

ANNETTE

The Annette Claims, near Terrace B.C.

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Calgary, Alberta, 28th July 1976.

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Richard S. Westbury. BSc FGS FRGS P Geol

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MINERAL RESOURCES BRANCH

ASSESSMENT REPORT

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Photographs. See Appendix 11.

The Annette Claims, on Kleanza Creek, 15 miles east of Terrace, British Columbia: a report prepared for Mr John Isima, of Banff. 28th July 1976

#### Summary and Conclusions.

Following a brief visit to the properties described, situated on the south side of the valley of kleanza Creek, some 15 miles by good to excellent reads from Terrace is, about half, newly cleared of bush: during road building exposures, believed indicative of possible mineralisation were observed and the chaims staked.

The property, situated on the edge of the coast batholith, is in an area where to date, no commercial ore deposits have been found and continuously worked.

Access is easy, there are minor but possibly critical, indications of gold, silver and copper: other metals may also be present.

A modest programme of surveying and exploration is recommended which, if executed should suffice to either show there to be a significant and promising mineral prospect - or nothing worthy of further work.

It is believed that the setting is such that interesting skarn or other contact mineralisation might be present. There having, apparently, been no scientific exploration on the entire district it is expected that the work proposed although of limited scope, should be useful.

#### 1. Introduction:

The writer was commissioned to visit and examine the properties discussed herein by Mr John Isima, of P.O.Box 1525, Banff Alberta who informs the writer that he owns the Annette Claims

The writer visited the Terrace area on the weekend 10th-11th July 1976, renting a car in Terrace from whence, in company with Mr <sup>1</sup>sima, he drove the 10 miles or so to the Kleanza Creek Provincial park and thence southwards along an excellent logging road.

Mr Isima explained his reasons for interest in the property, pointed out what he considered to be the more significant points and in company with the writer, walked over much of the eastern part of the property.

As is evidenced by the accompanying photographs taken during his three hour visit to the property, the weather was overcast: a light rain started as the writer left the area.

#### 2. Location, area.

The property, known as the Annette Claims, is located some three four miles south of the Kleanza Creek Provincial Park, itself some ten miles east of Terrace, along Highway No 16 which is Terrace's link to southern B.C., via Smithers and Prince George(some 350 miles by road). From the highway access is via a two lane wide logging road which, it may be estimated, must hasecost close to a million dollars to build: much of it is cut into the east side of the Kleanza Creek Valley by blasting: its' surface is excellent: there are few unduly sharp turns and the logging Company who built it, a subsidiary of Canadian Cellulose Limited, have intimated that they have no objection to third parties using it. Should a mining operation develop the traffic loading would increase - but it is extremely probable that by that time, the road will have become a public road. The distance from the Provincial Park is approximately  $3\frac{1}{2}$  miles to the bridge which gives access to the main part of the property.

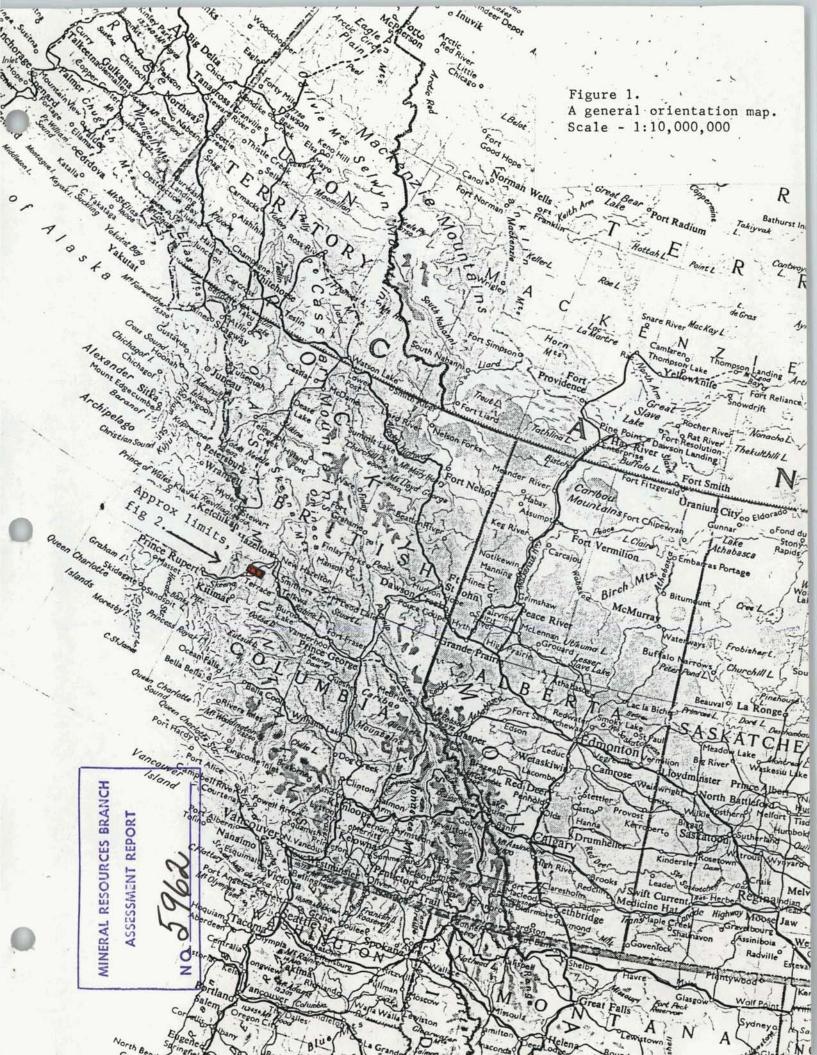
The property is stated by Mr Isima to consist of 8 claims, each 1,500 ft x 1,500 ft for a total area of 413.22 acres if staked exactly. The claims are aligned in two rows of four claims, forming a block 3,000 ft x 6,000ft, with the long axis trending approximately NNW - SSE, the northern extremity of the block extends some distance on to the NE side of Kleanza Creek, close to the CanCel bridge which gives access to the property(see fig 4)

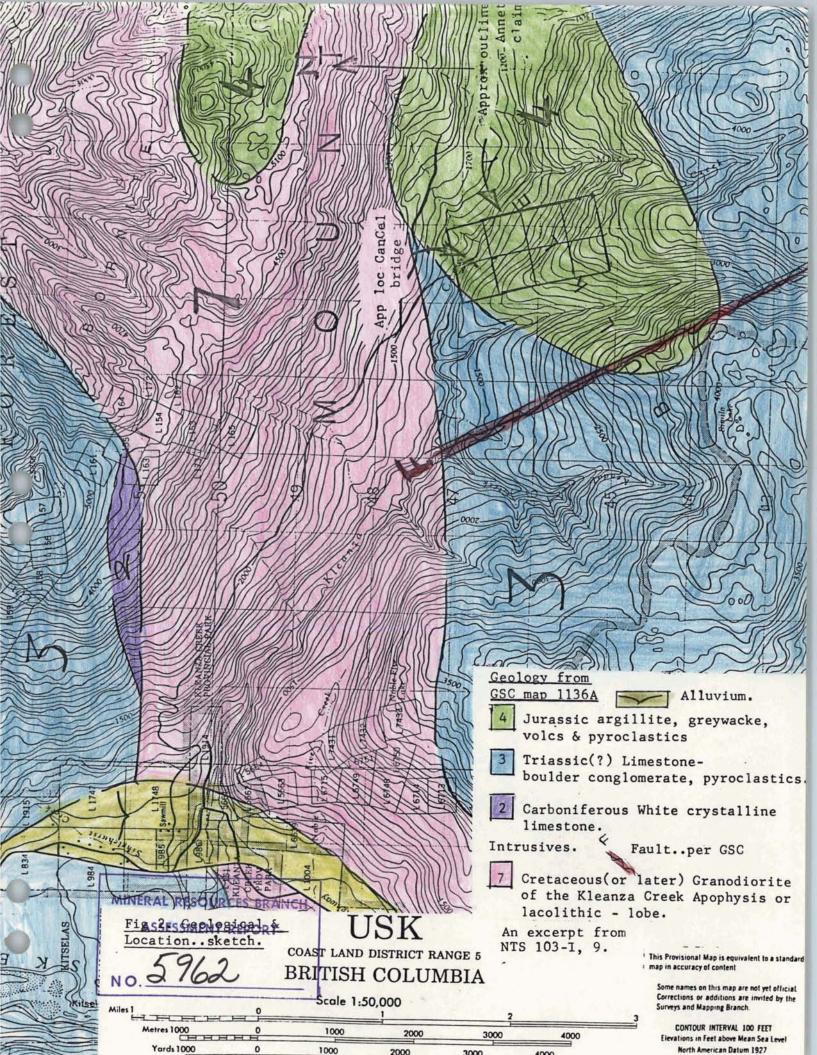
The 'corner point', where the four more northerly claims meet, is hereinafter refered to as the 'main corner', being situated immediately south of the point where the access road divides. This 'Main Corner' is located at approximately 54°34'00"N 128°16'50"W.

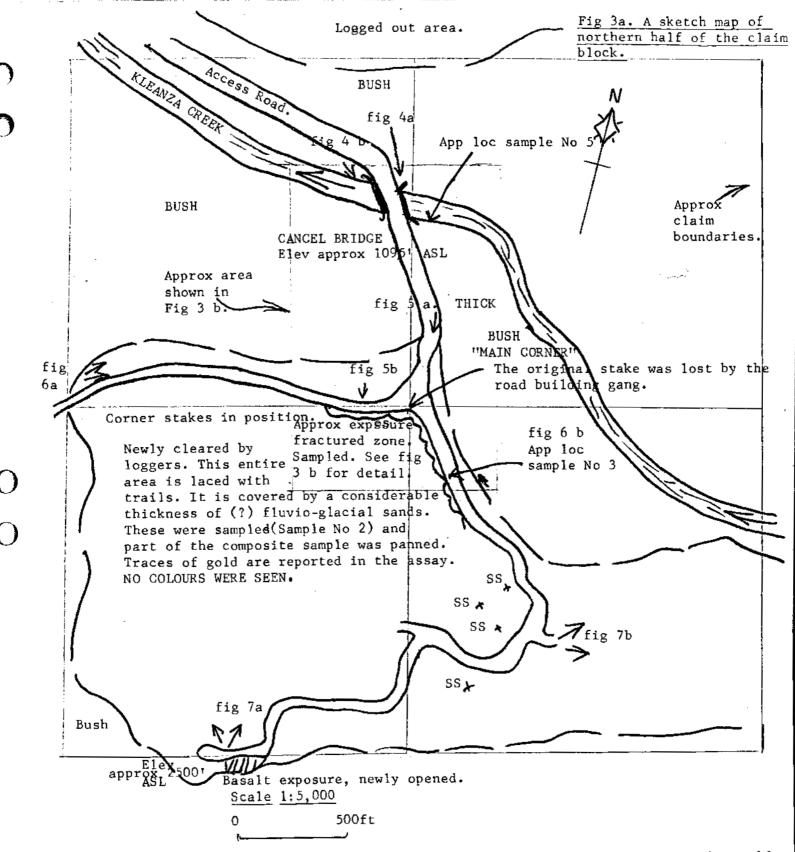
#### 3. Geography.

As indicated, the property is located within 15 miles of the town of Terrace. Terrace, reported in the B.C.Government's 1976 tourist guide as having a population of 10,000, is an agreeable town with several hotels, three car rental agencies and most services... welders, repairs shops etc.

Terrace is served by three flights daily from Vancouver(two only on Saturdays and Sundays). This Canadian Pacific Air service takes approximately  $l_{4}^{1}$  hours each way...and it is possible to reach Terrace early in the afternoon, having left Calgary at around 8 am....The cost of a weekend return fare is approximately \$220.00.







- SS: points from which sand was collected for analysis. The four samples were thoroughly blended and a cut sent for assay(result "Gold, Trace") another cut was panned with no trace of gold being seen.
  - fig 7 b. Approx point from which the various photos in App I were taken. . and arc shown therein. MINERAL RESOURCES BRANCH ASSESSMENT REPORT

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NO.

Fig 3 b. A sketch map of parts of the northern half KLEANZA of the property. No larger fig 4 b scale can properly be used CREEK until the claims are properly surveyed. Sample No 5 taken from a l''+ quartz vein in apparent pyroclastics believed very close to the base of the Jurass MINERAL RESOURCES BRANCH Well ASSESSMENT REPORT gravelled <u>'</u>62, NO.O Scale: 1:1,250 access 200ft 100 Ò Map sketched from compass road and pacing data. fig 5 a fig 5 b. Geochemical sample No 1 from base of road cut..... "Main Corner" This, the key point of the four northern claims is no longer accurately marked: road crews removed the stak SP SP SP The end of the shattered zone may well be ENE of Sampleswere collected from the points marked the road, however 'end' 'SP', broken up and mixed. A portion of the exposures were seen. These combined sample was sent for assay as Sample suggest a width of 50ft or No 4 possibly more. The road cuttings, made within the past year or two show severely shattered argillites with an apparent true dip of approx 65° SSW. These show three main directions of fracturing plus at least two secondary directions. The true dip and strike may in fact be unreadable The site from which without further trenching/scouting for exposures to Sample No 3 was taken find adjacent strata. Others had been on the exposure recently. fig 6 b

#### Physical features.

The property is situated in the midst of a rugged, mountainous area with elevations ranging from 185 ft above sea level at the Provincial Park to well over 4,000ft at the peak of Kleanza mountain to the west of the property.

The natural vegetation cover in the high ground is a dense rain forest composed mainly of conifers. This must have inhibited surface work and hampered movement hence it is scarecly suprising that it would appear that the area of interest covered by the property has not been prospected over in the past - or if it has, the absence of outcrops and the difficulty of seeing enough of the ground due to dense bush prevented anyone finding the fracture zone discussed below.

The rainfall in the Terrace area totals, on the average, close to 50" per annum. The area is prome to fog and low cloud - such as that which hampered the writer seeing certain landmarks which should have been visible had visibility been better. The snowfall in winter is considerable and, unless a commercial ore body is proven, it would be most unwise to attempt to operate during the winter months. On high ground snow may remain on the north sides of even fairly low(4,000ft orso; points until late in the summer. Many of the higher mountains in the region have glaciers on them.

#### Human geography.

As noted in the preceding sections, the areatcan now be entered easily using the excellent road built by Cantel in the course of their extensive logging operations. This, combined with a number of small placer operations on Kleanza and Kendall Creeks are the sole human activity-signs in the area. There is scattered settlement along Highway 16...but unless one was aware of the short distance to the highway, one might imagine oneself far removed from all settlement unless one chances on logging operations in progress.

As observed above...Terrace appears adequately provided with repair facilities, stores and accomodation to permit of field operations being based there at a considerable saving, obviating the need for a camp.

#### 4. Regional Geology.

The geology of the region is dominated by the presumably late Cretaceous usually cal-alkaline - granodioritic Coast Batholith, and by the lobes, Apophysies or pseudo laccolithic bodies which extend eastwards from the main granitic mass, intrusive into Jurassic and older....sedimentary rocks. These include argillites, volcanic ashes, greywackes, occasional lavas - with some rather localised limestone bodies believed to be of Carboniferous age.

The strikes and dips of the sediments appear to be controlled by the form of the top of the intrusives: in the Kleanza Creek apophysis the rocks <u>underlying</u> the granitic lobe have been described...it is for this reason that it would appear to one unfamiliar with the regional story - that this outcrop area represented the weathered surfac of a laccolith rather than the flanks of a major pluton.

The property is located in an area of outcrop of considerably metamorphosed sediments These would appear to match the Jurassic section as recorded in the literature. If this is correct, there must appear to be a considerable thickness of essentially sedimentary rocks between the fractured zone and the top of the granodiorite which does not outcrop, even in the bed of kleanza Creek, at this point.

The very humid climate and high relief must be borne in mind in considering the interpretation of the surface geology - and indeed of any exposure which extends only a few feet below the original surface. Everything has been saturated with ground water: everything liable to oxidisation appears to be oxidised.

#### 5. Local geology.

As remarked above, the property appears to be entirely underlain by Mesozoic sediments - those examined on the south bank of the kleanza Creek, just east of the CanCel Bridge are believed on no very strong grounds, to be Triassic whereas those seen further up the hillside to the south, including the extensively fractured argillite/fine grained volcanic ash seen at and near the Main Corner are believed to be Jurassic. This identification depends upon their relative positions...and on their lithologies, which however are not especially distinctive according to the literature.

The shattered zone, herein called the Fracture Zone, which is now well exposed along the south side of the logging road which winds up the hillside towards the west, from the Main Corner...can be seen to extend for at least 400ft to the west from the Main Corner...and for some distance on the road to the upper parts of the property, which extends SSE from the Main Corner. It appears to strike a few degrees west of south, and to dip southwards at about 65 degrees. There are at least five persistent fracture directions visible...and the true bedding may in fact be obscured by secondary effects.

As implied above, this fractured zone has been deeply weathered. The material seen was all derived from well within the oxidised zone, within ten - fifteen feet of the original surface. Much of the zone is strongly iron stained. where it proved possible to get a fresh(fairly) surface by breaking open the blockyfracture bound pieces of rock, the interior was found to contain considerable pyrite and some chalcopyrite.

Samples were taken from a number of points along the exposed area of the fracture Zone. These were, quite deliberately, mixed - being of uniform appearance. It is considered significant that the assay results from this material agree with the assay reports on material collected by Mr Isima from this same area.

Only a very few very narrow sub vertical quartz veins were seen. One, about 5" wide, dipping steeply to the west, was seen, and sampled, on the south bank of Kleanza Creek imediately east of the CanCel Bridge(see assay results).

According to the published map a fault of some size passes about 3/4 mile west of the property. This strikes approximately NW - SE. This is probably but one of a substantial number of fractures affecting the area - most of the numerous immature streams appearto be fault controlled.

The southern part of the Property which was visited, close to the southern edge of the logged-out area(see photos) shows massive grewwackes and (?) recrystallised pyroclastics - of a totally different lithology to the material seen in the fracture zone. These is no sign of mineralisation in this material which is mostly lacking in iron staining save immediately below the original ground surface.

From the back(south edge of the cleared area) at about **25**00ft above sea level onecan see both the greater part of the area of the more northerly four claims and the setting of the property - with a definite terrace extending **eastwards** on the south side of the Kleanza Creek valley for a mile or so. This terrace is covered by a considerable thickness of sands, mostly well graded with some current bedding implying derivation from the east as might be expected. These may safely be assumed to be of early post glacial age, possibly related to a 'proto-Kleanza Creek' graded to a substanially higher than the present —sea level.

It may be noted that the road leading westwards from the main corner is routed along the break in slope caused by the fracture zone - doubtless intentional but most convenient since the exposures are extensive and, as yet, but slightly slumped.

#### 6. Economic geology.

As observed earlier, the old timers, for all their extraordinary energy and persistence, were hampered by thick bush, lack of outcrops and by poor trails. In the present case logging operations over about half the claimed area have provided exposures, which will before long be slumped over, and clear view across open spaces which should greatly simplify any survey or geophysical work. It should be noted that CanCel informed the writer that they expect to log over much of the southern as yet little explored, part of the property within the next few months.

The assay results, first from Hr Isima's sampling, confirmed by the writer's few samples - offer serious reason for curiosity regarding the property. The persistent occurence of measureable amounts of the ultra soluble metal, copper afford grounds for thought, as indeed do the other metals = particularly silver and gold, in measurable if very modest amounts. The material from which these results were obtained is SO exidised that it must be a matter of suprise if anything can be found by conventional as opposed to geochemical, assaying.

It is noted that, despite the lack of commercial mining operations hopes even yet run high - and according to informed local residents, very little diamond drilling has ever been done in the area...and virtually no experiments have been conducted into the use of geophysics - EM, Magnetometer or induced polarisation...all could prove appropriate.

The aim of any exploration work conducted on the property must be to locate substantiial tonnages of relatively LOW grade material, rather than turning up more disappointing very high grade pockets.

It is suggested that the property is well located vis a vis the 'granite apophysis for the occurence of such an ore body. There are probably 2-300 ft of sediment between the surface exposures of the fracture zone and the top of the granite. It is undeniable that there is extensive fracturing, providing possible avenues for mineralising solutions to migrate. There are slender hints that silver, gold and copper, amongst other metals, are present even in the weathered near surface rocks.

A work programme considered appropriate to demonstrate the potential, or lack thereof, is set forth in the next section.

#### 7. Recommended work programme.

The programme set forth below is designed to achieve a number of things:

- i. To define the surface limits and extent of the claims accurately.
- ii. To determine whether indirect methods yield interpretable results -and if they do, to survey the whole area of the property and to attempt to define any anomolies which may appear, if possible by more than one method, as, LG IP plus EM...Should funds allow it would be desireable to drill a few very shallow core holes using a man-portable drill, and drilling to perhaps 50ft...with one or more holes sited about 25 ft south of the exposures of the fracture zone and angled northwards at about 65 degrees from vertical: such holes should cut the zone well under the oxidised zone...due to the severe fracturing it is very possible that recovery would be nil - but it would be worth trying.
- iii..n the course of topgraphical surveying and of geophysical surveying it will be necssary to "walk' the property in such a manner that, with much of it clear of timber, ALL outcrops should be examined and mapped.

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| - | Phase. | Work to be carried out.<br>Survey the claims, 3 days at \$400/day   | Estimated cost.<br>\$1,200 |
|---|--------|---|----------------------------|
| 0 | 2      | Surface geology(concurrently with Phase 1)<br>2 days at \$250/day.  | 500                        |
|   | 3      | Geochemical sampling and assaying. This would most<br>probably be carried out concurrently with the geo-<br>physical survey/s 150ft x 300 ft grid. approx 500<br>samples at \$5 each. |                            |
|   | 4      | Experiment with: Induced polarisation, Electromag-<br>netic and magnetometer surveys. Consider using the<br>same 150ft x 300 ft grid as for the geochemical wo<br>5 days at \$750/day |                            |
|   |        | Supervision, reports, obtain and study air-<br>photos. Semior geologist or engineer \$250 x 10 days   | s. 2,500                   |
|   |        | Contingenciesassays etc. approx 15%   | 1,550                      |
|   |        | Total   | \$12,000                   |
|   | _      |   |                            |

The above programme, if executed, would not prove the presence of a commercial ore body, if there is one present: it would demonstrate beyond reasonable dispute either that there is a sufficiently good chance that there is such a body present to justify further, far more costly, work OR to indicate that the property should be abandoned as being essentially, non-prospective.

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#### Certificate.

I, Richard George Selby Westbury, of 111 Wimbledon Crescent, Calgary S.W. in the Frovince of Alberta certify that:

I graduated from the University of London in 1952, receiving a S.Sc(Special Honours, degree, specialising in petrology and that Imhave practiced my profession of a geologist continuously since that time.

That I have been in practice as a consulting geologist since 1964 and that I maintain an office at 506-630,8th avenue S.W. in the City of Calgary in the Province of Alberta.

That i am registered as a Professional Geologist under the terms of the "Engineering and related professions" Act of 1968, and was also registered under the preceding Act.

That 1 am a Fellow of the Geological Society of London and of the Royal Geographical Society and a Member of several other scientific societies.

That I have no beneficial interest in the Annette Claims, on Kleanza Creek, east of terrace, in the Province of tritish Columbia nor do I expect to receive any such interest, directly nor indirectly, nor any benefit beyond normal professional fees for services rendered and agreed expenses...

That, as described herein, 1 did visit the above described property on July 10th 1976 in company with mr John Isima

That I have accepted Mr John Isima's statements as relating to matters of title, property boundaries and claim limits.

Richard S.Westbury. BSC FGS FRGS P Geol.

Calgary, Alberta, 28th July 1976.

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## Appendix I.

Photographs of the property: taken by R.S.Westbury P.Geol, 10th July 1976

### Appendix I.

Fig 4 a. CanCel Bridge, looking south. X marks the locality sampled.



Fig 4 b. Another view of the CanCel Bridge, from the downstream side(Weat).



Fig 5 a.

. The Main Corner, seen from a point about 400 ft wouth and 5ft above the CanCel Bridge. The marks the easter end of a series of roadside exposures extending some 400ft to the west(left) along a road leading across the property. The road leading uphill, on the left hand side, links to the southern, upper parts of the property. There are a number of exposures in the first 100ft or so which serve to indicate the extent of the fracture zone in that direction.



Fig 5 b. An exposure on the west end of the main line of exposures in the fracture zone, some 400ft west of Fig 5a.



Fig 6 a. A view from close to the NW corner of the property, looking downhill towards the Main Corner which is just beyond the curve in the road. The exposure shown in Fig 5 b. is marked X.



Fig 6 b. A heavily weathered exposure in the road to the upper, southern part of the property, about 300ft SE of the main corner. This had been systematically sampled recently.



Fig 7 a. The view northwards from approx 1,500ft above sea level, close to the southern end of the cleared area, showing the clear area, laced with trails - and a similar area on the far side of the valley. The Main Corner lies just beyond and below the Right Centre of the photo.



Fig 7 b. The view looking east along the post glacial terrace from a point close to the eastern edge of the property and at approx 1,500ft elevation.



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Appendix II

Assay Results.

The following(certificate copies follow) were of material collected by Mr John Isima at various dates, mainly from the fractured zone.

| Date. Loc       | ation.          | oz/t     | on.       |       | Per  | centages. |      |     |          |
|-----------------|-----------------|----------|-----------|-------|------|-----------|------|-----|----------|
|                 |                 | Au       | Ag        | Мо    | Cu   | Ni        | Mn   | Ti  | Cr       |
| 12/8/76         | ?               | 0,004    | Tr        | 0.001 | 0,03 | 0.025     | 0.07 | 0.8 | 0.01     |
| 21/11/74        | 25 <b>W100F</b> | Tr       | Tr        | -     | 0.02 |           | -    | -   | -        |
| <b>*</b> 3      | ?               | Tr       | Ťr        | -     | 0,02 | 0.01      | 0.01 | -   | -        |
| 8/7/75          | ?               | 0.01     | Tr        | -     | 0.01 | Tr        | 0.07 | -   | -        |
| 1?/6/75#1<br>#2 |                 | Tr<br>Tr | -<br>0.27 | -     | Tr   | Tr        | -    | -   | . '<br>- |

These compare, perhaps significantly, with the material collected by R.S.Westbury on 10th July 1976.

| Location.                                  | Gold | Silver | Copper. | Locations: See figs 3 a & 3 b. |
|--|------|--------|---------|--------------------------------|
| OMain Fractured                            | Tr   | Tr     | 0.03%   | Composite sample, Sample No 4. |
| W.Side Rd 200ft<br>South of Main<br>Corner | Tr   | Tr     | 0.02%   | Sample No 3.                   |

West bank Kleanse. za Creek, 80ft E of Cancel Bridge. Tr Tr 0.01% Sample No 5.

A geochemical assay was arranged on material from close to the exposure show in fig 5 b. (Sample No 1, see fig 3 a & 3 b.)

Values are PPM.

| Copper | 70 | Lead   | 46 | Zinc     | i     | 53  |
|--------|----|--------|----|----------|-------|-----|
| CoBalt | 19 | Silver | 1  | Tungsten | Uxide | 8 8 |

Interpretation: the copper values may be significant...those for lead and Zinc might be - without a concerted series of samples it is hard to comment...... the remaining values are probably typical of the entire region.

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|            | Го: <u>М</u> | r. Ric          | hard  | S. W     | stbur          | У.я |
|------------|--------------|-----------------|-------|----------|----------------|-----|
| $\bigcirc$ | 506,         | <u>630</u>      | • 8th | Ave.     | stbur<br>S.W., |     |
| ó          | <u>Calga</u> | 630 -<br>ry, Al | lbert | <u>a</u> |                |     |
| Q          |              |                 |       |          |                |     |



| File No. | 11659         |
|----------|---------------|
| Date     | July 14, 1976 |
| Samples  | Geochem       |

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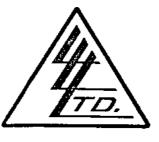
|   |                   |               | Page # 1      | l               |           |            |
|---|-------------------|---------------|---------------|-----------------|-----------|------------|
| SAMPLE No.  | PPM<br>Cu         | PPM<br>Pb     | PPM<br>Zn     | PPM<br>Co       | PPM<br>Ag | PPM<br>WO3 |
|   |                   |               |               |                 |           | ·          |
|   | :                 |               |               |                 |           |            |
|   |                   |               |               |                 |           |            |
| )   |                   |               |               |                 |           |            |
|   |                   |               | -             |                 |           |            |
| "Geochem Sample"  | <sup>ti</sup> Sai | mple No l"    |               |                 |           |            |
|   |                   |               |               |                 |           |            |
| ANNETTE CLAIMS<br>NORTH END                             | 70                | 46            | 53            | 19              | 1.0       | 8          |
|   |                   |               |               |                 |           |            |
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| Rejects Retained one month.<br>Pulps Retained one month |                   |               |               |                 |           |            |
| unless specific arrangements                            |                   |               | •···•         |                 | 11215-1-  |            |

unless specific arrangements made in advance.

Licensed Assayer of British Columbia

| Jo: Mr. Richard S. Westbury,                             |
|--|
| Jo: Mr. Richard S. Westbury,<br>06, 630 - 8th Ave. S.W., |
| Galgary, Alberta   |
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| File No. | 11659         |
|----------|---------------|
| Date     | July 14, 1976 |
| Samples  | Chip & Sand   |

Set ASSAY or

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|--|---|-------------------|--|--|
| SAMPLE No.                               | OZ./TON<br>GOLD   | OZ./TON<br>SILVER | %<br>Cu  |  |
|  |   |                   |  |  |
|  |   |                   |  |  |
|  |   |                   |  |  |
| )  |   |                   | · · ·  |  |
| RIVER TERRACE<br>LEANZA CREEK            | Trace   | · -               | - Sample No  |  |
| WEST SIDE ROAD<br>S OF MAIN CORNER       | Trace   | Trace             | •02 Sample No  |  |
| ANNETTE CLAIMS<br>MAIN FRACTURED<br>AREA | Trace   | Trace             | •03 Sample No  |  |
| EAST OF CANCEL<br>BRIDGE S. BANK         | Trace   | Trace             | •01 Sample No  |  |
|  |   |                   | ,  |  |
|  |   |                   | · · · · · · ·  |  |
|  |   |                   |  |  |
| <b>C</b>                                 | J Hereby Certify that the above results are those assays made by me upon the herein described samples |                   |  |  |

Rejects Retained one month.

Pulps Retained one month unless specific arrangements made in advance.

Li at 1112 for and

Licensed Assayer of British Columbia

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| L | , |  |

Mr. J. Isima, 1224 - 8th Avo. East, Prince Rupert, B.C.

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CERTIFICATE OF ASSAY

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No. 7208-0105 DATE Aug. 12/74

We hereby certify that the following are the results of assays on: Ore

TO:

|  | GOLD         | SILVER           | cnum           | Copper           | Nickel     |           |                      |                 |
|--|--------------|------------------|----------------|------------------|------------|-----------|----------------------|-----------------|
| MARKED   | GR/MT        | OZ AST.<br>GR/MT | (10) % .       |                  | (111) %    |           |                      |                 |
| <u> </u>   | GR/MI        |                  |                |                  | USLA / W   |           | A Shain and a second | 10000000000     |
|  |              |                  |                | · .              |            |           |                      |                 |
|  |              |                  |                |                  |            |           |                      |                 |
| ,<br>,<br>,  |              | -                |                |                  |            |           |                      |                 |
| Ho Mark  | 0.004        | Trace            | 0.001          | 0.03             | 0.005      |           |                      |                 |
| 2<br>  |              |                  |                |                  |            |           |                      |                 |
|  |              |                  |                |                  |            |           |                      |                 |
|  |              |                  |                |                  | i i        |           | i                    |                 |
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|  |              |                  |                | • N <sup>+</sup> |            |           |                      |                 |
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|  |              |                  |                | i                |            |           |                      |                 |
| NOTE: REJECTS RETAINED ONE MON   | TH. PULPS RE | TAINED THREE     | MONTHS, ON F   |                  | <b>__</b>  | _ <u></u> |                      |                 |
| FOLLO YND HEAFOLD WITT B   | E STORED FO  | R A MAXIMUN      | OF ONE YEAR.   |                  |            | E.        |                      |                 |
| ALL REPORTS ARE THE CONFIDENTI<br>METTS, CONCLUSION OR EXTRACTS<br>WITHOUT OUR WRITTEN- A<br>DED TO THE FEE CHARGED. | FROM OR RE   | GARDING OUP      | ATTACHED THE   | OT PER-          |            | 7         |                      |                 |
| LED TO THE FEE CHARGED.  |              |                  |                |                  | H. Shorple | 25        | PROV                 | INCIAL ASSAYER  |
| P. P.Vias  | Analytical   | and Consul       | lting Chemists |                  |            |           | spectors, Sam        | plers, Weighers |

MEMBER: American Society For Testing Materials - The American Dil Chemists' Society - Canadian Testing Association REFEREE AND: OR OFFICIAL CHEMISTS FOR: Vancouver Merchants Exchange + National Institute Of Dilseed Products + The American Dil Chemists' Society OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade + Vancouver Merchants Exchange

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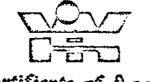
- KOPN AD. 280

Mr. John Isima

1224 - Silh Avenue Ecot

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Prince Rupert, B.C.



Certificate of Accay

WARNOCK KERSEY INTERNATIONAL LIMITED

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER, B.C. V5T 1G4 CANADA



PHONE: (604) 876-4111 TELEX: 04-54360 ANSWER BACK: WHIVAN VCR

FILE ND. 461 - 19926

DATE November 21, 1974

|                  | 60                | LD               | SILVER            | Corner (Cu) | Managanato | Chromium  | Nucleal (NII) | Titantum                     |             |
|------------------|-------------------|------------------|-------------------|-------------|------------|-----------|---------------|------------------------------|-------------|
| MARKED           | OUNCES<br>PER TON | VALUE<br>PER TON | OUNCES<br>PER TON | COPPER (CU) | CENT(MIT)  | CENT (Cr) | DER<br>CENT   | Titonium<br>PEA<br>CENT (TI) | PER<br>CENT |
|                  |                   | \$               |                   |             |            |           |               |                              |             |
| No. 2 S.W. 100 P | Trace             |                  | Trace             | 0.02        | 0.07       | 0.01      | 0,01          | 0.8                          |             |
|                  |                   |                  |                   |             |            |           |               |                              |             |
|                  |                   |                  |                   |             |            |           |               |                              |             |
|                  |                   |                  |                   |             |            |           |               |                              |             |
|                  |                   |                  |                   |             |            |           | •             |                              |             |
|                  |                   |                  | •                 |             |            |           |               |                              |             |
|                  | l<br>l            |                  |                   |             |            |           |               |                              |             |
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|                  |                   |                  |                   |             |            |           |               |                              |             |
|                  |                   |                  |                   |             |            |           |               |                              |             |

Note. Rejects retained one week. Pulps retained one month. Pulps and rejects may be stored for a maximum of one year by special arrangement.

> Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

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

Wicheld

**Provincial Assayer** 

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|--------------|-----|
| r <b>o</b> : | . 🗨 |
|              |     |

Mr. John Isima

1224 East 8th Avenue

Princo Rupert, B.C.



WARNOCK HERSEY INTERNATIONAL LIMITED COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER, B.C. VST 164 CANADA



PHONE: [60 16-4111 TELEX: 04-350 ANSWER BACK: WHIVAN VCR

FILE NO. 461 - 20007

DATE November 21, 1974

|        | GÖ                | LĎ               | SILVER  | Copper (Cu)  | Manganese | Nickel (Ni)  |              |             | · · · · · · · · · · · · · · · · · · · |
|--------|-------------------|------------------|---------|--------------|-----------|--------------|--------------|-------------|---------------------------------------|
| MARKED | OUNCES<br>PER TON | VALUE<br>PER TON | PER TON | PER<br>Cent. | CENT (Mn) | PER<br>CENT. | PER<br>CENT. | PER<br>CENT | PER<br>CENT                           |
| ,      | Trace             | \$               | Trace   | 0.02         | 0.24      | 0.01         |              | •• •        |                                       |
|        |                   |                  |         |              |           |              |              |             | · · ·                                 |
|        |                   |                  |         |              |           |              |              |             |                                       |
|        |                   |                  | •       |              |           |              |              | •           |                                       |
|        |                   |                  |         |              |           |              |              |             |                                       |

Note, Rejects retained one week. Pulps retained one month. Pulps and rejects may be stored for a maximum of one year by special arrangement.

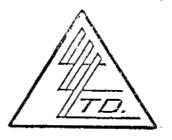
> Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

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

Provincial Assayer

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| o: | Mr. John.Isima, |
|----|-----------------|
|    | P.O. Box 1525,  |
| 0  | Banff, Alberta. |
|    |                 |



| File No. | .10025       |
|----------|--------------|
| Date     | July 8, 1975 |
| Samples  | Chip         |

ASSAY "

LORING LABORATORIES LTD.

| SAMPLE No.  | OZ./TON<br>GOLD    | OZ./TON<br>SILVER | %<br>.Cu                         | %<br>Ni                             | %Mp   |  |
|---|--------------------|-------------------|----------------------------------|-------------------------------------|-------|--|
|   | •                  |                   |                                  |                                     | •     |  |
|   |                    |                   |                                  | ·                                   |       |  |
|   | •                  |                   |                                  |                                     |       |  |
|   | •                  |                   |                                  |                                     | •     |  |
| Onip Sample   | .010               | Trace             | .01                              | Trace                               | .07   |  |
|   |                    |                   |                                  | . · · ·                             |       |  |
|   |                    |                   |                                  |                                     |       |  |
|   | · · · · ·          |                   | ĺ                                |                                     |       |  |
|   |                    | 30 Metal          | Spectro to F                     | ollow                               | -     |  |
|   |                    |                   |                                  | · · ·                               |       |  |
|   |                    |                   |                                  | •                                   |       |  |
|   |                    | .`                | •                                | · .                                 |       |  |
|   |                    |                   |                                  |                                     |       |  |
|   | J THEL<br>ASSAYS M | chy Certif        | 1 THAT THE ABO<br>THE HEREIN DES | VE RESULTS ARE T<br>SCRIBED SAMPLES | THOSE |  |
| 0   |                    |                   | ,                                |                                     |       |  |
| Rejects Retained one month.<br>ps Retained one month<br>s specific arrangements |                    | - · · ·           |                                  | 2m                                  | Ascen |  |
| in advance.   | 1,                 |                   |                                  | unsed Assayer of Brit               | /     |  |

| C<br>Na: John Islma<br>603 - Alli Avenuo East<br>Princo Rupert, B.C. |                                       | UPTIITIENTE OF AUGRAY<br>WARNOCK HERSEY INTERNATIONAL LIMITED<br>COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION<br>125 EAST 4TH AVE. VANCOUVER 10. B.C., CANADA |                             |                 |                  |              |              |              | DNE: (604) 876-4411<br>EX: 04-50353<br>LE ADDRESS:<br>ELDRICO<br>1 - 20762<br>17, 1975 |
|--|---------------------------------------|--|-----------------------------|-----------------|------------------|--------------|--------------|--------------|--|
| Me Hereby Certify  | · · · · · · · · · · · · · · · · · · · |  |                             | says made by us | s upon submittee | /            | ORE          | ·····        | samples  |
| MARKED   | OUNCES PER TON                        | LD<br>VALUE<br>PER TON   | SILVER<br>OUNCES<br>PER TON | Copper (Cu)     | Nickel (Ni)      | PER<br>CENT, | PER<br>CENT. | PER<br>CENT. | PER<br>CENT.   |
| No. 2<br>No. 3   | Traca<br>Traca                        | 5  | 0.27                        | Тгасе           | Traco            | •            |              |              |  |
|  |                                       |  |                             |                 |                  | -            |              |              |  |

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

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Note Rejects retained one week. Rulps retained one month, Rulps and rejects may be stored for-a maximumof one year by special arrangement.

U-less it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjust to compensate for losses and gain inherent home fire assay process.

Provincia Ssayer

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| ÝL <u>Cas</u> t nd.                  | TELEPHONE 254-7278  |
|--------------------------------------|---|
| Loring Laboratories itd. SEMI QUANTI | ET, VANCOUVER, B.C. V5L 1L6 • TELEPHONE 254-7278<br>TATIVE SPECTROGRAPHIC<br>YSES CERTIFICATE |
| 629 Beaverdam Road, N. E.            | File No. 1185 B   |
| <u>Calgary, Alberta</u>              | Date Sept. 12/75  |
|                                      | P. 0. # 1275  |

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| <u></u>               |          | 1          | 2  | 3      | 4   | 5 | Sample Identification  |
|-----------------------|----------|------------|----|--------|-----|---|--|
| Atuminum              | AI       | r          | •  | }      |     |   | Sample 1: // 10005   |
| Antimony              | Sb       | 5.<br>ND   |    | ]      |     | 1 | Sample 1. # 10025  |
| Arsenic               | As       | ND         |    |        |     |   | Sample 2:  |
| Barium                | Ba       | 0.08       |    |        |     |   |  |
| Beryllium             | Вe       | Trace      |    |        | · · | ļ | Sample 3:  |
|                       | 1        |            |    |        |     |   |  |
| Bismuth               | Bi       | ND         |    |        |     |   | Sample 4:  |
| Boron                 | 8        | ND         |    |        |     |   |  |
| Cadmium               | Cd       | ND         |    |        |     | 1 | Sample 5:  |
| Calcium               | Ca       | 0.5        |    |        | 4   |   |  |
| Chromium              | Cr       | 0.01       |    |        |     |   | Percentages of the various elements expressed in these analyses may be considered accurate to within plus or       |
| Cobali                | Co       | 0.003      | ļ  | }      |     |   | minus 35 to 50% of the amount present.   |
| er er                 | Cu       | 0.01       | 1  | [<br>] | 1   | ł | Semi-quantitative spectrographic analytical results for  |
| Gomum                 | Ga       | ND         | 1  |        |     | 1 | gold and silver are normally not of a sufficient degree<br>of precision to enable calculation of the true value of |
| Gold                  | Au       | Trace      |    | l.     |     |   | ores. Therefore, should exact values be required, it is  |
| Iron                  | Fe       | Major      |    |        |     |   | recommended that these elements be assayed by the<br>conventional Fire Assay Method. Quantitative and Fire         |
| • •                   | q<br>Pb  |            | ļ  | ļ      |     |   | Assays may be carried out on the retained pulp samples.  |
| Lead                  |          | 0.004      | İ  |        |     |   | Silicon, aluminum, magnesium, calcium and iron are   |
| Magnesium             | Mg       | 2.         |    | 1      |     |   | normal components of complex silicates,  |
| Manganese             | Mn<br>Mo | 0.1        |    |        |     | 4 | MATRIX Major constituent   |
| Molybdenum<br>Niobium | Nb       | Trace      |    |        |     |   | MATRIX — Major constituent<br>MAJOR — Above normal spectrographic range  |
| NIOUUJII              |          | ND         |    |        |     |   | TRACE Detected but minor amounts<br>N.D Not detected   |
| Nicke!                | Ni       | 0.01       |    |        |     |   | * - Suggest assay (above 0.3%)   |
| Potassium             | ĸ        | Trace      |    |        |     |   |  |
| Silicon               | Si       | Matri      |    |        |     |   |  |
| Silver                | Ag       | Trace      |    | l l    |     |   | All results expressed as Porcent   |
| Sodium                | Na       | 0.2        | ļ. |        | 2   |   | Note: Pulps retained one week.   |
| Strontium             | Sr       | 0.01       |    |        |     |   |  |
| Tantalum              | Та       | -          |    |        |     | · |  |
| Thorium               | Th       | ND         |    | Í      |     |   |  |
| Tin                   | Sn       | ND         |    |        | 1   |   |  |
| Titanium              | Ťi       | ND         |    | 1      |     |   | ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF<br>CLIENTS. PUBLICATION OF STATEMENTS. CONCLUSION OF                  |
|                       |          | 0.7        |    |        | 1   |   | EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT<br>PERMITTED WITHOUT OUR WRITTEN APPROVAL ANY LIABIL                 |
| Tungsten              | w        | ND         |    |        |     |   | ITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.  |
| Uranium               | บ        | ND         |    | 1      |     |   |  |
| dium                  | v        | ND<br>0.07 |    |        |     |   |  |
| Zinc                  | Zn       | 0.07       |    |        |     | ļ |  |
|                       |          | ND         |    |        |     |   | CAN TEST LTD   |
|                       |          |            |    |        |     |   | Spectroscopist   |