REPORT
GEOLOGICAL INVESTIGATION & RECONNAISSANCE
OF
FIVER NO. L-3 MINERAL CLAIMS
FELLY RIVER AREA, Y.T.

TABLE OF CONTENTS

3. Expense Summary.
4. Appendix.
   (a) Map of Claims & Geology.

Vancouver, B.C.,
October 28, 1954.
October 26, 1954.

Mining Recorder,
Department of Northern Affairs & Natural Resources,
Whitehorse, Y.T.

Dear Sir:

We submit hereunder the report covering a complete geological investigation and reconnaissance of thirteen mineral claims recorded as the Peter Nos. 1-13.

Location lines of the claims were cleaned out and surveyed, using the Brunton compass and tape method. All post locations were flagged and tied in together with rock outcrops and structural features of geological interest. The accompanying map contains all of the above information.

A crew of five men was employed, consisting of a qualified Geologist-in-Charge, a senior student assistant, two Indian line-cutters and one horse wrangler. It was necessary to transport the crew to the area by plane. The camp was kept supplied by transporting supplies with packhorses.

Included herewith are Grouping Notices and our Affidavit in application for Certificates of Work to be granted under Section 54 (2B) of the Yukon Quartz Mining Act.

Yours very truly,

L. G. White, P. Eng.,
Agent for: K. J. Springer,
604 Hall Bldg.,
789 West Pender St.,
Vancouver 1, B.C.
A GEOLOGICAL REPORT
ON THE
PIPER GROUP OF THIRTEEN MINERAL CLAIMS
PELLY RIVER AREA, Y.T.

WHITEHORSE, Y.T.,
October 26, 1954.

By: C. E. Dunn,
Geologist.
A GEOLOGICAL REPORT ON THIRTEEN CLAIMS OF THE PIPER GROUP.

NAME & GRANT NUMBERS OF THE 13 CLAIMS MAPPED:

The following are the corresponding grant numbers, the date the claims were staked and the date recorded:

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<th>NAME</th>
<th>GRANT NOS.</th>
<th>DATE STAKED</th>
<th>DATERecorded</th>
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<td>Piper No. 1</td>
<td>67625</td>
<td>Nov. 16, 1953</td>
<td>Dec. 14, 1953</td>
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REGISTERED OWNER:

The thirteen claims of the Piper group as listed above are registered in the name of K. J. Springer, 604 Hall Building, 789 West Pender Street, Vancouver, B.C.

LOCATION & ACCESS:

The Piper group is located in the Felly River area, Yukon Territory, at Latitude 62° 15' north and Longitude 135° 20' west. The claims lie approximately two and one-half miles west of the property held by Prospectors Airways Limited.

The claims are situated 120 air miles northeast of Whitehorse. There are lakes near the claims suitable for landing by float equipped aircraft. A landing strip is being built on the Prospectors Airways property. An access road is being constructed from Carmacks to Ross River, which will service the general area.
ADJOINING CLAIMS:

The thirteen Piper claims mapped are adjoined on the west by the remaining claims of the Piper group; on the east by the Wedge group; on the north by the Van group, which is held by Prospectors Airways Limited, and bordered to the northeast by the Nye group, which is held by Potluck Explorations Limited. The ground to the southwest is unstaked.

DATE & METHODS USED IN MAPPING:

The geological reconnaissance and mapping program on the thirteen claims of the Piper group and the adjoining Wedge group was completed between August 23rd and September 26th, 1954. Location lines were cut out and surveyed by Brunton and chain. Stations were established at 100-ft. intervals along the location lines. Lines were run from the location lines to outcrops and the boundaries chained. The datum elevation at No. 2 Post of the Wedge No. 24 mineral claim was established by the survey of the Wedge group. The crew consisted of a geologist, a geological student, two Indian line-cutters and a wrangler.

GENERAL GEOLOGY:

The Piper group is mostly drift covered and very few outcrops are exposed on the claims. The northern section of the group is covered with the remnants of a thirteen year old forest burn. The southern section is covered with spruce growth.

GEOLOGY OF THE PIPER CLAIMS:

On the Piper claims the exposed rock types consist of conglomerate, limestone, black argillite and quartzite, all belonging to the Yukon group, which ranges in age from Precambrian to Permian. The Yukon group consists of altered sedimentary and igneous rocks, which have undergone various degrees of metamorphism.
DESCRIPTION OF ROCK TYPES:

1. ARGILLITE

The argillite which outcrops on the western edge of the Wedge No. 22 and the Piper No. 11 is dense black in color. The contact with the quartzite is gradational. On the Piper No. 11 the argillite is slaty and contorted.

2. CHLORITE SCHIST:

The small outcrop which has been mapped as quartzite on the Piper No. 12 mineral claim contains minor amounts of chlorite schist interbedded with the quartzite.

4. QUARTZITE:

On weathered surfaces the quartzites vary from a blue-grey to green color. On fresh surface the predominate color is blue-green to grey. They are very fine grained, often cherty, and contain specks of sericite together with minute stringers of calcite. On the Piper No. 9 claim the quartzites contain bands of crystalline limestone, having minor amounts of tremolite and specks of sericite. The quartzite outcrop on the Piper No. 12 claim is interbedded with a chlorite schist.

5. LIMESTONE:

The limestone is a dark blue color and fine grained. The outcrop of limestone along the creek on the Piper No. 10 claim is believed to occur as a lens in the conglomerate.

7. CONGLOMERATE:

The conglomerate outcrops on the Piper group are identical to the conglomerates on the Wedge group.

The conglomerates consist of rounded and semi-angular pebbles, up to 2" in diameter, of cherty quartzite, argillite, chlorite and sericite schists.
The matrix is siliceous and of the same material as the fragments. The large outcrop of conglomerate on the Piper No. 10 claim contains bands of dark blue limestone.

**STRUCTURAL GEOLOGY:**

There are too few rock exposures on the Piper claims which would enable one to prove or assume the presence of faulting. The writer did not see any evidence of faulting. The Pelly River valley, which is the dominant topographic feature of the area, may be a trenchlike depression due to faulting and would serve as the local of subsequent faulting on the Piper group. The bands of limestone occurring in the conglomerate and quartzite outcrops on the Piper group are due to interbedding during deposition.

**GENERAL SUMMARY & CONCLUSION:**

Complete reconnaissance and examination of all exposed rock was completed. All creek gullies were traced for indications of mineralization. The large areas of non-outcrop were prospected for the presence of mineralized float and "frost heaves". However, the deep overburden could mask any underlying mineralized bodies should they exist.

**RECOMMENDATIONS:**

Any further exploration program planned for the above-described claim group should employ geophysical or geochemical methods of prospecting.

Due to the extensive areas of overburden in relation to the few scattered rock outcrops, further surface prospecting is not warranted or recommended.

Respectfully submitted:

By:  
C. E. Dunn (Geologist)

For:  
L. G. White (P. Eng.)

GER/he  
Oct. 26/54.
EXPENSE SUMMARY

TO:

Transporting and supplying the five-man crew which conducted a geological reconnaissance and mapping program on thirteen claims of the "Piper Group" in the Pelly River Area, Y.T.

Crew: 5 men
Time: 15 days
No. of Claims: 13

LABOUR COSTS - Per Payroll Summaries:

1 Geologist-in-Charge @ $18.00/day $270.00
1 Student Assistant @ $11.00/day 165.00
2 Line Cutters @ $9.00/day 270.00
1 Horse Wrangler @ $10.00/day 150.00

Total Payroll Costs: $855.00

Workmen's Compensation (Insurance) @ % 42.75

BOARD COSTS - Per Northern Commercial Invoices:

Food Supplies averaged $4.00/day/man -

Total supplies cost (15 x $20.00) 300.00

TRANSPORTATION - Whitehorse Flying Services:

2 Plane Charters - Total Hours: 6 @ $80.00 480.00

HORSE RENTALS - T. Connelly, Ross River, Y.T.

Packing supplies & equipment - 2 hours @ $6.00 -

Total Cost - ($6.00 x 15 days) 90.00

PREPARATION & PRINTING REPORT - Engineering Service:

TOTAL EXPENSE: $1,617.75

Current: EXPENSE/CLAIM: $139.82

L. G. White.