

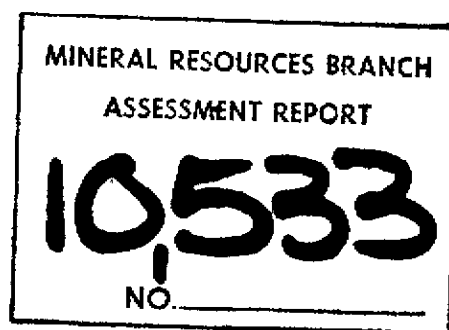
ASSESSMENT REPORT  
GOLD WEDGE CLAIM  
SKEENA MINING DIVISION  
NTS 104B/8E

Lat: 56°28' Long: 130°10'

Owner: E.R. Kruchkowski

By: E.R. Kruchkowski

Date: August 30th, 1982



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APPENDICES

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## SUMMARY

The Gold Wedge claim is located about 72 kilometers north of Stewart, B.C. near Brucejack Lake at the headwaters of Sulphurets Creek, a tributary of the Unuk River.

The claim covers an area of rocks strongly foliated and altered to sericite and sericite-pyrite schists with varying quantities of quartz stringers and veins containing argentiferous tetrahedrite and gold/electrum.

A gold/electrum bearing quartz vein, averaging 1 meter in width, has been defined along a strike length of 100 meters on the property. During September 26 to October 3, 1982, extensive trenching and small scale mining has indicated the presence of native gold over a strike length of at least 30 meters. Average tenor of gold mineralization is difficult to calculate due to the presence of erratic but extremely high grade pockets of native metal.

Adequate evaluation of the gold potential would involve bulk sampling, surface trenching and diamond drilling.

## INTRODUCTION

The Gold Wedge claim is located in the Skeena M.D. British Columbia and is registered in the name of E.R. Kruckowski. The claim is approximately 150 to 200 meters wide and 500 meters long situated between the Tedray 12 and Red River claims (owned by Granduc Mines, optioned to Imperial Oil).

This report discusses the regional geologic setting, mineral assemblage and rock alteration and possible tenor of the gold showing located on the claim.

## Location and Access

The Gold Wedge property is located at latitude 56°28' and longitude 130°10', approximately 72 kilometers north of Stewart, British Columbia in the Skeena Mining Division. The property is a one unit claim.

Access to the claim is by helicopter from Stewart, B.C., the nearest town.

## Physiography and Topography

The property area lies within a wide mountain pass separating the Unuk and Bowser River drainage system. The area consists of relatively gently rolling alpine slopes and meadows bound by rugged mountains to the north and south and glaciers to the east and west.

Most of the ground covered by vegetation in the claim area is of the tundra variety consisting of moss, grass and lichens. A few small evergreen trees are present; outcrop forms up to 50 percent of the land surface and permanent snow occupies depressions and gullies. Small lakes, ponds and streams are numerous.

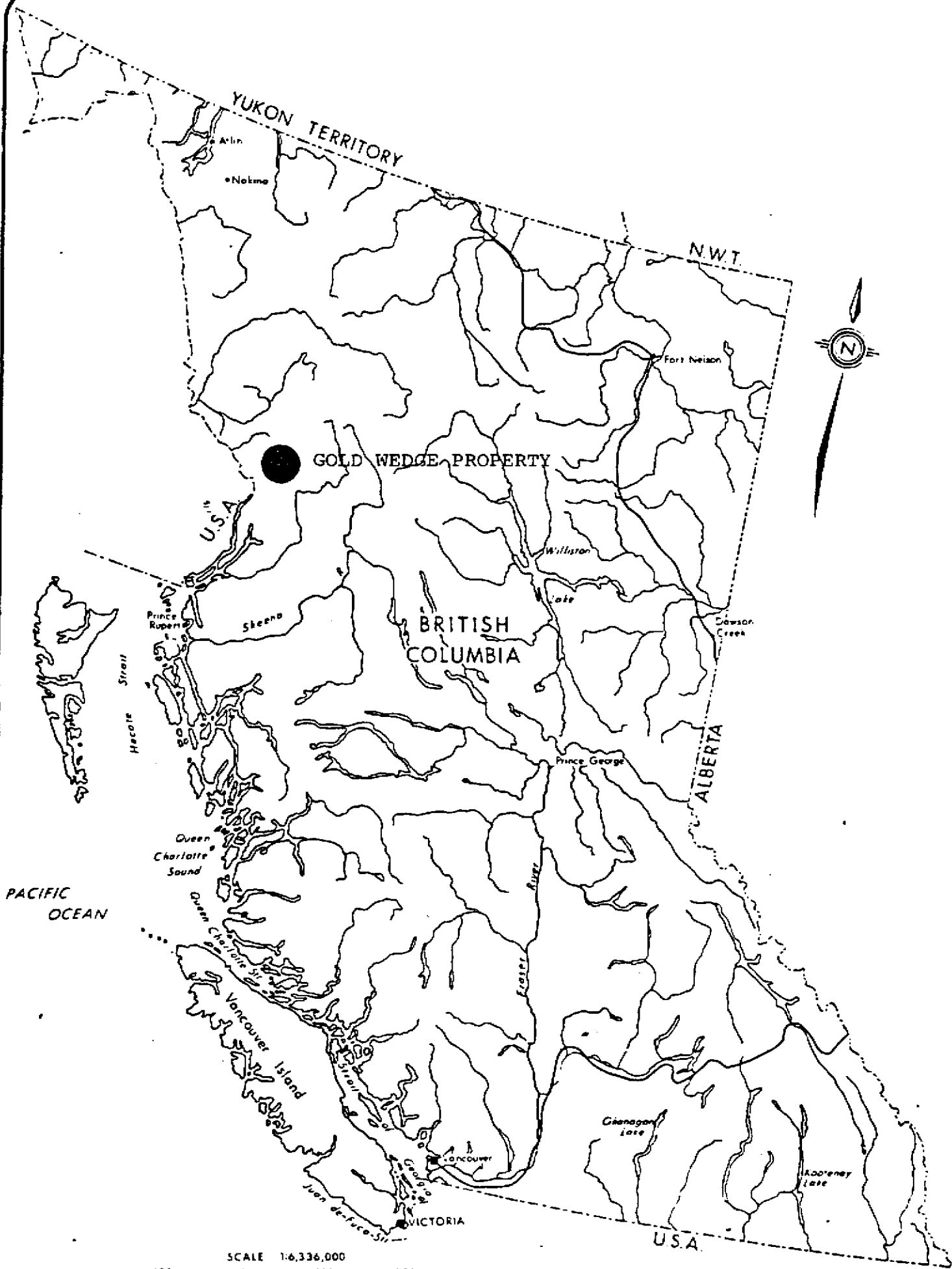
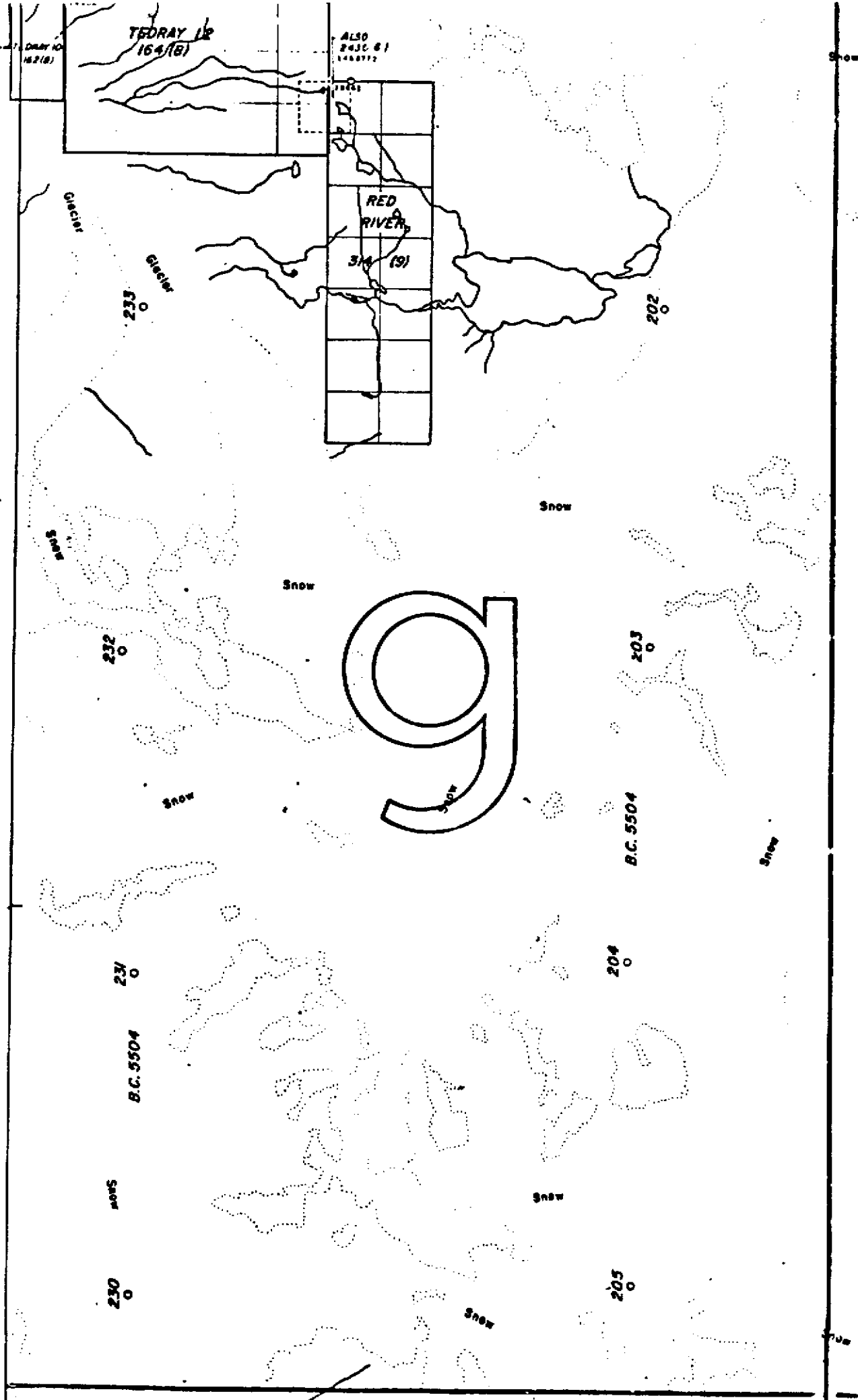


Figure 1. Location Map  
BRITISH COLUMBIA

Figure 2. Claim Disposition Map  
Gold Wedge Claim

MA 104B/8E

EE MAP 104 B/BW





Elevation of the claim area is 1550 meters with relief generally less than 30 meters.

#### Property Ownership

The property consists of a one unit claim, owned by a private group. The ground was staked on behalf of this group on June 1, 1980 and registered in the author's name.

<u>Name</u>	<u>Staked</u>	<u>Recorded</u>	<u>Record No.</u>
Gold Wedge	June 1, 1980	June 26, 1980	2430 (8)

#### Previous Work

A history of precious metal exploration in the property area is as follows:

- 1) 1959 - Gold-silver reported between Brucejack Lake and Sulphurets Glacier by S.W. Barclay while working for Granduc Mines Ltd. Ten claims were staked, in 1959, mapped in 1960 and subsequently dropped.
- 2) Electrum found near Hanging Glacier (4 kilometers west of Gold Wedge claim) in 1961. Specimen without obvious electrum assayed 12 ounces per ton gold and 333 ounces per ton silver.
- 3) High silver assays obtained from grab samples taken in vicinity of Hanging Glacier by S.W. Barclay in August 1964. Large number of claims staked by Granduc Mines Ltd. Silver Ridge Mining Company Limited also staked many claims. Barite-sphalerite-galena-ruby silver lenses were trenched and sampled by Granduc Mines Ltd. but no continuity was demonstrated. Prospecting and soil survey carried out by Silver Ridge.
- 4) 1968 - Plane table mapping near Hanging Glacier failed to indicate any geological control of mineralization.
- 5) 1974 - Arsenopyrite vein found south of Hanging Glacier

by Erik Ostensoe. Grab sample assayed several ounces per ton of both gold and silver.

- 6) 1975 - Trenching on arsenopyrite vein failed to develop any worthwhile dimensions. Vein is leached and obscured by overburden. Rock geochemical grid expanded south of Hanging Glacier. Geochemical results indicated high values along Brucejack fault zone and in quartz boulders on present Gold Wedge claim (1.53 ounce Au and 20 ounce Ag).
- 7) 1976 - During August 14 to September, native gold was discovered in two areas by E. Kruckowski by prospecting. The Red River claim was staked on August 17 to cover the Brucejack fault and adjacent areas. Trenching, soil sampling and rock geochemical surveys were conducted. Spectacular gold specimens were obtained from the gold showings.
- 8) 1977 - Trenching was conducted on a quartz vein within the present boundaries of the Gold Wedge claim. Native gold was discovered in small quartz stringers on Tedray 12 by E. Kruckowski.
- 9) 1980 - Present Gold Wedge claim staked on open ground between the Tedray 12 and Red River claims.

## GEOLOGY

### Regional Geology

The Sulphurets Creek - Brucejack Lake area is bounded on the west by clastic sedimentary rocks of the Salmon River formation of Upper Middle Jurassic age. The eastern side of the area is formed by the Brucejack fault, a steep north-striking structure that has at least 1000 meters of vertical displacement and places pre-Salmon River formation Middle Jurassic age Betty Creek formation rocks in conjunction with Lower Jurassic age Unuk River formation rocks. The Betty Creek formation consists of red and green volcanic sandstone, conglomerates and tuffs with minor basalt flows. The Unuk River formation consists of green and grey volcanic epiclastics, minor marine sediments and minor flow volcanics. The Salmon River formation consists of a sequence of argillaceous sediments, predominantly shales.

The Coast Plutonic Complex lies 30 kilometers west of the Sulphurets Creek area. Other closer intrusive rocks include the Twin John Peaks gabbroic intrusion and the Lee Brant granodiorite stock. Smaller crystalline bodies occur within the Sulphurets Creek area and southeast, near the Bowser River.

Regional structural tendencies in the Sulphurets - Unuk River area are northwesterly but locally become northeasterly a few kilometers north of the Sulphurets area.

### Local Geology

The detailed geology of the Red River claim area is poorly defined. Although examined numerous times by prospectors and geologists little geological work has been conducted. Figure 3 depicts the geology as proposed

by E.W. Grove (minister of Mines Report, 1968, page 45) and modified by E. Ostensoe and E. Kruckowski in 1977 (Report of Work - Red River claim, Unuk River).

The dominant geological features are the Brucejack fault lineament that passes through on the adjacent Red River claim, a second fault lineament that passes north of the claim at an oblique angle southeasterly to Brucejack Lake and broad areas of strongly silicified, sericitized and pyritized rocks.

Geologically the area west of Brucejack fault is at the top of the Unuk River formation and the present erosional surface may be close to the Middle Jurassic or older erosional unconformity that evidently exists in a similar geologic position north of Mitchell Glacier.

The Brucejack fault is a dominant, major north-south striking nearly vertical structure which has placed rocks of the Lower Jurassic age Unuk River formation west of and in conjunction with rocks of the Middle Jurassic age Betty Creek formation which are extensive to the east. The Fault itself is not known to be mineralized but many linear features which emanate from the Fault are strongly sericitized and pyritized and it appears that some of these secondary structures are mineralized. The country rocks west of the Fault are mainly arenaceous sedimentary rocks: sandstone, argillites and greywacke. Some more massive rock types, apparently of volcanic origin, perhaps tuffs and andesite flows, are also present.

In the Gold Wedge claim area the rocks are strongly foliated and are altered to sericite and sericite-pyrite schists with varying quantities of stringers of vein quartz. Weathering has produced a dull yellow - orange gossan which may be alteration of minerals derived from

hydrothermal solutions introduced along fractures associated with the Brucejack fault or minerals that have emanated during formation of the fault. The quartz-vein, sericite alteration systems are enveloped by and cut across chloritic altered rock. Figure 4 depicts the geology of the Gold Wedge claim. Two alteration zones aligned sub parallel to the Brucejack fault and the fault north of the claim intersect on the property. Quartz veins are present along both of the zones. The most prominent quartz vein area strikes northwesterly and may be up to 20 meters wide at the intersection of the zones. A quartz vein striking northeasterly has been defined over a strike length of 100 meters with widths varying from 0.5 meters to 2 meters. This vein carries high grade erratic lenses of native gold along quartz-argentiferous tetrahedrite stringers.

Foliation of the surrounding rocks is at  $310^{\circ}$  with shearing across the vein at  $355^{\circ}$ .

#### Mineralization

Sulphide mineralization within the gold vein is not readily evident on surface due to leaching along the upper 0.30 meters. Locally native gold has been discovered along glacially polished surfaces and concentrated in high grade lenses and pockets.

The mineralization is found within narrow quartz veinlets cutting previous barren quartz veins. Abundant pyrite is present up to 10 percent in the adjoining sericite altered wall rocks. The zone of interest may be up to 2 meters but averages 1 meter for the entire length. The gold-tetrahedrite bearing veinlets form a stockwork within the barren quartz veins and individual veinlets may be up to

8.

15 cm wide locally. Native gold tends to be concentrated in flexures along the veinlets or near shear planes.

Galena, sphalerite and tetrahedrite are present in narrow discontinuous veinlets as well as minor disseminations. The sphalerite is generally pale green to light brown indicating a low iron content. Pyrite is a very minor constituent of the vein. Calcite forms an important constituent of the vein system being present in amounts up to 10%. Malachite and limonite are present along weathered fractures.

The native gold varies from a light lemon yellow to a golden yellow in colour. The metal is predominantly associated with argentiferous tetrahedrite, rarely as a single mineral in quartz.

DISCUSSION

Trenching to date has indicated native gold occurring in high grade pockets along a strike length of 30 meters. The average tenor has been difficult to calculate due to the erratic nature of the occurring metal. Numerous grab samples have been taken of both mineralized and unmineralized rocks in the quartz zone. A summary of this sampling is as follows:

## Granduc Sampling

- Sample 1106 - geochem sample - 1.53 oz. Gold, 20 oz. silver quartz with about 2% tetrahedrite.
- " 12867 - grab sample-quartz vein with minor pyrite, arsenopyrite (?) vicinity of rock geochem sample 1106.  
0.66 oz./ton silver, 0.020oz./ton gold.
- " 12868 - grab sample-pyritic sericite schist adjoining north side of sample 12867.  
0.42 oz./ton silver, 0.064 oz./ton gold.
- " 12869 - grab sample of quartz-galena-sphalerite-pyrite-tetrahedrite (?), near sample 12867, not in place.  
0.35% lead, 0.61% zinc, 10.18 oz./ton silver, 0.058 oz./ton gold.
- " 12877 - grab sample of pyrite-sericite schist - vicinity of rock geochem sample 1106, same location as 12867, 12868, 12869.  
1.66 oz./ton silver, 0.066 oz./ton gold.
- " 12878 - grab sample - quartz-pyrite-argentite (?) or stephanite (?), same location as 12877.  
11.36 oz./ton silver, 13.560 oz./ton gold.
- " 12879 - grab sample - similar to and located 7 meters north of 12878.  
27.97 oz./ton silver, 1.332 oz./ton gold.

The first three assays and sample 1106 are near the pit excavated (Figure 4) over the frost heaved quartz boulders. The samples 12877 to 12879 are grab samples from the quartz vein approximately 30 meters southwest of the pit along the long trench indicated.

During 1977 further sampling of high grade pockets indicated the following values:

33494	133.24 oz. Ag	31.66 oz. Au
33495	42.13 oz. Ag	2.17 oz. Au

Assays sheets for the above values are included:

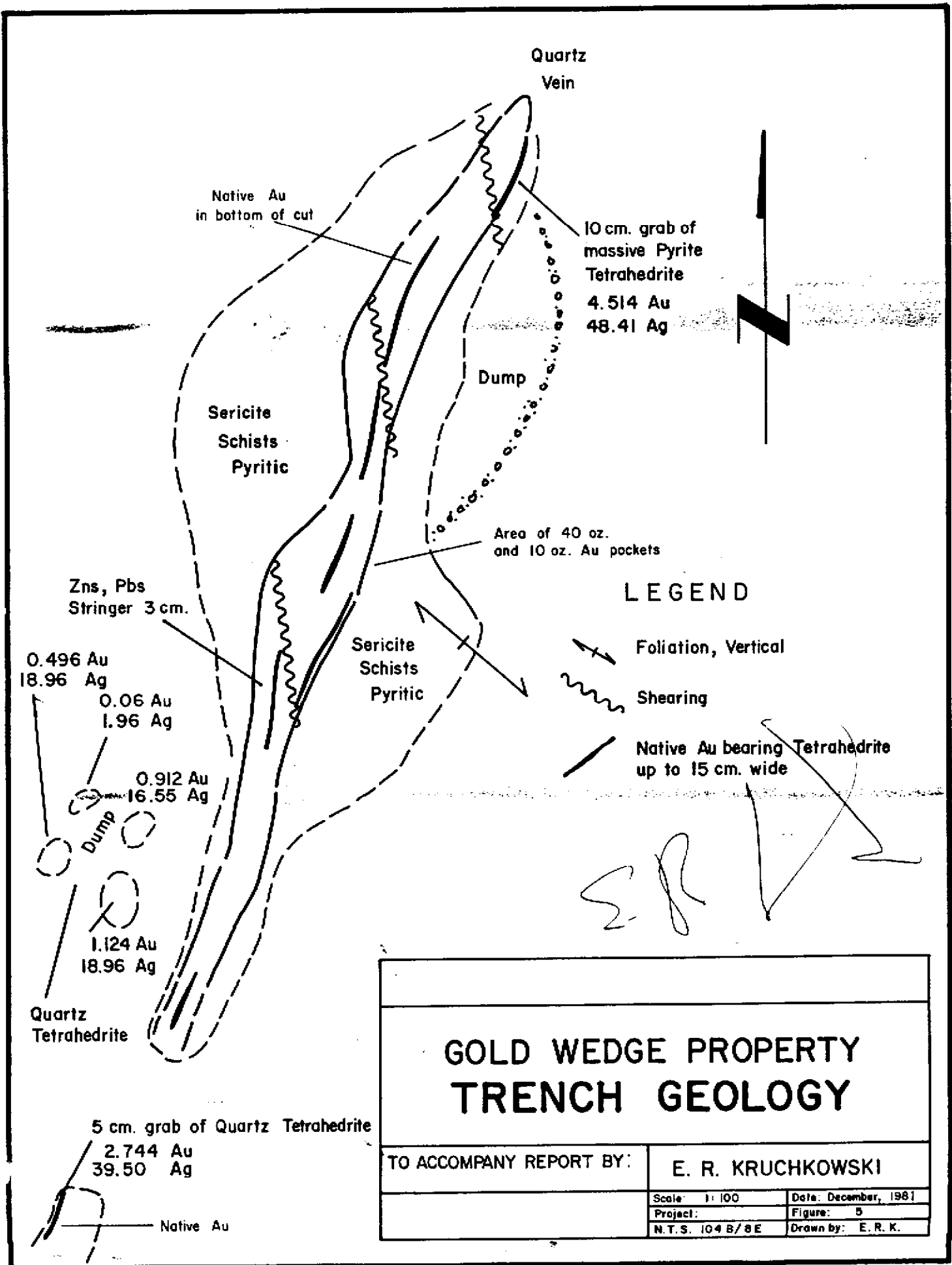
During 1980 sampling of several piles of quartz and the vein substantiated the earlier sampling. Assays for the 1980 sampling (Figure 4) indicated values from 0.06 to 1.124 oz./ton gold and 1.98 to 18.96 oz./ton silver for the approximate two ton dump. Grab assays for two sulphide rich pockets indicated the following:

GW 5 - 15 cm	4.514 Au	48.41 Ag
GW 6 - 10 cm	2.744 Au	39.50 Ag

During September 26 to October 3, 1982 trenching was conducted in order to establish native gold/electrum over a strike length of at least 30 meters. A total of 30 cubic meters was excavated along previously started trenching. This work indicated the presence of small amounts of fine electrum throughout all the rock trenched.

Based on the assays to date and the presence of native gold/electrum, an average grade of 2 oz./ton Au is not unreasonable.





# GOLD WEDGE PROPERTY TRENCH GEOLOGY

TO ACCOMPANY REPORT BY:		E. R. KRUCKOWSKI	
Scale:	1: 100	Date:	December, 1981
Project:	N.T.S. 104 B/8 E	Figure:	5
		Drawn by:	E. R. K.

CONCLUSIONS

The Gold Wedge claim gold occurrence has been established along a length of 30 meters in a quartz vein defined at least 100 meters in length. Tenor of mineralization may be up to 2 ounces per ton across 1 meter. Other quartz veins on the property may also indicate significant quantities of gold. Trenching, bulk sampling and diamond drilling is recommended as the best method to fully evaluate the potential of the property.

RECOMMENDATIONS & BUDGET ESTIMATE

1. Trenching

Expose the vein to the northeast as well as check for mineralization along the vein to the southwest.

2. Bulk Sampling

Collect at least 5 tons of material in the area of intensive trenching for shipment to a smelter. This would provide a more accurate estimate for grade calculations.

3. Diamond drilling

Four holes totalling 1000 feet to check for downward extension of surface defined mineralization.

Total cost of the above program is estimated at approximately \$100,000.

REFERENCES

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1979                   The Geochemistry of Gold and its deposits  
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                          An Electrum-Ruby Silver Deposit at East  
                          Gold Mine, B.C.
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- Ostensoe, E.A. &           Granduc Mines Ltd.  
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1976
- Ostensoe, E.A. &           Granduc Mines Ltd.  
Kruckowski, E.R.           Report of Work - Red River Claim, Unuk  
1977                   River, Skeena M.D., British Columbia

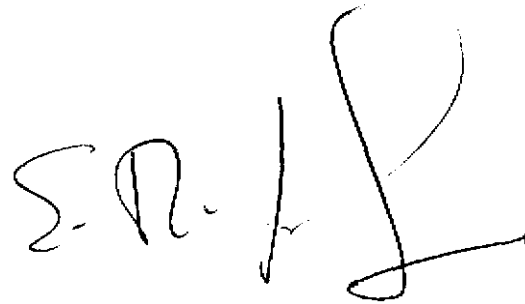
14.

CERTIFICATE

I, EDWARD, R. KRUCHKOWSKI, Geologist, declare that:

1. I have been practising my profession continuously since 1972.
2. I reside at 23 Templeside Bay, N.E. in the City of Calgary in the Province of Alberta.
3. This work was carried out under my direct supervision.

Sept 3, 1982



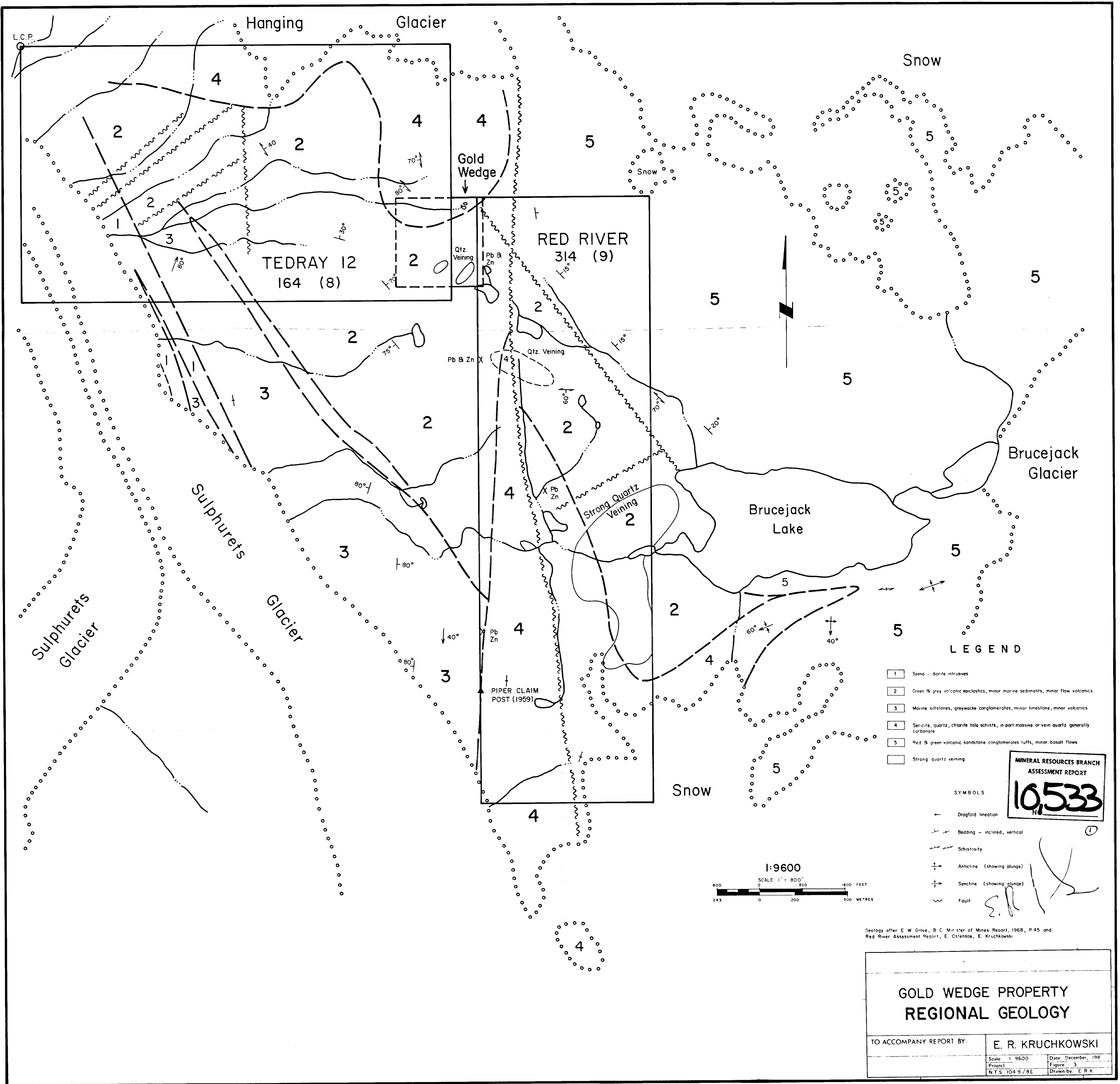
E.R. KRUCHKOWSKI  
GEOLOGIST

APPENDIX I  
List of Expenditures

APPENDIX I

GOLD WEDGE COSTS

Sept. 23/81	Groceries	133.75
Sept. 23/81	Gasoline	28.00
Sept. 23/81	Gasoline	1.80
Sept. 23/81	Naphta	53.79
Sept. 23/81	Groceries	90.03
Sept. 23/81	Gas cans	18.98
Sept. 24/81	Gasoline	21.65
Sept. 26/81	Gasoline & repair	10.00
Sept. 26/81	Meal	3.85
Sept. 26/81	Oil	9.49
Sept. 26/81	Meal	1.80
Sept. 26/81	Explosive	506.50
Sept. 25/81	Gasoline	43.75
Sept. 24/81	Hardware	5.98
Sept. 24/81	Hardware	5.07
Sept. 25/81	Gasoline	34.95
Sept. 25/81	Gasoline	48.80
Sept. 24/81	Gasoline	21.65
Sept. 24/81	Groceries	2.60
Sept. 26/81	Groceries	15.08
Sept. 25/81	Groceries	6.90
Sept. 26/81	Helicopter	837.60
Oct. 3/81	Helicopter	718.00
Oct. 4/81	Meal	15.35
Oct. 9/81	Radio	200.20
Oct. 5/81	Gasoline	33.95
Oct. 6/81	Gasoline	23.00
		<hr/>
	TOTAL	<u>2,892.52</u>



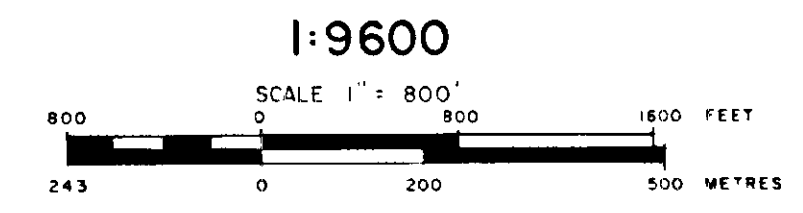
LEGEND

- 1 Syeno - diorite intrusives
- 2 Green & grey volcanic epiclastics, minor marine sediments, minor flow volcanics
- 3 Marine siltstones, greywacke conglomerates, minor limestone, minor volcanics
- 4 Sericite, quartz, chlorite talc schists, in part massive or vein quartz generally carbonaceous
- 5 Red & green volcanic sandstone conglomerates tuffs, minor basalt flows
- Strong quartz veining

SYMBOLS

- Dragfold lineation
- Bedding - inclined, vertical
- Schistosity
- Anticline (showing plunge)
- Syncline (showing plunge)
- Fault

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**10,533**



Geology after E. W. Grove, B. C. Minister of Mines Report, 1968, P.45 and Red River Assessment Report, E. Ostensoe, E. Kruchkowski

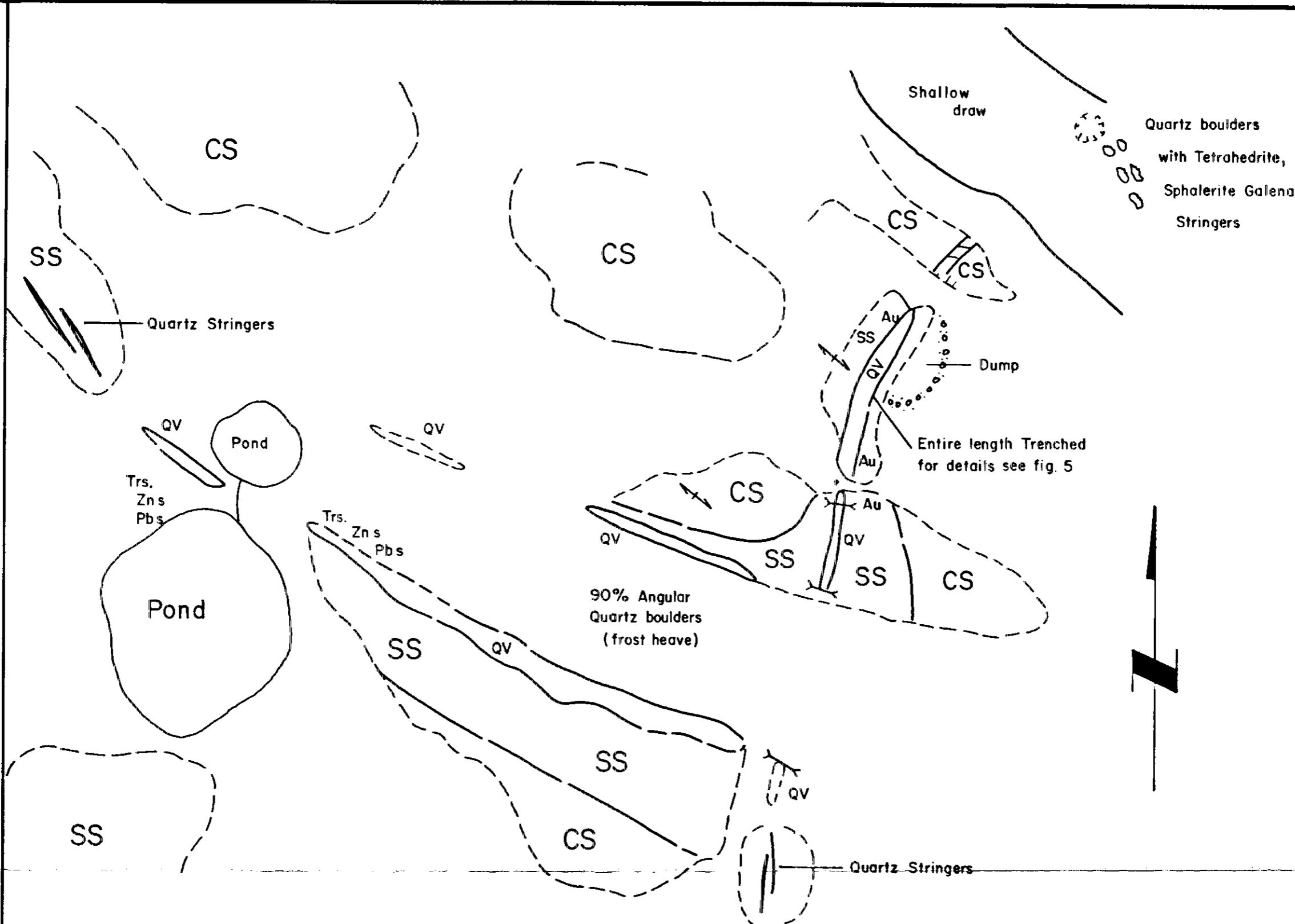
**GOLD WEDGE PROPERTY  
REGIONAL GEOLOGY**

TO ACCOMPANY REPORT BY: **E. R. KRUCHKOWSKI**

Scale: 1:9600	Date: December, 198
Project: N.T.S. 104 8/8E	Figure: 3 Drawn by: E. R. K.



TEDRAY 12 CLAIM



### GOLD WEDGE CLAIM

### LEGEND

- QV Quartz Vein, may include Sericite Schists
- SS Sericite Schists, Pyritic
- CS Chloritic Schists, Pyritic
- Geological Contact
- - - Outcrop Area
- ↑ Foliation Vertical
- Y Trench
- ⊙ Pit
- Au Native Gold Bearing Zone

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

10,533

NO. 2

SCALE 1: 500

GOLD WEDGE  
15 I W Corner Post

## GOLD WEDGE PROPERTY GEOLOGY & TRENCH PLAN

TO ACCOMPANY REPORT BY:	E. R. KRUCKOWSKI	
Scale	1 500	Date December, 1981
Project:	NTS 104 B/8E	Figure 4
		Drawn by E R K