, 1934). In the writer's opinion these rocks are partly remelted volcanics and the only material extruded from below comprises the tungsten-bearing quartz veins around the adit itself.

There is; however, evidence of addition of magma below surface. The heat required to melt the andesites, the deformation of gold bearing linears northwest and southeast of the adit (Drawing 11) and the deflection of bedding attitudes around the partial melting zone all indicate the possibility of a Bralorne Intrusive just below the surface.

The Royal Adit is at the centre of a hydrothermal system that is over 1km in diameter on surface. The system is reflected by a zone of tungsten-bearing quartz veins surrounded by halos of gold, mercury and arsenic (Drawings 11-13) remobilized from local sources.

The hydrothermal system is centred on a gold lineament. The low gold content in the sample from the Royal Adit confirm the fushing of the metal out from the centre of the system to the halo.

It seems most likely that a Bralorne Intrusive has risen along a pre-existing gold-bearing fracture driving hydrothermal fluids above.

5.4 Metallogenic Model

The following is a brief metallogenic model summarizing geological and geochemical investigations in the soil grid area of the Butte 2 claim.

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Arc-trench sedimentation during Early Triassic consisted in part of coarse-grained andesitic pyroclastics containing zones enriched in zinc, arsenic, mercury and perhaps other metals. Later folding and faulting along the Cadwallader Break encouraged the introduction of gold-bearing quartz along tension fractures and conjugate shears. In the Late Triassic magma rising along faults and fractures formed the Bralorne Intrusives and remobilized metals in hydrothermal systems.

6.0 NEW EXPLORATION TARGETS

The 1980 soil geochemistry survey on the Butte 2 claim has been a great sucess. From it, the origins and movement of all tested metals have been recognized; a sedimentary metallogenic model has been postulated and three new exploration targets have been identified.

6.1 Strataform Volcanogenic Massive Sulphides

Zinc distribution in soils on the central part of the grid seems to be related to strataform metal rich zones (Drawing 10). These zones could be due to strataform volcanogenic massive sulphide bodies containing vast quantities of gold, silver, lead, zinc, copper and other metals.

6.2 Gold-Bearing Quartz Veins

All across the soil grid are linear high-gold soil zones that may reflect gold-bearing quartz veins deposited in north-east trending fractures (Drawing 11). The greatest concentration of gold linears and the highest concentration of gold within linear structures occurs in the northeast corner of the grid. This area is on trend with the Butte - I.X.L. workings (Drawing 8) and may reflect a large zone of vein-gold mineralization.

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6.3 Hydrothermal Gold-Tungsten Mineralization

There are several tungsten deposits and showings that have associated gold mineralization. One is presently being developed on Piebiter Creek 3km north of the Royal Adit. At the Royal Adit, tungsten vein mineralization is possibly near the opening of a hydrothermal system driven by a Bralorne soda granite below. The system may contain abundant gold at depth.

7.0 RECOMMENDATIONS

I recommend that the three new exploration targets on the Butte soil grid be aggressively explored and that more soil and geological investigations be conducted to extend the area of detailed knowledge and to define more new exploration targets.

7.1 Recommended Program

Phase 1 - Extension of Soil Grids

The soil grid should be extended to include 5km^2 of new area. Lines on the new grid should be 100m apart and soils should be taken at 50m intervals. The new grid will cover extensions of the gold anomaly at the north end of the 1980 grid and the zinc anomaly near the grid centre.

Geological mapping should be continued on the new grid area.

Phase 2 - Road Development and Trenching

The wagon road to the Royal Adit should be upgraded to accomodate 2-wheel drive trucks. A road should be built to the gold anomaly at the northeast corner of the grid to facilitate

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trenching and drilling at the anomaly. The gold and zinc anomalies should be trenched.

Phase 3

The gold anomaly, the zinc anomaly and the Royal Adit area should be drilled to explore mineralization at depth.

Vancouver, December 19, 1980

John Ostler

John Ostler, M.Sc.
Consulting Geologist

8.0 REFERENCES

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Cairnes, C.E.; 1934: Cadwallader Creek Area, Lillooet District, British Columbia; Geological Survey of Canada Map 431A.

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APPENDIX A

List of Claims

Name	Record No.	Units
Jana	1195 (1)	12
Butte 1	1214 (1)	16
Butte 2	1213 (1)	15
Lion 1 L1940	788 (5)	
Lion 7 L1943	789 (5)	
Bulldog 7 L1945	790 (5)	
Royal 1 L5640	791 (5)	
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Royal 9 L5649	794 (5)	
Royal 10 L5650	795 (5)	
Royal 11 L5681	796 (5)	
Royal B.Fr. L5683	797 (5)	
Unicorn 4 L1941	800 (6)	
Trail 2 L1944	801 (6)	
Unicorn 6 L1942	802 (6)	
Royal L5641	803 (6)	
Royal 3 L5642	804 (6)	
Royal 5 L5644	805 (6)	
Royal 4 L5645	806 (6)	
Royal 7 L5646	807 (6)	
Royal 6 L5682	808 (6)	
Royal A.Fr. L5682	809 (6)	
Royal C.Fr. L5684	810 (6)	
Energy 1	1589 (11)	2 post
Energy 2	1590 (11)	2 post
Energy 3	1591 (11)	2 post

APPENDIX B

Soil Geochemistry Analytic Method

PPM Arsenic:
PPM Mercury: A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digested is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with $NaBH_4$ and the arsenic content determined using flameless atomic absorption.
Detection limit - 1 PPM

PPM Tungsten: 0.50 gram sample is fused with potassium bisulfate and leached with hydrochloric acid. The reduced form of tungsten in complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting color is visually compared to similarly prepared standards.
Detection limit - 2 PPM

PPM Zinc: A 1.0 gram sample portion of sample is digested in conc. perchloric-nitric acid ($HClO_4$-HNO_3 for approx. 2 hrs. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Zinc is determined by atomic absorption techniques.

PPB Gold: 5 gram samples ashed @ 800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCL-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

Note: Samples are dried and run through 80 mesh prior to above.

APPENDIX C

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 52854
INVOICE NO. 35845
RECEIVED May 13/80
ANALYSED May 22/80

TO: Nevin Sadlier-Brown Goodbrand Ltd.
401-134 Abbott St.
Vancouver, B.C.
V6B 2K4

c.c. Douglas James Brownlee
Vancouver

ATTN: Bralorne Soil Program-P.O. #21636

SAMPLE NO. :	PPM Zn	PPB Au
BL 1+50E	114	<10
2+50	100	<10
3+00	90	<10
3+50	92	<10
BL 4+00E	168	<10
L0E 0+00N	112	10
0+50	110	<10
1+00	82	10
1+50	48	<10
2+00	62	<10
3+00	18	<10
3+50	10	<10
4+00	18	<10
4+50N	26	<10
0+50S	96	10
1+00	134	<10
1+50	116	<10
1+70 Silt	88	<10
2+00	92	<10
2+50	88	<10
3+00	76	<10
3+50	152	<10
4+00	190	10
4+50	NSS	NSS
5+00	12	<10
5+50	20	<10
6+00	34	<10
6+50	110	<10
7+00	12	10
7+50	30	10
8+00	186	<10
8+50	200	10
9+50	40	<10
L0E 10+00S	92	<10
L2E 0+00N	64	<10
0+50	56	<10
1+00	74	<10
1+50	6	<10
2+00	4	20
L2E 2+50N	48	<10

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CERTIFIED BY: Hart Biddle

CHEMEX LABS LTD.

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NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 52855

TO: Nevin Sadlier-Brown Goodbrand Ltd.
401-134 Abbott St.
Vancouver, B.C.
V6B 2K4

Vancouver
c.c. Douglas James Brownlee

ATTN: Bralorne Soil Program-P.O. #21636

INVOICE NO. 35845

RECEIVED May 13/80

ANALYSED May 22/80

SAMPLE NO. :	PPM Zn	PPB Au	PPM As	PPM W
L2E 3+00N	64	10		
0+25S	86	< 10		
0+50	110	10		
1+00	114	< 10		
1+50	72	< 10		
2+00	110	10		
2+50	108	< 10		
3+00	126	< 10		
3+50	102	< 10		
4+00	128	< 10		
4+50	114	< 10		
5+00	96	< 10		
5+50	154	< 10		
6+00	142	10		
6+50	32	< 10		
7+00	28	< 10		
7+50	78	< 10		
8+00	114	< 10		
8+45 Silt	680	< 10		
8+50	70	< 10		
9+00	48	< 10		
9+25 Silt	200	< 10		
9+50	184	10		
L2E 10+00S	18	< 10		
L4E 0+50N	92	10	87	1
1+00	94	10	51	1
1+50	76	< 10	20	2
2+00	56	20	30	1
2+50	88	< 10	26	9
3+00	66	20	28	2
3+50	64	< 10	27	3
4+00	46	< 10	5	1
4+50N Silt	30	< 10	90	1
0+50S	92	10	11	2
1+00	245	20	35	3
1+50	166	10	6	2
2+00	134	10	20	3
2+50	225	< 10	15	3
3+00	196	< 10	24	4
L4E 3+50S	156	< 10	57	2

John Allen

Hallside

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CHEMEX LABS LTD.

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CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 52856
INVOICE NO. 35845
RECEIVED May 13/80
ANALYSED May 22/80

TO: Nevin Sadlier-Brown Goodbrand Ltd.
401-134 Abbott St.
Vancouver, B.C. c.c. Douglas James Brownlee
V6B 2K4 Vancouver

ATTN: Bralorne Soil Program-P.O. #21636

SAMPLE NO. :	PPM Zn	PPB Au	PPM As	PPM W
L4E 4+00S	210	<10	51	1
4+50	74	<10	17	2
5+00	80	10	4	1
5+50	108	<10	23	3
6+00	152	<10	7	1
6+50	114	<10	10	2
7+00	144	<10	16	4
7+50	290	10	7	4
7+50 Silt	88	<10	32	3
8+00	100	10	16	1
9+00	885	<10	40	3
L4E 9+31S	205	<10	41	7
L6E 0+50S	110	<10		
0+77 Silt	116	<10		
1+50	98	<10		
2+00	108	10		
2+50	168	<10		
3+00	300	<10		
3+50	370	<10		
4+00	400	10		
4+40 Silt	455	10		
4+50	176	<10		
5+00	198	<10		
5+50	154	<10		
6+00	138	20		
6+50	112	<10		
7+00	168	<10		
7+50	210	<10		
8+00	280	<10		
9+12	1200	<10		
9+12 Silt	1600	<10		
9+50	365	<10		
L6E 10+00S	645	<10		
65801 Silt	144	<10		

Hillside

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8010994-001-A
INVOICE # : 40371
DATE : 12-NOV-80
P.O. # : NONE

Sample description	Prep code	As ppm					
BL 1+50E	214	30	--	--	--	--	--
BL 2+50E	214	23	--	--	--	--	--
BL 3+00E	214	25	--	--	--	--	--
BL 3+50E	214	39	--	--	--	--	--
BL 4+00E	214	50	--	--	--	--	--
L0E 0+00N	214	39	--	--	--	--	--
L0E 0+50N	214	50	--	--	--	--	--
L0E 1+00N	214	25	--	--	--	--	--
L0E 1+50N	214	N.S.S.	--	--	--	--	--
L0E 2+00N	214	77	--	--	--	--	--
L0E 3+00N	214	7	--	--	--	--	--
L0E 3+50N	214	180	--	--	--	--	--
L0E 4+00N	214	22	--	--	--	--	--
L0E 4+50N	214	9	--	--	--	--	--
L0E 0+50S	214	22	--	--	--	--	--
L0E 1+00S	214	54	--	--	--	--	--
L0E 1+50S	214	29	--	--	--	--	--
L0E 1+70S SILT	214	N.S.S.	--	--	--	--	--
L0E 2+00S	214	9	--	--	--	--	--
L0E 2+50S	214	6	--	--	--	--	--
L0E 3+00S	214	145	--	--	--	--	--
L0E 3+50S	214	73	--	--	--	--	--
L0E 4+00S	214	N.S.S.	--	--	--	--	--
L0E 4+50S	214	N.S.S.	--	--	--	--	--
L0E 5+00S	214	N.S.S.	--	--	--	--	--
L0E 5+50S	214	N.S.S.	--	--	--	--	--
L0E 6+00S	214	23	--	--	--	--	--
L0E 6+50S	214	4	--	--	--	--	--
L0E 7+00S	214	5	--	--	--	--	--
L0E 7+50S	214	24	--	--	--	--	--
L0E 8+00S	214	24	--	--	--	--	--
L0E 8+50S	214	14	--	--	--	--	--
L0E 9+50S	214	24	--	--	--	--	--
L0E 10+00S	214	24	--	--	--	--	--
L2E 0+00N	214	38	--	--	--	--	--
L2E 0+50N	214	27	--	--	--	--	--
L2E 1+00N	214	38	--	--	--	--	--
L2E 1+50N	214	6	--	--	--	--	--
L2E 2+00N	214	16	--	--	--	--	--
L2E 2+50N	214	16	--	--	--	--	--

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8010994-002-A
INVOICE # : 40371
DATE : 12-NOV-80
P.O. # : NONE

Sample description	Prep code	As ppm					
L2E 3+00N	214	53	--	--	--	--	--
L2E 0+25S	214	55	--	--	--	--	--
L2E 0+50S	214	24	--	--	--	--	--
L2E 1+00S	214	23	--	--	--	--	--
L2E 1+50S	214	25	--	--	--	--	--
L2E 2+00S	214	9	--	--	--	--	--
L2E 2+50S	214	110	--	--	--	--	--
L2E 3+00S	214	35	--	--	--	--	--
L2E 3+50S	214	77	--	--	--	--	--
L2E 4+00S	214	27	--	--	--	--	--
L2E 4+50S	214	29	--	--	--	--	--
L2E 5+00S	214	22	--	--	--	--	--
L2E 5+50S	214	33	--	--	--	--	--
L2E 6+00S	214	14	--	--	--	--	--
L2E 6+50S	214	7	--	--	--	--	--
L2E 7+00S	214	32	--	--	--	--	--
L2E 7+50S	214	23	--	--	--	--	--
L2E 8+00S	214	45	--	--	--	--	--
L2E 8+45S SILT	214	16	--	--	--	--	--
L2E 8+50S	214	12	--	--	--	--	--
L2E 9+00S	214	46	--	--	--	--	--
L2E 9+25S SILT	214	48	--	--	--	--	--
L2E 9+50S	214	16	--	--	--	--	--
L2E 10+00S	214	100	--	--	--	--	--
L6E 0+50S	214	63	--	--	--	--	--
L6E 0+77S SILT	214	22	--	--	--	--	--
L6E 1+50S	214	11	--	--	--	--	--
L6E 2+00S	214	16	--	--	--	--	--
L6E 2+50S	214	7	--	--	--	--	--
L6E 3+00S	214	30	--	--	--	--	--
L6E 3+50S	214	65	--	--	--	--	--
L6E 4+00S	214	215	--	--	--	--	--
L6E 4+40S SILT	214	300	--	--	--	--	--
L6E 4+50S	214	24	--	--	--	--	--
L6E 5+00S	214	15	--	--	--	--	--
L6E 5+50S	214	32	--	--	--	--	--
L6E 6+00S	214	6	--	--	--	--	--
L6E 6+50S	214	11	--	--	--	--	--
L6E 7+00S	214	225	--	--	--	--	--
L6E 7+50S	214	38	--	--	--	--	--

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TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8010994-003-A
INVOICE # : 40371
DATE : 12-NOV-80
P.O. # : NONE

Sample description	Prep code	As ppm					
L6E 8+00S	214	46	--	--	--	--	--
L6E 9+12S	214	57	--	--	--	--	--
L6E 9+12S SILT	214	17	--	--	--	--	--
L6E 9+50S	214	100	--	--	--	--	--
L6E 10+00S	214	77	--	--	--	--	--
65801 SILT	214	48	--	--	--	--	--

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TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011003-001-A
INVOICE # : 40467
DATE : 14-NOV-80
P.O. # : NONE
JANA-ROYAL

ATTN. T.L. SADLIER-BROWN

Sample description	Prep code	Zn ppm	As ppm	Au -(AA) ppb	Hg ppb		
N00E+00N	202	105	45	<10	90	--	--
1+00E 050N	202	100	35	<10	110	--	--
1+00E 100N	202	75	29	20	60	--	--
1+00E 150N	202	20	57	<10	150	--	--
1+00E 200N	202	42	33	<10	80	--	--
1+00E 250N	202	58	39	<10	70	--	--
1+00E 300N	202	34	24	<10	50	--	--
1+00E 350N	202	20	14	10	40	--	--
1+00E 400N	202	20	60	10	50	--	--
1+00E 450N	202	20	36	10	40	--	--
1+00E 500N	202	46	450	<10	60	--	--
3+00E 0+00N	202	72	50	<10	90	--	--
3+00E 0+50N	202	70	73	<10	50	--	--
3+00E 1+00N	202	64	53	<10	70	--	--
3+00E 1+50N	202	72	50	10	50	--	--
3+00E 2+00N	202	28	33	<10	50	--	--
3+00E 2+50N	202	38	30	<10	40	--	--
3+00E 3+00N	202	60	55	<10	70	--	--
3+00E 3+50N	202	100	12	<10	40	--	--
3+00E 4+00N	202	52	30	<10	40	--	--
3+00E 4+50N	202	50	60	<10	50	--	--
3+00E 5+00N	202	40	40	20	70	--	--
3+00E 0+50S	202	44	14	<10	40	--	--
3+00E 1+00S	202	350	25	10	70	--	--
3+00E 1+50S	202	118	20	<10	60	--	--
3+00E 2+00S	202	156	32	<10	50	--	--
3+00E 2+50S	202	122	14	<10	60	--	--
3+00E 3+00S	202	130	35	20	70	--	--
3+00E 3+50S	202	330	110	20	50	--	--
3+00E 4+00S	202	120	14	<10	80	--	--
3+00E 4+50S	202	118	29	<10	60	--	--
3+00E 5+00S	202	104	40	10	90	--	--
3+00E 5+50S	202	58	50	<10	80	--	--
3+00E 6+00S	202	128	53	20	70	--	--
3+00E 6+50S	202	86	23	10	60	--	--
3+00E 7+00S	202	84	39	<10	60	--	--
3+00E 7+50S	202	62	22	<10	60	--	--
3+00E 8+00S	202	86	36	<10	170	--	--
3+00E 8+50S	202	315	45	10	100	--	--
3+00E 9+00S	202	96	63	10	90	--	--

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CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011003-002-A
INVOICE # : 40467
DATE : 14-NOV-80
P.O. # : NONE
JANA-ROYAL

ATTN. T.L. SADLIER-BROWN

Sample description	Prep code	Zn ppm	As ppm	Au -(AA) ppb	Hg ppb		
3+00E 9+50S	202	52	7	<10	70	--	--
3+00E 10+00S	202	96	35	10	60	--	--
5+00E 0+00N	202	54	20	<10	50	--	--
5+00E 0+50N	202	118	11	20	70	--	--
5+00E 1+00N	202	98	25	20	50	--	--
5+00E 1+50N	202	116	16	10	60	--	--
5+00E 2+00N	202	108	32	<10	50	--	--
5+00E 2+50N	202	46	125	<10	60	--	--
5+00E 3+00N	202	70	30	<10	50	--	--
5+00E 3+50N	202	82	23	<10	50	--	--
5+00E 4+00N	202	4	33	<10	180	--	--
5+00E 4+50N	202	42	33	<10	70	--	--
5+00E 5+00N	202	38	3	<10	40	--	--
6+00E 000N	202	76	33	10	50	--	--
6+00E 050N	202	156	20	<10	70	--	--
6+00E 100N	202	90	24	<10	50	--	--
6+00E 150N	202	114	120	<10	40	--	--
6+00E 200N	202	136	12	10	80	--	--
6+00E 250N	202	160	14	10	50	--	--
6+00E 300N	202	114	14	10	60	--	--
6+00E 350N	202	110	15	<10	110	--	--
6+00E 400N	202	74	38	150	100	--	--
6+00E 450N	202	32	10	<10	50	--	--
6+00E 500N	202	40	22	120	60	--	--
10+00S 1+00E	202	26	25	<10	340	--	--
10+00S 2+00E	202	32	70	<10	110	--	--
10+00S 3+00E	202	148	9	<10	90	--	--
10+00S 4+00E	202	52	16	<10	60	--	--
10+00S 5+00E	202	78	73	<10	70	--	--
10+00S 6+00E	202	545	57	<10	70	--	--
10+00S 6+82E	202	270	115	<10	140	--	--
10+00S 7+00E	202	470	46	<10	90	--	--
10+00S 8+00E	202	655	43	<10	290	--	--
10+00S 10+00E A	202	76	11	<10	60	--	--
10+00S 10+00E B	202	142	30	<10	100	--	--
10+00S 12+00E	202	104	250	10	90	--	--
10+50S 1+00E	202	40	12	<10	360	--	--
10+50S 3+00E	202	72	23	10	80	--	--
10+50S 4+00E	202	48	6	<10	130	--	--
10+50S 5+00E	202	300	115	<10	280	--	--

Certified by Hart Richler

CTA MEMBER CANADIAN TESTING

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011003-003-A
INVOICE # : 40467
DATE : 14-NOV-80
P.O. # : NONE
JANA-ROYAL

ATTN. T.L. SADLIER-BROWN

Sample description	Prep code	Zn ppm	As ppm	Au -(AA) ppb	Hg ppb		
10+50S 6+00E	202	116	32	<10	170	--	--
10+50S 7+00E	202	835	16	<10	200	--	--
10+50S 8+00E	202	360	29	<10	110	--	--
10+50S 10+00E	202	188	46	<10	100	--	--
11+00S 1+00E	202	66	11	10	90	--	--
11+00S 2+00E	202	46	15	10	60	--	--
11+00S 3+00E	202	74	11	<10	110	--	--
11+00S 4+00E	202	82	59	<10	70	--	--
11+00S 5+00E	202	174	36	<10	130	--	--
11+00S 6+00E	202	134	23	<10	60	--	--
11+00S 7+00E	202	108	17	<10	190	--	--
11+00S 8+00E	202	144	17	<10	340	--	--
11+00S 10+00E	202	122	27	<10	70	--	--
11+00S 12+00E	202	116	39	<10	70	--	--
11+50S 1+00E	202	40	14	<10	90	--	--
11+50S 2+00E	202	28	6	<10	30	--	--
11+50S 3+00E	202	30	11	<10	90	--	--
11+50S 4+00E	202	20	2	<10	130	--	--
11+50S 5+00E	202	64	43	10	60	--	--
11+50S 6+00E	202	138	5	10	50	--	--
11+50S 7+00E	202	160	45	<10	40	--	--
11+50S 8+00E	202	58	41	<10	60	--	--
11+50S 10+00E	202	1000	51	10	60	--	--
12+00S 1+00E	202	1000	46	<10	60	--	--
12+00S 2+00E	202	10	4	10	170	--	--
12+00S 3+00E	202	22	1	<10	100	--	--
12+00S 4+00E	202	36	7	<10	60	--	--
12+00S 5+00E	202	42	41	<10	70	--	--
12+00S 6+00E	202	106	48	<10	60	--	--
12+00S 7+00E	202	140	48	<10	60	--	--
12+00S 8+00E	202	112	50	10	70	--	--
12+00S 10+00E	202	56	6	<10	30	--	--
12+00S 12+00E	202	1000	30	<10	50	--	--
12+50S 1+00E	202	110	29	<10	70	--	--
12+50S 2+00E	202	64	2	<10	130	--	--
12+50S 3+00E	202	160	59	<10	70	--	--
12+50S 4+00E	202	84	39	10	50	--	--
12+50S 5+00E	202	84	32	<10	50	--	--
12+50S 6+00E	202	52	14	10	50	--	--
12+50S 7+00E	202	76	19	10	40	--	--

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011003-004-A
INVOICE # : 40467
DATE : 14-NOV-80
P.O. # : NONE
JANA-ROYAL

ATTN. T.L. SADLIER-BROWN

Sample description	Prep code	Zn ppm	As ppm	Au -(AA) ppb	Hg ppb		
12+50S 8+00E	202	58	17	<10	50	--	--
12+50S 10+00E	202	106	46	<10	140	--	--
12+50S 12+00E	202	325	30	<10	150	--	--
13+00S 1+00E	202	32	4	<10	80	--	--
13+00S 2+00E	202	20	1	<10	190	--	--
13+00S 3+00E	202	72	24	<10	120	--	--
13+00S 4+00E	202	54	11	<10	130	--	--
13+00S 5+00E	202	96	22	<10	50	--	--
13+00S 6+00E	202	110	30	<10	80	--	--
13+00S 7+00E	202	58	10	<10	40	--	--
13+00S 8+00E	202	76	14	<10	50	--	--
13+00S 10+00E	202	275	51	<10	40	--	--
13+00S 12+00E	202	230	77	<10	80	--	--
13+50S 1+00E	202	52	25	<10	80	--	--
13+50S 2+00E	202	32	3	<10	70	--	--
13+50S 5+00E	202	76	33	<10	60	--	--
13+50S 6+00E	202	24	4	10	120	--	--
13+50S 7+00E	202	46	12	<10	60	--	--
13+50S 8+00E	202	74	10	<10	90	--	--
13+50S 10+00E	202	220	41	<10	70	--	--
13+50S 12+00E	202	158	59	10	90	--	--
14+00S 1+00E	202	64	30	<10	80	--	--
14+00S 2+00E	202	54	57	<10	170	--	--
14+00S 5+00E	202	62	15	<10	40	--	--
14+00S 6+00E	202	40	10	<10	50	--	--
14+00S 7+00E	202	66	24	10	50	--	--
14+00S 8+00E	202	86	25	<10	90	--	--
14+00S 10+00E	202	138	20	<10	40	--	--
14+00S 12+00E	202	86	39	<10	50	--	--
14+50S 1+00E	202	22	9	<10	60	--	--
14+50S 2+00E	202	78	17	<10	40	--	--
14+50S 5+00E	202	24	12	<10	50	--	--
14+50S 7+00E	202	24	2	<10	140	--	--
14+50S 8+00E	202	118	15	<10	50	--	--
14+50S 10+00E	202	118	25	<10	50	--	--
14+50S 12+00E	202	112	46	<10	80	--	--
15+00S 1+00E	202	82	22	20	60	--	--
15+00S 2+00E	202	54	22	<10	80	--	--
15+00S 5+00E	202	16	3	<10	120	--	--
15+00S 6+00E	202	54	11	<10	40	--	--

John Cutler

Hart Richler

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CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011003-005-A
INVOICE # : 40467
DATE : 14-NOV-80
P.O. # : NONE
JANA-ROYAL

ATTN. T.L. SADLIER-BROWN

Sample description	Prep code	Zn ppm	As ppm	Au -(AA) ppb	Hg ppb		
15+00S 7+00E	202	78	15	<10	70	--	--
15+00S 8+00E	202	156	19	<10	70	--	--
15+00S 10+00E	202	78	16	10	60	--	--
15+00S 12+00E	202	90	29	<10	50	--	--
15+50S 1+00E	202	72	20	<10	80	--	--
15+50S 2+00E	202	110	95	<10	120	--	--
15+50S 5+00E	202	58	14	10	60	--	--
15+50S 6+00E	202	84	24	<10	50	--	--
15+50S 7+00E	202	92	29	<10	60	--	--
15+50S 8+00E	202	84	30	10	60	--	--
15+50S 10+00E	202	156	48	<10	90	--	--
15+50S 12+00E	202	50	9	<10	50	--	--
16+00S 1+00E	202	58	30	<10	120	--	--
16+00S 2+00E	202	86	80	<10	70	--	--
16+00S 5+00E	202	54	29	<10	120	--	--
16+00S 6+00E	202	56	36	<10	60	--	--
16+00S 7+00E	202	66	38	10	90	--	--
16+00S 8+00E	202	52	16	<10	70	--	--
16+00S 10+74E A	202	124	160	<10	350	--	--
16+00S 10+74E B	202	122	200	<10	260	--	--
16+00S 10+74E C	202	108	200	<10	1200	--	--
16+00S 10+74E D	202	104	200	<10	1200	--	--
16+00S 12+00E	202	76	30	<10	220	--	--

John Cutler

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• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-001-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
BL 1+50E	214	2	--	--	--	--	--
BL 2+50E	214	2	--	--	--	--	--
BL 3+00E	214	1	--	--	--	--	--
BL 3+50E	214	5	--	--	--	--	--
BL 4+00E	214	4	--	--	--	--	--
L0E 0+00N	214	2	--	--	--	--	--
L0E 0+50N	214	6	--	--	--	--	--
L0E 1+00N	214	2	--	--	--	--	--
L0E 1+50N	214	1	--	--	--	--	--
L0E 2+00N	214	4	--	--	--	--	--
L0E 3+00N	214	7	--	--	--	--	--
L0E 3+50N	214	1	--	--	--	--	--
L0E 4+00N	214	6	--	--	--	--	--
L0E 4+50N	214	1	--	--	--	--	--
L0E 0+50S	214	1	--	--	--	--	--
L0E 1+00S	214	N.S.S.	--	--	--	--	--
L0E 1+50S	214	2	--	--	--	--	--
L0E 1+70 SILT	214	8	--	--	--	--	--
L0E 2+00S	214	1	--	--	--	--	--
L0E 2+50S	214	1	--	--	--	--	--
L0E 3+00S	214	2	--	--	--	--	--
L0E 3+50S	214	2	--	--	--	--	--
L0E 4+00S	214	2	--	--	--	--	--
L0E 4+50S	214	N.S.S.	--	--	--	--	--
L0E 5+00S	214	N.S.S.	--	--	--	--	--
L0E 5+50S	214	N.S.S.	--	--	--	--	--
L0E 6+00S	214	N.S.S.	--	--	--	--	--
L0E 6+50S	214	2	--	--	--	--	--
L0E 7+00S	214	1	--	--	--	--	--
L0E 7+50S	214	1	--	--	--	--	--
L0E 8+00S	214	8	--	--	--	--	--
L0E 8+50S	214	4	--	--	--	--	--
L0E 9+50S	214	3	--	--	--	--	--
L0E 10+00S	214	3	--	--	--	--	--
L2E 0+00N	214	2	--	--	--	--	--
L2E 0+50N	214	2	--	--	--	--	--
L2E 1+00N	214	5	--	--	--	--	--
L2E 1+50N	214	N.S.S.	--	--	--	--	--
L2E 2+00N	214	N.S.S.	--	--	--	--	--
L2E 2+50N	214	10	--	--	--	--	--

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212 BROOKSBANK AVE.
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CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-002-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
L2E 3+00N	214	1	--	--	--	--	--
L2E 0+25S	214	1	--	--	--	--	--
L2E 0+50S	214	10	--	--	--	--	--
L2E 1+00S	214	1	--	--	--	--	--
L2E 1+50S	214	1	--	--	--	--	--
L2E 2+00S	214	1	--	--	--	--	--
L2E 2+50S	214	1	--	--	--	--	--
L2E 3+00S	214	1	--	--	--	--	--
L2E 3+50S	214	1	--	--	--	--	--
L2E 4+00S	214	7	--	--	--	--	--
L2E 4+50S	214	4	--	--	--	--	--
L2E 5+00S	214	5	--	--	--	--	--
L2E 5+50S	214	2	--	--	--	--	--
L2E 6+00S	214	3	--	--	--	--	--
L2E 6+50S	214	1	--	--	--	--	--
L2E 7+00S	214	1	--	--	--	--	--
L2E 7+50S	214	12	--	--	--	--	--
L2E 8+00S	214	3	--	--	--	--	--
L2E 8+45 SILT	214	14	--	--	--	--	--
L2E 8+50S	214	2	--	--	--	--	--
L2E 9+00S	214	13	--	--	--	--	--
L2E 9+25 SILT	214	12	--	--	--	--	--
L2E 9+50S	214	11	--	--	--	--	--
L2E 10+00S	214	2	--	--	--	--	--
L6E 0+50S	214	2	--	--	--	--	--
L6E 0+77 SILT	214	12	--	--	--	--	--
L6E 1+50S	214	1	--	--	--	--	--
L6E 2+00S	214	1	--	--	--	--	--
L6E 2+50S	214	2	--	--	--	--	--
L6E 3+00S	214	2	--	--	--	--	--
L6E 3+50S	214	1	--	--	--	--	--
L6E 4+00S	214	1	--	--	--	--	--
L6E 4+40 SILT	214	1	--	--	--	--	--
L6E 4+50S	214	1	--	--	--	--	--
L6E 5+00S	214	1	--	--	--	--	--
L6E 5+50S	214	1	--	--	--	--	--
L6E 6+00S	214	1	--	--	--	--	--
L6E 6+50S	214	1	--	--	--	--	--
L6E 7+00S	214	1	--	--	--	--	--
L6E 7+50S	214	5	--	--	--	--	--

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212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-003-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
L6E 8+00S	214	2	--	--	--	--	--
L6E 9+12S	214	4	--	--	--	--	--
L6E 9+12 SILT	214	2	--	--	--	--	--
L6E 9+50S	214	1	--	--	--	--	--
L6E 10+00S	214	2	--	--	--	--	--
65801 SILT	214	8	--	--	--	--	--
N00E+00N	214	4	--	--	--	--	--
1+00E 050N	214	3	--	--	--	--	--
1+00E 100N	214	1	--	--	--	--	--
1+00E 150N	214	4	--	--	--	--	--
1+00E 200N	214	2	--	--	--	--	--
1+00E 250N	214	11	--	--	--	--	--
1+00E 300N	214	35	--	--	--	--	--
1+00E 350N	214	12	--	--	--	--	--
1+00E 400N	214	15	--	--	--	--	--
1+00E 450N	214	13	--	--	--	--	--
1+00E 500N	214	5	--	--	--	--	--
3+00E 0+00N	214	3	--	--	--	--	--
3+00E 0+50N	214	1	--	--	--	--	--
3+00E 1+00N	214	14	--	--	--	--	--
3+00E 1+50N	214	1	--	--	--	--	--
3+00E 2+00N	214	1	--	--	--	--	--
3+00E 2+50N	214	3	--	--	--	--	--
3+00E 3+00N	214	2	--	--	--	--	--
3+00E 3+50N	214	1	--	--	--	--	--
3+00E 4+00N	214	1	--	--	--	--	--
3+00E 4+50N	214	3	--	--	--	--	--
3+00E 5+00N	214	13	--	--	--	--	--
3+00E 0+50S	214	1	--	--	--	--	--
3+00E 1+00S	214	4	--	--	--	--	--
3+00E 1+50S	214	3	--	--	--	--	--
3+00E 2+00S	214	2	--	--	--	--	--
3+00E 2+50S	214	2	--	--	--	--	--
3+00E 3+00S	214	4	--	--	--	--	--
3+00E 3+50S	214	12	--	--	--	--	--
3+00E 4+00S	214	1	--	--	--	--	--
3+00E 4+50S	214	1	--	--	--	--	--
3+00E 5+00S	214	2	--	--	--	--	--
3+00E 5+50S	214	10	--	--	--	--	--
3+00E 6+00S	214	6	--	--	--	--	--

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TELEPHONE: (604)984-0221
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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-004-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
3+00E 6+50S	214	2	--	--	--	--	--
3+00E 7+00S	214	3	--	--	--	--	--
3+00E 7+50S	214	4	--	--	--	--	--
3+00E 8+00S	214	7	--	--	--	--	--
3+00E 8+50S	214	8	--	--	--	--	--
3+00E 9+00S	214	6	--	--	--	--	--
3+00E 9+50S	214	1	--	--	--	--	--
3+00E 10+00S	214	4	--	--	--	--	--
5+00E 0+00N	214	1	--	--	--	--	--
5+00E 0+50N	214	1	--	--	--	--	--
5+00E 1+00N	214	1	--	--	--	--	--
5+00E 1+50N	214	2	--	--	--	--	--
5+00E 2+00N	214	2	--	--	--	--	--
5+00E 2+50N	214	1	--	--	--	--	--
5+00E 3+00N	214	1	--	--	--	--	--
5+00E 3+50N	214	1	--	--	--	--	--
5+00E 4+00N	214	1	--	--	--	--	--
5+00E 4+50N	214	1	--	--	--	--	--
5+00E 5+00N	214	1	--	--	--	--	--
6+00E 000N	214	1	--	--	--	--	--
6+00E 050N	214	1	--	--	--	--	--
6+00E 100N	214	1	--	--	--	--	--
6+00E 150N	214	2	--	--	--	--	--
6+00E 200N	214	1	--	--	--	--	--
6+00E 250N	214	1	--	--	--	--	--
6+00E 300N	214	1	--	--	--	--	--
6+00E 350N	214	1	--	--	--	--	--
6+00E 400N	214	8	--	--	--	--	--
6+00E 450N	214	7	--	--	--	--	--
6+00E 500N	214	4	--	--	--	--	--
10+00S 1+00E	214	8	--	--	--	--	--
10+00S 2+00E	214	8	--	--	--	--	--
10+00S 3+00E	214	1	--	--	--	--	--
10+00S 4+00E	214	14	--	--	--	--	--
10+00S 5+00E	214	2	--	--	--	--	--
10+00S 6+00E	214	1	--	--	--	--	--
10+00S 6+82E	214	2	--	--	--	--	--
10+00S 7+00E	214	2	--	--	--	--	--
10+00S 8+00E	214	2	--	--	--	--	--
10+00S 10+00E(A)	214	2	--	--	--	--	--

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
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CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-005-A
INVOICE # : 41170
DATE : 10-DEC-8C
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
10+00S 10+00E(3)	214	4	--	--	--	--	--
10+00S 12+00E	214	12	--	--	--	--	--
10+50S 1+00E	214	1	--	--	--	--	--
10+50S 3+00E	214	8	--	--	--	--	--
10+50S 4+00E	214	1	--	--	--	--	--
10+50S 5+00E	214	14	--	--	--	--	--
10+50S 6+00E	214	2	--	--	--	--	--
10+50S 7+00E	214	2	--	--	--	--	--
10+50S 8+00E	214	1	--	--	--	--	--
10+50S 10+00E	214	1	--	--	--	--	--
11+00S 1+00E	214	1	--	--	--	--	--
11+00S 2+00E	214	13	--	--	--	--	--
11+00S 3+00E	214	1	--	--	--	--	--
11+00S 4+00E	214	10	--	--	--	--	--
11+00S 5+00E	214	4	--	--	--	--	--
11+00S 6+00E	214	2	--	--	--	--	--
11+00S 7+00E	214	2	--	--	--	--	--
11+00S 8+00E	214	8	--	--	--	--	--
11+00S 10+00E	214	2	--	--	--	--	--
11+00S 12+00E	214	2	--	--	--	--	--
11+50S 1+00E	214	1	--	--	--	--	--
11+50S 2+00E	214	2	--	--	--	--	--
11+50S 3+00E	214	1	--	--	--	--	--
11+50S 4+00E	214	1	--	--	--	--	--
11+50S 5+00E	214	1	--	--	--	--	--
11+50S 6+00E	214	1	--	--	--	--	--
11+50S 7+00E	214	10	--	--	--	--	--
11+50S 8+00E	214	6	--	--	--	--	--
11+50S 10+00E	214	12	--	--	--	--	--
12+00S 1+00E	214	8	--	--	--	--	--
12+00S 2+00E	214	1	--	--	--	--	--
12+00S 3+00E	214	1	--	--	--	--	--
12+00S 4+00E	214	1	--	--	--	--	--
12+00S 5+00E	214	3	--	--	--	--	--
12+00S 6+00E	214	3	--	--	--	--	--
12+00S 7+00E	214	2	--	--	--	--	--
12+00S 8+00E	214	6	--	--	--	--	--
12+00S 10+00E	214	4	--	--	--	--	--
12+00S 12+00E	214	6	--	--	--	--	--
12+50S 1+00E	214	13	--	--	--	--	--

Certified by .....

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-006-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
12+50S 2+00E	214	1	--	--	--	--	--
12+50S 3+00E	214	7	--	--	--	--	--
12+50S 4+00E	214	8	--	--	--	--	--
12+50S 5+00E	214	6	--	--	--	--	--
12+50S 6+00E	214	2	--	--	--	--	--
12+50S 7+00E	214	1	--	--	--	--	--
12+50S 8+00E	214	5	--	--	--	--	--
12+50S 10+00E	214	4	--	--	--	--	--
12+50S 12+00E	214	7	--	--	--	--	--
13+00S 1+00E	214	2	--	--	--	--	--
13+00S 2+00E	214	1	--	--	--	--	--
13+00S 3+00E	214	1	--	--	--	--	--
13+00S 4+00E	214	14	--	--	--	--	--
13+00S 5+00E	214	4	--	--	--	--	--
13+00S 6+00E	214	3	--	--	--	--	--
13+00S 7+00E	214	4	--	--	--	--	--
13+00S 8+00E	214	3	--	--	--	--	--
13+00S 10+00E	214	11	--	--	--	--	--
13+00S 12+00E	214	5	--	--	--	--	--
13+50S 1+00E	214	13	--	--	--	--	--
13+50S 2+00E	214	1	--	--	--	--	--
13+50S 5+00E	214	5	--	--	--	--	--
13+50S 6+00E	214	1	--	--	--	--	--
13+50S 7+00E	214	2	--	--	--	--	--
13+50S 8+00E	214	2	--	--	--	--	--
13+50S 10+00E	214	2	--	--	--	--	--
13+50S 12+00E	214	2	--	--	--	--	--
14+00S 1+00E	214	3	--	--	--	--	--
14+00S 2+00E	214	5	--	--	--	--	--
14+00S 5+00E	214	2	--	--	--	--	--
14+00S 6+00E	214	1	--	--	--	--	--
14+00S 7+00E	214	4	--	--	--	--	--
14+00S 8+00E	214	3	--	--	--	--	--
14+00S 10+00E	214	2	--	--	--	--	--
14+00S 12+00E	214	2	--	--	--	--	--
14+50S 1+00E	214	1	--	--	--	--	--
14+50S 2+00E	214	7	--	--	--	--	--
14+50S 5+00E	214	1	--	--	--	--	--
14+50S 7+00E	214	1	--	--	--	--	--
14+50S 8+00E	214	10	--	--	--	--	--

Certified by ..... Hart Bichler

CTA MEMBER CANADIAN TESTING

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011361-007-A
INVOICE # : 41170
DATE : 10-DEC-80
P.O. # : NONE

ORIGINALLY ON 52854-52856, A8011003

Sample description	Prep code	W ppm					
14+50S 10+00E	214	4	--	--	--	--	--
14+50S 12+00E	214	6	--	--	--	--	--
15+00S 1+00E	214	12	--	--	--	--	--
15+00S 2+00E	214	3	--	--	--	--	--
15+00S 5+00E	214	1	--	--	--	--	--
15+00S 6+00E	214	3	--	--	--	--	--
15+00S 7+00E	214	2	--	--	--	--	--
15+00S 8+00E	214	3	--	--	--	--	--
15+00S 10+00E	214	1	--	--	--	--	--
15+00S 12+00E	214	3	--	--	--	--	--
15+50S 1+00E	214	2	--	--	--	--	--
15+50S 2+00E	214	6	--	--	--	--	--
15+50S 5+00E	214	10	--	--	--	--	--
15+50S 6+00E	214	3	--	--	--	--	--
15+50S 7+00E	214	2	--	--	--	--	--
15+50S 8+00E	214	2	--	--	--	--	--
15+50S 10+00E	214	5	--	--	--	--	--
15+50S 12+00E	214	1	--	--	--	--	--
16+00S 1+00E	214	4	--	--	--	--	--
16+00S 2+00E	214	8	--	--	--	--	--
16+00S 5+00E	214	7	--	--	--	--	--
16+00S 6+00E	214	8	--	--	--	--	--
16+00S 7+00E	214	4	--	--	--	--	--
16+00S 8+00E	214	10	--	--	--	--	--
16+00S 10+74E(A)	214	6	--	--	--	--	--
16+00S 10+74E(B)	214	1	--	--	--	--	--
16+00S 10+74E(C)	214	1	--	--	--	--	--
16+00S 10+74E(D)	214	6	--	--	--	--	--
16+00S 12+00E	214	1	--	--	--	--	--

John Ostler

Hart Bichler

Certified by .....

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011279-001-A
INVOICE # : 41028
DATE : 05-DEC-80
P.O. # : NONE
JANA-STANDARD

CC: JONH OSTLER

Sample description	Prep code	Pb percent	Zn percent	As percent	WO3 percent	Ag oz/t	Au oz/t
STND. ADIT DUMP	207	0.10	0.09	--	<0.01	DELAYED	DELAYED
BUTTE IXL DUMP	207	0.16	0.19	--	--	DELAYED	DELAYED
ROYAL ADIT DUMP	207	--	--	--	<0.01	DELAYED	DELAYED
ROY.PORT.+10VEIN	207	--	--	--	0.25	DELAYED	DELAYED
ROY.PORT.+10SHEA	207	--	--	--	0.08	DELAYED	DELAYED
ROY.PORT.+13.6M	207	--	--	--	<0.01	DELAYED	DELAYED
H4-1	207	--	--	--	<0.01	DELAYED	DELAYED
H4-2	207	--	--	--	<0.01	DELAYED	DELAYED
H8-1	207	<0.01	0.03	DELAYED	--	DELAYED	DELAYED
H9-1	207	<0.01	0.02	DELAYED	--	DELAYED	DELAYED
H10-1	207	<0.01	0.01	DELAYED	--	DELAYED	DELAYED

John Ostler

Registered Assayer, Province of British Columbia

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8011279-001-A
INVOICE # : 41233
DATE : 16-DEC-80
P.O. # : NONE
JANA-STANDARD

CC: JONH OSTLER

Sample description	Prep code	Pb percent	Zn percent	As percent	WO3 percent	Ag oz/t	Au oz/t
STND. ADIT DUMP	207	0.10	0.09	--	<0.01	0.24	<0.003
BUTTE IXL DUMP	207	0.16	0.19	--	--	0.24	<0.003
ROYAL ADIT DUMP	207	--	--	--	<0.01	0.10	<0.003
ROY.PORT.+10VEIN	207	--	--	--	0.25	0.10	<0.003
ROY.PORT.+10SHEA	207	--	--	--	0.08	0.20	<0.003
ROY.PORT.+13.6M	207	--	--	--	<0.01	0.12	<0.003
H4-1	207	--	--	--	<0.01	0.12	<0.003
H4-2	207	--	--	--	<0.01	0.10	<0.003
H8-1	207	<0.01	0.03	DELAYED	--	0.16	<0.003
H9-1	207	<0.01	0.02	DELAYED	--	0.12	<0.003
H10-1	207	<0.01	0.01	DELAYED	--	0.12	<0.003

Registered Assayer, Province of British Columbia

CHEMEX LABS LTD.

212 BROOKSBANK AVE
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE (604)984-0221
TELEX 043-52597

ANALYTICAL CHEMISTS GEOCHEMISTS REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : Nevin Sadlier-Brown Goodbrand Ltd.,
401 - 134 Abbott St.,
Vancouver, B.C.
V6B 2K4

CERT. # : A8C110C1-001-
INVOICE # : 40757
DATE : 26-NOV-8C
P.O. # : NONE

Sample description	Prep code	Cu percent	Zn percent	WO3 percent	Ag oz/t	Au oz/t	
95079	207	--	--	--	--	<0.003	--
95080	207	--	--	<0.01	--	<0.003	--
95081	207	<0.01	<0.01	--	0.01	<0.003	--
95082	207	<0.01	<0.01	--	0.01	<0.003	--
95083	207	<0.01	0.01	--	0.01	<0.003	--
95084	207	<0.01	<0.01	--	0.01	0.005	--
95087	207	<0.01	<0.01	--	0.01	<0.003	--
95088	207	<0.01	<0.01	--	0.01	<0.003	--
95089	207	<0.01	<0.01	--	0.01	<0.003	--
95090	207	0.01	0.01	--	0.01	0.003	--
95091	207	--	--	--	--	0.003	--

CHEMEX LABS LTD.
212 BROOKSBANK AVENUE NORTH VANCOUVER, B.C. V7J 2C1
PHONE (604) 984-0221 TELEX 04-352597

Group	Parameter (Units)	Code
0	Soil & Sediment -80 mesh	201
0	(Au) Soil & Sed -80 mesh	202
0	-35 mesh sieve & ring	203
0	-80 mesh sieve & ring	204
0	Rock geochem - ring	205
0	Lake sediment - ring	206
0	Assay - pulverize	207
0	Assay - ring	208
0	High grade assay - Ring	209
0	Wiley Mill (geochem)	210
0	Wiley Mill (envir.)	211
0	Pulp composite	212
0	Heavy Min. Sep. SG 3.0	213
0	Bag pulp	214
0	Water - filter/acidify	215

John Carter

.....

Chief Assayer, Province of British Columbia

APPENDIX D

Zinc in Soils

PPM	Ostler Oct. 1980	Brownlee May 1980	Total Determinations	Distribution %
0 - 99	114	48	162	57.23
100 - 199	48	42	90	31.79
200 - 299	4	7	11	3.89
300 - 399	6	3	9	3.18
400 - 499	1	1	2	0.71
500 - 599	1	-	1	0.36
600 - 699	1	1	2	0.71
700 - 799	-	-	0	----
800 - 899	1	1	2	0.71
900 - 999	-	-	0	-----
1000	3	1	4	1.42
Total Det.	179	104	283	100%

Excludes

Zinc 200 ppm Line 89.02%

500 ppm Line 96.80% of data

APPENDIX E

Gold in Soils

PPB	Ostler Oct. 1980	Brownlee May 1980	Total Determinations	Distribution %
10	140	79	219	76.57
10 - 19	33	20	53	18.53
19 - 29	8	4	12	4.20
30	2	0	2	0.70
Total Det.	183	103	286	100%

Au 10 ppb 76.57% of data

APPENDIX F

Arsenic in Soils

PPM	Ostler Oct. 1980	Brownlee May 1980*	Total Determinations	Distribution %
0 - 24	82	48	130	46.75
25 - 49	67	26	93	33.46
50 - 74	21	12	33	11.87
75 - 99	4	4	8	2.88
100 - 124	4	3	7	2.52
125 - 149	1	1	2	0.72
150 - 174	0	0	0	----
175 - 199	0	1	1	0.36
+200	2	2	4	1.44
Total Det.	181	97	278	100%

As 50 ppm 80.21% excluded

APPENDIX G

Mercury in Soils

Ostler Oct. 1980	Determinations	Distribution
0 - 24 ppm	0	0.0
25 - 49	18	10.06
50 - 74	93	51.96
75 - 99	28	15.64
100 - 124	16	8.94
125 - 149	7	3.91
150 - 174	5	2.79
175 - 199	5	2.79
200 - 225	2	1.12
225	5	2.79
Total Det.	179	100%

Mercury 100 ppm line excludes 77.65% of data

APPENDIX H

Tungsten in Soils

Ostler Oct. 1980	Determination	Distribution
0 - 4 ppm	198	74.72%
5 - 9	38	14.34%
10 - 14	27	10.19%
+15	2	0.75%
Total Det.	265	100%

Tungsten 5 ppm isoline excludes 74.72% of the data

10 ppm isoline excludes 89.06% of the data

APPENDIX I

ITEMIZED COST STATEMENT: JANA-ROYAL-BUTTE-STANDARD CLAIMS, BRIDGE RIVER AREA, B.C.

Consulting Fees	$ 2,553.28
Geological, geochemical, geophysical surveys	6,044.99
Travel, meals and accommodation	1,948.06
Assays	2,904.55
Reproductions and drafting	493.57
TOTAL	$ 13,944.45

APPENDIX J

Certificate of Qualification

I, John Ostler, of 1902 - 1501 Haro Street, City of Vancouver, Province of British Columbia DO HEREBY CERTIFY:

That I am a consulting geologist with business address at 1901 - 1501 Haro Street, City of Vancouver, British Columbia

That I am a graduate of Carleton University of Ottawa, Ontario where I obtained my Master of Science degree in Geology in 1977.

That I have been engaged in the study and practiceof the geological profession for over ten years and that I am a fellow of the Geological Association of Canada

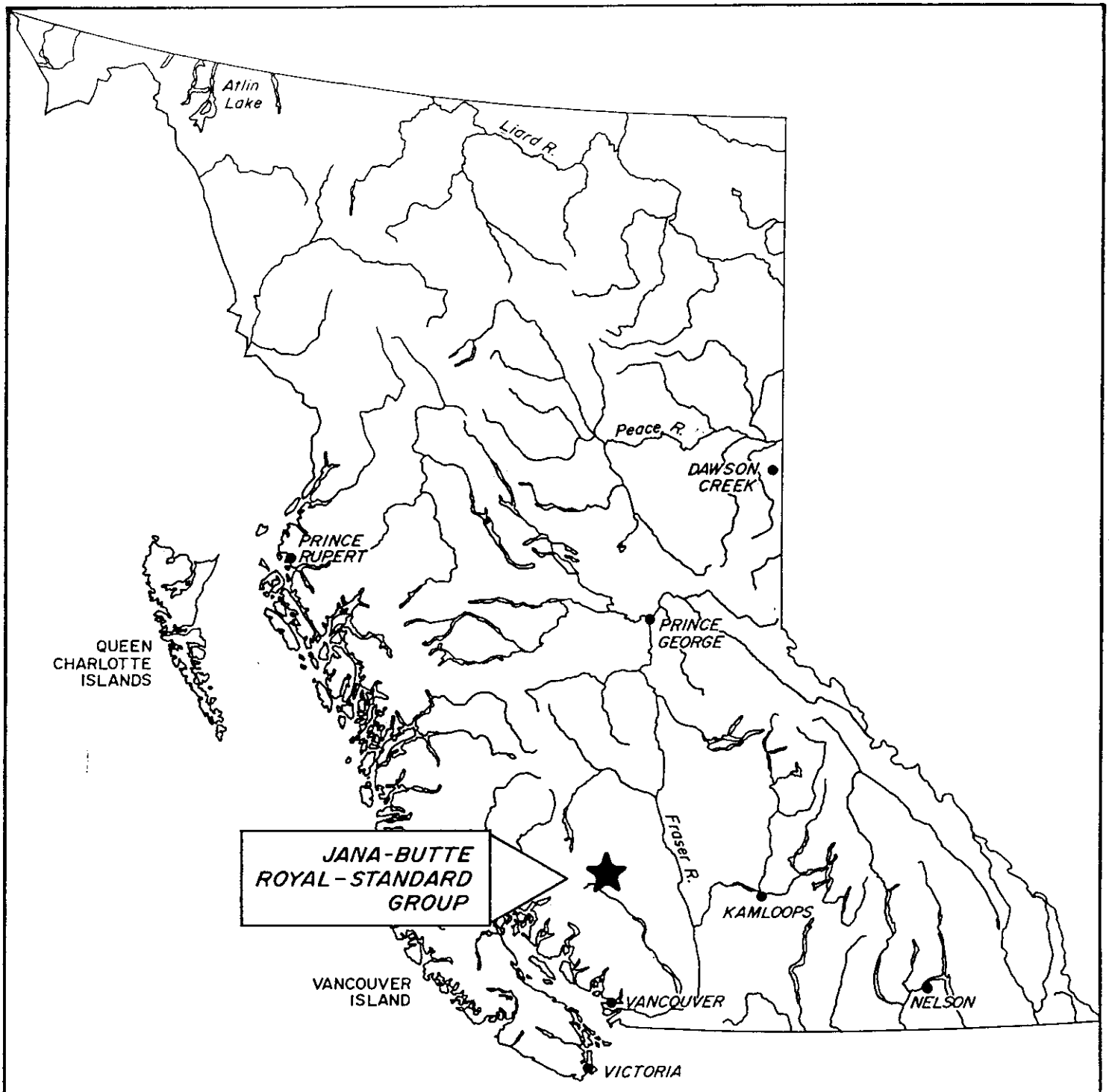
That this report is based on a personal examination of the Jana-Butte-Royal-Standard claim group from October 20th-30th, 1980

That I have no interest in the Jana-Butte-Royal-Standard claim group nor in the securities of Hillside Energy Corporation, nor do I expect to receive any

My wife owns 2000 shares of Hillside Energy Corporation.
Dated at Vancouver, British Columbia this 19th day of December, 1980.

John Ostler

John Ostler, M.Sc.



HILLSIDE ENERGY CORPORATION

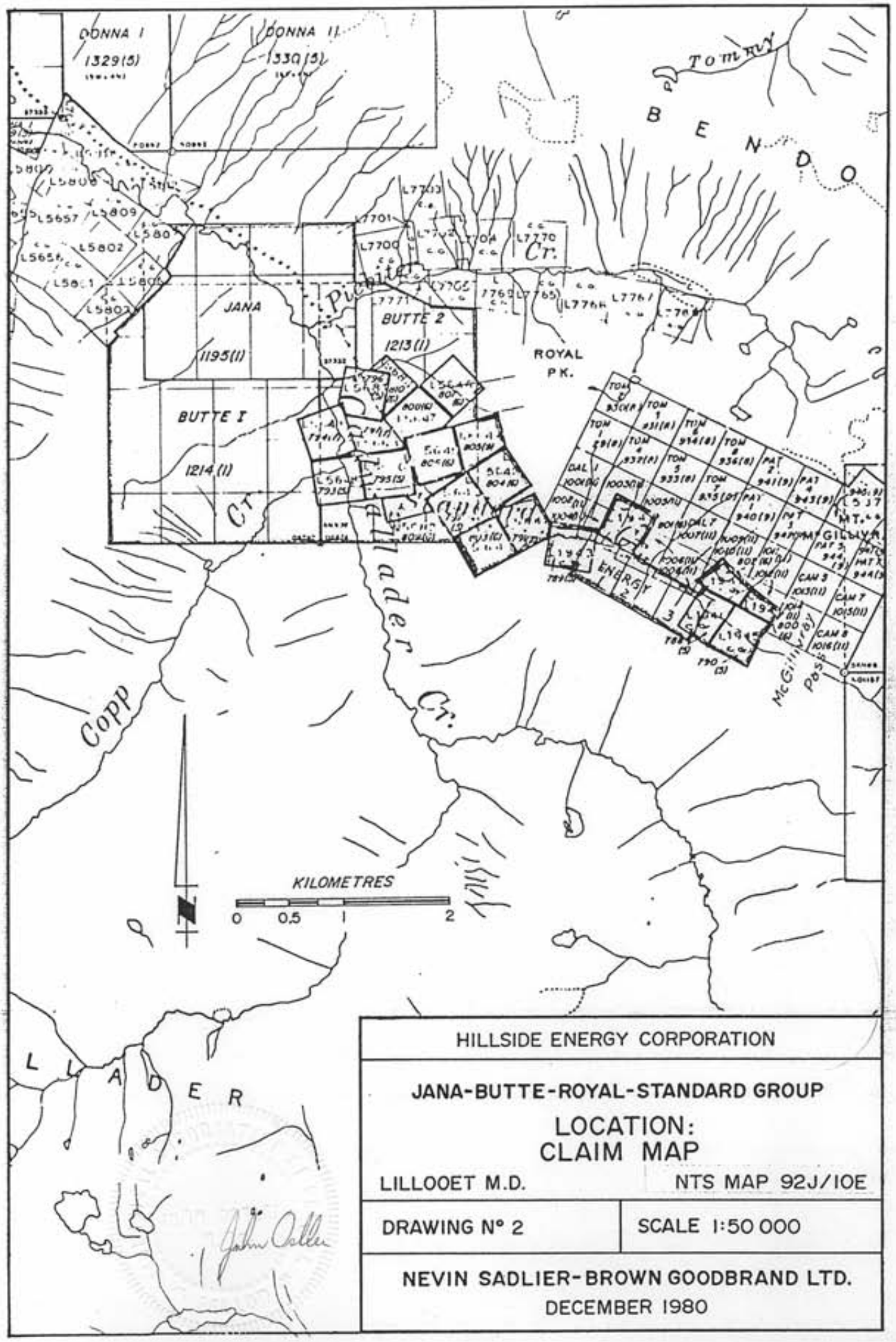
JANA-BUTTE-ROYAL-STANDARD GROUP

GENERAL LOCATION

LILLOOET M.D.

DRAWING N° 1

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980



HILLSIDE ENERGY CORPORATION

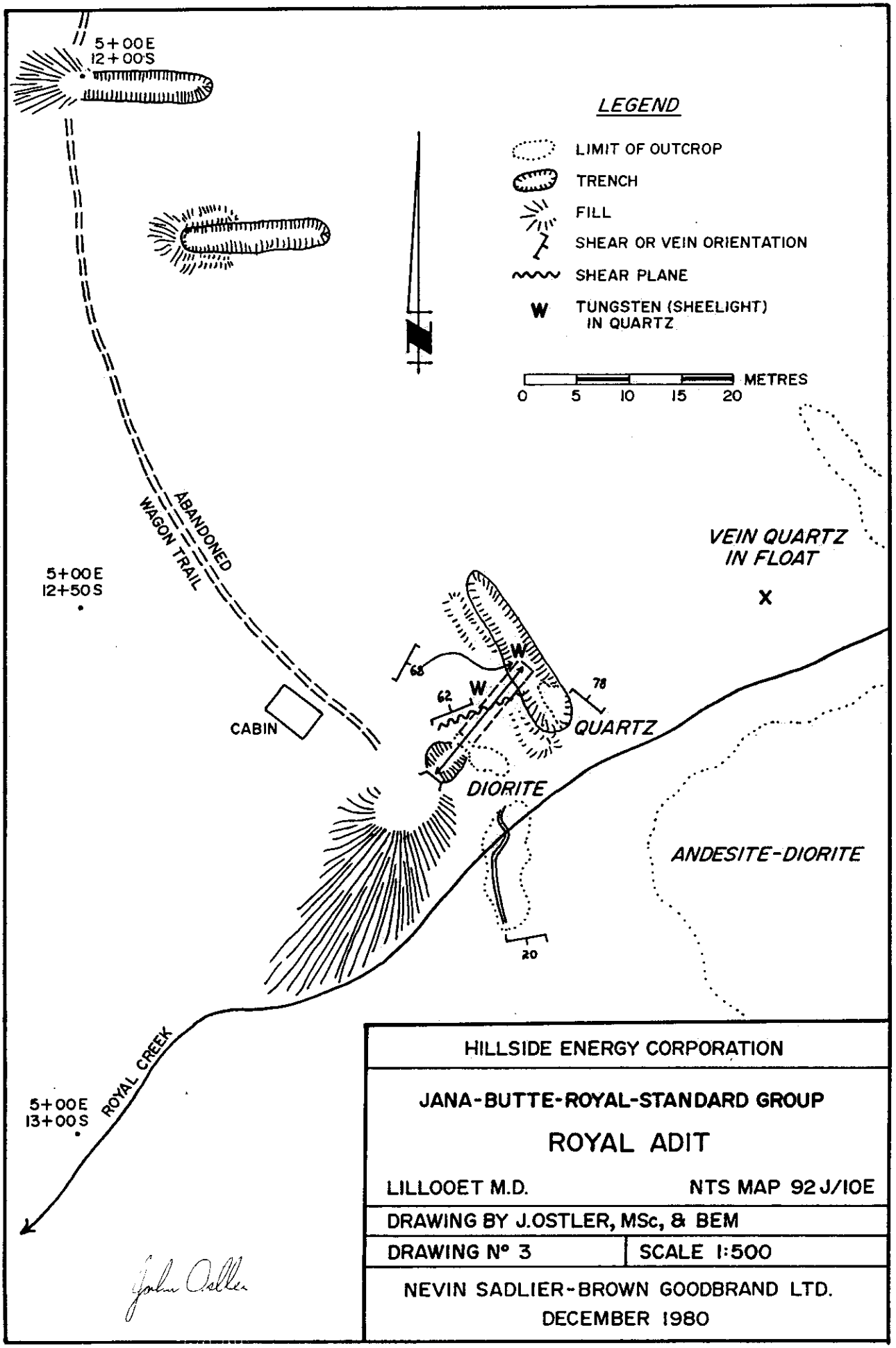
JANA-BUTTE-ROYAL-STANDARD GROUP

LOCATION: CLAIM MAP

LILLOOET M.D. NTS MAP 92J/10E

DRAWING N° 2	SCALE 1:50 000

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980



HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

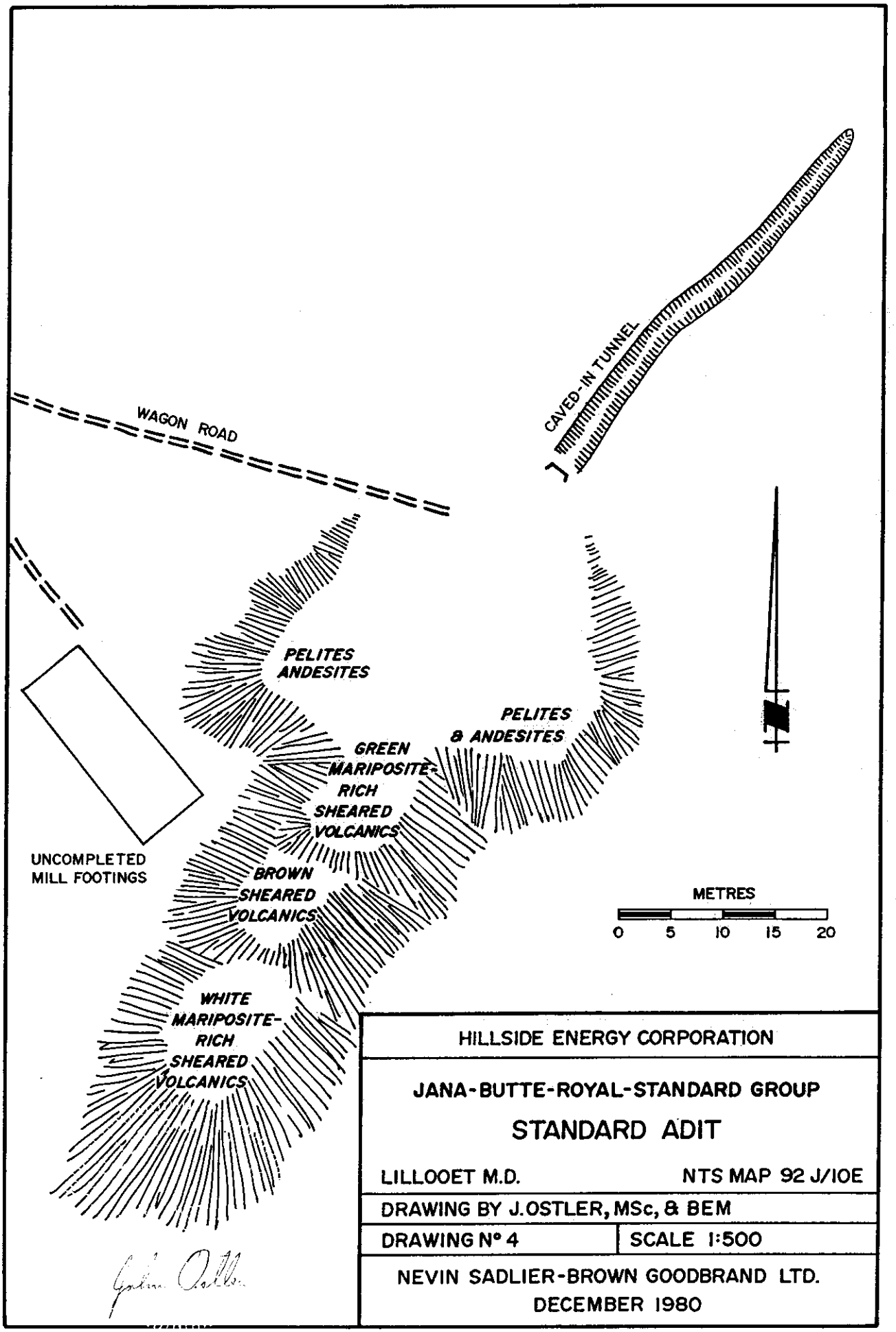
ROYAL ADIT

LILLOOET M.D. NTS MAP 92 J/10E

DRAWING BY J.OSTLER, MSc, & BEM

DRAWING N° 3 | SCALE 1:500

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980



HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

STANDARD ADIT

LILLOOET M.D. NTS MAP 92 J/10E

DRAWING BY J.OSTLER, MSc, & BEM

DRAWING N° 4 | SCALE 1:500

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980

LEGEND

CENOZOIC

MODERN

15 — *PLEISTOCENE and RECENT: recent alluvium and glacial drift*

MESOZOIC OR CENOZOIC

CRETACEOUS OR TERTIARY

BENDOR INTRUSIVES

14 — *Hornblende-biotite-quartz diorite; some granite, granodiorite and diorite*

13 — *Porphyritic diorite; feldspar porphyrite, hornblende porphyrite; felsite, aphanite*

MESOZOIC

JURASSIC (?)

BRALORNE INTRUSIVES

9 — *Soda granite*

8 — *Gabbro, augite diorite, quartz diorite, meta-diorite*

PRESIDENT INTRUSIVES

12 — *Peridotite; some dunite, pyroxenite; serpentine*

11 — *Serpentine*

TRIASSIC AND (OR) JURASSIC

7 — *HURLEY FORMATION: argillaceous and tuffaceous sediments, in part calcareous; limestone, conglomerate, tuff, lava flows*

6 — *PIONEER FORMATION: andesite, meta-andesite; tuff, breccia*

5 — *NOEL FORMATION: argillaceous and tuffaceous sediments; conglomerate; tuff, breccia; some chert and greenstone*

PALAEOZOIC (?)

PERMIAN (?)

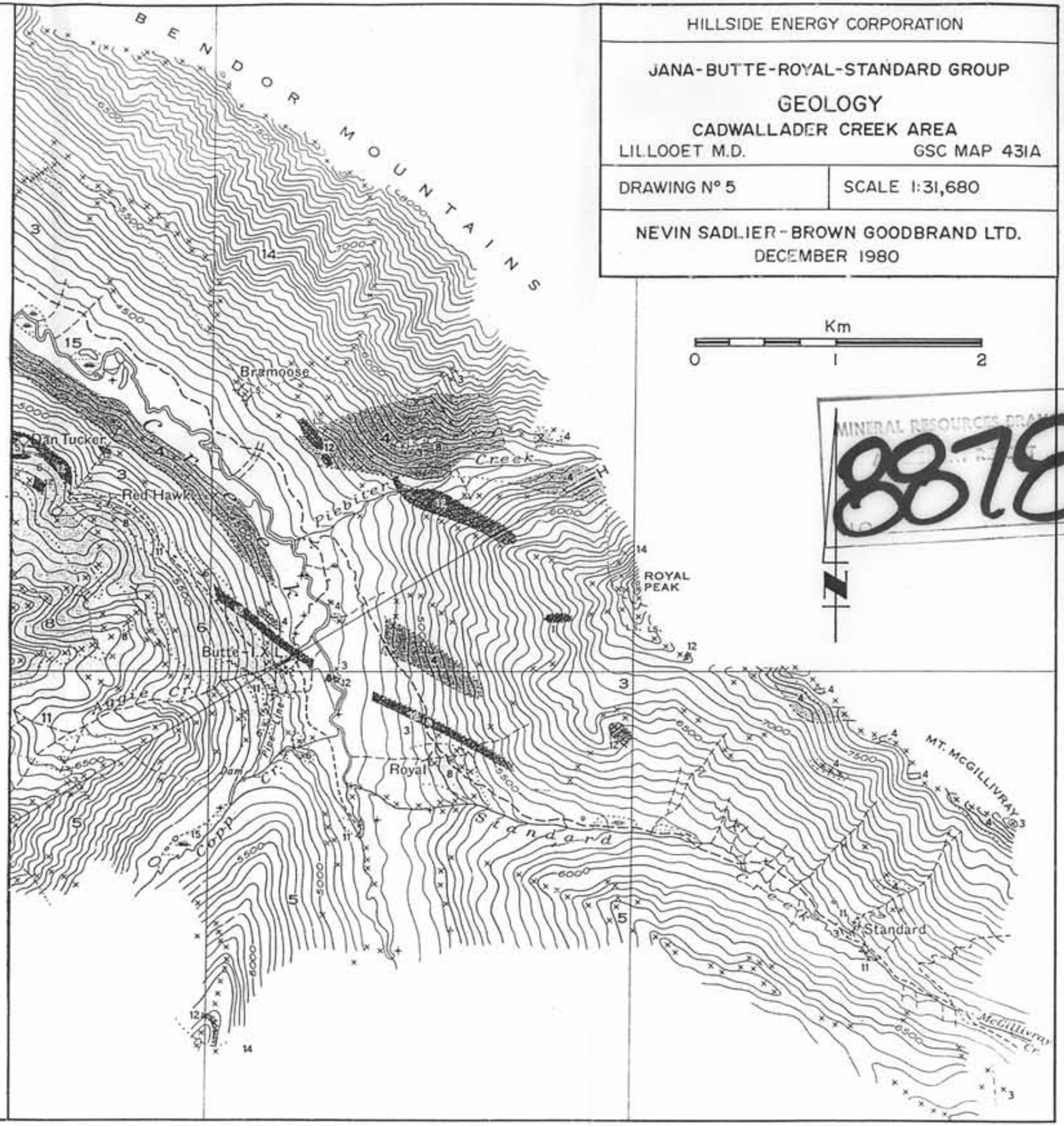
FERGUSSON SERIES

4 — *Basalt, andesite; tuff, breccia; crystalline limestone*

3 — *Mainly thinly interbedded chert and argillite; massive chert; crystalline limestone*

2 — *Areas of augite diorite, etc. (8) in which bodies of soda granite (9) occur*

1 — *Indistinguishable Pioneer greenstone and Bralorne intrusives: mainly fine-grained diorite and (or) greenstone*



HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

GEOLOGY

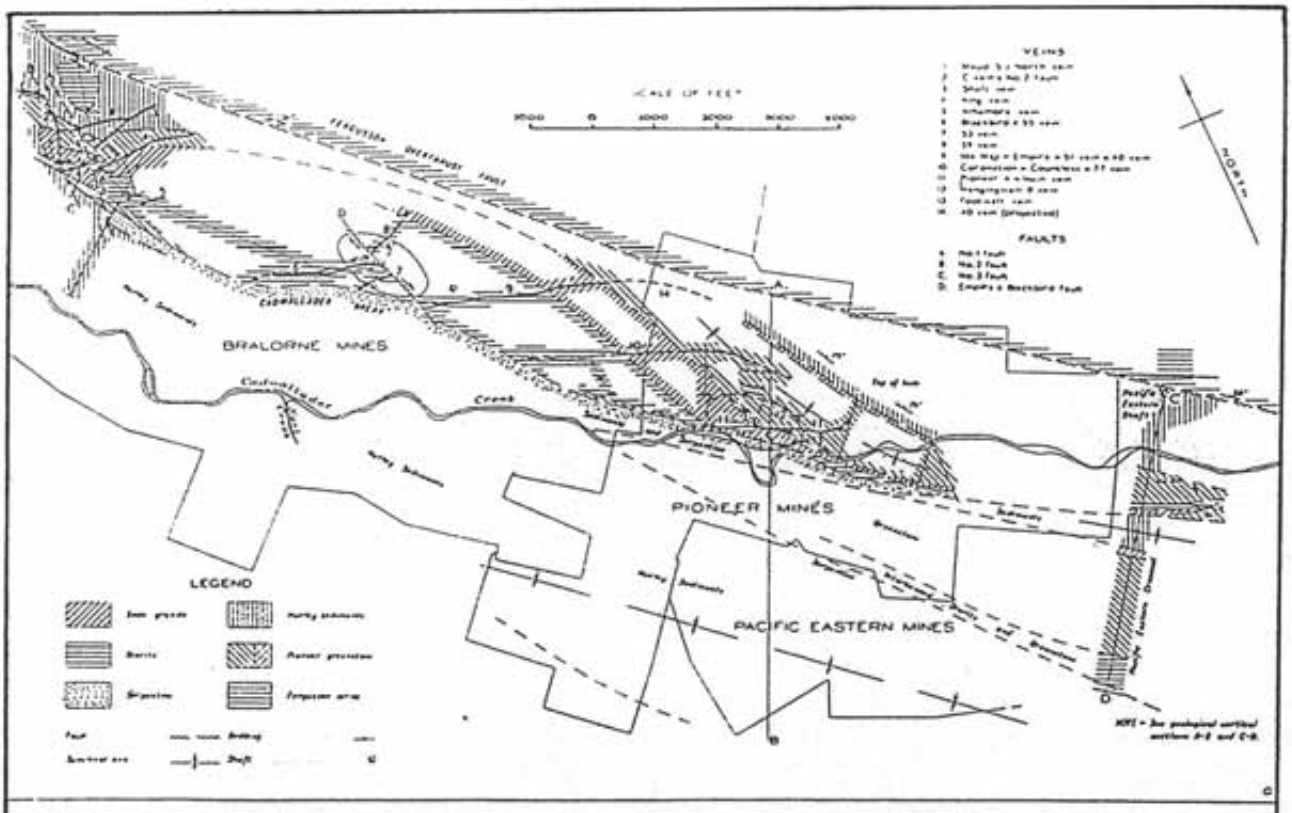
CADWALLADER CREEK AREA

LILLOOET M.D. GSC MAP 431A

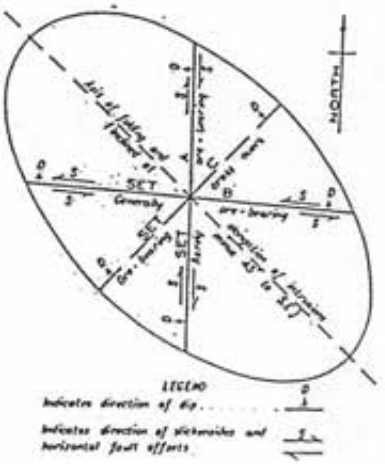
DRAWING N° 5 | SCALE 1:31,680

NEVIN SADLIER-BROWN GOODBRAND LTD.

DECEMBER 1980



6a Geological plan of Cadwallader gold belt on plane at elevation 3,200 feet.



6b Strain ellipsoid, Cadwallader gold belt.

DIAGRAMS FROM:

F.R. Joubin, 1948
Bralorne and Pioneer Mines

HILLSIDE ENERGY CORPORATION

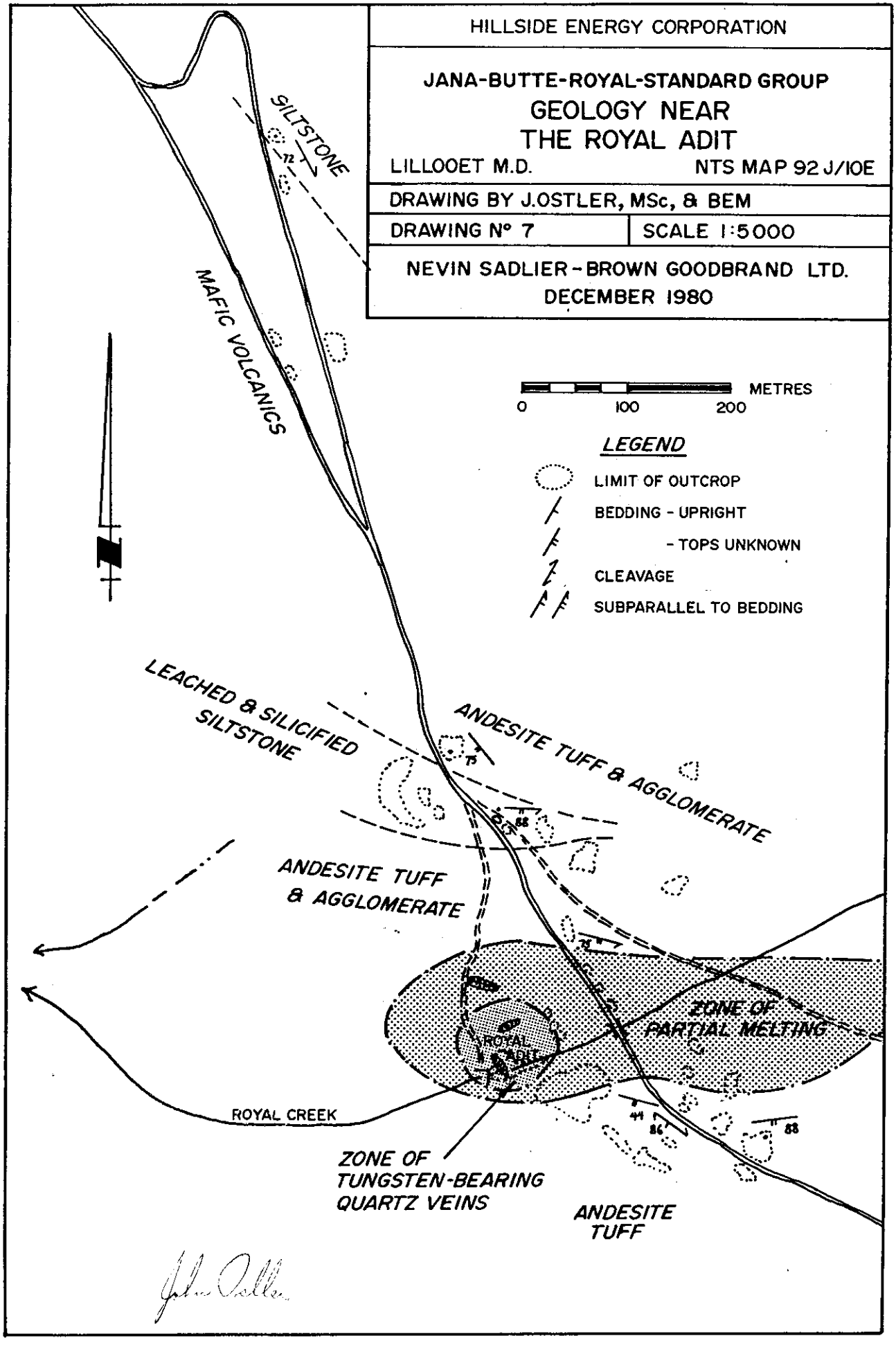
JANA-BUTTE-ROYAL-STANDARD GROUP

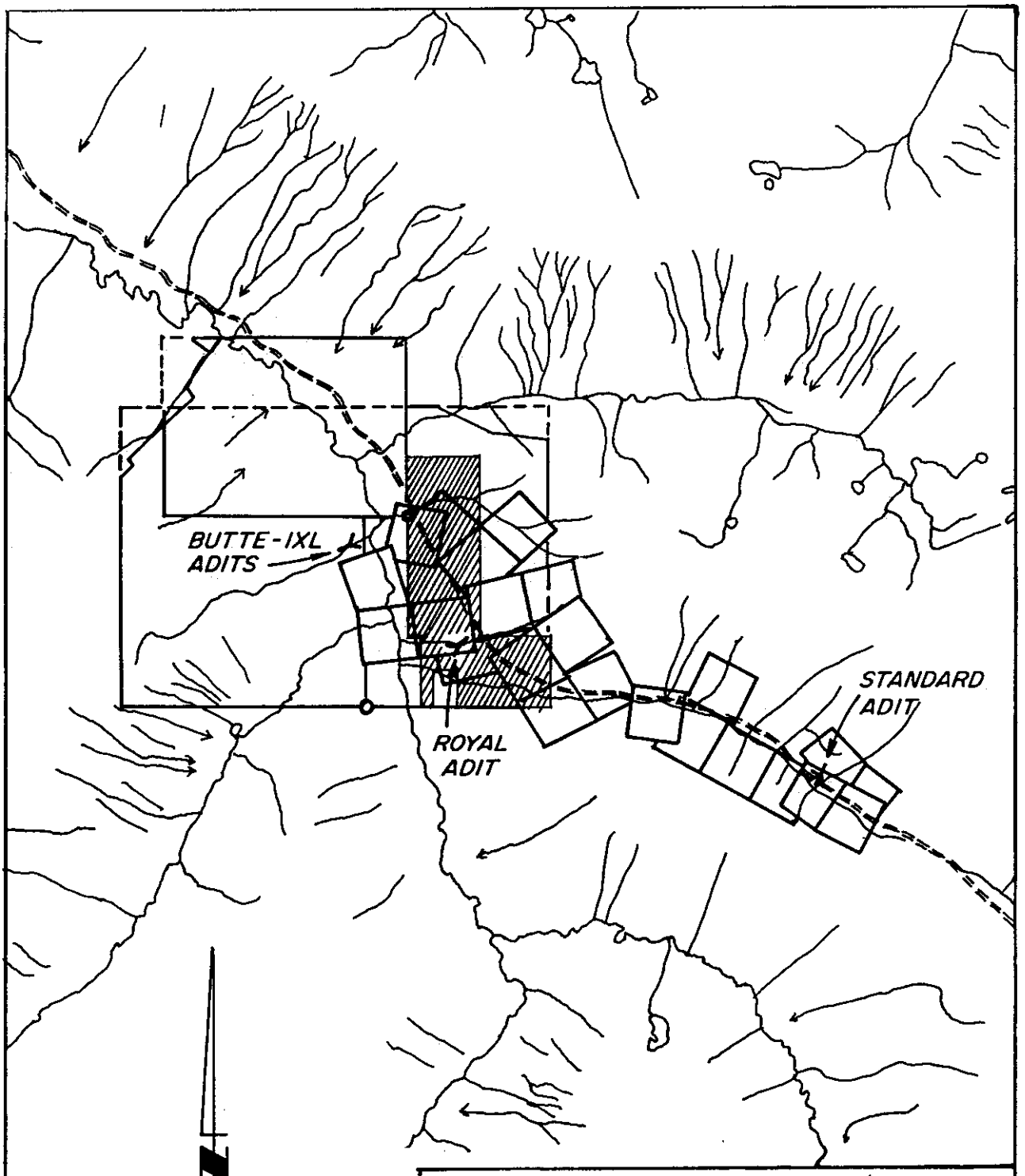
STRUCTURE OF THE CADWALLADER GOLD BELT

LILLOOET M.D. NTS MAP 92J/10E

DRAWING N° 6

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980


HILLSIDE ENERGY CORPORATION
JANA-BUTTE-ROYAL-STANDARD GROUP
GEOLOGY NEAR
THE ROYAL ADIT
LILLOOET M.D.
NTS MAP 92 J/10E
DRAWING BY J.OSTLER, MSc, & BEM
DRAWING N° 7
SCALE 1:5000
NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980
METRES
0
100
200
LEGEND
LIMIT OF OUTCROP
BEDDING - UPRIGHT
- TOPS UNKNOWN
CLEAVAGE
SUBPARALLEL TO BEDDING
SILTSTONE
MAFIC VOLCANICS
LEACHED & SILICIFIED SILTSTONE
ANDESITE TUFF & AGGLOMERATE
ANDESITE TUFF & AGGLOMERATE
ZONE OF PARTIAL MELTING
ROYAL ADIT
ROYAL CREEK
ZONE OF TUNGSTEN-BEARING QUARTZ VEINS
ANDESITE TUFF



METRES
0 1000 2000

SOIL GRID LOCATION

HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

1980 SOIL GRID LOCATION

LILLOOET M.D. NTS MAP 92 J/10E

DRAWING BY J.OSTLER, MSc, & BEM

DRAWING N° 8 | SCALE 1:50 000

NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980

LEGEND

ADIT

TRENCH

GRID LINES

JUNE 1980

OCTOBER 1980

ROAD PASSABLE BY 4x4

ABANDONED WAGON TRAIL

5000 100' CONTOUR INTERVALS

NOTES: 1- CONTOURS APPROXIMATED FROM 1:50 000 SCALE MAP 92 J/10.

2- SOIL LINES LAID OUT BY BRUNTON COMPASS AND HIP CHAIN.

BASE LINE

ROYAL CREEK

STANDARD CREEK

ROYAL ADIT

8870

SCALE

100 0 100 200 M

John Ostler

HILLSIDE ENERGY CORPORATION	
JANA-BUTTE-ROYAL-STANDARD GROUP	
1980 SOIL GRIDS	
LILLOOET M.D.	NTS MAP 92J/10E
DRAWING BY J.OSTLER, MSc, & BEM	
DRAWING N° 9	SCALE 1:5000
NEVIN SADLIER - BROWN GOODBRAND LTD. DECEMBER 1980	

LEGEND

- ADIT
- TRENCH
- GRID LINES
  - JUNE 1980
  - OCTOBER 1980
- ROAD PASSABLE BY 4x4
- ABANDONED WAGON TRAIL
- —Au 10 ppb— GOLD ISOLINE
- ZONE OF PARTIAL MELTING IN ANDESITE
- ZONE OF TUNGSTEN-BEARING QUARTZ VEINS
- Au >10 ppb — ASSAY RESULTS

LCP JANA CLAIMS

BASELINE

Au 10 ppb

10+00S

ROYAL ADIT

ROYAL CREEK

STANDARD CREEK

8878

SCALE

100 0 100 200 M

HILLSIDE ENERGY CORPORATION	
JANA-BUTTE-ROYAL-STANDARD GROUP GEOCHEMICAL SURVEY GOLD	
LILLOOET M.D.	NTS MAP 92J/10E
DRAWING BY J.OSTLER, MSc, & BEM	
DRAWING N° 11	SCALE 1:5000
NEVIN SADLIER - BROWN GOODBRAND LTD. DECEMBER 1980	

LEGEND

- ADIT
- TRENCH
- GRID LINES
  - JUNE 1980
  - OCTOBER 1980
- ROAD PASSABLE BY 4x4
- ABANDONED WAGON TRAIL
- —Zn200ppm— ZINC ISOLINE
- BEDDING, UPRIGHT
- BEDDING, TOPS UNKNOWN
- CLEAVAGE SUB-PARALLEL TO BEDDING
- Au>10 ppb / Zn ppm — ASSAY RESULTS

BASELINE

LCP JANA CLAIM

Zn 200 ppm

Zn 200 ppm

Zn 200 ppm

Zn 500 ppm

Zn 500 ppm

Zn 500 ppm

Zn 200 ppm

Zn 200 ppm

10+00S

ROYAL ADIT

ROYAL CREEK

STANDARD CREEK

8878

SCALE

100 0 100 200 M

HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

GEOCHEMICAL SURVEY

ZINC

LILLOOET M.D. NTS MAP 92J/10E

DRAWING BY J.OSTLER, MSc, & BEM

DRAWING N° 10 | SCALE 1:5000

NEVIN SADLIER - BROWN GOODBRAND LTD.

DECEMBER 1980

LEGEND

- ADIT
- TRENCH
- GRID LINES
  - JUNE 1980
  - OCTOBER 1980
- ROAD PASSABLE BY 4x4
- ABANDONED WAGON TRAIL
- —Hg 100 ppb— MERCURY ISOLINE
- —Zn 500ppm— ZINC ISOLINE (see Drawing N° 10)
- TREND OF GOLD-RICH SOIL ZONES (see Drawing N° 11)
- ZONE OF PARTIAL MELTING IN ANDESITE
- ZONE OF TUNGSTEN-BEARING QUARTZ VEINS
- Au >10 ppb / Hg ppb — ASSAY RESULTS

Hg 100 ppb

Hg

LCP JANA CLAIM

BASELINE

Hg

Zn 500 ppm

Zn 500 ppm

10+00S

Hg 100 ppb

Hg 100 ppb

ROYAL ADIT

ROYAL CREEK

Hg 100 ppb

Hg 100 ppb

Hg

Hg

STANDARD CREEK

8878

SCALE

100 0 100 200 M

HILLSIDE ENERGY CORPORATION	
JANA-BUTTE-ROYAL-STANDARD GROUP GEOCHEMICAL SURVEY MERCURY	
LILLOOET M.D.	NTS MAP 92J/10E
DRAWING BY J.OSTLER, MSc, & BEM	
DRAWING N° 13	SCALE 1:5000
NEVIN SADLIER - BROWN GOODBRAND LTD. DECEMBER 1980	

LEGEND

ADIT

TRENCH

GRID LINES

JUNE 1980

OCTOBER 1980

ROAD PASSABLE BY 4x4

ABANDONED WAGON TRAIL

—As 50 ppm— ARSENIC ISOLINE

—Zn 500 ppm— ZINC ISOLINE (see Drawing N° 10)

TREND OF GOLD-RICH SOIL ZONES (see Drawing N° 11)

ZONE OF PARTIAL MELTING IN ANDESITE

ZONE OF TUNGSTEN-BEARING QUARTZ VEINS

Au>10 ppb / As ppm — ASSAY RESULTS

As 50 ppm

LCP JANA CLAIM

BASELINE

NO SAMPLES

ROYAL ADIT

Zn 500 ppm

10+00S

ROYAL CREEK

STANDARD CREEK

8878

SCALE

100 0 100 200 M

HILLSIDE ENERGY CORPORATION

JANA-BUTTE-ROYAL-STANDARD GROUP

GEOCHEMICAL SURVEY

ARSENIC

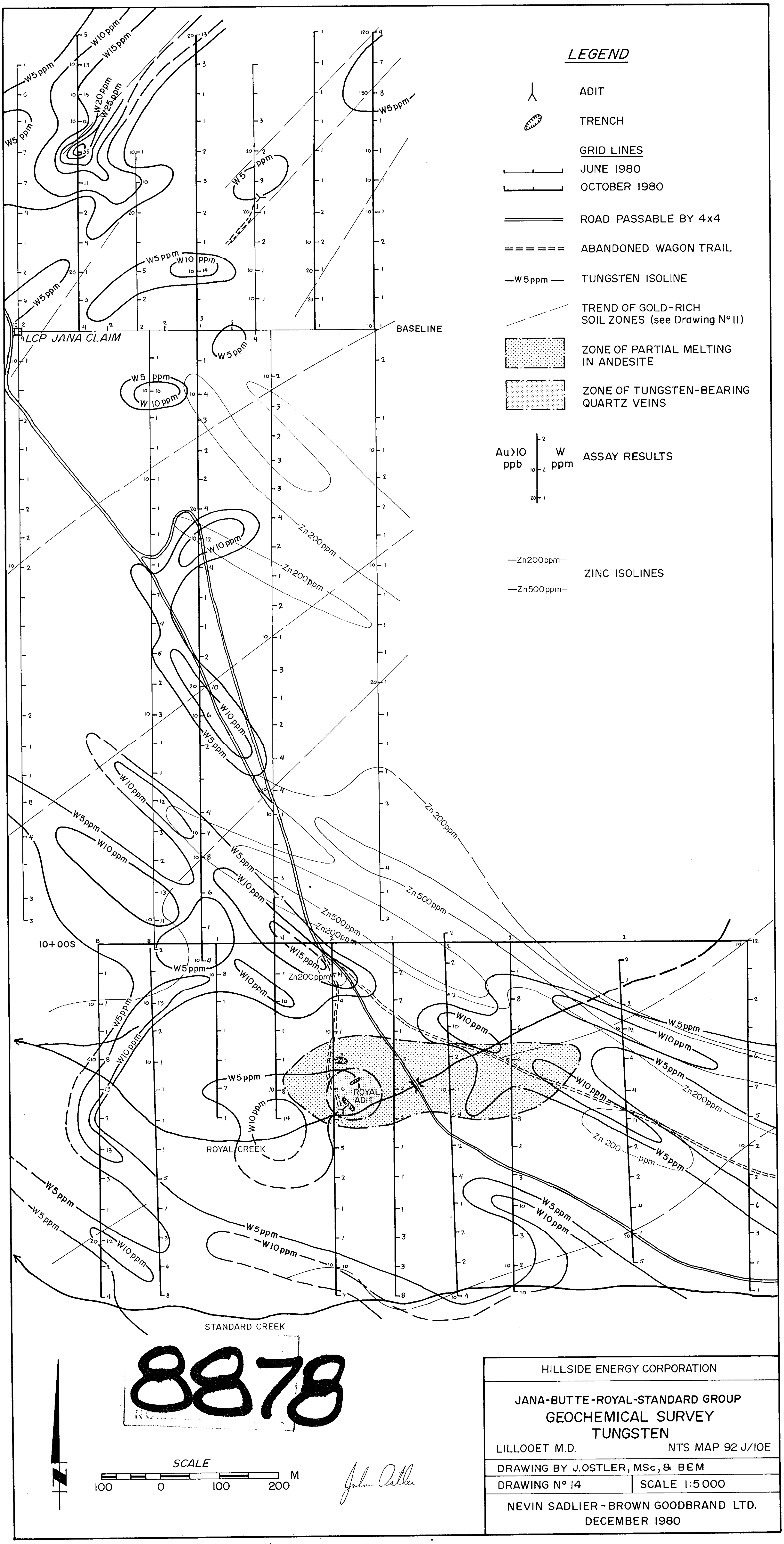
LILLOOET M.D. NTS MAP 92J/10E

DRAWING BY J.OSTLER, MSc, & BEM

DRAWING N° 12 | SCALE 1:5000

NEVIN SADLIER - BROWN GOODBRAND LTD.

DECEMBER 1980


LEGEND
ADIT
TRENCH
GRID LINES
JUNE 1980
OCTOBER 1980
ROAD PASSABLE BY 4x4
ABANDONED WAGON TRAIL
—W5ppm— TUNGSTEN ISOLINE
TREND OF GOLD-RICH SOIL ZONES (see Drawing N° 11)
ZONE OF PARTIAL MELTING IN ANDESITE
ZONE OF TUNGSTEN-BEARING QUARTZ VEINS
Au>10 ppb
W ppm
ASSAY RESULTS
—Zn200ppm—
—Zn500ppm—
ZINC ISOLINES
BASELINE
LCP JANA CLAIM
10+00S
ROYAL ADIT
ROYAL CREEK
STANDARD CREEK
W5ppm
W10ppm
W15ppm
W20ppm
W25ppm
Zn200ppm
Zn500ppm
8878
SCALE
100 0 100 200 M
John Ostler
HILLSIDE ENERGY CORPORATION
JANA-BUTTE-ROYAL-STANDARD GROUP
GEOCHEMICAL SURVEY
TUNGSTEN
LILLOOET M.D.
NTS MAP 92 J/10E
DRAWING BY J.OSTLER, MSc, & BEM
DRAWING N° 14
SCALE 1:5000
NEVIN SADLIER-BROWN GOODBRAND LTD.
DECEMBER 1980