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REPORT ON THE GOLDWEDGE 4 CLAIM  
 STEWART, BRITISH COLUMBIA  
 SKEENA MINING DIVISION  
 NTS 104B/8E  
 LATITUDE 56°29'  
 LONGITUDE 130°12'

BY

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 Consulting Geologist

G. SINDEN, R.E.T.

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GEOLOGICAL BRANCH  
 MINERAL REPORT

10,679

CALGARY, ALBERTA  
 January, 1989

OUR FILE: 1GOLDWEDGE4

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## SUMMARY

The Goldwedge 4 claims are situated approximately 72 kilometers north-northwest of Stewart, British Columbia, near Brucejack Lake at the headwaters of Sulphurets Creek, a tributary of the Unuk River. The claims are 100% owned by Catear Resources Ltd. Volcanic and sedimentary rocks of the Unuk River Formation underlie the claims.

The area of the Goldwedge 4 claims is due west and adjacent to the Newcana Joint Venture and Catear Resources Ltd. "bonanza type" gold-silver deposits. These projects have announced the following results:

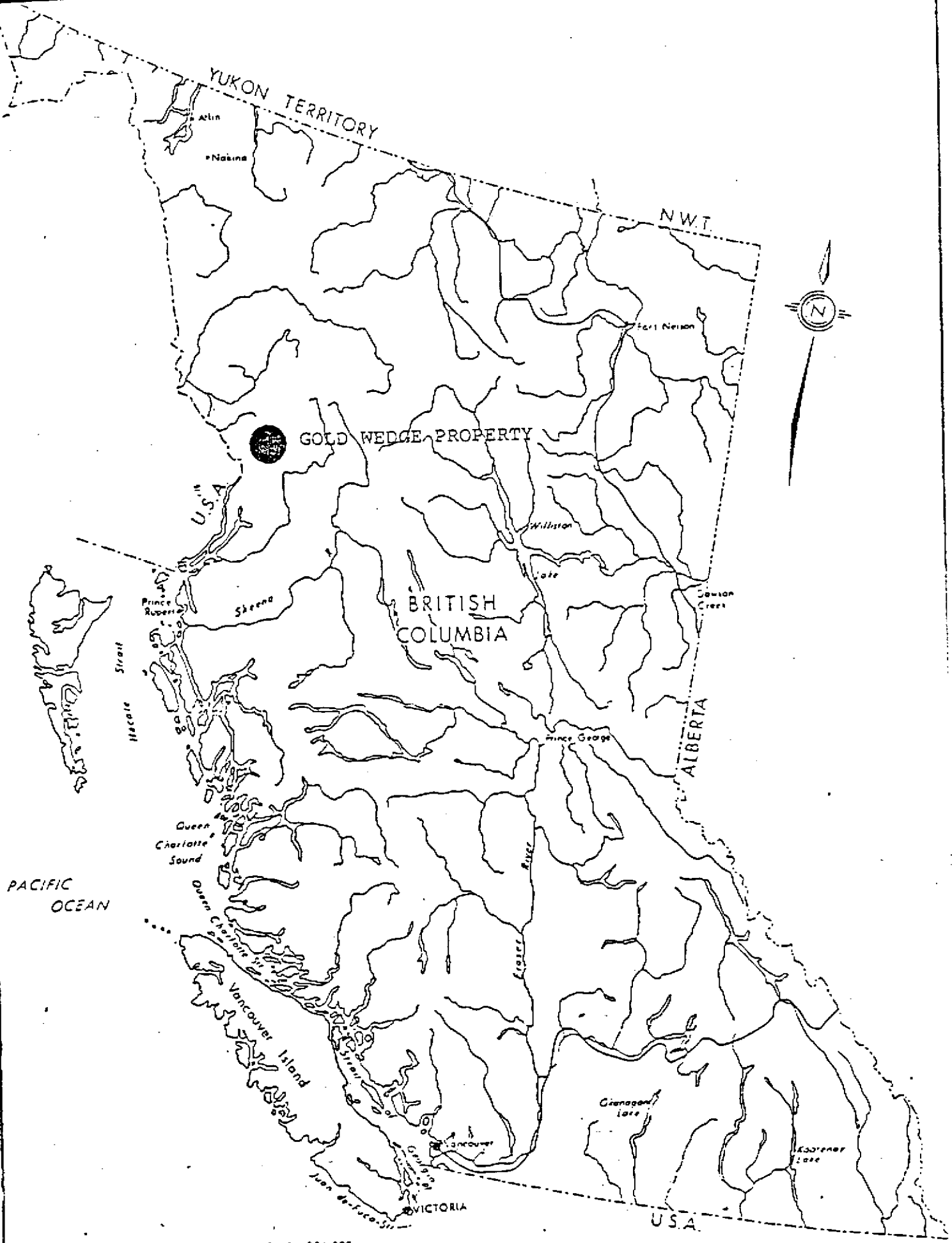
	<u>Present Reserves</u>	<u>Grade</u>	
		<u>opt Au</u>	<u>opt Ag</u>
<u>Newhawk West</u> (partially explored)	854,072	.354	22.94
<u>Catear Goldwedge</u> (partially explored)			
Golden Rocket	319,149	.80	1.12
Discovery	37,980	.63	1.08

The above gold-silver discoveries are structurally controlled, epithermal-mesothermal veins occurring in areas of syenodiorite intrusions and associated with areas of intense sericite (quartz-pyrite) alteration.

During September 1988 Catear Resources Ltd. conducted an exploration program consisting of rock geochemical sampling and prospecting.

The program returned slightly anomalous gold and silver values from rock geochemical sampling.

The presence of favourable geology and discoveries on adjacent ground to the east make the Goldwedge 4 claims an important exploration area. An exploration program of prospecting, silt geochemistry, rock geochemistry, geological mapping and trenching is recommended for the property.



YUKON TERRITORY

N.W.T.

GOLD WEDGE PROPERTY

BRITISH COLUMBIA

ALBERTA

U.S.A.

PACIFIC OCEAN

U.S.A.

SCALE 1:6,314,000

100 0 100 200  
Kilometres Kilometres

Figure 1. Location Map  
BRITISH COLUMBIA

## INTRODUCTION

During September of 1988 Catear Resources Ltd. conducted a prospecting and rock geochemical survey over the Goldwedge 4 claims located 72 kilometers north-northwest of Stewart, B.C. This report was prepared from field data and samples collected in September 1988, as well as information from Granduc Mines Ltd., the Newcana Joint Venture and Catear Resources Ltd.

E.R. Kruchkowski Consulting Ltd. conducted the work program.

Geochemical analyses were performed by Loring Laboratories of Calgary, Alberta.

### Location, Access and Physiography

The Goldwedge 4 claims are located approximately 72 kilometers north-northwest of Stewart, B.C. in the Skeena Mining Division, NTS 104B/8E (Figure 1).

The property is situated 2.3 kilometers northwest of Brucejack Lake at latitude 56°29', longitude 130°12'.

Access to the property is by helicopter based in Stewart, British Columbia. A 38-kilometer summer road from Stewart, British Columbia to the Tide Lake airstrip can be used to reduce mobilization/demobilization expenses (The airstrip is located approximately 25 kilometers south-southeast of the Goldwedge 4 claims).

The terrain is extremely rugged and steep with elevations ranging from 3,000 feet to 5,000 feet. Treeline is at 4,000 feet.

Vegetation at lower elevations consist of fir, hemlock and spruce while at upper elevations vegetation consists of thin brush, minor hemlock, stunted evergreen and willow trees, mosses, grasses and lichens.

Water is plentiful as several glacial runoff streams cross the property.

#### Property Ownership

The Goldwedge 4 property consists of 4 staked mineral claims (Figure 2).

<u>Name</u>	<u>Records No.</u>	<u>Units</u>	<u>Record Date</u>
Goldwedge 4	5805	4	Feb. 11, 1987

Catear Resources Ltd. holds a 100% working interest in the Goldwedge claims.

#### Previous Work

The work history of the property is short and recent. Glacial and snow cover made the property unexplorable until recently.

In 1987 Catear Resources Ltd. conducted a trenching program exposing 27 cubic meters of rock in areas of sericitic alteration.

#### Personnel and Operations

E.R. Kruchkowski Consulting Ltd. personnel conduct the 1988 surface exploration program from the Catear Resources Ltd. Brucejack Lake camp.

##### Personnel

G. Sinden, Geological Technologist  
B. Touzan, Geological Assistant  
T. Devine, Geological Assistant

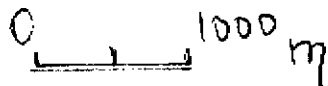
Work consisted of prospecting and rock geochemical sampling. During the work program 8 rock samples were collected. Geochemical analysis were performed by Loring Laboratories Ltd. of Calgary, Alberta.

56°30'  
TEDRAY 9  
161(8)  
(094401)

M 104B/8E

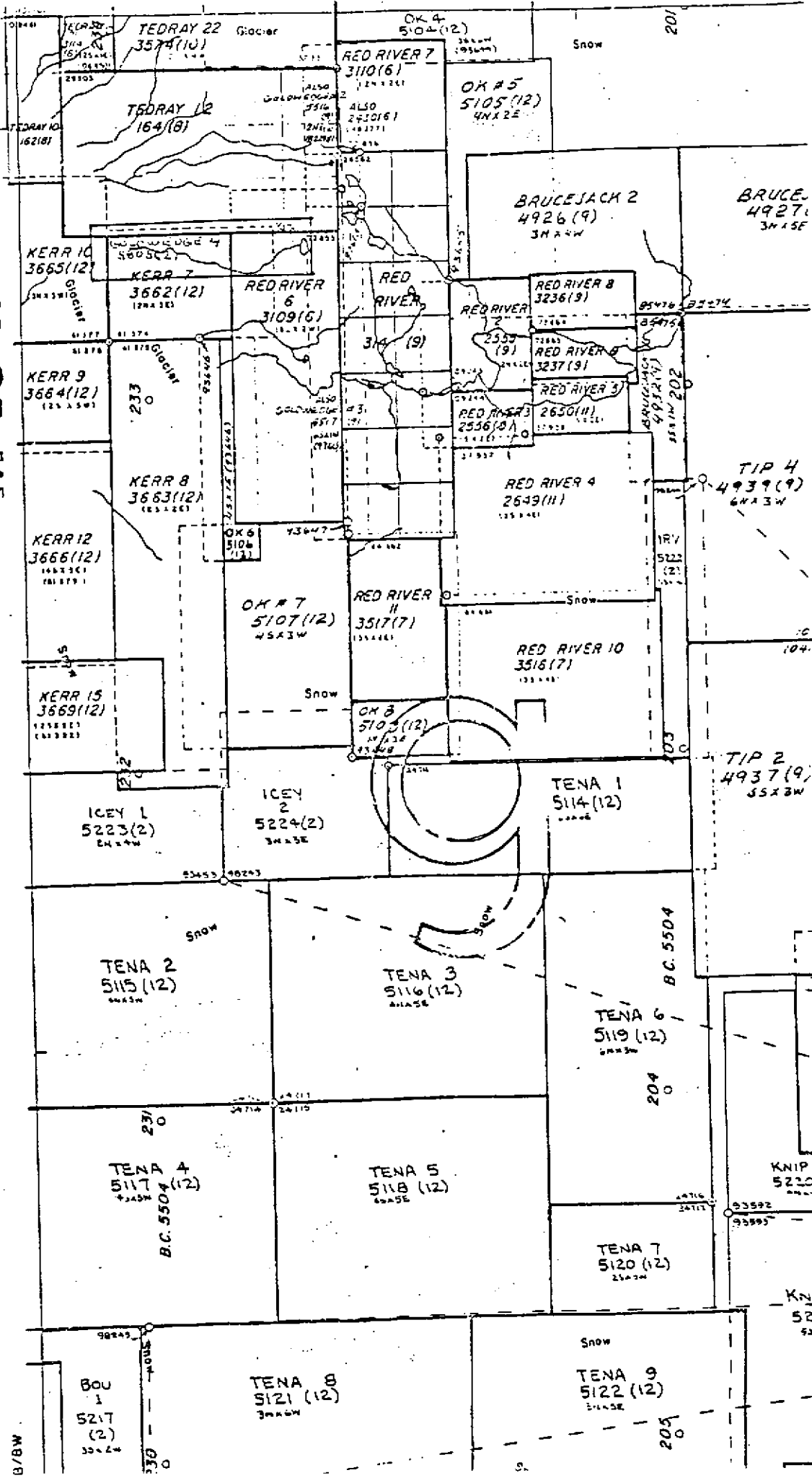


SCALE:  
1: 50, 000



CLAIM MAP

Figure: 2  
CLAIM MAP





## GEOLOGICAL SURVEYS

### Regional Geology

The Goldwedge Claim 4 claim is in the Stewart area, east of the Coast Crystalline Complex and within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Hazelton Group and have been intruded by plugs of both Cenozoic and Mesozoic age.

At the base of the Hazelton Group is the lower Lower Jurassic Marine (submergent) and non-marine (emergent) volcanoclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic dacitic lapilli tuff horizon (Mt. Dilworth Formation). Middle Jurassic non-marine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The oldest rocks in the area belong to the lower Lower Jurassic Unuk River Formation which forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River. It consists of green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and coal. Also included in the sequence are pillow lavas and volcanic flows.

In the property area the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of trough-filling submarine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green, red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone, and minor crystal and lithic tuffs, chert, limestone and lava.

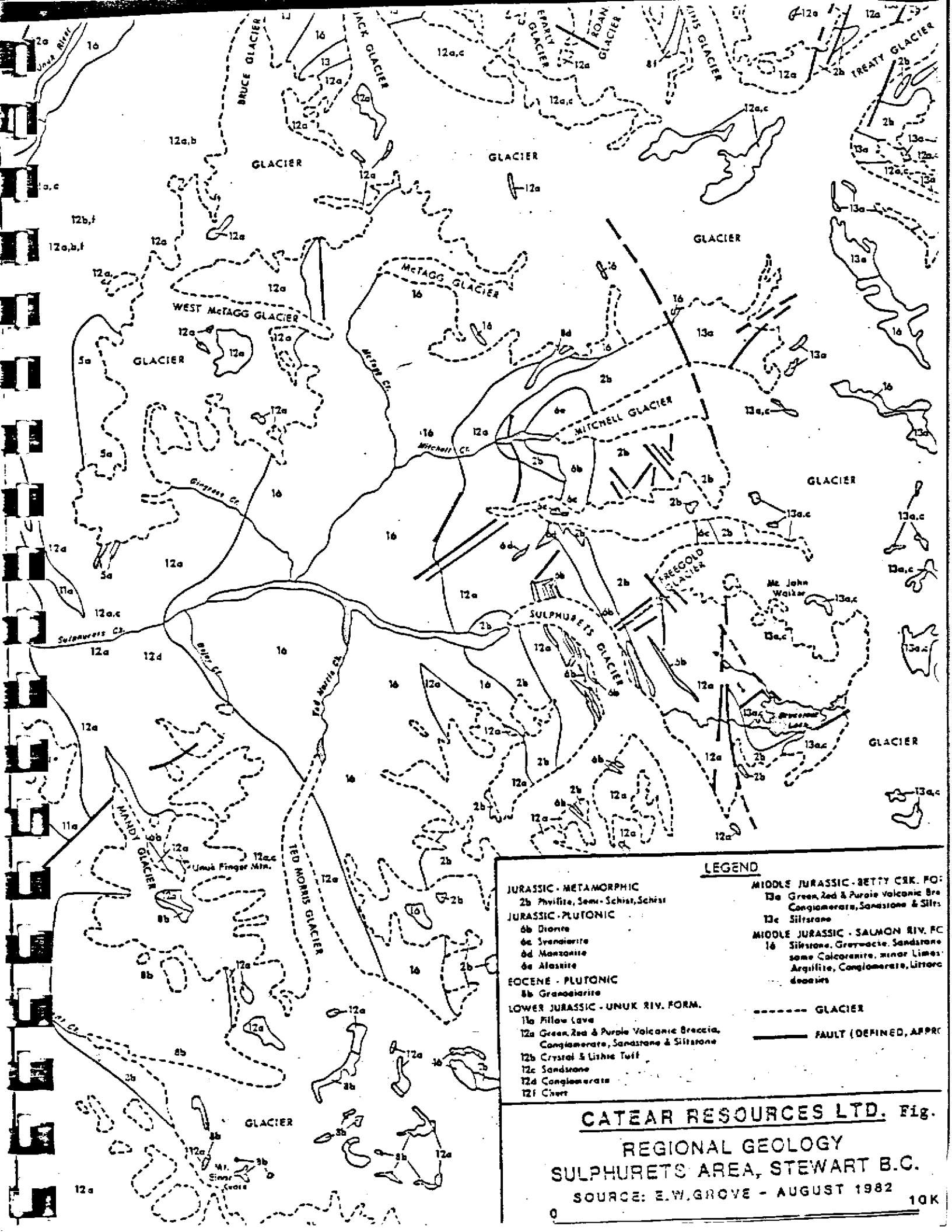
The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonous tuffs to siliceous massive airfall lapilli tuffs and felsic ash flows. Minor interbedded sediments and limestone are present in the sequence. Locally pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark coloured, siltstone, greywacke, sandstone, intercalated calcarenite, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone.

D. Alldrick's work has shown several volcanic centres in the property area. Lower Jurassic volcanic centres in the Unuk River Formation are located in the Big Missouri Premier area, and in the Brucejack Lake area. Volcanic centres within the Lower Jurassic Betty Creek Formation are in the Mitchell Glacier and Knipple Glacier areas.

There are various intrusives in the area. The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area), smaller intrusive plugs range from quartz monzonite to granite to highly felsic; some are, likely, related late phase offshoots of the Coast plutonism, others are synvolcanic and tertiary. Double plunging, northwesterly-trending synclinal folds (Mitre syncline, Dilworth syncline, Spider anti-cline) of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are locally disrupted by small east-overthrusts (Tippy Lake, Knipple Lake) on strikes parallel to the major fold axis, cross-axis steep wrench faults which locally turn beds, selective tectonization of tuff units, and major northwest faults which turn beds. Figure 3 shows the regional geology of the Goldwedge 4 Claim area (Grove).



LEGEND	
<b>JURASSIC - METAMORPHIC</b>	<b>MIDDLE JURASSIC - BETTY CRK. FC.</b>
2b Phyllite, Semi-Schist, Schist	13a Green, Red & Purple Volcanic Breccia, Conglomerate, Sandstone & Siltstone
<b>JURASSIC - PLUTONIC</b>	13c Siltstone
6b Diorite	<b>MIDDLE JURASSIC - SALMON RIV. FC.</b>
6c Syenite	16 Siltstone, Greywacke, Sandstone, some Calcarenite, minor Limestone, Argillite, Conglomerate, Lignite, dolomite
6d Monzonite	
6e Alaskite	
<b>Eocene - Plutonic</b>	
8b Granodiorite	
<b>LOWER JURASSIC - UNUK RIV. FORM.</b>	
11a Pillow Lava	
12a Green, Red & Purple Volcanic Breccia, Conglomerate, Sandstone & Siltstone	
12b Crystal & Lignite Tuff	
12c Sandstone	
12d Conglomerate	
12f Chert	
	----- GLACIER
	———— FAULT (DEFINED, APPROX.)

**CATEAR RESOURCES LTD. Fig.**  
**REGIONAL GEOLOGY**  
**SULPHURETS AREA, STEWART B.C.**  
 SOURCE: E.W. GROVE - AUGUST 1982  
 10K

Local Geology

According to E.W. Grove, on maps titled Geology of the Unuk River-Salmon River-Anyox map area, two separate rock units are encountered on the property both of Jurassic age. The oldest rocks are from the Unuk River Formation consisting of clastic rocks comprised red, purple and green volcanic breccia, tuffs and arenaceous sediments. The younger rocks are syenodiorite stocks, plugs and dykes of undetermined Jurassic age.

In the property area the few outcrops examined consist of red and green volcanic tuffs, fragmental andesites, occasional sericite schists and syenites.

The area of the Goldwedge 4 claims is due west and adjacent to the Newcana Joint Venture and Catear Resources Ltd. "bonanza type" gold silver deposits. These projects have announced the following results:

	<u>Present Reserves</u>	<u>Grade</u>	
		<u>opt Au</u>	<u>opt Ag</u>
<u>Newhawk West</u> (partially explored)	854,072	.354	22.94
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The above gold-silver discoveries are structurally controlled, epithermal-mesothermal veins occurring in areas of syenodiorite intrusions and associated with areas of intense sericite (quartz-pyrite) alteration.

GEOCHEMICAL SURVEYS

Rock Geochemistry

Eight (8) rock geochemical samples were collected from the Goldwedge 4 claims during September 1988. A 3-4 pound sample of unweathered material was selected on the basis of mineralization or alteration.

The samples were shipped to Loring Laboratories of Calgary, Alberta where they were crushed, split and ground to a -80 mesh. The samples were then analyzed for gold and silver using standard geochemical methods.

Results of the survey indicated weakly anomalous gold and silver values (see Figure 3).

CONCLUSIONS

1. The Goldwedge 4 claims are underlain by volcanic and sedimentary rocks of the Unuk River Formations.
2. A rock geochemical program has indicated slightly anomalous gold and silver values.
3. The area of the Brucejack claims is east of the bonanza gold-silver discoveries at Brucejack Lake by both the Newcana Joint Venture and Catear Resources Ltd. These projects have announced the following results:

	<u>Present Reserves</u>	<u>Grade</u>	
		<u>opt Au</u>	<u>opt Ag</u>
<u>Newhawk West</u> (partially explored)	854,072	.354	22.94
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The above gold-silver discoveries are structurally controlled, epithermal-mesothermal veins occurring in areas of syenodiorite intrusions and associated with areas of intense sericite (quartz-pyrite) alteration.

4. An exploration program consisting of geological mapping, prospecting, silt geochemistry, rock geochemistry and trenching is recommended.

## RECOMMENDATIONS

### Geological Mapping

The property should be mapped in order to define potential host rocks for epithermal deposits.

### Prospecting

All structural features on the property should be carefully prospected in order to evaluate the mineral potential. As well, all gossaned zones should be checked for all minerals associated with the gold, particularly arsenopyrite and tetrahedrite.

### Silt Geochemistry

Sampling should be conducted every 50 meters along stream beds on the property.

### Rock Geochemistry

The rock geochemical survey should be expanded in areas of anomalous values.

### Trenching

Trenching would be conducted in areas of newly discovered mineralization to obtain fresh samples for assaying as well as evaluation for indicator minerals.

STATEMENT OF EXPENDITURES

<u>Personnel</u>	
G. Sinden, Geological Technologist	
1 day @ \$200/day	\$ 200.00
B. Touzan, Geological Assistant	
1 day @ \$150/day	150.00
T. Devine, Geological Assistant	
1 day @ \$150/day	150.00
<u>Food</u>	
\$23/manday x 3 mandays	69.00
<u>Accommodations</u>	
\$25/manday x 3 mandays	75.00
<u>Geochemical Analysis</u>	
8 rock samples @ \$15/sample	120.00
Communications	15.00
Expendible Supplies	7.00
Equipment Rental	25.00
Report	<u>300.00</u>
TOTAL	\$1,111.00



REFERENCES

GROVE, E.W., 1986  
Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox  
Area, British Columbia Ministry of Energy, Mines and Petroleum  
Resources, Bulletin No. 63.

CERTIFICATE

I, EDWARD R. KRUCHKOWSKI, Geologist, residing at 23 Temple side Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.
2. I have been practising my profession continuously since graduation.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a consulting geologist on behalf of Catear Resources Ltd.
5. This report is based on a review of reports, documents, maps and other technical data on the property area and on my experience and knowledge of the area obtained during programs in 1974 - 1988.

Date

April 26/89

E.R. Kruchkowski, B.Sc.

S

CERTIFICATE

I, GORDON W. SINDEN, currently residing at #2607, 123 - 10 Avenue S.W., Calgary, Alberta T2R 1K8, hereby certify that:

1. I am a geological technologist and have practised my profession since 1977.
2. I am a graduate of the Northern Alberta Institute of Technology (1977) in Mineral Resources Technology.
3. I am a Registered Engineering Technologist with the Alberta Society of Engineering Technologists.
4. This report is based on a review of reports, documents, maps and other technical data on the property area and on my experience and knowledge of the area obtained during programs in 1982 - 1988.

April 26, 1989  
Date

Gordon Sinden  
Gordon W. Sinden, R.E.T.

APPENDIX I  
ANALYTICAL INFORMATION

LABORATORY: Loring Laboratories  
Calgary, Alberta

MESH SIZE: -80/stream sediments  
-80/rocks

EXTRACTION: For Au/Ag: Fire assay fusion,  
cupellation and acid  
dissolution of precious  
metal beads.

ANALYSIS: Atomic absorption

APPENDIX II  
ROCK GEOCHEMICAL ANALYSIS

To: CATEAR RESOURCES LTD.

400, 255 - 17th Avenue S.W.,

Calgary, Alberta T2S 2T8

ATTN: E.R. Kruchkowski

F. No. 31813

Date October 18, 1988

Samples Rock

PROJECT: GOLDWEDGE 4



## Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.

PPB  
AU

PPM  
Ag

"Rock Samples"  
Geochemical Analysis

GW4-88-1	15	0.4
2	90	0.6
3	60	1.0
4	20	0.9
5	25	0.3
6	40	0.6
7	30	0.4
8	25	0.7

I 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  
are made in advance.

  
Assayer

APPENDIX III  
SAMPLE DESCRIPTIONS



## SAMPLE DESCRIPTIONS

- GW4-88-1 1 meter chip, feldspar porphyry, 3-5% pyrite, locally up to 7% pyrite.
- GW4-88-2 1 meter chip, feldspar porphyry with minor quartz veinlets, locally massive pyrite seams up to 2 mm wide.
- GW4-88-3 1 meter chip, altered volcanic with brownish orange coating, 2-3% pyrite.
- GW4-88-4 1 meter chip, altered andesite with minor quartz veinlets 1-2 mm wide, locally up to 7% pyrite in andesite, no visible sulphides in quartz.
- GW4-88-5 1 meter chip, chert with quartz stockwork, 2-3% pyrite in chert, no visible sulphides in quartz.
- GW4-88-6 1 meter chip, chert with minor quartz veinlets, 5-7% pyrite in chert, no visible sulphides in quartz.
- GW4-88-7 1 meter chip, chert with minor quartz veinlets up to 2 mm wide, 3-5% pyrite in chert with massive seams up to 2 mm wide, no visible sulphides in quartz.
- GW4-88-8 1 meter chip, feldspar porphyry with 3-5% pyrite.

TEDRAY 10  
162 (8)

TEDRAY 12

KERR 10  
3665 (12)

TEDRAY 12  
POST No 3 SOUTH

1500 W  
1000 W  
800 W  
700 W  
600 W  
500 W  
400 W  
300 W  
200 W  
100 W  
0  
255 - OWA-88-2100-01  
500 - OWA-88-2100-02  
755 - OWA-88-2100-03  
1005 - OWA-88-2100-04  
1255 - OWA-88-2100-05  
1505 - OWA-88-2100-06  
(15,000) OWA-88-2100-07  
(15,000) OWA-88-2100-08  
(15,000) OWA-88-2100-09  
(15,000) OWA-88-2100-10

HEAVY Tree COVER  
Occasional andesite o/c  
NO Visible Sulphides

GOLDWEDGE 4  
Vegetation Covered 5805 (2)  
Very little o/c

andesite o/c  
no visible sulphides  
andesite o/c  
not sampled  
andesite o/c  
no visible sulphides

RED RIVER 6  
3109 (6)

LCP  
RED RIVER 6  
TO CAMP ~100m

KERR 7  
3662 (12)

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18,679

LEGEND

- Rock Geochemical Sample Site
- Claim Post
- (15,000) Geochemical Analysis Au(ppb), Ag(ppm)
- Prospecting TRAVERSE



Scale 1:5,000

CATEAR RESOURCES LTD.

GOLDWEDGE 4  
PROPERTY LOCATION & ROCK  
GEOCHEMICAL SAMPLE SITES

Figure 4

April, 1989