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GEOLOGY OF THE

LAKESIDE, SHORELINE FRACTION, and  
RIVER FRACTION MINERAL CLAIMS

of the

Good Sport Group

near Port McNeill, Northern Vancouver  
Island, B.C.

Nanaimo Mining Division

NTS Map Area 92L/6 F

Latitude 50 degrees 19<sup>22.5'</sup> 5' W

Longitude 127 degrees 14.0' W

**SUB-RECORDER**  
RECEIVED  
JAN - 5 1990  
M.R. # ..... \$ .....  
VANCOUVER, B.C.

Owned by: Taywin Resources Ltd.

and J. W. Laird

Operated by: Taywin Resources Ltd.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,536

Prepared by: Tiro Clarke, B.Sc. (Geology)

Submitted: January 5, 1990

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## 1.0 SUMMARY and RECOMMENDATIONS

The Good Sport Group is located in the Nanaimo Mining Division on northern Vancouver Island, near the southern end of Benson Lake approximately 30km southwest of Port McNeill. The group consists of the Good Sport 1 & 2, Gold Sport, Lakeside, River Fr., Shoreline Fr., and Bend Fr. mineral claims, totalling 45 units. A report on geological and geochemical surveys on the Good Sport 1 claim was submitted in December, 1989 (Assessment Report 18619. This report concerns the Lakeside, Shoreline Fr., and River Fr. claims which are located around the southern end of Benson Lake.

The southern end of Benson Lake is underlain by a monotonous sequence of massive basalts belonging to the Upper Triassic aged Karmutsen Formation. One identifiable unit mapped in two locations was a maroon coloured amygdaloidal basalt flow. This was interpreted to be a subaerial flow near the top of an emergent basalt sequence.

The Good Sport Group adjoins the Old Sport Mine, a former producer of 2.6 million tonnes of predominantly Cu ore with some Au and Ag. The Idaho Adit of the Old Sport Mine lies less than 20m away from the southern boundary of the Shoreline Fraction. In light of recent interest in the Benson Lake - Merry Widow Mountain area, the Good Sport Group is strategically located with respect to renewed exploration.

## 2.0 INTRODUCTION

### 2.1 Location and Access

The Good Sport Group is located in the Nanaimo Mining Division on northern Vancouver Island, at the south end of Benson Lake and on the east slope of the Benson River valley. Geographic centre of the group is at latitude 50 degrees 19.5'N and longitude 127 degrees 14'W. From Port McNeill the group is reached by driving north along Highway 19 for 3.5km and then turning left on the Benson Main logging road and continuing for approximately 30km to the north end of Iron Lake. At this point the Good Sport Group lies on the west side of the road. The Lakeside, Shoreline Fraction, and River Fraction claims can be reached by following Benson Main to the M1000 logging road (approximately 2km past Iron Lake) and then turning north for approximately 4km to the south end of Benson Lake.

### 2.2 Property Description

The Good Sport Group consists of 7 claims totalling 44 units as follows:

<u>Claim</u>	<u># units</u>	<u>record #</u>	<u>expiry date</u>
Good Sport 1	20	2987	June 14, 1992
Good Sport 2	20	2948	June 14, 1992
Gold Sport	1	3158	June 14, 1992
Bend Fr.	1	3227	Dec. 12, 1982
Lakeside	1	3230	Jan. 14, 1990
Shoreline Fr.	1	3226	Jan. 14, 1990
River Fr.	1	3229	Jan. 14, 1990

The claims were staked in order to cover both ground contiguous to the Good Sport Mine and ground underlain by the favourable Karmutsen basalt - Quatsino limestone contact.

### 2.3 Topography and Vegetation

The Good Sport Group has minimum and maximum elevations of approximately 155m and 455m. Some west and north facing rock bluffs occur around the southern end of Benson Lake. The area is well drained and there are no bogs except in the lowlands around Benson Lake. The claims are covered by an open first growth coniferous rainforest.

### 2.4 Summary of Work Performed

On April 29 and May 3, 1989, a geological examination was made of the Lakeside, Shoreline Fraction, and River Fraction claims. The purpose was to determine if an identifiable sequence of basalts existed in the uppermost Karmutsen Formation basalts. Such an exercise is valuable as the Idaho ore body of the Old Sport Mine is reported to occur entirely in uppermost Karmutsen Formation basalts, a short distance below the contact with Quatsino Formation limestone. In addition, underground and surface examinations of the Old Sport Mine were made to augment the writer's understanding of local mineralization features.

## 3.0 TECHNICAL DATA

### 3.1 Regional Geology

The northern Vancouver Island area is underlain by a conformable sequence comprised of, in ascending order, Karmutsen Formation massive and pillowed basalts, Quatsino Formation limestones, Parson's Bay Formation argillaceous sediments and

carbonates, and Bonanza Volcanics andesites to rhyolites. Harbledown Formation wackes and non-calcareous argillites are locally present between the Parson's Bay Formation and Bonanza Volcanics. The entire package spans Late Triassic to Early Jurassic time and is intruded by Late Middle Jurassic granitic rocks of the Island Intrusions (Muller and Northcote, 1974).

At the bottom of the package are Upper Triassic Karmutsen Formation basalts and andesites with an estimated thickness of 6000m. Main units present are basaltic pillowed lavas and pillow breccias, and basaltic to andesitic massive flows. Discontinuous beds and lenses of limestone possibly representative of earliest Quatsino Formation limestone deposition are locally present in the uppermost Karmutsen Formation.

The Upper Triassic Quatsino Formation is a relatively homogeneous limestone sequence with a maximum thickness of at least 750m. The limestone is generally light grey, fine grained to microcrystalline, well bedded on a scale of centimetres to metres, and locally fossiliferous. In areas of structural deformation and/or anomalous hydrothermal activity the limestone is often recrystallized, bleached white, and stylolitic.

The contact between Quatsino and Parson's Bay Formations is gradational, marked by the appearance of Halobia-bearing, black, argillaceous sediments. These together with wackes,

volcaniclastic grits and pebble conglomerates are predominant lithologies of the 300-600m thick Parson's Bay Formation. The top of the formation is interpreted to lie at the Triassic-Jurassic boundary.

The Lower Jurassic Harbledown Formation is typified by non-calcareous argillites, cherty quartzites, and cross-bedded greywackes and feldspathic sandstones. Although a maximum thickness of approximately 870m is estimated for the Harbledown Formation, it may be extremely thin or absent over large areas.

Above the Harbledown Formation lie the Lower Jurassic Bonanza Volcanics with an average thickness of approximately 2400m. The volcanics are heterogeneous, ranging from rhyodacites to basalts with minor intercalated sedimentary units.

Intruding the entire Late Triassic to Early Jurassic package are granitic rocks of the Island Intrusions. Most of these have a granite to quartz monzonite and diorite composition, but gabbroic members have been noted. Many of the Island Intrusions have been dated at approximately 150 million years.

### 3.2 Property Geology

The Lakeside, Shoreline Fraction, River Fraction, and Gold Sport claims lie around the southern tip of Benson Lake. This



area is underlain entirely by Karmutsen Formation basalts. An examination was made of these basalts from the power house where Maynard Lake drains into Benson Lake to approximately 1.3km northwest of the Idaho Adit of the Old Sport Mine.

### 3.2.1 Lithology

The basalts consist primarily of dark grey to black, fine to medium grained massive flows. In many cases the flows contain 1-2mm amygdaloids of calcite, quartz, and epidote. Traces of disseminated pyrite and chalcopyrite are also locally present in the amygdaloids. Approximately 400m south of the power house moderate <1 to >2cm wide propylitic was seen in float.

Only one potentially correlatable unit in the uppermost Karmutsen sequence was identified in two locations along the southern end of Benson Lake. This was a maroon coloured medium grained basalt with 2-3mm white calcite amygdules, interpreted to be a subaerial flow occurring near the top of an emergent sequence. True stratigraphic width is unknown. The unit is seen 250-300m south of the power house, and again approximately 900m northwest of the Idaho Adit.

### 3.2.2 Structure

The two occurrences of the maroon-coloured unit appear to be separated by the northerly-trending Benson Lake (sinistral?) fault, and possibly by another northeasterly-trending trending

(dextral?) fault running between Benson and Maynard lakes. The net offset is similar to that noted on the Good Sport 1 claim (assessment report #18619, filed May, 1989). Bedding attitudes measured from compositional banding and flow contacts in the basalts are concordant with the "Old Sport" horizon, generally trending northwest and dipping 25-35 degrees southwest. Units in the Benson Lake area do not appear to be folded to any degree.

### 3.2.3 Mineralization

No significant economic mineralization was found on the Lakeside, Shoreline Fr., or River Fr. claims. However, these claims are either contiguous or proximal to the Old Sport mine, a former producer of 2.6 million tonnes of ore containing 41,193 tonnes Cu, 3,869kg Au, and 11,731kg Ag. Mineralization in the Old Sport Mine is primarily concordant with the Karmutsen basalt-Quatsino Limestone contact, dipping westerly at approximately 30° towards the Coast Copper Stock. The Idaho orebody of the Old Sport Mine is reported to lie stratigraphically lower, entirely within Karmutsen Formation basalts. If this is a completely replaced limestone unit within the uppermost Karmutsen Formation then the potential exists for similar mineralization along additional limestone horizons below the Old Sport horizon.

### 4.0 Discussion and Recommendations

The Lakeside, Shoreline Fraction, and River Fraction claims of the Good Sport Group do not have any known economic

mineralization. However, they do lie stratigraphically directly below the producing horizons of the Old Sport Mine. In light of considerable renewed interest in the immediate area (i.e. the Merry Widow and Old Sport properties) the claims are strategically located; they are contiguous to the Old Sport Mine property and have flat ground next to water and a potential power source.

5.0 ITEMIZED COST STATEMENTWAGES

Tiro Clarke, Geologist-  
 Fieldwork: April 29/May 3, 1989 - 2 days  
 Report preparation, typing, drafting:  
 December 18/19, 1989 - 2 days

Total wages = 4 days @ \$160.00 per day \$640.00

Meals and Accommodation

April 29/May 3, 1989 - 2 days

Total meals and accommodation = 2 days  
 @ \$25.00 per day \$ 50.00

Transportation

4x4 truck rental: April 29/May 3, 1989 - 2 days

Total transportation = 2 days @ 50.00 per day \$100.00

Miscellaneous

Prospecting and camp equipment rental:  
 April 29/May 3, 1989 - 2 days

Total miscellaneous = 2 days @ \$25.00 per day \$100.00

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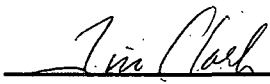
TOTAL COSTS - \$890.00

6.0 Declaration of Tiro Clarke, B.Sc. (Geology)

I, Tiro Clarke of 215 - 651 Moberley Road, Vancouver, British Columbia, V5Z 4B2, declare:

1. I am a geologist, currently residing at the above address.
2. I am a graduate of Geological Sciences from the University of British Columbia, in 1988, with a Bachelor of Science (Hon.) degree.
3. I am a holder of 2000 shares of common stock in Taywin Resources Ltd.; I have no other interest, financial or otherwise, in Taywin Resources Ltd. or the property described in this report.
4. This report is based upon a two-day examination of the Lakeside, Shoreline Fraction, and River Fraction claims of the Good Sport Group, augmented by surface and underground examinations of the Old Sport Mine.
5. I consent to the use of this report in connection with the raising of funds for work on the Good Sport Group.

DATED AT VANCOUVER, B.C., this 21st day of December, 1989.

  
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Tiro Clarke, B.Sc. (Geology)

7.0 REFERENCES

British Columbia Minister of Energy, Mines and Petroleum Resources: Assessment Report #18619.

Muller, J. E., K. E. Northcote, and D. Carlsisle, 1974. Geology and Mineral Deposits of the Alert Bay - Cape Scott Map Area, Vancouver Island, British Columbia: Geological Survey of Canada Paper 74-8.

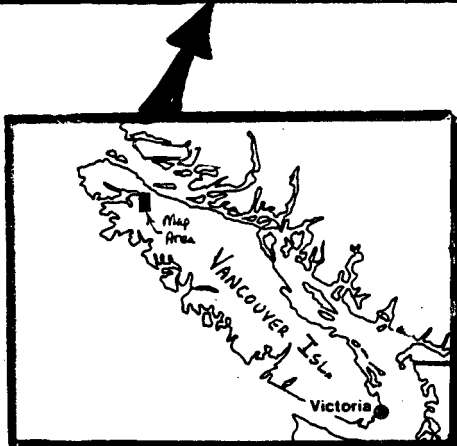
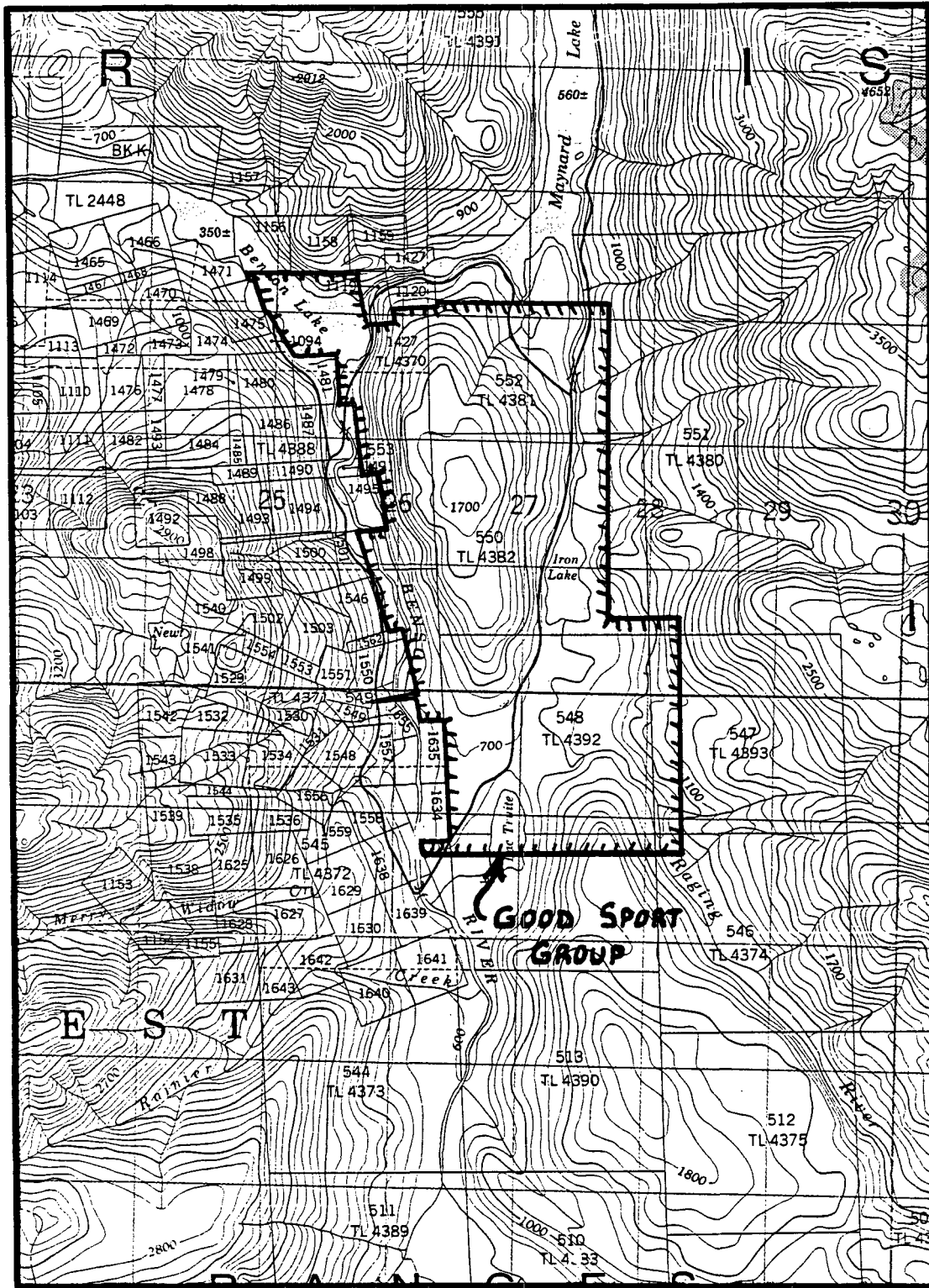


Figure 1. Location index map  
1:50,000 92L/6

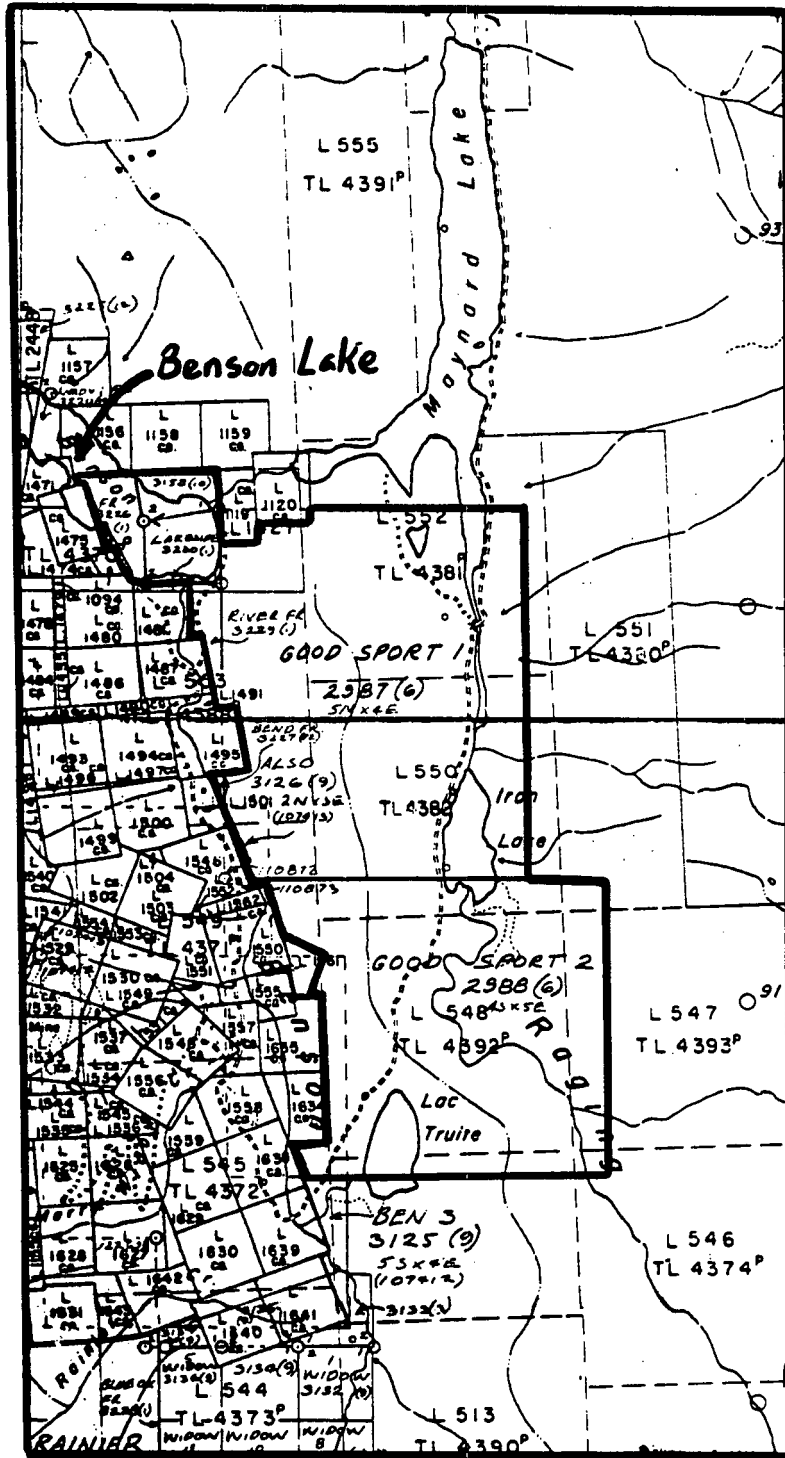
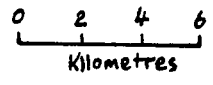
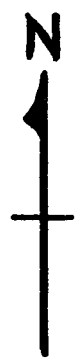
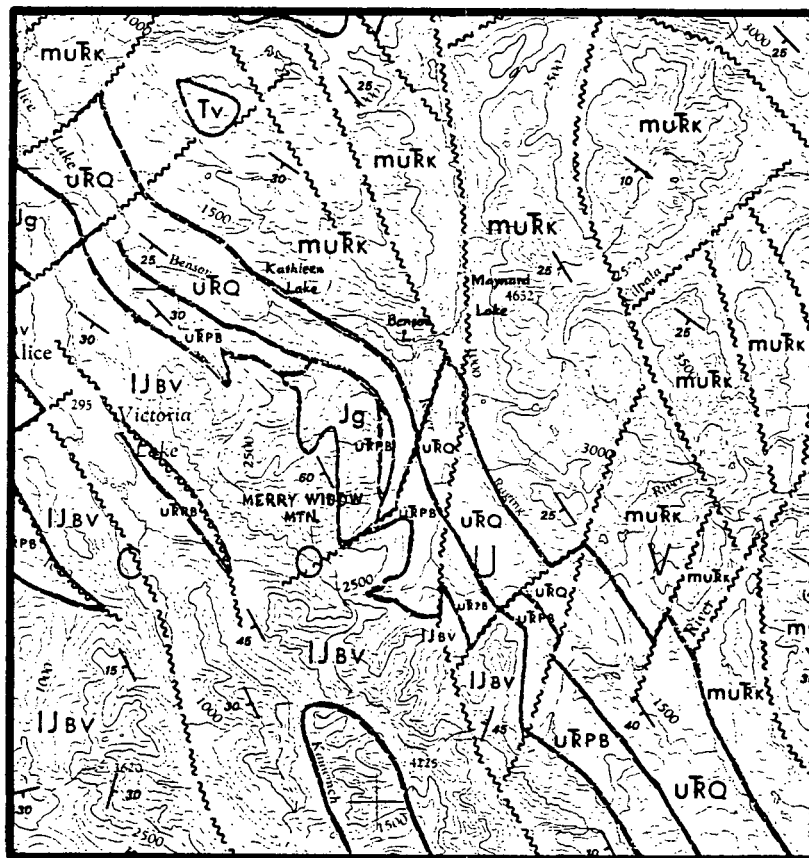


Figure 2. Claim configuration of the Good Sport Group.  
1:50,000 92L/6E





- Geological boundary (approximate) .....
- Fault, lineament (approximate) .....
- Bedding, tops known (horizontal, inclined) .....
- Bedding, tops unknown (vertical) .....

**JURASSIC**

**Jg** ISLAND INTRUSIONS: quartz diorite, granodiorite, quartz monzonite, quartz feldspar porphyry

**TRIASSIC AND JURASSIC VANCOUVER GROUP LOWER JURASSIC**

**IJbv** BONANZA VOLCANICS: andesitic to rhyodacitic lava, tuff, breccia

**IJH** HARBLEDDOWN FORMATION: argillite, greywacke

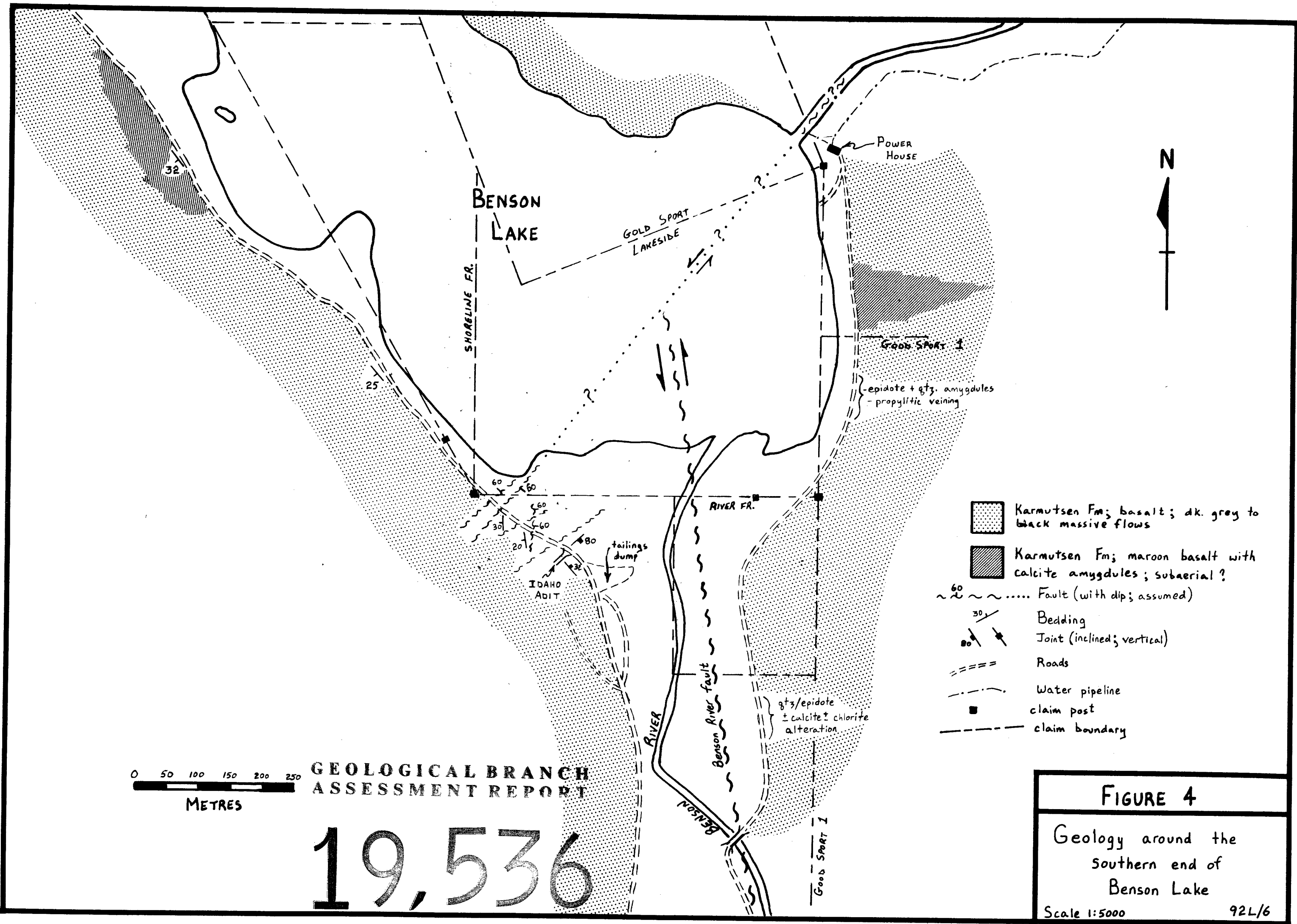
**UPPER TRIASSIC**

**URPB** PARSON BAY FORMATION: calcareous siltstone, shale, limestone, greywacke, conglomerate, breccia

**URO** QUATSINO FORMATION: limestone




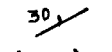

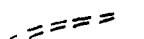
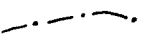


**muRk** KARMUTSEN FORMATION: basaltic lava, pillow lava, breccia, aquagene tuff

Figure 3. Regional Geology in the Benson Lake - Merry Widow Mountain area



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-  Karmutsen Fm; basalt; dk. grey to black massive flows
-  Karmutsen Fm; maroon basalt with calcite amygdules; subaerial?
-  Fault (with dip; assumed)
-  Bedding
-  Joint (inclined; vertical)
-  Roads
-  Water pipeline
-  claim post
-  claim boundary

**FIGURE 4**

Geology around the  
southern end of  
Benson Lake

Scale 1:5000

92L/6