

92J/10W

ASSESSMENT - GEOPHYSICAL REPORT

on the

AIRBORNE MAGNETOMETER
AIRBORNE ELECTROMAGNETIC
AIRBORNE RADIOACTIVITY

SURVEYS

of the

IVAN 1 - 16 MINERAL CLAIMS
MINERAL LEASES: M - 31-32
BIRKENHEAD - PEMBERTON AREA
LILLOOET MINING DIVISION
BRITISH COLUMBIA

Latitude $50^{\circ}31'30''$ North; Longitude $122^{\circ}55'$ West

JAMES C. BEGGS Esq.

Airborne Surveys by: Waterton Airex Ltd.

Interpretation by: Weymark Engineering Ltd.

15 November 1972

WEYMARK ENGINEERING LTD.
CONSULTING ENGINEERS
WEST VANCOUVER, B.C.

4154

4154

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Department of
Mines and Geotechnical Resources
ASSESSMENT REPORT
NO. 4154 M.S.P.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of

A Geophysical Survey on behalf
of James C. Beggs, 566 Shannon
Crescent, North Vancouver, British Columbia.

I, William J. Weymark P. Eng., President of Weymark Engineering Ltd.
of 3310 Westmount Road, West Vancouver, British Columbia.

of

in the Province of British Columbia, do solemnly declare that an aeromagnetic, electromagnetic
and radioactivity survey has been conducted on the Ivan 1-16
Mineral Claims, and Mineral Leases M 31-32; Birkenhead-Pemberton
Area, Lillooet Mining Division, British Columbia, - August -
November 1972 with Report issued 15th December 1972.

The following expenses were incurred:

- 1. Waterton Airex Ltd. - Flying, positioning and
reading Airborne, Magnetometer, Electromagnetic and
Radioactivity tests on aforesaid claims:

Approx 50 miles at \$12.00 per mile \$616.00

- 2. Paid to Weymark Engineering Ltd. to cover geo-
physicists supervision, calculating, plotting
and fairdrawing data and preparation of final
Reports.

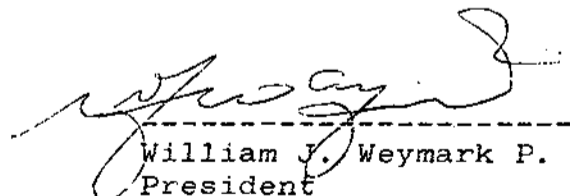
Approx 50 miles at \$24.00 per mile 1200.00

Total \$1816.00

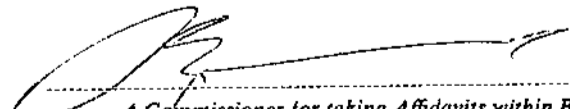
Navigational aids were furnished by James C. Beggs
and Weymark Engineering Ltd. to assist flight
navigation.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of
the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the CITY
of VANCOUVER, in the
Province of British Columbia, this
day of JANUARY 1973, A.D.



William J. Weymark P. Eng.
President
Weymark Engineering Ltd.



A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

In the Matter of

.....
.....
.....
.....

Statutory Declaration
(CANADA EVIDENCE ACT)

Department of
Mines and Technical Resources
ASSESSMENT REPORT
NO. 4154

Department of
Mines and Technical Resources

A. J. B. S. L. T. REPORT

NO. 4154 M. P. #1



LOCATION

JAMES C. BEGGS

TENQUILLE CLAIMS GROUP

BIRKENHEAD - PENBENTON AREA

LILLOOET MINING DIVISION

BRITISH COLUMBIA

ASSESSMENT - GEOPHYSICAL REPORT
TENQUILLE LAKE "IVAN" MINERAL CLAIMS
BIRKENHEAD - PEMBERTON AREA
LILLOOET MINING DIVISION
BRITISH COLUMBIA

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WEYMARK ENGINEERING LTD.

Consulting Engineers

3310 WESTMOUNT ROAD
WEST VANCOUVER, B.C.
CANADA

TELEPHONE
922-1536

15 November 1972

Mr. James C. Beggs
566 Shannon Crescent
North Vancouver, B.C.

Dear Sir:

Re: Assessment-Geophysical Report
Tenquille Claims Group
Lillooet Mining Division
British Columbia

I am pleased to submit for your information, this Assessment-Geophysical Report of the results of the Aerial Geophysical Surveys completed on the 4th August 1972 by Waterton Airex Ltd., Sidney, British Columbia and the interpretation by William Chang M. Sc., Geophysics, McGill University and W. J. Weymark P. Eng., of the recorded field readings over the Ivan 1 - 16 Mineral Claims and Mineral Leases Nos M. 31 and M. 32, Tenquille Lake Area, Lillooet Mining Division, British Columbia.

Background technical references relating to the Tenquille Lake "Ivan" Mineral Claims Group are given in British Columbia, Minister of Mines Reports, See Annex - A and Summary Report, 1924, Part A, Geological Survey, Canada, Pemberton Area, Lillooet District, British Columbia by C. E. Cairnes 1935.

1.0 Property: The area covered by the aerial geophysical surveys involved the Ivan 1 - 16 Mineral Claims and Leases M - 31 and M - 32. Designation details are given in the following table:

<u>Claim Name</u>	<u>Staking Date</u>	<u>Record No.</u>	<u>Record Date</u>
Ivan 1 - 6	24 July 1968	29010 - 15	29 July/68
Ivan 7 - 16	25 July 1968	29016 - 25	29 July/68
<u>Mineral Lease</u>			
Lease M32 - Santa Barbara Lot 4810			20 Jan/1967
Lease M31 - Saint Paul Lot 4811 and Crown Fraction			20 Jan/1967

The claims and leases were located by S. D. Romans of Vancouver as Agent for Ivan Silver Mines Ltd. (NPL) and transferred by Bill of Sale No. 408 to James C. Beggs, 25 July 1972.

No surveys have been made of the claim lines, posts or tags, so compliance with the Regulations of the Mineral Act of the Province of British Columbia cannot be verified at this time. The boundaries of Lots 4810 and 4811 have been surveyed and the survey notes are available.

The reference Mineral Claim Map of the B. C. Department of Mines is 92 J/10W.

The claims are in good standing until July 29th, 1973 and the Mineral Leases until December 1973, subject to Land Tax payments.

There are no structures or plant-equipment on the property, except underground workings of shafts, adits and other workings. Reference is to Annex - A.

2.0 Location: The Tenquille Mineral Claims and Leases are located in the Lillooet Land District with Registry Office in Lillooet and Lillooet Mining Division with recording office in Lillooet British Columbia. The geographic Reference is 122° 55' West Longitude and 50° 31' 30" North Latitude. See Figure: 2

The claims area is approximately 16 miles north-west-erly from Pemberton and south of Tenquille Lake . They are about 100 air miles north of Vancouver, See Figure: 3. They may be reached from outside airstrips by helicopter from Vancouver, Squamish or Garibaldi. Otherwise they are reached by auto-vehicle via the Squamish-Pemberton-Lillooet Highway No. 99 to D'Arcy and then via the Birkenhead River-Lake Logging Road and thence by foot to the claims area. Elevations on the claims range from about 5000 to over 7000 feet above sea level and the terrain is mostly above timber line. Reference is to Topographic Maps Pemberton, 92 J, Scale 1:250,000 and Birkenhead Lake, 92J/10, See Figures: 3 and 4.

3.0 Geology: The reference geological recordings are presented in Summary Report, 1924, Part A, Geological Survey, Canada, Pemberton Area, Lillooet District, British Columbia by C. E. Cairnes 1935. Base formations are volcanics and sediments of Upper Triassic Age which have been intruded by granodioritic, quartz-diorite and related intrusions. See Figure: 5

Rock formations on the claims area consist of fine grained felsitic volcanics overlain by limestone partially altered to a garnet magnetite epidote skarn which is overlain, in places by greenish tuffs. Intersecting the formations are quartz-porphyry dykes which may be related to the main intrusive bodies of quartz-diorite, located on the periphery. See Figures: 5 and 6 and Annex-A.

4.0 Mineral Zones: With reference to Annex - A , it will noted that several mineralized zones containing gold, copper, silver and related minerals have been located in the claims area and such notable names as Copper Queen, Crown, Li-Li-Kel have been involved over the many years that the area has been prospected. According to A. H. Manifold, P. Eng., Consultant Burnaby, B. C. in his Report to Ivan Silver Mines Ltd. (N.P.L.) entitled, Report on Pemberton Property, Pemberton, B.C. Lillooet M. D., 3 November 1969 the following account was presented:

"The main workings in the zone are two shafts twenty feet apart, reported to be sunk to depths of 40 and 70 feet. The shallower shaft is vertical while the deeper one is inclined. During May and June, 1968, the shafts were rehabilitated to depths of 15 and 25 feet respectively. In the inclined shaft, the mineralization zone consists of about two feet of oxidized brecciated vein material containing galena and sphalerite. The first twelve feet averaged 0.01 oz of gold/ton; 48.7 oz of silver/ton; 7.3 per cent lead and 5.7 per cent zinc across a width of two feet. Assays across 1.7 feet of vein material at a depth of twenty feet averaged 9.3 oz silver/ton. The

"The mineralized zone is exposed in the vertical shaft to a depth of ten feet where it angles into the wall of the shaft. Samples across 1.5 feet of vein material at a depth of ten feet averaged 43.8 oz. silver/ton. A trench thirty feet north-west of the vertical shaft was cleaned out and the mineralized zone exposed. A sample across 0.5 feet of vein material returned 62.2 oz. silver/ton. Some native silver was noted in the zone, near the surface. C. E. Cairnes in his report, (1924) mentions assays of high grade material in this location up to 648.6 oz/ton silver and also that assays of a one hundred pound sample representing five tons of material mined from the shaft returned 141.31 oz. silver/ton, 4.1 percent lead and 3.2 percent zinc."

Assays of Samples taken in July 1971 by W. R. Goodell yielded the results given in Annex B.

5.0 Geophysical Surveys: As the initial phase of the investigation of the metalliferous possibilities of the Ivan Claims, an airborne geophysical survey was conducted under contract by Waterton Airex Ltd., of Sidney, British Columbia on the 4th August 1972. Flight readings were taken, see Figure: 6, and consisted of combined aeromagnetic, electromagnetic and radioactivity testing.

The survey covered an area of about 3000 acres, involving 17 runs each 16,000 feet in length. These runs were 500 feet apart and were flown to a true bearing of 108° Easterly or 288° westerly. Readings were taken every 500-foot interval and the flight lines were 500 feet above ground. The plane was captained by Claude Waterton, VRS Senior Commercial, the co-pilot was Arnold Parlee, both of Sidney, British Columbia. The flight plan was filed with the D. O. T. Vancouver, British Columbia. Figure: 7 shows the flight plan pattern. Figure: 6 gives the readings for each of the surveys submitted by Waterton Airex Ltd.

Appendix C contains the details relating to the aircraft and the instrumentation used.

Referring to Figure: 7, it will be noted that:-

- the variation in Radioactivity readings ranged from zero to 2/100 MR/HR
- the variation in Electromagnetic readings ranged from zero to 15/ (x .1 microamps)
- the variation in magnetometer readings varied from 5 to +24 (x 100) gammas. Background average was set at zero (0).
- for the Radioactivity and Electromagnetic tests, background was dialed out.

Results: Referring to Figure: 8, it will be noted that there is a low magnetic zone trending northwesterly across Lease lots Nos 4810 - 11 and Ivan 8, 9, 10, 11 and 12. This is flanked by a high EM reading zone. Increased radioactivity flanks these zones with a northerly trend. High magnetic readings respond on Ivan Claims Nos 10, 12, 14 and 15. General configuration of the EM zones is Easterly-north whereas for

Northwesterly. Coincidence of the low magnetic and high EM zones appears over the mineralized zones cornering Leases Nos 31 and 32.

6.0 Summary Conclusions:

The results of the surveys , as presently interpreted are:

- i. There is a coincidence of low magnetometer and high electromagnetic readings over the mineral zones cornering Mineral Leases Nos 31 and 32.
- ii. Increased radioactivity concentrates along the flanks of the low magnetic and high EM recording sections, with a northerly trend.
- iii. Interpretation of the high magnetic readings cannot be definitively established from the information base available. Further ground geological information is required.

7.0 Recommendations:

On the bases of the results obtained from the relating geophysical surveys referred to in this report, it is considered that further field investigations are warranted and that successively, ground geochemical and geophysical, - magnetometer, electromagnetic and induced polarization surveys should be initiated in conjunction with detailed geological mapping to assess the metalliferous possibilities of the Tenquille Mineral Claims. First attention should be directed toward the anomalous zones indicated on Figure: 8.

Respectfully submitted,


 William J. Weymark P. Eng.
 President
 Weymark Engineering Ltd.

15 November 1972

CERTIFICATE

I, William James Weymark, P. Eng., Consulting Engineer" President of Weymark Engineering Ltd., of the District of West Vancouver, of the Province of British Columbia hereby certify that:

1. I am a graduate of Mining Engineering, of Queen's University, Kingston, Ontario B. Sc., 1940 and have been practising my profession for twenty-five years.
2. I am a practising Consulting Engineer and reside at 3310 Westmount Road, West Vancouver, Province of British Columbia.
3. I am a member of the Association of Professional Engineers of the Province of British Columbia and also of the Consulting Engineer's Division of the Association of Professional Engineers of British Columbia.
4. I am a member of the Canadian Institute of Mining and Metallurgy, of the American Institute of Mining, Metallurgical and Petroleum Engineers and of the American Geophysical Union.
5. I have no direct or indirect interest whatsoever in the Tenquille Lake Mineral Claims Group or do I expect to receive any interest direct or indirect in the properties involved with the Tenquille Lake Mineral Claims Group or any affiliate or security relating thereto.
6. The findings of the accompanying report are based on my personal examinations and study of the geophysical field test readings and the relating geological-mineralogical information. The geophysical readings and studies were made together with William Chang M. Sc. Geophysics, McGill University.

Dated at West Vancouver, British Columbia, this 15th day of November 1972.


William J. Weymark P. Eng.
President
Weymark Engineering Ltd.

APPENDICES

EXCERPTS FROM GOVERNMENTAL REPORTS1. B.C. MINISTER OF MINES REPORT 1896, pp. 549-550:

POOLE CREEK, PEMBERTON PORTAGE: The discoveries of minerals on this creek were made in June last and all come within the provisions of the "Mineral Act" of last session of the Legislature.

The first recorded claims are said to be on ledges, with a seam width of from 40 to 60 feet; hanging wall, slate; foot wall, granite; and reported to Mr. Phair, Mining Recorder, as being wonderfully rich in gold, silver and copper. I am not aware that there has been any development work of any moment, done on any of these locations, the width of seams and the nature of hanging and foot walls may therefore be taken with reservations. "Poole Creek" or more properly "Birkenhead River" is situated on the old Pemberton Portage, and about 50 miles southwest from Lillooet, and is situated on the western slope of the Cascades, the waters of Birkenhead River falling into the upper Lillooet River, and thence into Lillooet Lake. I note that Mr. Burnet in his sketch plan, has given the name of "Blackwater" to the group of claims already recorded, and for the sake of brevity in future, the name, perhaps, should be adhered to. I am not aware that any geologist of note has ever visited this section. My own recollection of it, after 30 years, is a confused mass of granite mountains, towering aloft to the line of perpetual snow. Ingress to Blackwater, at present, is from Lillooet, via Seaton and Anderson Lakes and Pemberton Portage. It can also be reached from Howe Sound by a very rough trail.

2. B.C. MINISTER OF MINES REPORT 1917, pp. K270-K272:

In September the Provincial Mineralogist visited the Lillooet Mining Division and submits the following notes on properties examined:

COPPER QUEEN: "Virginia" group and "Copper Queen" group mineral claims, comprising over twelve claims; owners Hugh Ross, Kenneth Ross and George Moore. This property has since been acquired by the Copper Queen Mining and Smelting Company of Vancouver. These claims are situated on the east side of Owl Creek, about two miles up from its junction with the Birkenhead River at the Dominion Fish Hatchery at Pemberton Portage. The workings on the property are from the creek-bed and at an elevation above the valley and Pacific Great Eastern tracks of about 800 feet.

From the Hatchery Station of the Pacific Great Eastern Railway a road about 200 yards long connects with the main waggon-road over the Portage, which has existed as a main road since the "sixties" and is in good repair. From this main road, at a point about half a mile east of Hatchery Siding, a trail strikes to the north over a gravelly flat timbered with small jack-pine for a distance of about half a mile to the mouth of the canyon of Owl Creek; the rise to this point from the main wagon-road is estimated at about 40 feet. This first half a mile could be made into a good wagon-road for about \$200.

The claims are about one mile and a quarter up the bed of the creek from where the canyon starts, the creek being in the canyon all the way. From this point the present trail zigzags up the east bank of the creek gaining an elevation of 300 or 400 feet, bringing it above a rocky bluff which forms the

IVAN SILVER

Owl Creek

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)2. B.C. Minister of Mines Report 1917, pp. K270-K272 (continued):

immediate bank of the creek. From here on, the trail follows a side-hill of loose rock, gravel and earth on a fairly uniform grade to the properties.

This trail is as good a foot or horse trail as could be desired and should not have cost more than \$200 or \$300 to build but, being on a steep side-hill, it cannot be widened into even a skid-road without considerable expense, as the cut would in many places strike into rock.

Mr. Ross told me he had made two round trips in a day with a loaded pack-train. This could easily be done and perhaps four trips made if loading and unloading had proper facilities provided for.

The men at the property go down to the Hatchery for supplies, packing them home on their backs, the round trip being made in two hours.

MINERAL SHOWINGS: On the east side of the creek, forming its western boundary, is what appears to be an igneous dyke of undetermined width, striking in a north-westerly and south-easterly direction, parallel with the general direction of the creek. Into this dyke from creek-level a tunnel has been driven in a general S.30°W. direction for a distance estimated at about 230 feet crosscutting the strike of the dyke. At numerous places in the length of this tunnel fissures were noted running parallel with the course of the dyke and at right angles with the tunnel.

In several instances this fissuring was accompanied by a crushing, extending to a width up to, say, 8 feet, which crushed zones appeared to be much more heavily mineralized than the intervening and more solid formation, which also is mineralized, but much more sparsely.

While the whole tunnel may be said to be mineralized with iron and copper pyrites, the mineralization is not uniform, as already pointed out, and it is doubtful if, taken as a whole, the mineralization reaches the commercial limit; for this reason, in the opinion of the writer, it would be unfair to the property to sample the tunnel as a whole, although it is currently reported that this was done by one engineer examining the property recently, and that his resulting assays on the tunnel as a whole are not up to the commercial requirements.

The writer therefore sampled in the tunnel two of the fissured zones already mentioned, with the following results:

SAMPLE A: At about 150 feet in from the portal a drift has been started to the left and had then been driven for some 8 feet following one of these fissured zones. This zone as it appeared in the face of the drift was sampled across a face of 5 feet by taking two cuts across at different heights; these were mized, broken down, and quartered as one sample, which upon assay was found to contain, by wet assay, 5.1 per cent copper, with only traces of gold and silver.

SAMPLE B: At about 190 feet in from the portal another fissured zone across the tunnel occurs, and this was similarly sampled across a face of 5 feet on the left hand side of the tunnel, and was found to contain 5.4 per cent copper with only traces of precious metals.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)2. B.C. Minister of Mines Report 1917, pp. K270-K272 (continued):

At these points the "backs" or height to the surface would be between 100 and 150 feet above the tunnel-mouth. There are several of these fissured zones cut by the tunnel, and there is little doubt but that others are similarly mineralized but these were the only two sampled, as they appeared to the writer most promising.

It is, however, recommended that all the fissures be carefully sampled and assayed, and also the intervening more solid formations, which, although evidently too low grade for direct shipping, might prove amenable for some process of concentration. The face of the tunnel at present appears to be in a more solid phase of the same rock, and whether it has crosscut all the fissured zones cannot be guessed at.

It is further recommended that some drifting be done from the tunnel both ways, thus blocking out ore that could be measured up as such, which the present development scarcely permits of.

The rock in these zones is so broken that there is no need of any machinery or power for doing the work.

The location of the tunnel is such that it would not be advisable to consider it anything more than a prospecting tunnel, as, if further development continues as favourable as the present showing gives expectation of, then a working-tunnel would be started much lower down the creek.

What is known as the "second outcrop" occurs a short distance down the creek and up the bank about 100 feet higher than the creek-bed; here only a little surface work has been done, from which exposed surface a rough sample was taken, marked "Sample C", which assayed 4.7 per cent copper, with negligible gold and silver values.

The properties, as can be seen from the foregoing, have considerable promise and are well worthy of much more extended and systematic development, while their situation so close to rail transportation adds much to their value.

There is ample water-power at hand which could be developed at small cost, while timber is plentiful and convenient.

As has been pointed out, there is a particularly good trail to the property which in the opinion of the writer is all that is required for the proper preliminary development of the mineral showing, inasmuch as it will be some time before machinery is advisable.

A road to reach the property would have to rise some 600 or 700 feet in, say, one mile and a half, which would call for an average grade of 8 to 10 per cent., which is scarcely workable and would be expensive to build.

A small aerial tramway would appear to be an easier solution and the only one to enable the ore to be got out at a cost prohibitively high. Further, the location of a working-tunnel cannot even be guessed at now, and the property is too good to be spoiled by temporary makeshifts.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

3. B.C. MINISTER OF MINES REPORT 1918, p. F231:

LILLOOET MINING DIVISION: Report of John Dunlap, Gold Commissioner. I have the honour to submit the annual report on the progress of mining in Lillooet Mining Division during the 1917.

PEMBERTON MEADOWS: In this section, I include Owl Creek and that northern portion of Lillooet Lake lying in this Mining Division. Beyond the annual assessment work done by the several owners there is nothing special to report. A small plant was introduced on Owl Creek by the Copper Queen Mining and Milling Company; I have no information, however, as to the character of work done or results obtained. This latter remark may likewise apply to the properties situate on Seton and Anderson Lakes. The molybdenite properties on Texas Creek kept a small force of men, and development-work was proceeded with for about two months.

4. B.C. MINISTER OF MINES REPORT 1919, p. N178

TENQUILLE CREEK AREA: Assessment-work has been prosecuted in this camp during the year. The trail running from Mile 71 on the Pacific Great Eastern to the centre of the mining activity has been completed, giving easy access to the camp. This will have considerable effect in stimulating interest in the district, the old trail up the Lillooet river being very difficult and trying as a route for getting in supplies.

5. B.C. MINISTER OF MINES REPORT 1922, p. N138:

PEMBERTON-BIRKENHEAD AREA: Some activity in mining has been noted in the area between the Lillooet River, above Pemberton, and the Birkenhead River. A bond has been taken up on the "Crown" group, which is owned by Alexander McLeod of Pemberton, and Marshall Bond, of Seattle, with C. G. Codman as manager and Pat Carnody as foreman. The property was shut down during the winter owing to lack of camp accommodation, but it is proposed to carry on active development work in the spring. The development-work up to date is stated to have been satisfactory. High gold values are reported in certain fissures in a big magnetite vein.

Adjoining the "Crown" group is the "Gold King" property, said to be a similar type of deposit. Farther to the north, near the head of Tenquille Creek, some work is reported on the Lewis and Moffatt and White properties. This area will be visited by the writer next spring.

6. B.C. MINISTER OF MINES REPORT 1923, pp. A166-A168:

PEMBERTON MEADOWS AREA: Most of the prospecting which has taken place in this area has been around the head of Tenquille Creek, located on the west side of the Pacific Great Eastern Railway; between Birken and Spetch. There are two ways of reaching the district; one of them by trail from the 72 Mile post on the railway up the Birkenhead River and then up Tenquille Creek;

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)6. B.C. Minister of Mines Report 1923, pp. A166-A168 (continued):

the other up the Lillooet River by wagon-road for a distance of 20 miles from Pemberton Meadows and then by trail over the high summit separating the Lillooet River and Tenquille Creek to the north.

These Tenquille claims have been staked in rocks lying to the east of the Coast batholith and bear a great resemblance to and are probably identical with the Taseko and Denain formations described in McKenzie's report on the Taseko area (Geological Survey, 1920).

CROWN

This property is located on the high summit already referred to, between the Lillooet River and upper Tenquille Creek, at an elevation of 6,600 feet above sea-level. The formation, in the vicinity of the workings is an altered sedimentary, with considerable epidote in evidence. Besides some open-cutting, a shaft has been sunk on the principal exposure of ore for a depth of 40 feet. The ore on the surface is mainly galena. In one cut several feet of fairly solid ore is exposed. The silver values are good, about 60 ounces, but the ore does not show much continuity. At the same time, there is such a lot of it on the surface at one point (some of the oxidized decomposed material also running well) that it would appear that some further underground work would be in order. The work done so far consists of this 40-foot vertical shaft, with a short crosscut driven from the bottom of it, the ore being cut off by a flat gouge about half-way down the shaft.

The owner of this property is Alex McLeod of Pemberton Meadows. The property has been under bond for a considerable period to C. G. Codman and associates of Boston, Mass.

GOLD KING GROUP

This property is located about a mile to the east of the "Crown" mine and on the Tenquille slope of the same high summit referred to above. The elevation of the workings is about 6,000 feet above sea-level. The formation is schist and there are two veins exposed, which conform with it. The strike of these veins is roughly northwest and southeast. A sample taken across 9 feet in an open-cut in the west vein ran: Gold-trace; Silver-1.6 ounces to the ton; Lead-nil; Zinc-5 per cent. Another sample across 2 feet on the same vein, in an open-cut 100 feet away, ran: Gold-0.006 ounces; Silver-1.2 ounces to the ton; Lead-nil; Zinc-5 per cent.

The east vein which parallels the other only a few feet away, has not been opened up to any extent. A sample from the outcrop at one point (not an average sample) ran: Gold - 0.60 ounces; Silver - 5.2 ounces to the ton; Lead - nil; Zinc - 5 per cent.

Float can be picked up along the mountain-side for a considerable distance beyond where the open-cutting occurs.

The group is owned by Alex. McLeod and C. Barber of Pemberton Meadows.

LI-LI-KEL GROUP

This ground adjoins the "Gold Hill" group on the east. There are three veins on this property. One of them is located in the prevailing schist and conforms with it. A sample taken from an open-cut on this vein, across 4 or 5 feet showing mineralization, ran: Gold - 0.60 ounces; Silver - 1.5 ounces to the ton. Another sample from the same vein, a couple of hundred feet away, also ran: Gold - 0.60 ounces; Silver - 1.5 ounces to the ton. Here the width of the vein was only a few inches. There is a little arsenpyrite in this ore, also a very small amount

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)6. B.C. Minister of Mines Report 1923, pp. A166-A168 (continued):

of zinc-blende and galena. The continuity of the ore on the surface is the doubtful factor, the ore apparently occurring in lenses. More surface work is needed.

The second vein is also located in the prevailing schist and a few hundred feet to the east of the ore already described, but its strike does not conform with the schist, being approximately N.30°E. It stands nearly vertically. This vein is very small. A little galena is to be seen occasionally.

The third vein on the property is called the "Black Lead" and is located about a third of a mile to the east of the other workings. Lying under some bluffs, a narrow mineralized zone of black-looking material can be followed for several hundred feet. There is no true vein here with foot and hanging walls, the mineralization fading off into the country-rock. Manganese is probably present in some quantity. The formation in the vicinity has a strike of S.50°W. and this mineralization conforms with it.

The following samples were taken, some from float and some from exposures of the ore in-place: (1) Gold - trace; Silver - 2 ounces. (2) Gold - 0.40 ounces; Silver - 1.8 ounces. (3) Gold - 0.10 ounces; Silver - 1.5 ounces. (4) Gold - 0.16 ounces; Silver - 1.5 ounces to the ton.

The owners of this property are Tom Lewis and associates of Vancouver.

SILVER BELL GROUP This ground was located during the summer of 1923, the owners being John Arn, A. Anderson and O. Johnson of Pemberton Meadows. This group is considerably lower in elevation than anything already described in the area and lies in the timber on the south slope of Tenquille Creek, well below these other groups. The initial assessment-work has been done on a 4-foot dyke running up and down the hill, standing about vertically. A picked sample of the ore, which seems to be mostly on one side of this dyke (in the dyke itself), ran: Gold - 0.10 ounces; Silver - 3 ounces to the ton. A very little zinc and lead was to be seen.

MOFFATT GROUP This property is located on the north side of Tenquille Creek and about opposite to the various groups already described. The elevation of the camp is 5,400 feet. Work has been done here on two veins, one a copper vein and the other zinc-lead. The prevailing formation in this vicinity is schist, with a northwest strike and steep dip to the east. The copper vein conforms with this schist. Several feet of a good grade of chalcopryrite ore is exposed in an open-cut on the surface. A 200-foot tunnel has been driven to a point below this surface showing and a 30 foot crosscut driven at the face of this tunnel. There is not much ore exposed below as yet. The owners figure, however, that the rake of the ore-shoot above is such that a very little more work underground will pick it up.

Near the camp and to the east of the copper vein a watercourse has exposed down the hillside for a considerable distance a siliceous mineralized zone in the schist, carrying some zinc and lead. When this property was visited a tunnel was being driven to reach a point under the creek where it would be possible to crosscut this zone. Owing to the water a satisfactory examination of this discovery was at the time impossible.

The owners of this property are Phil White and George Moffatt, both of Vancouver.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)6. B.C. Minister of Mines Report 1923, pp. A166-A168 (continued):COPPER MOUNTAIN
No.1 GROUP

An exposure of magnetite was examined at the very head of Tenquille Creek. There is apparently quite a belt of this mineral. At some points zinc-blende can be seen in the iron. A sample from one of these places ran: Gold - nil; Silver - nil; Zinc - 8 per cent. The owner of this property is J. Jack, Pemberton Meadows.

7. B.C. MINISTER OF MINES REPORT 1925, pp. B144, A175-A176:

PEMBERTON MEADOWS AREA: This district was not visited during the season although considerable activity prevailed there. Reference to a number of properties included in this particular district is made in the Annual Report for 1923, pages 166, 167 and 168.

Work was continued on the "Crown" group, owned by Alex. McLeod of Pemberton Meadows, and under bond to a Boston syndicate. Favourable reports have been received concerning the "Li-Li-Kel" group, owned by Tom Lewis and associates of Vancouver, with reference to new development in connection with the "Black Lead" much higher gold values being reported. The "Moffatt" group on the north side of Tenquille Creek was also worked by its owners.

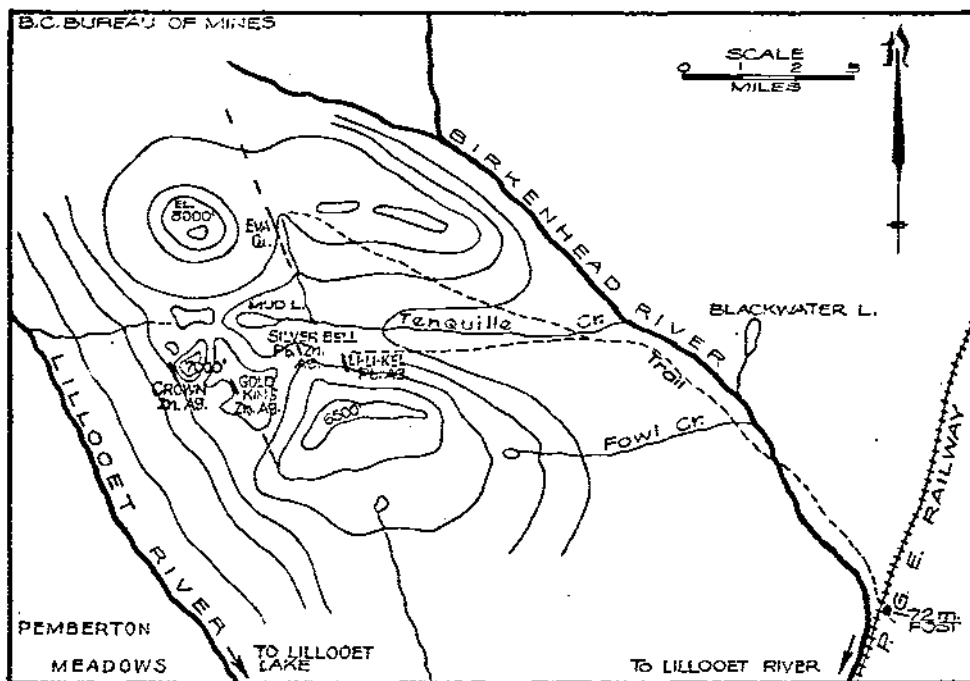
TENQUILLE CREEK SECTION: This section has been previously referred to as Pemberton Meadows (see Annual Report 1922, page 166). At that time alternative routes were considered by way of Pemberton Meadows and the Tenquille valley. The distance by the former was about one-half of that by the latter route. For this reason the section was referred to as being in the Pemberton Meadows area. Since that time the construction of a trail up the valley on Tenquille Creek has demonstrated the superiority of this means of access, and the section is now considered as being tributary to the Pacific Great Eastern Railway towards the east and is therefore referred to as the Tenquille Creek section.

Notice was attracted in the first place by the operations of G. Moffatt and Phil White, who have been developing a copper prospect near the headwaters of Tenquille Creek and on its north side for several years past. Tenquille Creek heads in a small lake at an elevation of approximately 5,000 feet above sea-level and at a distance of 14 miles from the line of the Pacific Great Eastern Railway at Birken. The mineralized area on which during the past few years intensive and useful prospecting work has been done lies within a radius of about 2 miles, with this lake as the centre, at the summit of the divide bordering the Lillooet valley on its east side. In view of the handicaps to surface work at this high elevation, much credit is due for the extent and general soundness of the attempts which have been made to develop these prospects. The results that have been achieved have created considerable interest in a series of very promising prospects, on which, in addition to the copper above referred to, high-grade silver-lead, zinc and gold minerals have been found. The general impression gained from a visit to this camp is that there are possibilities not only of high-grade ore, but of considerable tonnage. The geology of the camp is dealt with by C. E. Cairnes, Geological Survey, Canada, Summary Report, 1924, Part A, page 76 et seq.

(See Map on Following Page)

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

7. B.C. Minister of Mines Report 1925, pp. B144, A175-A176 (continued):



SKETCH MAP OF TENQUILLE MINERAL AREA
(with report of H.G.Nichols, Resident Mining Engineer, 1925)

8. B.C. MINISTER OF MINES REPORT 1926, pp. A192-193

LI-LI-KEL Work on this property, near the headwaters of Tenquille Creek in the Pemberton area, has been continued by the Federal Mining and Smelting Company which has had the property under option from the owner, T. Lewis for the past eighteen months. Exceptionally high silver values are found in the fissure-veins cutting a volcanic formation. The property has been described by C. E. Cairnes in the Summary Report for 1924, Canadian Geological Survey.

A tunnel driven on the main fissure was continued for a distance of about 250 feet. The width of the ore was found to vary considerably and values were erratic. There appeared to be some grounds for believing that the extent of the mineralization is dependent upon the character of the formation which is intersected by the fissure.

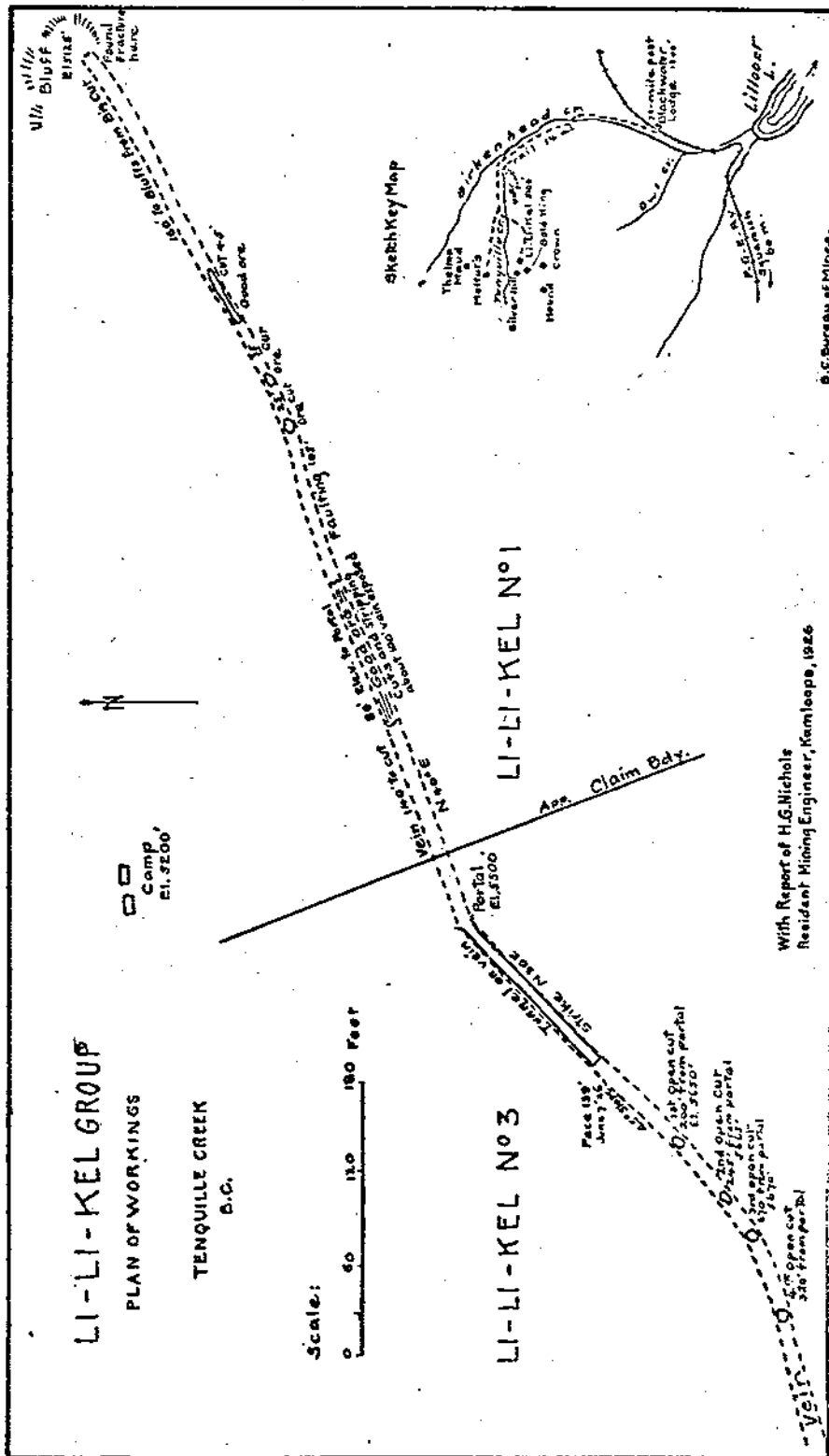
As pointed out by Cairnes, there are alternating bodies of a porphyritic and a chloritic volcanic rock and the better values appeared to be found where the fissure passed through the porphyritic variety.

It is understood that another lower-level tunnel is to be driven which will pass through a section of the porphyritic country, in which a number of intersecting fractures occur, with some wide outcrops of silver-lead ore.

(See Map on Following Page)

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

8. B.C. Minister of Mines Report 1926, pp. A192-A193 (continued):



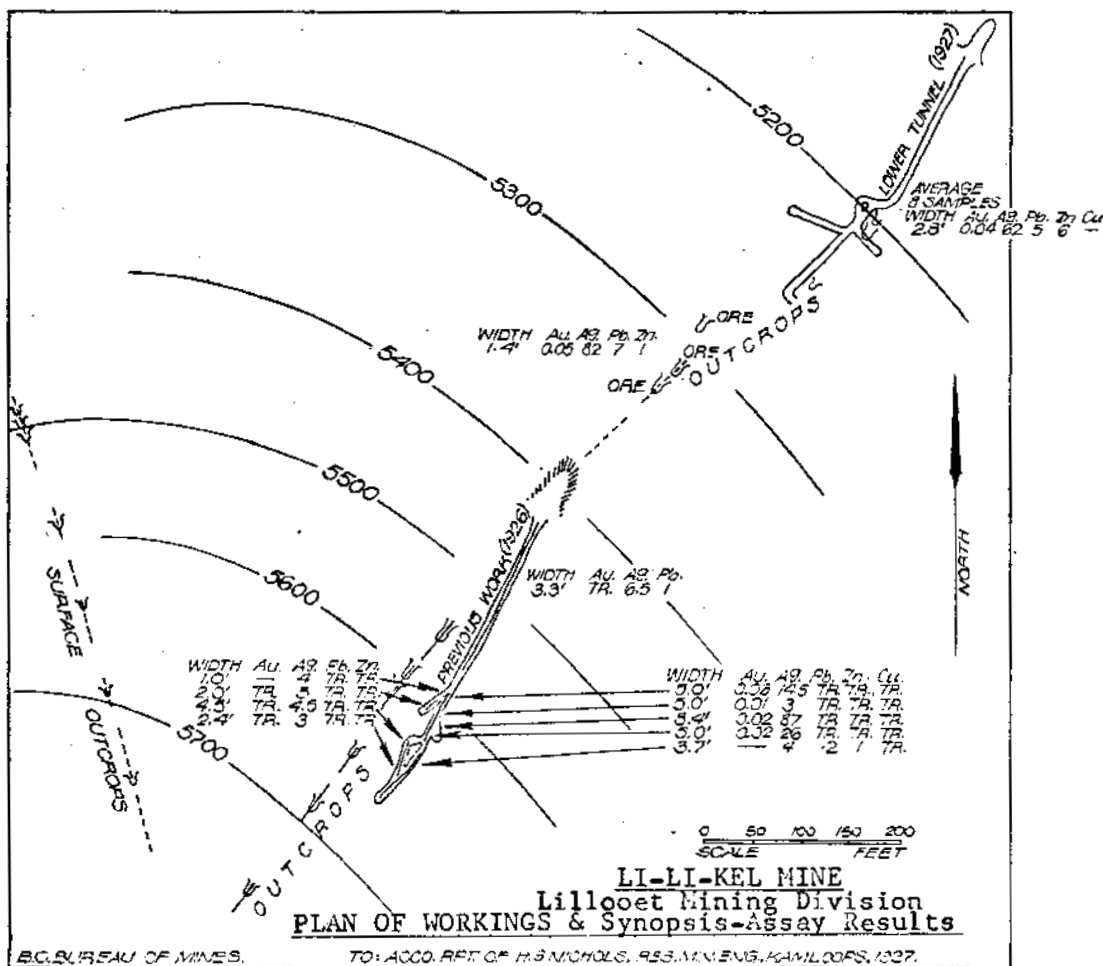
EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

8. B.C. Minister of Mines Report 1926, pp. A192-A193 (continued):

GOLD KING Assessment-work was done on this group, owned by C. Barbour, A. McLeod and associates, and the property was examined by representatives of the Britannia Mining and Smelting Company Limited, who also inspected the other claims in this camp in the Pemberton area. The surface work that has been done thus far has hardly effected more than to prove the continuity of a wide mineral-zone with a heavy iron-capping, although indications are not lacking that development in depth may establish the existence of a large body of ore with values in zinc and gold of a payable grade. It is anticipated that plans for the further development of this property will be completed in the near future.

9. B.C. MINISTER OF MINES REPORT 1927, p. 218:

LI-LI-KEL A considerable amount of additional work was carried out on this property by the Federal Mining and Smelting Company under T. B. Lewis. This included a further 400 feet of drifting in the tunnel that was driven last year and approximately 300 feet of drifting on a lower level about 300 feet below, together with about 60 feet of crosscutting. An average of twelve men was employed during the season.



EXCERPTS FROM GOVERNMENTAL REPORTS (continued)9. B.C. Minister of Mines Report 1927, p. 218 (continued):

The work on the lower level failed to prove up the ore indicated in the outcrops but, on the other hand, surface prospecting higher up on the hill towards the southwest is said to have afforded encouraging results. Although some exceptionally high-grade silver ore occurs on this property, no tonnage of commercial ore has been proved up to the present time. It is understood that a detailed geological investigation and survey of the whole property is to be undertaken before further development is put in hand next year.

GOLD KING Work upon this property has been limited to assessment work carried out by C. Barbour. This work was applied in carrying down the open-cut working where gold values were reported to have been found in the 1926 Annual Report. A further depth of from 5 to 6 feet has been exposed on the ore-body, with the result that some good ore has been uncovered, a picked sample of which assayed: Gold - 0.2 ounces to the ton; Silver - 55.5 ounces to the ton; Copper - 1 per cent; Lead - 8 per cent; Zinc - 1 per cent.

It is unfortunate that the projected plans for the development of this property did not mature during the past season, but it is understood that there is every likelihood that the work will be undertaken during the coming year. As pointed out in the 1926 Annual Report, the indications of better values coming in below the heavy iron-capping on the "Gold King" shear-zone are held to afford distinct encouragement for investigating the possibilities of this mineral-zone in depth.

EVA Work was continued on this property by George Moffatt, and another lens of copper ore has been found on the other side of the quartz-porphry dyke which is associated with the mineral-zone passing through the property.

SILVER BELL Assessment-work on this property was carried out by T. Charleton and associates.

10. B.C. MINISTER OF MINES REPORT 1929, p. C235:

COPPER MOUND This group of claims, owned by J. Jacks of Pemberton, is situated on the pass between the heads of Tenquille Creek and Wolverine Creek, in the Pemberton area, at an elevation of over 7,000 feet above sea-level. This property was examined by C. E. Cairnes of the Geological Survey of Canada, extracts from whose report in the Summary Report for 1924, Part A, are as follows:

"The peak of the hill is composed of a faulted series of volcanic and sedimentary rocks intersected by several quartz-porphry sills and dykes and surrounded by quartz porphyry and more basic intrusive batholithic rocks. Viewed from hills to the southeast the centre of this peak appears to be traversed by a fault following a northwest-southeast direction along a nearly perpendicular plane."

"Mineralization is evident at a number of localities on Copper mound and especially so at certain showings on the slope overlooking the head of

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)10. B.C. Minister of Mines Report 1929, p. C235 (continued):

Wolverine Creek and about 300 feet above the creek. Here a thick bed of limestone runs nearly parallel with Wolverine Creek, and dips at a low angle to the northeast under a massive greenish rock resembling an andesite flow, but possibly fragmental in origin. Within the limestone-belt and at three closely adjoining localities heavy ore mineralization has been exposed. The three showings cover a vertical range of about 75 feet and may represent a single broad zone of mineralization. At the upper showing and across a width of about 20 feet a deposit composed chiefly of pyrrhotite and magnetite and containing only a little gangue has been exposed over a length of several yards. The intermediate showing is of a similar character, except that the percentage of magnetite is higher. The lower showing contains a considerable percentage of sphalerite as well as magnetite. A little chalcopyrite is present in all three showings. Veinlets of pyrite cut across the zinc and magnetite ore and crystals of calamine were observed along fractures in the ore-body. A sample obtained by Davis from the lower showing gave an assay of 8 per cent, in zinc. Low assays in gold and copper are said to have been obtained from these showings, but no systematic sampling has yet been attempted."

"At a number of smaller showings on this property, and chiefly as a result of the replacement of limestone, other ore-minerals - galena, arsenopyrite pyrite, chalcopyrite - occur, but in none of these showings is the concentration of ore-minerals very pronounced. The hill as a whole is deserving of further prospecting and more careful sampling of such mineral-deposits as have been discovered."

A considerable amount of stripping and open-cut work was done on these claims during the past year and it is understood that further development-work at the hands of a Vancouver syndicate that has acquired an interest in the property, will be carried out in the spring of 1930.

GOLD KING This group of claims, owned by C. Barbour of Pemberton, to which reference has been made in previous Annual Reports, has been bonded, it is understood, by A. B. Trites of Vancouver. It is reported that diamond drilling upon the strongly mineralized shear, which extends in length over four claims, will be commenced in the spring of 1930.

11. B.C. MINISTER OF MINES REPORT 1930, p. A203:

COPPER MOUND This property, at the head of Wolverine Creek, which flows from Tenquille Basin westward into Lillooet River, owned by J. Jacks of Pemberton, was bonded by interests identified with E. Hamber of Vancouver. The negotiations were the result of reported discovery of bodies of copper ore with associated gold values of commercial importance in the massive pyrrhotite and magnetite bodies that occur in this area. Some camp-construction work was initiated and a considerable amount of open-cut work was done. With the exception of some minor concentrations of copper mineral, the general result of this work was not held to be encouraging; the area, however, which is heavily mineralized, is worthy of more careful prospecting work.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)11. B.C. Minister of Mines Report 1930, p. A203 (continued):

GOLD KING C. Barbour of Agerton, continued the sinking of a shallow shaft on the heavily iron-capped shear from which encouraging values in gold have been obtained from previous sampling at a few feet below the surface. The property lies at a high elevation in the Tenquille basin. A sample taken from the bottom of the shaft at a depth of about 26 feet assayed: Gold - 0.56 ounces to the ton; Silver - 9 ounces to the ton; Lead - 0.8 per cent; Zinc - 6.8 per cent. This property represents a decidedly attractive prospect in view of the persistence of proven width and mineralization of the shear-zone; of the possibilities for cheap development by diamond-drilling; and of the repeated evidence that is obtained of the possibility of values in gold being discovered at some depth. Several tentative negotiations have been entered upon, but in every case the shortness of the season has militated against a successful issue.

12. B.C. MINISTER OF MINES REPORT 1931, p. A113:

GOLD KING This property, owned by C. Barbour, situated in the Tenquille basin was examined in the interest of local capital by Victor Dolmage, but no further action was taken. The occurrence, which has been described in previous Annual Reports, represents an attractive prospect, there being a well-defined mineral-zone in a shear identified with the near-by batholith contact, in which gold values are found in association with galena and zinc-blende in massive pyrrhotite; opportunities are favourable for exploration at depth by means of diamond-drilling.

13. B.C. MINISTER OF MINES REPORT 1932, p. A211:

GOLD KING This property, situated in Tenquille basin, is reached from the Lillooet River above Pemberton Meadows by a horse-trail which the Department of Mines assisted in repairing early in the year. The property is owned by C. Barbour of Pemberton and is described in previous Annual Reports. (see Reference list). The showings may be briefly described as a vein of massive pyrrhotite 11 feet wide occurring in roof-pendant rocks at an elevation of 6,300 feet. Open-cutting has exposed the mineral for several hundred feet in length, and a depth of 25 feet shows increasing indications of lead and zinc carrying gold values. This year an option was taken on the property by the Kamorley Oil Company of Kamloops and Calgary, and some diamond drilling done under the supervision of H. G. Nichols of Kamloops. This work proved disappointing in that it demonstrated that the ore-showings exposed on the surface do not extend to any appreciable depth; consequently the option was relinquished.

14. B.C. MINISTER OF MINES REPORT 1933, p. A260:

BIRKENHEAD RIVER AND LAKE SECTION: There is an old mining area at the head of Tenquille Creek, a tributary of Birkenhead River, the history of which dates back to 1916. It was for several years reached by trail from Pemberton Meadows, but now there is a fair horse-trail, 14 miles long, from the mouth of the Birkenhead River (Mile 72 on the Pacific Great Eastern Railway) to the head

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)14. B.C. Minister of Mines Report 1933, p. A260 (continued):

of the creek. For the geology of this area the reader is referred to the information given in the Geological Survey of Canada Summary Report 1924, Part A, "Pemberton Area" by C. E. Cairnes.

During 1933 some 200 claims were staked around Birkenhead Lake and tributary creeks and on Blackwater Creek. This area is reached from D'Arcy on the Pacific Great Eastern Railway, over 5 miles of logging road which was continued as a trail to Birkenhead Lake. A branch trail was built in 1933 up Phelix Creek to the divide west of that promising area. Reports and ore samples indicate promising quartz veins with encouraging values. This will very probably be a busy area in 1934.

LI-LI-KEL This old group of eight claims, situated at the head of Tenquille Creek, had an extensive amount of underground work done on them up to 1927. The showings consist of narrow quartz veins in two series of shears within the massive greenstone country-rock. The veins in places carry high silver values, but have not shown sufficient continuity to constitute commercial ore-bodies. The property was idle from 1927 to 1933 when George Moffatt, an old prospector in the area, acquired it. The trail was put in good repair and exploratory work continued.

15. B.C. MINISTER OF MINES REPORT 1937, pp. F15-F18:GOLD-SILVER DEPOSITS, PACIFIC GREAT EASTERN RAILWAY, BIRKENHEAD RIVER AREA

GRIDIRON This group, in the Lillooet Mining Division, comprises seven claims held by location and owned by G. Moffatt and A. J. Hendry. The property is situated on the southern side of Tenquille Creek, about 4 miles westerly from Birkenhead River, or about 14 miles by trail northwesterly from Poole Creek, a flag-station on the Pacific Great Eastern Railway, near Mile 72, from Squamish. It should be noted that all available maps of the area, which include Birkenhead River and its tributaries from the west, Fowl and Tenquille Creeks, are extremely inaccurate. For instance, the junction of Tenquille Creek with the River is shown as being 3 miles from Poole Creek, whereas the actual distance is nearer 9 miles. Beyond Tenquille Creek the river actually extends towards the head of Noel Creek in the Bridge River area. The claims cover the rough ground, interspersed with small bluffs and patches of slide-rock, sloping steeply to the north towards Tenquille Creek, elevations ranging from 4,600 to 6,400 feet on the claims and to about 7,000 feet on the summits above. The camp buildings, at 5,400 feet elevation, or 900 feet above the creek, are at the edge of timber-line, the lower slopes being well-wooded. Ample water for mine and domestic use is available near the camp and adit-workings.

The property is reached by fair pack-trail following the Birkenhead River Valley for about 9 miles and then up Tenquille Creek for about 5 miles, the last section extending in a series of switchbacks up the steep side-hill to the camp. A reconnaissance made by C. E. Cairnes was published in Geological Survey of Canada Summary Report 1924, Part A. As shown in Fig. 6 "Pemberton Area, Lillooet District" accompanying this publication, the basin of Tenquille Creek and the areas immediately surrounding it are largely underlain by Mesozoic rocks. To the

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

15. B.C. Minister of Mines Report 1937, pp. F15-F18 (continued):

south of the creek the formations are: sandstones, slates and conglomerates, tentatively assigned to the Cretaceous; batholith intrusives, chiefly granodiorite and quartz diorite of post-Upper Triassic age; andesitic lavas, tuffs and breccias, intercalated with sediments, including limestone and argillite; the last series, definitely referred to the Upper Triassic, having been correlated with the Cadwaller series of the Bridge River Map-area.

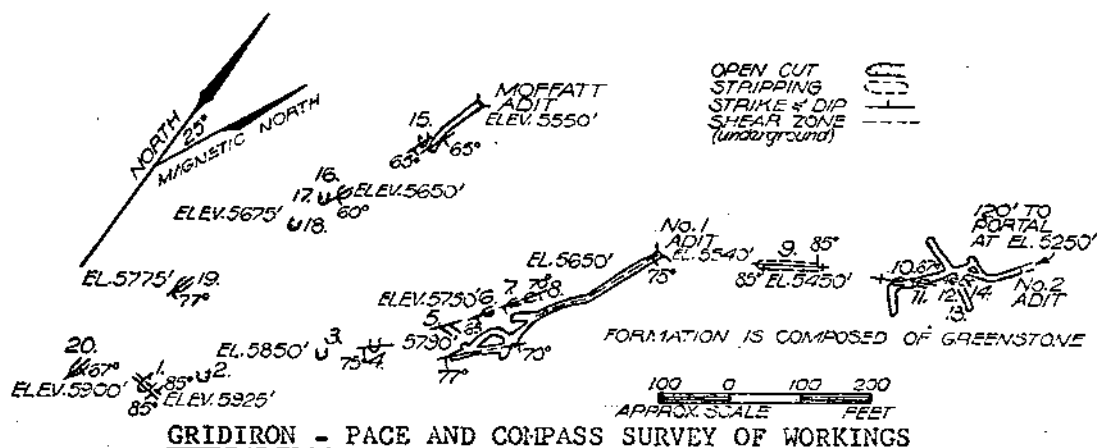
On the "Gridiron" property structural conditions are rendered complex through deformation accompanied by much shearing and faulting. The general trend of the stratified rocks apparently varies from north 30 degrees west to north 40 degrees west, the average dip being northeasterly at 40 degrees. The prevailing exposures, in which most of the deposits have been found, are massive to schistose greenstones of volcanic origin. Included with them are belts of porphyritic, grey to reddish, volcanic flows. The series are strongly sheared along a northwesterly direction approximately conforming to their strike and, approximately at right angles to this, there is a second system of shearing and faulting, much of which is considered to be pre-mineral. Cutting the greenstones there are occasional dykes of varying composition, including quartz porphyry, which do not appear to have any direct bearing on the mineralization. The deposits in the greenstones consist of lenses of quartz or silicified rock containing varying amounts of sulphide minerals, including pyrite, arsenopyrite, galena, sphalerite, chalcopyrite, and tetrahedrite, the mineralization being frequently associated with sheared or brecciated wall-rock. Polybasite, a silver mineral, was identified in specimens by Cairnes; native silver, of secondary origin, also being noted in fracture-planes at one point. Chief values are in silver, gold values being generally low.

The property was originally staked in 1923 under the name of "Li-Li-Kel" group. Work was done under option by the Federal Mining and Smelting Company in 1926 and 1927. Subsequently the ground was acquired by the present owners and renamed "Gridiron" group. Past reference are contained in the Annual Reports of the Minister of Mines, British Columbia, for the years 1923, 1925, 1926 and 1927.

The principal showings situated on the "Gridiron" claim, follow the line of cross-faulting and shearing which trends in a general southwesterly direction up the slope of the hill from an elevation of 5,250 feet or less to 5,925 feet. Above the upper adit-portal, which is at 5,540 feet elevation, the shear-zone strikes approximately north 35 degrees east and dips southeasterly at from 65 to 75 degrees. Below the point specified, it turns and strikes from north 55 degrees east to north 40 degrees east, dips being variable and ranging from vertical to 80 degrees to southeast and to from 67 to 85 degrees to northwest. The shearing is irregular, fracture-planes frequently being offset a few feet in closely-spaced cuts. The above description of structural conditions applies more especially to surface exposures, the shearing at underground points being generally indefinite. The wall-rock, which in places forms a large proportion of the gangue, is dark-green, fine-grained, massive greenstone, strongly brecciated in places.

Referring to the accompanying illustration, and commencing at the northeastern end, surface and underground conditions are as follows: Of the five

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)

15. B.C. Minister of Mines Report 1937, pp. F15-F18 (continued):

closely-spaced cuts above No.2 adit, Nos.12 and 13, which showed quartz with bands or disseminations of galena and pyrite, were sampled. In the No.12 cut the sample across 2.5 feet assayed: Gold - 0.02 ounces per ton; Silver - 14 ounces per ton; Lead - 15 per cent; Zinc - 7.6 per cent; and a sample across 1.5 feet in No.13 cut gave: Gold - 0.06 ounces per ton; Silver - 24 ounces per ton; Lead 4.6 per cent; Zinc 4.6 per cent. The latter sample also contained chalcopyrite, but not in important amount. In Nos.14, 11 and 10 cuts shearing was apparent without appreciable quartz or sulphide mineralization. At No.9 location there are open-cuts and stripping extending over a total combined length of 90 feet, much of which is obscured by debris.

Two samples, taken 10 feet apart at the southwestern end of the exposures respectively assayed: Gold 0.10 ounces per ton; Silver - 58 ounces per ton; Lead 27.8 per cent; Zinc 4.2 per cent across 1.5 feet, and Gold - 0.06 ounces per ton; Silver 100.5 ounces per ton; Lead 8.3 per cent; Zinc - 6.9 per cent across 1.8 feet. Similar mineralization is visible at the northeastern end of No.9 location, the section between the mineralized extremities being poorly exposed. Above No.1 adit, Nos.6, 7 and 8 cuts, enclosed within a length of 70 feet, expose mineralized quartz and silicified rock averaging 2.7 feet in width. A sample taken across 1.2 feet at No.6 location assayed: Gold - 0.04 ounces per ton; Silver 110 ounces per ton; Lead 3.9 per cent. No.5 open-cut exposes up to 8 feet of sheared, rusty-weathered greenstone, silicified in part. At No.4 cut a sample across 1.6 feet assayed: Gold - 0.06 ounces per ton; Silver 60 ounces per ton. At Nos.3 and 2 cuts, which are caved, there is evidence of continuity of shearing and silicification. At No.1 location mineralization is locally developed along two intersecting zones of shearing, one striking northeasterly and the other approximately east-west. A sample across 2.5 feet immediately adjoining the face of the cut developing the northeasterly shearing assayed: Gold and Silver - trace; and a sample representing 1.5 feet associated with cross-shearing assayed: Gold - 0.38 ounces per ton; Silver 22 ounces per ton. These showings, where appreciable gold values have been obtained in previous sampling, are at the foot of rock bluffs, including porphyritic intrusives, into which it was not possible to trace any definite shearing.

In the lower adit there is nothing corresponding with conditions in the surface cuts above it, there being no definite structure or mineralization in evidence. In general this working, apart from cross-cuts, is driven along

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)15. B.C. Minister of Mines Report 1937, pp. F15-F18 (continued):

various weak, southwesterly striking fractures, with from vertical to steep dips to either northwest or southeast. There is no evident explanation of the lack of continuity of the mineralized shear-zone to this horizon, which must be attributed to structural weakness or to displacement by some unobserved faulting.

The first section of the upper adit, from near the portal to the first south cross-cut, is driven along an indefinite zone of southwesterly-striking shearing, dips being southeasterly at from 75 to 80 degrees. No appreciable silicification or sulphide mineralization was noted in the back of this drift, the weak structure fading as the cross-cut specified is approached. A parallel shear-zone was found in the south cross-cut and followed for 85 feet to the southwestern face of the adit.

In the back of this drift-section the wall-rock is irregularly silicified, disseminated pyrite being of common occurrence. In the floor, at a point 32 feet back from the face, there is a short exposure of well-mineralized quartz, a sample across 2.5 feet at this point assaying: Gold - 0.10 ounces per ton; Silver - 3.5 ounces per ton; Lead 3 per cent. Specks of chalcopyrite, associated with the pyrite and galena, were also noted here. In the face, where structural conditions were more definite than at any other point in these workings, two samples taken over a combined width of 4.25 feet of silicified, pyritized, sheared greenstone gave a trace in Gold and from 0.4 to 1.2 ounces per ton in Silver. As shown on the sketch, adjacent workings, also in greenstone, extend along a zone of shearing and silicification with strikes north 10 degrees east to north 13 degrees east with easterly dips of from 60 to 75 degrees. In No.15 cut, over the "Moffatt" adit, rusty sheared rock is exposed. Similar conditions are evident in No.16 cut, together with irregular silicification and indefinite scattered mineralization. A sample across 2.8 feet on the hanging-wall side, in the face of the cut, assayed: Gold - trace; Silver - 8.2 ounces per ton.

Cuts No.17, 18 and 19 trace the continuity of the shearing, silicification being irregular with sparse mineralization. At open-cut No.20 situated at the foot of the bluffs previously mentioned in connection with No.1 cut, the silicified greenstone contains streaks of sulphide mineralization on both walls of an exposure 3.5 feet wide, the assay over this width being: Gold - 1 ounce per ton; Silver - 9.5 ounces per ton; Lead - 7.2 per cent. No definite shearing was noted in the bluffs southerly from No.20 cut.

The "Moffatt" adit is first driven south 13 degrees west for 82.5 feet, then south 2 degrees east for 22.5 feet to the face. From the portal to the bend it follows a well-defined wall dipping easterly at from 60 to 65 degrees. This is left at the bend and in the face of the adit there is an indefinite approximately parallel fracture. Between a point 20 feet northerly from the bend and the face there are indefinite narrow areas of irregular silicification mineralized with disseminated pyrite.

In the absence of a more comprehensive plan, other scattered showings will be described approximately in relation to the several claim boundaries. Six of the claims are staked in a double row trending southwesterly.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)15. B.C. Minister of Mines Report 1937, pp. F15-F18 (continued):

The "Roosevelt" claims adjoins the "Gridiron" (which contains most of the previously described occurrences) to the southwest and the former claim is adjoined to the northwest by the "Hoover". The seventh claim, named "Jubilee", adjoins both the "Roosevelt" and "Hoover" to the southwest, being equally distributed on each side of the line dividing those claims. On the "Hoover" claim at 6,200 feet elevation, and about 1,000 feet westerly from open-cut No.20 on the sketch, there is a small cut at the top of a rock-slide sloping northeasterly towards Tenquille Creek. Here a short exposure, 2 feet wide, of silicified iron-stained greenstone and quartz containing disseminated pyrite is associated with shearing which strikes north 40 degrees east and dips 75 degrees southeasterly. A sample across 2 feet gave traces in gold and silver. On the "Jubilee" claim adjoining the dividing line between the "Hoover" and "Roosevelt" claims, or approximately 800 feet southwesterly from the last previously-described showing, there are two open-cuts at 6,200 feet elevation, situated on the northeastern slope of the glacial basin. The cuts, 83 feet apart, partially develop a wide zone of mineralization which occurs in a belt of sheared, fine-grained, banded siliceous rock, adjoining and overlying a band of northeasterly-dipping limestone. Mineralization consists chiefly of disseminated pyrite in a siliceous gangue.

A sample across 4.5 feet (partial exposure) in the southeasterly cut assayed: Gold - 0.18 ounces per ton; Silver 1 ounce per ton; and a selected sample from the northwesterly cut gave: Gold - 0.22 ounces per ton; Silver 1.6 ounces per ton. The continuation of this zone and its full width have not been explored. A few hundred feet northerly from these cuts the ground falls precipitously for 300 feet to a bench containing two small adjoining lakes. At 6,200 feet elevation and approximately 1,500 feet to the southwest of the last described workings there is, also on the "Jubilee" claim, a shallow cut. This location is on a grassy hump separating two glacial basins sloping towards Tenquille Creek. This cut exposes a 4-foot width of heavily oxidized and pyritized rock adjoining a small outcrop of limestone which apparently strikes north 70 degrees west with vertical dip. A sample across 3.75 feet assayed: Gold - 0.06 ounces per ton; Silver - 0.8 ounces per ton; and a selected sample of pyrite gave: Gold - 0.16 ounces per ton; Silver - 0.6 ounces per ton. No other work has been done to trace the continuity of this occurrence, which is apparently wider than the exposure.

Summarizing conditions at the present stage of development, the irregular ore occurrences on the "Gridiron" claim appear to be lenses developed along shearing and fracture planes which lack evidence of regularity and continuity. The comparatively good structural conditions in the inner end of the No.1 adit suggest the extension of this drift-section to test the downward continuation of the good showing in No.4 open-cut. At higher elevations the wide zone of mineralization in the two adjacent cuts on the "Jubilee" claim is of interest and could be further explored to ascertain its extent and continuity. Objectives for future exploration also include testing of intersections of the variously-striking systems of shearing and fracturing for possible mineral concentrations.

EXCERPTS FROM GOVERNMENTAL REPORTS (continued)16. B.C. MINISTER OF MINES REPORT 1961, p. 29:

PHELPS DODGE CORPORATION OF CANADA, LIMITED (50°122°N.W.) This company holds eighty-four claims and fractions around Tenquille (Naud) Lake, which is about 15 miles north of the Pacific Great Eastern Railway at Pemberton and is reached by a good trail about 7 miles long from Pemberton Meadows. The property contains several prospects, including the Seneca, Gold King, Silver Bell, and Eva (Moffatt and White's camp), whose locations were recorded by the Geological Survey in 1924. In about 1932, some drilling was done at the Gold King prospect. Mineralization seen on the property includes chalcopyrite that is partly in shear zones adjacent to dykes, and partly with magnetite in skarns. The host rocks include tuffaceous and volcanic strata together with limestone, and they show resemblances to rocks of the Nicola group. They are intruded nearby by granitic bodies. In 1961, work on this property included geological mapping and prospecting.

(References: Geol. Survey., Canada, Sum. Rept., 1924, Pt. A, pp. 91-99; Minister of Mines, BC., Ann. Rept., 1932, P. 211)

CREST LABORATORIES (B.C.) LTD.

1068 HOMER STREET
VANCOUVER 3, B.C.
PHONE 688-8586

CREST LABORATORIES LTD.
7911 ARGYLL ROAD
EDMONTON 22, ALBERTA
PHONE 469-2391

CERTIFICATE OF ASSAY

TO Keymark Engineering,
1063 Balfour Street,
Vancouver, B.C.

July 26, 1971

Lab No. 2912

Re: Tenquille Property

I hereby certify THAT THE FOLLOWING ARE THE RESULTS OF ASSAYS MADE BY US UPON THE HEREIN DESCRIBED SAMPLES.

MARKED	GOLD		SILVER							TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	
1519	trace	---	8.2	(FROM ST SHAFT CROWN)						
1520	trace	---	0.1	(OUTCROP 10' SOUTH OF #2 INCLINE SHAFT)						
1521	trace	---	trace	(OUTCROP 35' NORTH OF 1520)						
1523	trace	---	trace	(FINE GR. MAG. 3' FROM POST NEW TRENCH)						
1524	trace	---	trace	(FAR END OF TRENCH)						
1525	trace	---	91.6	(FROM COLLAR ST SHAFT)						
No Tag	trace	---	trace	(FROM PIT ON HAIDA #3)						

NOTE:

Rejects Retained One Month
Pulps Retained Three Months
Unless Otherwise Arranged.

Gold calculated at \$..... per ounce

S. J. Burgess

Registered Assayer, Province of British Columbia

APPENDIX - B

To:

TENNISVILLE
PULP & PAPER CO.**CAN TEST LTD.**

CHEMISTS, ANALYSTS AND CONSULTANTS

1650 PANDORA STREET, VANCOUVER 6, B.C.

Telephone 254-7278

Telex 04-507737

Weymark Eng.

1063 Balfour

Vancouver, B.C.

**SEMI QUANTITATIVE SPECTROGRAPHIC
ANALYSES CERTIFICATE**

File No. 1762 A

Date July 28, 1971

cc: Crest Laboratories

We hereby Certify that the following are the results of semi quantitative spectrographic analyses made on

samples submitted.

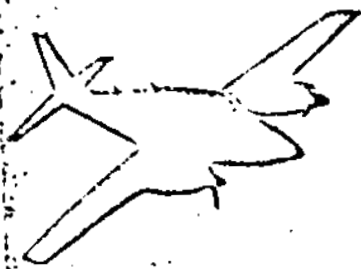
Sample Identification		Sample 1: 1522 - Tanquille (Crest Laboratories #2922-1)					Sample 2:					Sample 3:					Sample 4:					Sample 5:				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Aluminum	Al	0.2					Lead	Pb	trace																	
Antimony	Sb	ND					Magnesium	Mg	0.3																	
Arsenic	As	trace					Manganese	Mn	*																	
Barium	Ba	0.01					Molybdenum	Mo	0.002																	
Beryllium	Be	ND					Niobium	Nb	ND																	
Bismuth	Bi	ND					Nickel	Ni	0.003																	
Boron	B	trace					Silicon	Si	matrix																	
Cadmium	Cd	ND					Silver	Ag	0.001																	
Calcium	Ca	major					Strontium	Sr	0.001																	
Chromium	Cr	0.02					Tantalum	Ta	ND																	
Cobalt	Co	0.004					Tin	Sn	ND																	
Copper	Cu	0.01					Titanium	Ti	0.01																	
Gallium	Ga	ND					Tungsten	W	ND																	
Gold	Au	trace					Vanadium	V	0.001																	
Iron	Fe	major					Zinc	Zn	trace																	
Sodium	Na	trace					Potassium	K	3.0																	

All results expressed as percent by weight

Note: Pulp retained one week.

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CAN TEST LTD.

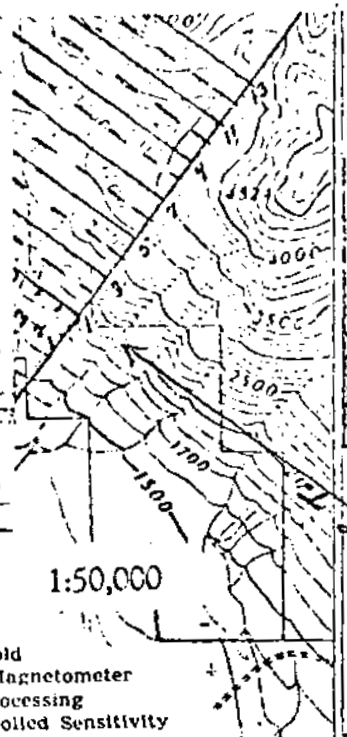


WATERTON AIREX LTD.

AIRBORNE GEOPHYSICS
(Incorporated 1964)

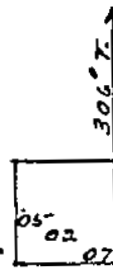
1:50,000

Patented Combined Method
Total Radioactivity
Selective Radioactive Threshold
Electromagnetic + Magnetometer
Computer Processing
Controlled Sensitivity



APPENDIX - C					
3	05° 02' 07"				
2	06° 02' 07"				
1	05° 02' 07"				
		2	3	4	5

GRID SCALE: 1000' TO INCH



HIGH MAG. +
LOW MAG. -
ELECTROMAGNETIC
RADIOACTIVITY

ELECTROMAGNETIC .7 MICROAMPS
RADIOACTIVITY .002 MR/HR.
MAGNETOMETER 500 GAMMAS

VICTORIA INTERNATIONAL AIRPORT

Box 496, SIDNEY, B.C., CANADA

PHONE 656-2194

Proven in Western and Northern Canada for the highest degree of accuracy at the lowest cost. \$10. Per lineal mile including base and positioning expenses on average surveys.

A 400 square mile area costing \$10,000. taking three weeks could put your ground party a year or more ahead in their exploration program.

by the use of the combination method ~~and our T.S. indicator~~ 80% of the unproductive anomalies can be calculated out of the survey which results in keeping the ground follow up costs to a minimum.

- Electromagnetic: Waterton quadrature system.
Tran. on 1,000 CPS. Rec. in units of .1 Microamps.
- Magnetometer: Sharpe PMF-3 or McPhar M700 modified to our method.
Flux-gate in units of 10 to 100 Gammas.
- Radioactivity: Detectron - DR299, 24 tubes.
Rec. in units of .001 MR/HR, total count.
- Threshold: McPhar TV-5 Crystal
Positions 1.3 - 1.63 - 2.5 Mev.

Grid supplied in scales of 1,000 to 2,000 feet per inch with clear overlays showing the anomalous areas.

Ground checks over mountain areas have found the accuracy to be within 500 feet on a 500 foot grid and capable of disseminated sulphide detection.

Over 15,000 lineal miles of reconnaissance and assessment assistance completed in 40 different areas by the end of 1970.

Operations range up to 400 miles from base.

Aircraft type: Cherokee 235 - Twin Comanche.



WATERTON AIREX LTD.
AIRBORNE GEOPHYSICS
PAT. No. 758308 CANADA (1967)

Our patented method incorporates the combined readings from a flux-gate magnetometer, a nucliometer and a miniaturized electromagnetic unit. The readings are recorded instantly on film and timed electrically to enable the readings to be entered on a grid of a chosen scale.

To obtain anomalies of most value level lines are flown in a certain plane and a fixed wing aircraft is chosen as the most suitable vehicle for this purpose.

Any inaccuracy in the timed readings due to airspeed error is calculated out before the readings are entered on the grid.

The instruments are set on "0" over a predetermined spot near the survey area and this adjustment is made after each 1½ hours. The survey flying is done in certain conditions and at certain times of the day.

Station-keeping is accomplished by electrical counter, reference to topographical features, directional gyro set from compass or astro compass and a set flying technique. Ground checks from over twenty mountainous areas have found the accuracy of this method to be between 250 feet and 500 feet on a 500 foot grid.

Anomalies are plotted from the grid on to transparent sheets and the resulting overlays give us the combination anomalies which, in our experience, have been the most successful.

Magnetometer: PMF-3 Sharpe or McPhar M-700 is used when adjusted to our method. Readings are in units of 100 gammas for mineral reconnaissance and in units of 10 gammas for oil reconnaissance.

Electromagnetic: Built by our company to a miniature scale to enable us to use small aircraft to keep the cost of survey to our rates.

With the sensitivity set at 30%, disseminated sulphides usually read in the 3 to 5 range and heavy sulphides in the 10 to 15 range on a scale division of 25.

The transmitted electrical field is from 200 feet of copper wire attached to the bottom of the aircraft in the horizontal plane and power is taken from the aircraft generator and built up to required strength by the field transmitter which operates in the 1,000 CPS range.

A small 10 oz bird is drawn behind the aircraft powered by its own mercury cell and its receiving coil is in the vertical, 90° to the transmitted field. A booster receiver in the aircraft produces the received signal in units of .1 microamperes.

Nucliometer: Detectron - DR299, 24 tubes suited to airborne work to obtain total radioactive readings in units of .001 MR/HR, milliroentgens per hour. Threshold readings are taken from McPhar TV-3B with 3" crystal.

Computer processing is used when requested, but for this the magnetometer average in the areas is set at 3,000 gammas.

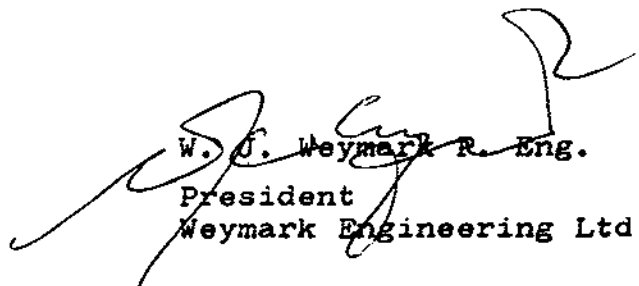
APPENDIX - D

COST DISTRIBUTION

1. Waterton Airex Ltd., conducting airborne Aeromagnetic, Electromagnetic and Radio-activity readings at 500-ft intervals, 51 miles flight lines, Ivan 1 - 16 Mineral claims and Mineral Leases M - 31 and M - 32, Lillooet Mining Division\$ 616.00
2. Weymark Engineering Ltd., interpretation of geophysical survey readings and preparation and submission of Report dated 15th November 1972\$1200.00

Total

\$1816.00



W. J. Weymark R. Eng.
President
Weymark Engineering Ltd

ILLUSTRATIONS



122° 55' WEST

12 MILES TO BIRKEN, B.C. RAILROAD.



Tenouille Creek

VAN-13 29022 Top 931747				
VAN-14 29023 Top 931748	VAN-11 29020 Top 931745	VAN-12 29021 Top 931746		
VAN-15 29024 Top 931750	VAN-9 29018 Top 931743	VAN-10 29020 Top 931744		
VAN-16 29025 Top 931751	VAN-7 29016 Top 931741	VAN-8 29017 Top 931742	VAN-5 29014 Top 931739	VAN-6 29015 Top 931740
			VAN-3 29012 Top 931737	VAN-4 29013 Top 931750
			VAN-1 29010 Top 931735	VAN-2 29011 Top 931736

MINERAL LEASE
M.L. 32
LOT #4510
SANTA BARBARA

MINERAL LEASE
M.L. 31
LOT #4511
SAINT PAUL

Department of
Mines and Technical Resources
ASSESSMENT REPORT
NO. 4154 M.P. #2

LILLOET MINING DIVISION

JAMES C. BEGGS

WEYMARK ENGINEERING LTD.
CONSULTING ENGINEERS
WEST VANCOUVER, BRITISH COLUMBIA
CANADA

TENQUILLE CLAIM GROUP
CLAIM LOCATION

DATE 1 NOV 1964	SCALE 1 INCH APPROX
SUBMITTED M.J.W.	CHECKED M.J.W.
DRAWN D. CREEDIE	FILE No. 2811
TRACED D. CREEDIE	CONTRACT 72-1

REFERENCE: B.C. MINISTER OF MINES
MAP N° 923/101 LILLOET MINING DIVISION

NOTE: LOCATION IF CLAIMS IS APPROXIMATE.

NOTE: LOCATION OF GEOGRAPHICAL COORDINATES IS APPROXIMATE.

Scale 1:250,000
1 Inch = 4 Miles Approximately



JAMES C. BEGGS
TENQUILLE CLAIMS GROUP



4154 M-3

REFERENCE: NATIONAL TOPOGRAPHIC SYSTEM OF CANADA,
EDITION 1 A56, SHEET 92J, SERIES A502, PENNELTON,
B.C. DEPARTMENT OF MINES & TECHNICAL SURVEYS, OTTAWA.

JAMES C. BEGGS
WEYMARK ENGINEERING LTD.
CONSULTING ENGINEERS
WEST VANCOUVER, BRITISH COLUMBIA
CANADA

TENQUILLE CLAIMS GROUP
ACCESS & TOPOGRAPHY

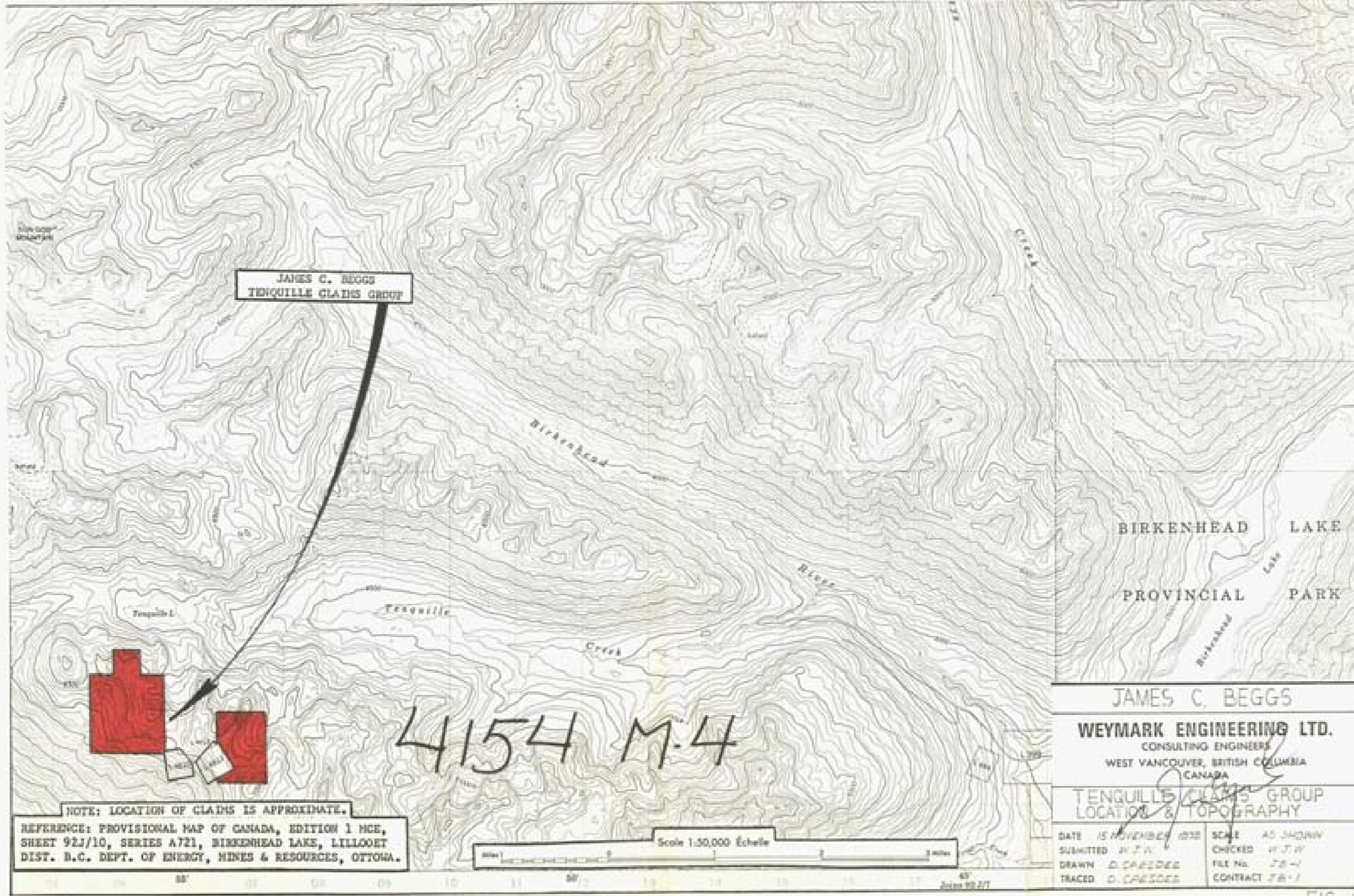
DATE 27 NOVEMBER 1982
SUBMITTED M.J.W.
DRAWN & CHECKED
TRACED & CHECKED

SCALE AS SHOWN
CHECKED W.J.W.
FILE No. 29-1
CONTRACT 78-1

NOTE: LOCATION OF CLAIMS IS APPROXIMATE

Department of
Mines and Geological Resources
ASSESSMENT REPORT

NO. 4154 M.P. #3



JAMES C. BEGGS
TENQUILLE CLAIMS GROUP

BIRKENHEAD LAKE
PROVINCIAL PARK

4154 M-4

JAMES C. BEGGS	
WEYMARK ENGINEERING LTD. CONSULTING ENGINEERS WEST VANCOUVER, BRITISH COLUMBIA CANADA	
TENQUILLE CLAIMS GROUP LOCATION & TOPOGRAPHY	
DATE 15 NOVEMBER 1978	SCALE AS SHOWN
SUBMITTED W.F.H.	CHECKED W.F.H.
DRAWN D. CAESDES	FILE No. 78-1
TRACED D. CAESDES	CONTRACT 78-1

NOTE: LOCATION OF CLAIMS IS APPROXIMATE.
REFERENCE: PROVISIONAL MAP OF CANADA, EDITION 1 MCE,
SHEET 92J/10, SERIES A721, BIRKENHEAD LAKE, LILLOOET
DIST. B.C. DEPT. OF ENERGY, MINES & RESOURCES, OTTAWA.



Department of
Mines and Geotechnical Resources
ASSESSMENT REPORT
NO. 4154 MAP #4

Scale of Miles
0 1 2 3 4 5

NOTE: LOCATION OF CLAIMS IS APPROXIMATE

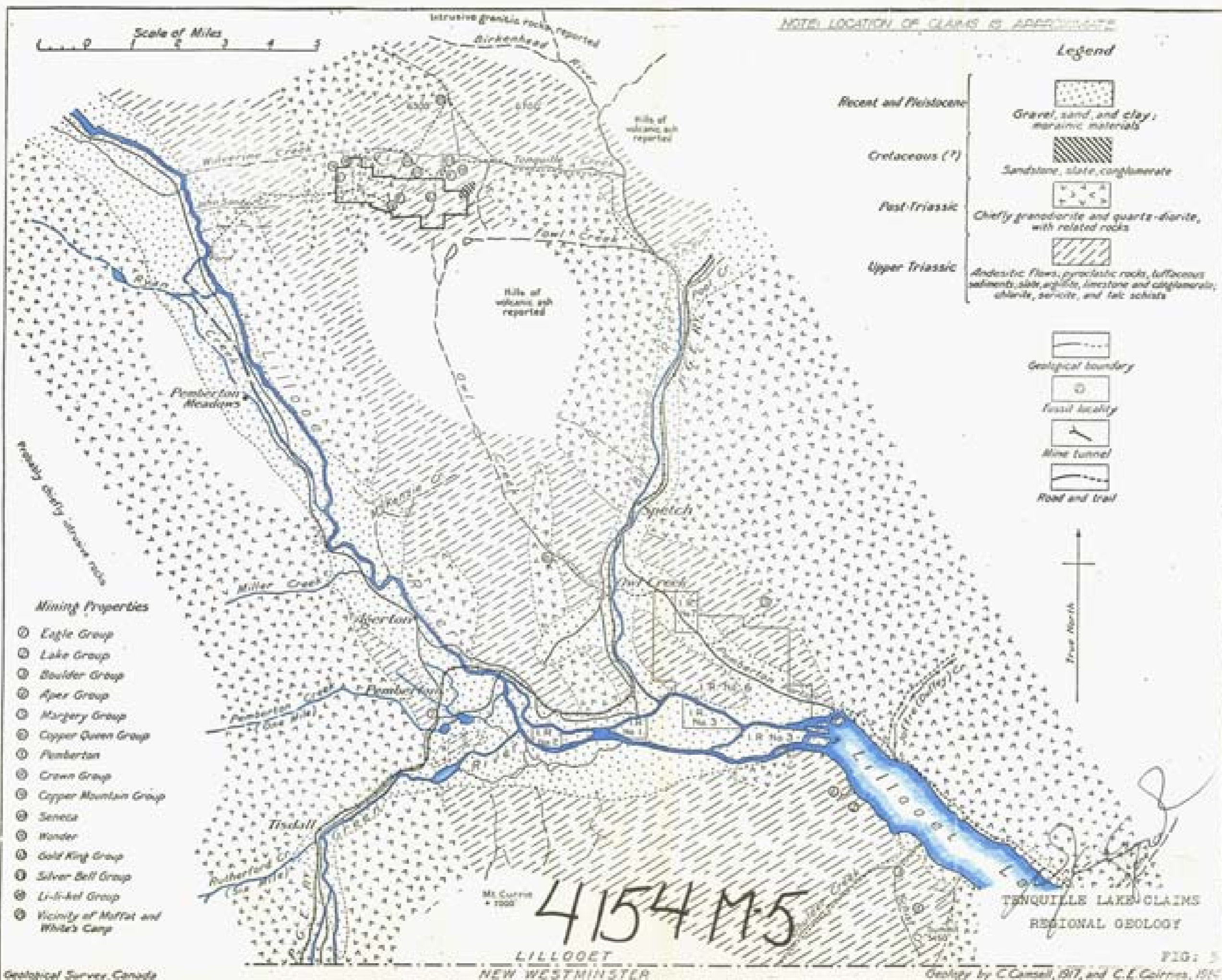
Legend

- Recent and Pleistocene
Gravel, sand, and clay, morainic materials
- Cretaceous (?)
Sandstone, slate, conglomerate
- Post-Triassic
Chiefly granodiorite and quartz-diorite, with related rocks
- Upper Triassic
Andesitic flows, pyroclastic rocks, tuffaceous sediments, slate, argillite, limestone and conglomerate, chlorite, sericite, and talc schists

- Geological boundary
- Fossil locality
- Mine tunnel
- Road and trail



- Mining Properties
- ① Eagle Group
 - ② Lake Group
 - ③ Boulder Group
 - ④ Apex Group
 - ⑤ Margery Group
 - ⑥ Copper Queen Group
 - ⑦ Pemberton
 - ⑧ Crown Group
 - ⑨ Copper Mountain Group
 - ⑩ Seneca
 - ⑪ Wander
 - ⑫ Gold King Group
 - ⑬ Silver Bell Group
 - ⑭ Li-li-ki Group
 - ⑮ Vicinity of Moffat and White's Camp



4154 M-5

LILLOOET
NEW WESTMINSTER

TENQUILLE LAKE CLAIMS
REGIONAL GEOLOGY

Geological Survey, Canada

FIG. 5
Geology by T. Cassell, B.T., and C. E. Cairnes, 1915

Department of
Mines and Technical Resources
ANNUAL REPORT
NO. 4154 P. 5

17 Runs 16000' LONG

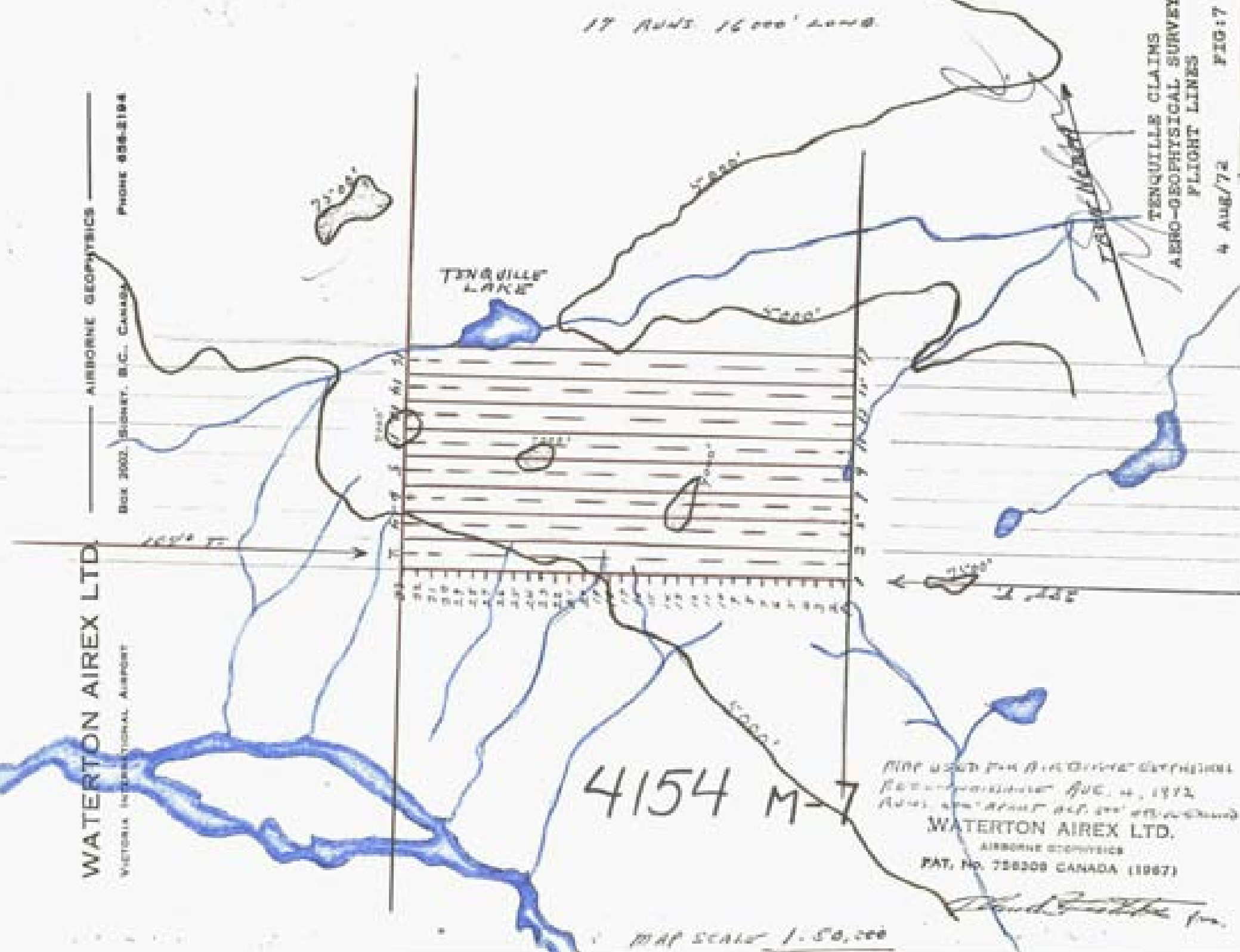
WATERTON AIREX LTD.

AIRBORNE GEOPHYSICS

VICTORIA INTERNATIONAL AIRPORT

Box 3000, Sidney, B.C., Canada

Phone 638-2104



TENQUILLE CLAIMS
AEROMAGNETIC SURVEYS
FLIGHT LINES

4 Aug/72

FIG:7

4154 M-7

MAP USED FOR DISCOVERING OILFIELD
 RECOMMENDED BY C. W. 1972
 AEROMAGNETIC SURVEYS
WATERTON AIREX LTD.
 AIRBORNE GEOPHYSICS
 PAT. NO. 758308 CANADA (1987)

Handwritten signature

MAP SCALE 1:50,000

Department of
Mines and Geographical Resources
ANNUAL REPORT
NO. 4154 No. #7

Via ERB Pilot
~~XXXXXXXXXX~~

FLIGHT READINGS
 4 AUGUST 1972 FIG. 7

FLIGHT READINGS
 4 AUGUST 1972 FIG. 7

FLIGHT READINGS
 4 AUGUST 1972 FIG. 7

FLIGHT READINGS
 4 AUGUST 1972 FIG. 7

FLIGHT READINGS
 4 AUGUST 1972 FIG. 7

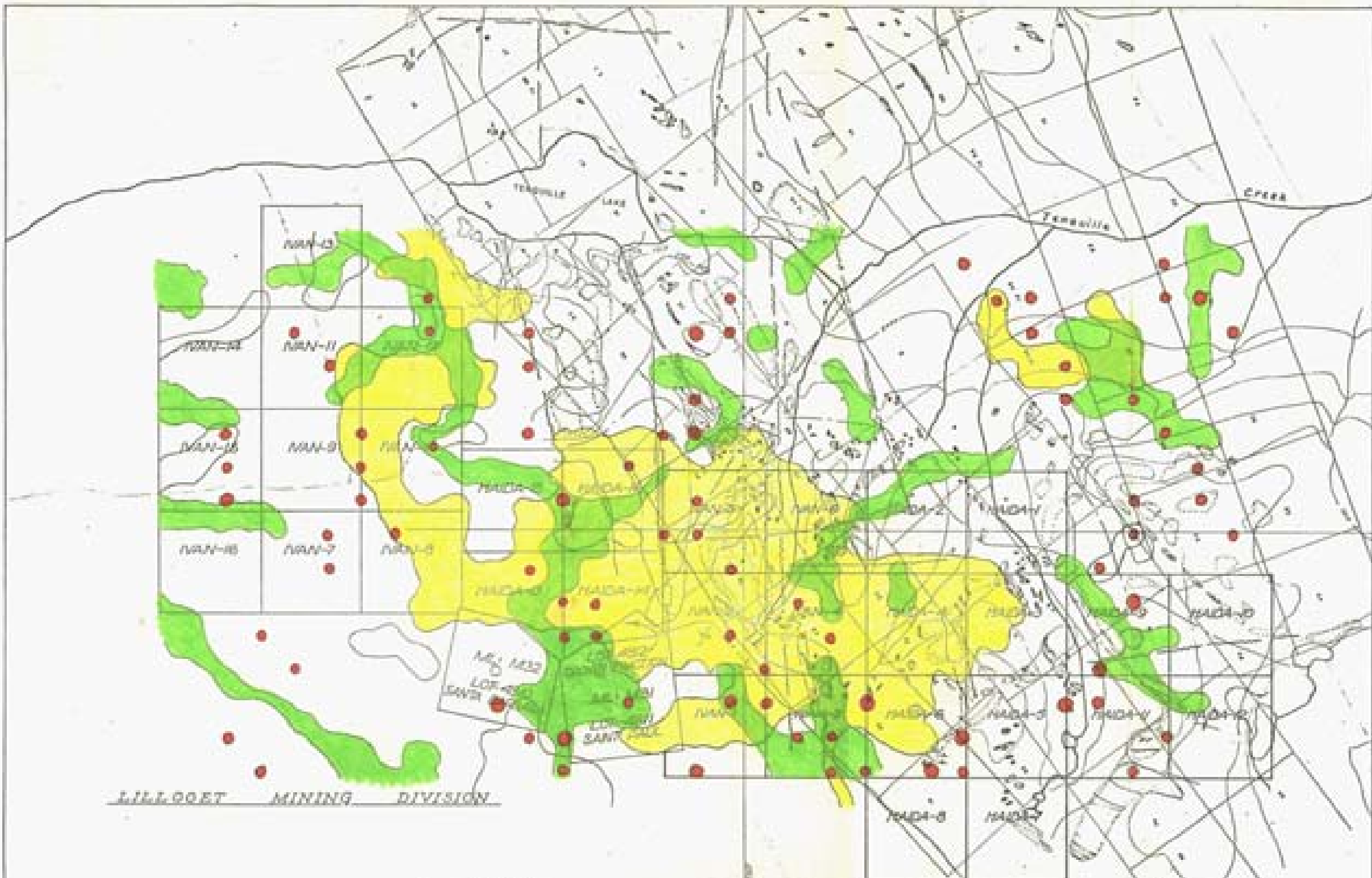
1	17	0.12	0.23	1.12	1.15	1.16	1.17	1.18	1.19	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.28	1.29	1.30	1.31	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.39	1.40	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.50	1.51	1.52	1.53	1.54	1.55	1.56	1.57	1.58	1.59	1.60	1.61	1.62	1.63	1.64	1.65	1.66	1.67	1.68	1.69	1.70	1.71	1.72	1.73	1.74	1.75	1.76	1.77	1.78	1.79	1.80	1.81	1.82	1.83	1.84	1.85	1.86	1.87	1.88	1.89	1.90	1.91	1.92	1.93	1.94	1.95	1.96	1.97	1.98	1.99	2.00	2.01	2.02	2.03	2.04	2.05	2.06	2.07	2.08	2.09	2.10	2.11	2.12	2.13	2.14	2.15	2.16	2.17	2.18	2.19	2.20	2.21	2.22	2.23	2.24	2.25	2.26	2.27	2.28	2.29	2.30	2.31	2.32	2.33	2.34	2.35	2.36	2.37	2.38	2.39	2.40	2.41	2.42	2.43	2.44	2.45	2.46	2.47	2.48	2.49	2.50	2.51	2.52	2.53	2.54	2.55	2.56	2.57	2.58	2.59	2.60	2.61	2.62	2.63	2.64	2.65	2.66	2.67	2.68	2.69	2.70	2.71	2.72	2.73	2.74	2.75	2.76	2.77	2.78	2.79	2.80	2.81	2.82	2.83	2.84	2.85	2.86	2.87	2.88	2.89	2.90	2.91	2.92	2.93	2.94	2.95	2.96	2.97	2.98	2.99	3.00	3.01	3.02	3.03	3.04	3.05	3.06	3.07	3.08	3.09	3.10	3.11	3.12	3.13	3.14	3.15	3.16	3.17	3.18	3.19	3.20	3.21	3.22	3.23	3.24	3.25	3.26	3.27	3.28	3.29	3.30	3.31	3.32	3.33	3.34	3.35	3.36	3.37	3.38	3.39	3.40	3.41	3.42	3.43	3.44	3.45	3.46	3.47	3.48	3.49	3.50	3.51	3.52	3.53	3.54	3.55	3.56	3.57	3.58	3.59	3.60	3.61	3.62	3.63	3.64	3.65	3.66	3.67	3.68	3.69	3.70	3.71	3.72	3.73	3.74	3.75	3.76	3.77	3.78	3.79	3.80	3.81	3.82	3.83	3.84	3.85	3.86	3.87	3.88	3.89	3.90	3.91	3.92	3.93	3.94	3.95	3.96	3.97	3.98	3.99	4.00	4.01	4.02	4.03	4.04	4.05	4.06	4.07	4.08	4.09	4.10	4.11	4.12	4.13	4.14	4.15	4.16	4.17	4.18	4.19	4.20	4.21	4.22	4.23	4.24	4.25	4.26	4.27	4.28	4.29	4.30	4.31	4.32	4.33	4.34	4.35	4.36	4.37	4.38	4.39	4.40	4.41	4.42	4.43	4.44	4.45	4.46	4.47	4.48	4.49	4.50	4.51	4.52	4.53	4.54	4.55	4.56	4.57	4.58	4.59	4.60	4.61	4.62	4.63	4.64	4.65	4.66	4.67	4.68	4.69	4.70	4.71	4.72	4.73	4.74	4.75	4.76	4.77	4.78	4.79	4.80	4.81	4.82	4.83	4.84	4.85	4.86	4.87	4.88	4.89	4.90	4.91	4.92	4.93	4.94	4.95	4.96	4.97	4.98	4.99	5.00	5.01	5.02	5.03	5.04	5.05	5.06	5.07	5.08	5.09	5.10	5.11	5.12	5.13	5.14	5.15	5.16	5.17	5.18	5.19	5.20	5.21	5.22	5.23	5.24	5.25	5.26	5.27	5.28	5.29	5.30	5.31	5.32	5.33	5.34	5.35	5.36	5.37	5.38	5.39	5.40	5.41	5.42	5.43	5.44	5.45	5.46	5.47	5.48	5.49	5.50	5.51	5.52	5.53	5.54	5.55	5.56	5.57	5.58	5.59	5.60	5.61	5.62	5.63	5.64	5.65	5.66	5.67	5.68	5.69	5.70	5.71	5.72	5.73	5.74	5.75	5.76	5.77	5.78	5.79	5.80	5.81	5.82	5.83	5.84	5.85	5.86	5.87	5.88	5.89	5.90	5.91	5.92	5.93	5.94	5.95	5.96	5.97	5.98	5.99	6.00	6.01	6.02	6.03	6.04	6.05	6.06	6.07	6.08	6.09	6.10	6.11	6.12	6.13	6.14	6.15	6.16	6.17	6.18	6.19	6.20	6.21	6.22	6.23	6.24	6.25	6.26	6.27	6.28	6.29	6.30	6.31	6.32	6.33	6.34	6.35	6.36	6.37	6.38	6.39	6.40	6.41	6.42	6.43	6.44	6.45	6.46	6.47	6.48	6.49	6.50	6.51	6.52	6.53	6.54	6.55	6.56	6.57	6.58	6.59	6.60	6.61	6.62	6.63	6.64	6.65	6.66	6.67	6.68	6.69	6.70	6.71	6.72	6.73	6.74	6.75	6.76	6.77	6.78	6.79	6.80	6.81	6.82	6.83	6.84	6.85	6.86	6.87	6.88	6.89	6.90	6.91	6.92	6.93	6.94	6.95	6.96	6.97	6.98	6.99	7.00	7.01	7.02	7.03	7.04	7.05	7.06	7.07	7.08	7.09	7.10	7.11	7.12	7.13	7.14	7.15	7.16	7.17	7.18	7.19	7.20	7.21	7.22	7.23	7.24	7.25	7.26	7.27	7.28	7.29	7.30	7.31	7.32	7.33	7.34	7.35	7.36	7.37	7.38	7.39	7.40	7.41	7.42	7.43	7.44	7.45	7.46	7.47	7.48	7.49	7.50	7.51	7.52	7.53	7.54	7.55	7.56	7.57	7.58	7.59	7.60	7.61	7.62	7.63	7.64	7.65	7.66	7.67	7.68	7.69	7.70	7.71	7.72	7.73	7.74	7.75	7.76	7.77	7.78	7.79	7.80	7.81	7.82	7.83	7.84	7.85	7.86	7.87	7.88	7.89	7.90	7.91	7.92	7.93	7.94	7.95	7.96	7.97	7.98	7.99	8.00	8.01	8.02	8.03	8.04	8.05	8.06	8.07	8.08	8.09	8.10	8.11	8.12	8.13	8.14	8.15	8.16	8.17	8.18	8.19	8.20	8.21	8.22	8.23	8.24	8.25	8.26	8.27	8.28	8.29	8.30	8.31	8.32	8.33	8.34	8.35	8.36	8.37	8.38	8.39	8.40	8.41	8.42	8.43	8.44	8.45	8.46	8.47	8.48	8.49	8.50	8.51	8.52	8.53	8.54	8.55	8.56	8.57	8.58	8.59	8.60	8.61	8.62	8.63	8.64	8.65	8.66	8.67	8.68	8.69	8.70	8.71	8.72	8.73	8.74	8.75	8.76	8.77	8.78	8.79	8.80	8.81	8.82	8.83	8.84	8.85	8.86	8.87	8.88	8.89	8.90	8.91	8.92	8.93	8.94	8.95	8.96	8.97	8.98	8.99	9.00	9.01	9.02	9.03	9.04	9.05	9.06	9.07	9.08	9.09	9.10	9.11	9.12	9.13	9.14	9.15	9.16	9.17	9.18	9.19	9.20	9.21	9.22	9.23	9.24	9.25	9.26	9.27	9.28	9.29	9.30	9.31	9.32	9.33	9.34	9.35	9.36	9.37	9.38	9.39	9.40	9.41	9.42	9.43	9.44	9.45	9.46	9.47	9.48	9.49	9.50	9.51	9.52	9.53	9.54	9.55	9.56	9.57	9.58	9.59	9.60	9.61	9.62	9.63	9.64	9.65	9.66	9.67	9.68	9.69	9.70	9.71	9.72	9.73	9.74	9.75	9.76	9.77	9.78	9.79	9.80	9.81	9.82	9.83	9.84	9.85	9.86	9.87	9.88	9.89	9.90	9.91	9.92	9.93	9.94	9.95	9.96	9.97	9.98	9.99	10.00	10.01	10.02	10.03	10.04	10.05	10.06	10.07	10.08	10.09	10.10	10.11	10.12	10.13	10.14	10.15	10.16	10.17	10.18	10.19	10.20	10.21	10.22	10.23	10.24	10.25	10.26	10.27	10.28	10.29	10.30	10.31	10.32	10.33	10.34	10.35	10.36	10.37	10.38	10.39	10.40	10.41	10.42	10.43	10.44	10.45	10.46	10.47	10.48	10.49	10.50	10.51	10.52	10.53	10.54	10.55	10.56	10.57	10.58	10.59	10.60	10.61	10.62	10.63	10.64	10.65	10.66	10.67	10.68	10.69	10.70	10.71	10.72	10.73	10.74	10.75	10.76	10.77	10.78	10.79	10.80	10.81	10.82	10.83	10.84	10.85	10.86	10.87	10.88	10.89	10.90	10.91	10.92	10.93	10.94	10.95	10.96	10.97	10.98	10.99	11.00	11.01	11.02	11.03	11.04	11.05	11.06	11.07	11.08	11.09	11.10	11.11	11.12	11.13	11.14	11.15	11.16	11.17	11.18	11.19	11.20	11.21	11.22	11.23	11.24	11.25	11.26	11.27	11.28	11.29	11.30	11.31	11.32	11.33	11.34	11.35	11.36	11.37	11.38	11.39	11.40	11.41	11.42	11.43	11.44	11.45	11.46	11.47	11.48	11.49	11.50	11.51	11.52	11.53	11.54	11.55	11.56	11.57	11.58	11.59	11.60	11.61	11.62	11.63	11.64	11.65	11.66	11.67	11.68	11.69	11.70	11.71	11.72	11.73	11.74	11.75	11.76	11.77	11.78	11.79	11.80	11.81	11.82	11.83	11.84	11.85	11.86	11.87	11.88	11.89	11.90	11.91	11.92	11.93	11.94	11.95	11.96	11.97	11.98	11.99	12.00	12.01	12.02	12.03	12.04	12.05	12.06	12.07	12.08	12.09	12.10	12.11	12.12	12.13	12.14	12.15	12.16	12.17	12.18	12.19	12.20	12.21	12.22	12.23	12.24	12.25	12.26	12.27	12.28	12.29	12.30	12.31	12.32	12.33	12.34	12.35	12.36	12.37	12.38	12.39	12.40	12.41	12.42	12.43	12.44	12.45	12.46	12.47	12.48	12.49	12.50	12.51	12.52	12.53	12.54	12.55	12.56	12.57	12.58	12.59	12.60	12.61	12.62	12.63	12.64	12.65	12.66	12.67	12.68	12.69	12.70	12.71	12.72	12.73	12.74	12.75	12.76	12.77	12.78	12.79	12.80	12.81	12.82	12.83	12.84	12.85	12.86	12.87	12.88	12.89	12.90	12.91	12.92	12.93	12.94	12.95	12.96	12.97	12.98	12.99	13.00	13.01	13.02	13.03	13.04	13.05	13.06	13.07	13.08	13.09	13.10	13.11	13.12	13.13	13.14	13.15	13.16	13.17	13.18	13.19	13.20	13.21	13.22	13.23	13.24	13.25	13.26	13.27	13.28	13.29	13.30	13.31	13.32	13.33	13.34	13.35	13.36	13.37	13.38	13.39	13.40	13.41	13.42	13.43	13.44	13.45	13.46	13.47	13.48	13.49	13.50	13.51	13.52	13.53	13.54	13.55	13.56	13.57	13.58	13.59	13.60	13.61	13.62	13.63	13.64	13.65	13.66	13.67	13.68	13.69	13.70	13.71	13.72	13.73	13.74	13.75	13.76	13.77	13.78	13.79	13.80	13.81	13.82	13.83	13.84	13.85	13.86	13.87	13.88	13.89	13.90	13.91	13.92	13.93	13.94	13.95	13.96	13.97	13.98	13.99	14.00	14.01	14.02	14.03	14.04	14.05	14.06	14.07	14.08	14.09	14.10	14.11	14.
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Department of
Mines and Geotechnical Resources

ANNUAL REPORT

NO. 4154 MAP #6

1" = 10000' (approx.)
 1" = 10000' (approx.)



LILLOOET MINING DIVISION

- LIMESTONE
- SLATE
- QUARTZITE / CONGLOMERATE
- CHESTY TUFF
- ANDSITE
- GRANODIORITE
- DIORITE
- QUARTZ, FELDSPATH, AMPHIBOL
- FAULT
- STRAIN BOUND
- STRAIN SHEARING
- FOLD AXIS
- HORSTING

4154 M-8

- AREAS OF ELECTROMAGNETIC HIGH
- AREAS OF MAGNETIC LOW
- AREAS OF MAGNETIC INTENSITY

REPRODUCED DRAWING THROUGH CLAIMS
 MADE BY THE GEOLOGICAL SURVEY OF CANADA LTD. (GEOLOGICAL OFFICE)

JAMES C. BRIGGS WEYMARK ENGINEERING LTD. <small>CONSULTING ENGINEERS</small> <small>WEST VANCOUVER BRANCH - CANADA</small>	
TECHNICAL CLAIM GROUP GEOPHYSICAL SURVEYS - ANALYSIS	
<small>DATE OF WORKING DRAWING</small> <small>DRAWN BY</small> J.C.B. <small>CHECKED BY</small> J.C.B. <small>SCALE</small> AS SHOWN	<small>SCALE</small> 1" = 1000' APPROX. <small>CHECKED BY</small> J.C.B. <small>DATE</small> 1981 <small>CONTRACT</small> 1000

Department of
Mines and Geotechnical Resources

ASSESSMENT REPORT

NO. 4154 #8