

86-957-15481

GEOLOGICAL & GEOPHYSICAL REPORT

on the

PINE CLAIM

Trail Creek Mining Division

82 F/4W

49° 03.4' ~~W~~ 117° 42.2' W

Owner: Inland Au. - Ag. Resources Ltd.

Operator: Inland Au. - Ag. Resources Ltd.

Author; D. K. Bragg

Jan. 10, 1987

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,481

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INTRODUCTION

The Rossland mining camp in the past has been one of the major gold and silver producers of British Columbia. The camp had its beginning in the early 1980's when some of the first claims in the area were staked. Since then the camp has produced in excess of five million tons of ore which gave a recorded grade of 15.68 g/ tonne Au., 19.65 g/ tonne Ag. and about 1 % Cu. per tonne.

Since the late 1920's little production has taken place except for leasors on some of the old properties satellite to the main core of the camp and the production of molybdenite from the southern flank of Red Mountain.

It was in the Rossland camp that the Consolidated Mining and Smelting Company got the start that enabled it to become one of the world's major producers of lead, zinc and silver, and the establishment of its smelter complex at Trail, B. C. This company is now Cominco.

Most of this early production was centered around the northern and western part of the camp where the veins were predominantly copper and gold producers, i.e.: the War Eagle, Centre Star, Le Roi and Josie crown granted claims. However, many properties satellite to the main producing area were discovered and staked. Many of the veins on these satellite properties contain a different mineralogy than that of the main producing core of the camp, such as lead, zinc, silver and gold veins and arsenic gold veins. It is on these satellite properties that most of the exploration work since the 1920's has taken place, although sporadic.

In the last few years exploration in the Rossland camp has intensified with numerous companies and individuals being actively engaged in exploration. The results of this increased activity has been most encouraging to the extent that the Rossland area may again become a producing camp of some note.

The writer has been intensely involved in the Rossland area since 1970 and had been actively mining on the Snowdrop and Blue Bird crown granted claims from 1970 to 1976. Since then he has been involved in exploration of the whole camp and in particular in that area that is known as the south belt. This continued exploration has resulted in the accumulation of considerable information and insight about the Rossland camp which is invaluable. Much of this information is contained in reports previously filed for assessment work requirements and in private reports.

The Pine claim, Record no. 852 was staked on Sept. 26, 1985 and was recorded on Oct 24, 1985. The Pine claim was a relocation of the Cap claim. It was staked by D. K. Bragg as agent for G. Langset and was subsequently transferred to Inland Au.- Ag. Resources Ltd.

The claim was staked to cover the holes that existed along the southern boundary of the crown granted claims to the south of Rosslund. A number of cuts, trenches and shafts, and other old workings had been observed in the area of the Pine claim and its location was designed to cover most of these.

The purpose of this investigation was to cover that area to the north of the Sunbeam Frn. Lot 5008 where a magnetometer survey had been conducted in the past (see Assessment Report 12861), between the Richmond Lot 1508, Hattie Brown Lot 1047 and the Alcome Frn. Lot 11468.

PROPERTY LOCATION & ACCESSIBILITY

The Pine claim is centered two kilometers south of the City of Rosslund within the upper Gopher Creek drainage basin, for the most part on the north and eastern facing slopes of Tamarac Mountain. Elevations on the claim range from 850 metres to 1125 metres. For the most part the terrain is quite gentle and easily accessible by foot.

Access to the claim is by means of the South Belt road from Rosslund and through Drakes farm. The eastern portion of the claim is accessible by logging roads off of the South Belt road and by means of the abandoned rail grade. There are also numerous logging roads in the area but some of these are now impassible to 4 wheel drive.

The forest cover is mainly second growth hemlock, larch, fir, cedar and both white pine and jack pine with considerable poplar and birch. Much of the area has been recently logged. Some areas are covered by non commercial scrub growth. The undergrowth is fairly open and nowhere is it impassible.

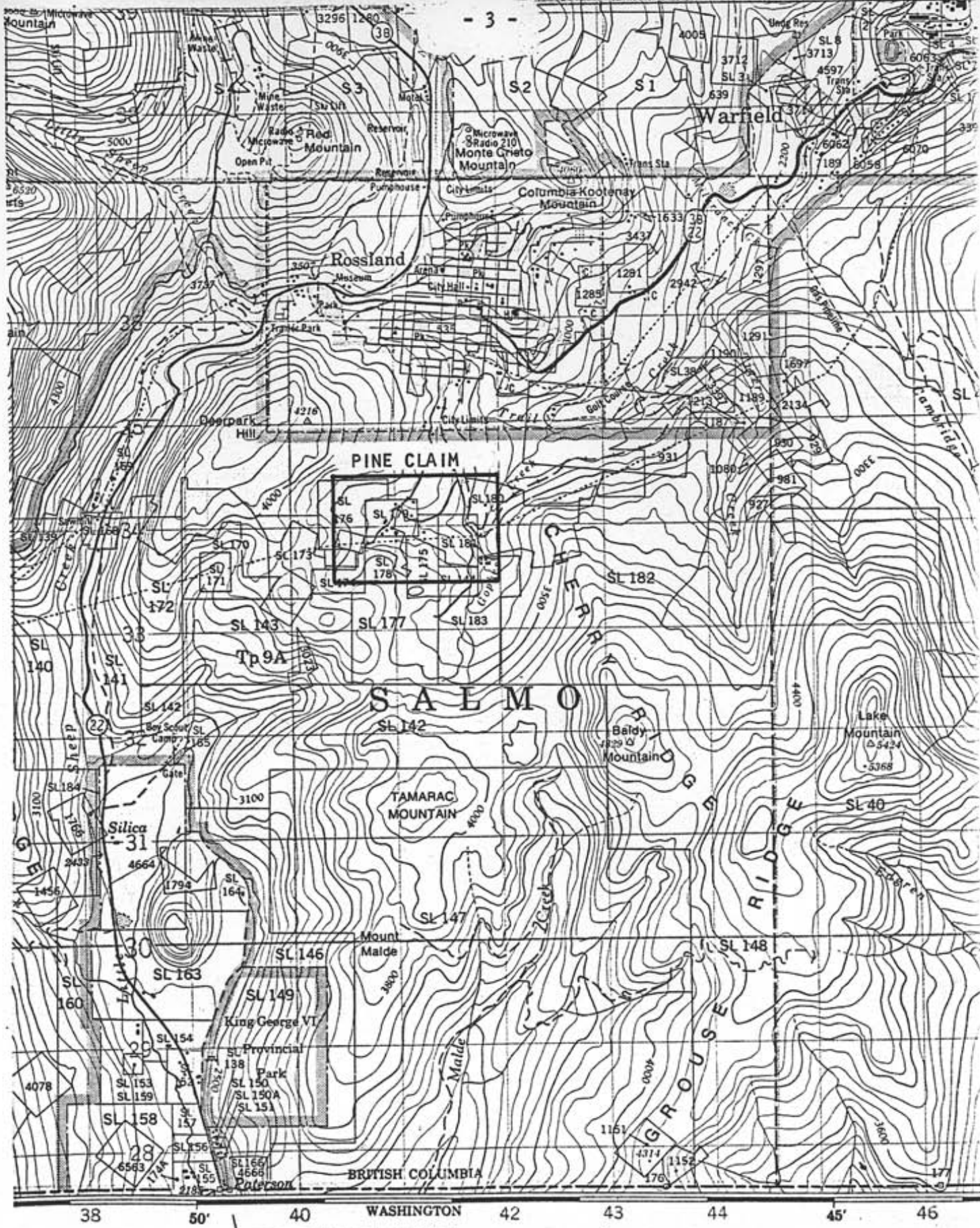


Fig. 1
INDEX MAP
LOCATION OF PINE CLAIM

ROSSLAND-TRACHEMONT
BRITISH COLUMBIA

Scale 1 50 000 Échelle



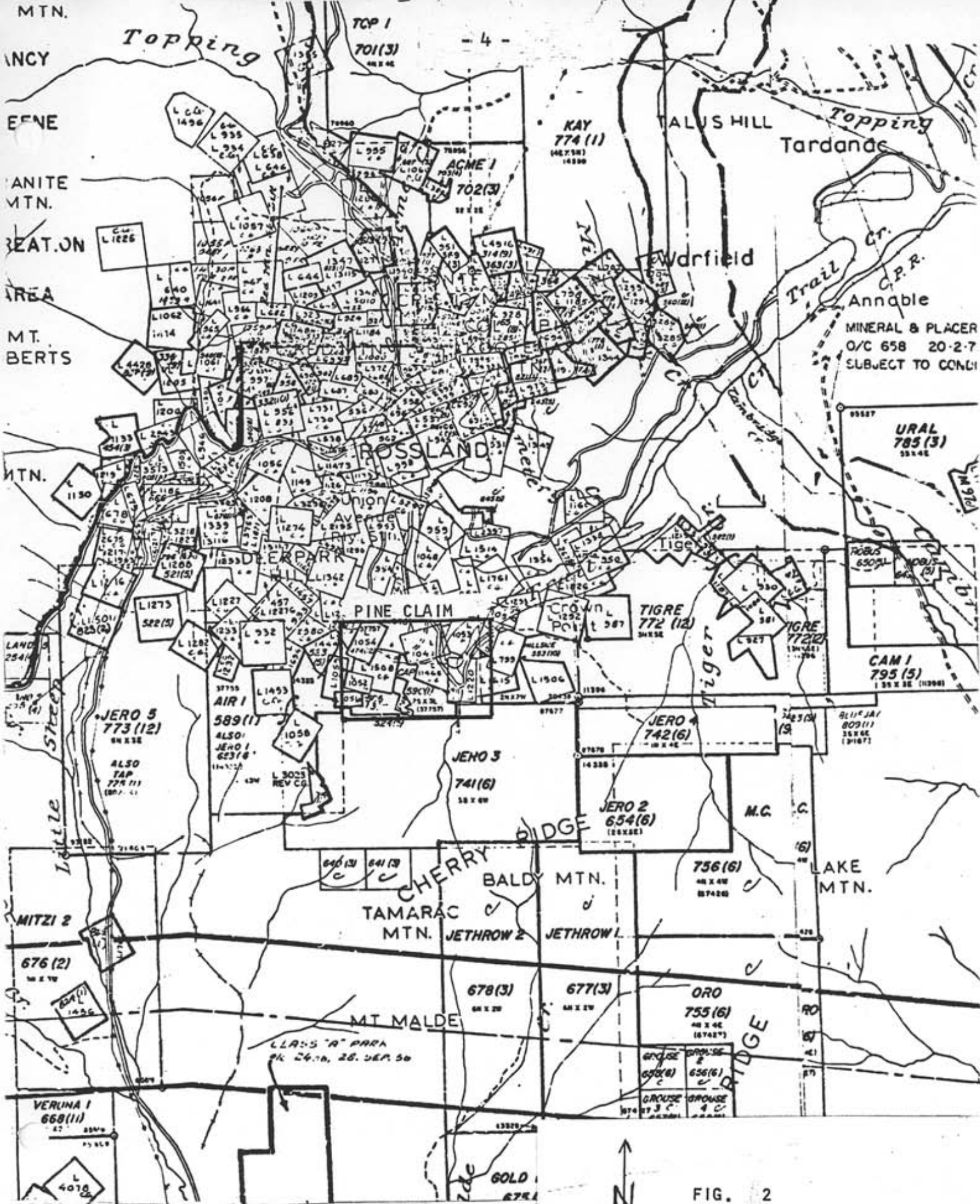
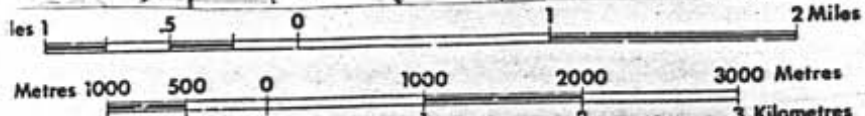


FIG. 2
 CLAIM MAP 82 F 4
 Location of PINE Claim
 Scale 1 : 50,000



GENERAL GEOLOGY OF THE ROSSLAND CAMP

The Rossland area is underlain by sedimentary and volcanic rocks which have been intruded and metamorphosed by igneous rocks (see GSC Memoir 308 by L.V.Little)

The oldest formation is the Mount Roberts Formation, (Pennsylvanian) which are sediments consisting of slates, limestones, quartzites and greenstones mostly andesites and banded tuffs.

This in turn is overlain by the Rossland Formation (Lower Jurassic) which consists mainly of lava flows of andesitic to basaltic composition, augite porphry, and bodies of tuff and argillite.

The above rocks have all been intruded by a number of different intrusions in the following sequence:

Ultrabasic Intrusions	(Lower Cretaceous)	serpentinized peridotite
Rossland Monzonite	(Lower Cretaceous)	monzonite
Nelson Plutonic rocks	(Lower Cretaceous)	granite and other phases
Coryell Plutonic rocks	(Tertiary)	alkali granite and syenite
Sheppard Intrusions	(Tertiary)	alkali granite and syenite

Most of all these formations in turn have been subjected to faulting and the intrusion of numerous dykes of various composition from monzonite to basalts. In general these dykes are steeply dipping and trend to the North.

In the area to the south and south east of Rossland there are east - west fractures or faults along which mineralized stopes are formed. These stopes seem to be well developed vertically, but are limited horizontally. One such stope on the Blue Bird crown grant measures about hundred feet horizontally and has been drilled vertically to a depth of two hundred and forty feet and is open downward.

There are two known mineralized fractures of considerable length in what is known as the south belt. The Blue Bird - Mayflower vein system has been traced over a distance of 1200 metres from the eastern portion of the Hattie Brown crown grant through the Blue Bird, Copper Queen, Olla Podrida and on to the Alfie crown grants and still may be open on both ends. The second vein system is the Homestake vein, and although it is not known for certain that this is a continuous system, mineralization has been found along a strike distance of 2200 metres. This system runs through the Monday, Homestake, Gopher, Maid of Erin, Robert E. Lee, Celtic Queen crown grants and on to the Tigre claim.

There are numerous other short fractures in the area along which mineralization has been found, but since information is scarce, it is not known whether these mineralized occurrences are aligned and along continuous fracture systems.

The ongoing Geological and Geophysical investigations, along with prospecting is contributing gratefully to the fund of information on the Rossland camp and the surrounding area.

FIELD WORK

The field work for this investigation was done on Oct. 23, 24, 1986 by D. K. Bragg and E. S. Warner. The lines were run in by E.S. Warner using a compass and chain for control. Some of the worst of the lines were cut out. A total of 3.275 kilometers of line were put in, the lines being 25 metres apart and with stations being established every 5 metres along the lines. D. K. Bragg conducted the magnetometer survey and mapped in the topography and the geology.

For the purpose of the magnetometer survey a base station was set up on the area to be surveyed and numerous readings were taken prior to commencing the survey in order to establish an average reading for the base station in order to maintain control over the diurnal fluctuations. The magnetometer had been previously calibrated at a control station for all the surveys so that the lower range scales on the magnetometer would be used in the survey. As the survey progressed the base station was checked into on a regular basis in order to monitor the diurnal drift.

A total of 720 magnetometer readings were taken over the lines using a M^CPhar M 700 vertical field magnetometer which works on the fluxgate principle. During the survey 15 duplicate readings were taken as a control over the continuity of the survey and a correlation of the readings already taken.

All the readings were corrected for the diurnal fluctuations and the readings were then plotted on a map to the scale of 1 - 500 and the results were then contoured at a 100 gamma interval.

The topography of the area of the grid was then mapped in and this was used for control of the geological mapping. The outcrop boundaries were mapped in and the rock types were determined in the field and plotted on the map. During the course of the geological mapping 12 rock samples were taken for the rock library. These will be catalogued at a later date and kept on file. They are not included in this report.

RESULTS

This part of the Pine claim is underlain predominantly by the Rossland Monzonite and Quartz Monzonite with a few remnants of the Rossland Formation, mainly augite porphyry, emplaced within the monzonite. In some places it was hard to distinguish, in the field, between the monzonite and the Rossland Volcanics and the areas where this was most difficult were typed out as 1 a on the geology map. In some places it would appear that the monzonite grades right into the volcanics.

Just to the east of the survey grid and along the powerline slash there are remnants of the Mount Roberts black shales.

For the most part there appears to be little mineralization in the Rossland Monzonite. However, some considerable sulphides, up to 5%, were noted at 35+00E 8+50S. Mostly pyrite was noted in the samples, but in view of the intense magnetic anomalies over the area there may be considerable pyrrhotite in the rocks as well. There is a zone of very rusty fractured monzonite to the west of this site that is reflected in the broken magnetic anomalies in the area to the west.

The only other mineralization noted in the area was associated with a shear at 33+25E 7+00S, again associated with very rusty and fractured monzonites. About 3% sulphides were noted in the shear, mainly pyrite with minor pyrrhotite. The shear is only about 4 inches wide.

For the most part the magnetometer anomalies are badly broken up and don't seem to suggest any strong trends. The anomalies reflect the same characteristics as the surveys to the south on the Sunbeam Frn. Lot 5008 and on the Black Diamond Lot 1444 to the west.

The most impressive readings are in the central part of the survey area where the anomalies are an irregular series of highs that trend east to west from 35+75E 8+25S through to 34+25E 8+30S. A possible strike length of 150 metres. The character of this series of anomalous highs is not suggestive of a vein type of deposit as found elsewhere in the camp. There are irregular lows parallel and to the north and south of the series of irregular highs. Of particular interest is that these anomalies are over an area of rusty and shattered monzonites and where some sulphides have been found.

The other interesting anomaly is in the north west corner of the survey area where a linear anomaly that is suggestive of a possible vein runs south westerly across the eastern tip of the Tuesday Lot 1278 on to the Richmond Lot 1508.

Most of the other anomalies are single point anomalies, however some of these do suggest east westerly trends.

CONCLUSIONS AND RECOMMENDATIONS

The results of the magnetometer survey and the geological mapping were somewhat encouraging and do warrant some follow up work. The use of VLF and possibly SP in the area may filter out the magnetometer anomalies and delineate possible mineralized zones. Some more time could be spent in a more detailed geological mapping and prospecting program. Although it is not thought that these very irregular anomalies as the one found in the central part of the survey area are indicative of vein type of deposits they may be the magnetic expressions of a larger body of mineralization with plumbs within that give these irregular magnetic expressions. Somewhere along the line one of these irregular types of anomalies will have to be tested by drilling.

Rock gheochemistry may be of some assistance in assessing these irregular anomalies however soil geochemistry in many of the cases would probably not be of any great assistance as many of the areas are culturally modified.

STATEMENT OF COSTS

D. K. Bragg	Oct. 23 & 24 1986	
	Two man days at \$ 180.00 per day	\$ 360.00
E.S. Warner	Oct. 23 & 24 1986	
	Two man days at \$ 180.00 per day	\$ 360.00
Board	Four man days at \$ 40.00 per man day	\$ 160.00
Truck costs	Two days at \$ 50.00 per day	\$ 100.00
Equipment rent		\$ 20.00
Prorated Transportation costs to Rossland from Vancouver		\$ 25.00
Report preparation		\$ 300.00
		<hr/>
	Total	\$ 1325.00

D.K. Bragg

STATEMENT OF QUALIFICATIONS

D. K. Bragg supervised and did most of the work involved in this investigation, including the line cutting, prospecting, mapping the geology, soil sampling, magnetometer survey and report preparation. His qualifications are as follows:

Graduated Armstrong High School, Armstrong, B.C., 1951

Attended U.B.C. from 1958 to 1962 in the faculty of Arts and Science, in Honors Geology.

Has worked in the mineral exploration industry since 1956.

Worked for Kennco Explorations during the summers of 1956, 1957, and 1959 in the Yukon and northern B.C. as an assistant prospector and geochem sampler under the direction of Dr. R. Campbell and R. Woodcock.

Worked as head prospector for the Nahanni 60 Syndicate in the Northwest Territories in 1960 under the direction of Doug Wilmont.

Worked as head prospector in the Yukon for Dualco in 1961 under the supervision of E. Wozniak.

Worked as head prospector for Mining Corp. of Canada in southwest B.C. in 1962 under J. S. Scott and Dr. K. Northcote.

Worked as head prospector during the summer of 1963 for the Francis River syndicate in the central Yukon, under the direction of Dr. A. Aho.

Worked as field geologist in the Greenwood area of B.C. for Scurry Rainbow Oil in 1965 under the direction of Bill Quinn.

Worked as field supervisor for Alrae Explorations Ltd. from sept 1965 to April 1967 under the direction of Rae Jury.

Since 1956 has also worked as a self employed contractor, working for various mining companies in the following fields: prospecting, property examination, staking, line cutting, topographical mapping, geological mapping and reconnaissance, mineral sampler, draughting, air photo interpretation, geochemistry, geophysics, and supervising property exploration programs.

Since 1956 has also been a self employed prospector working in various areas in B.C. on numerous properties.

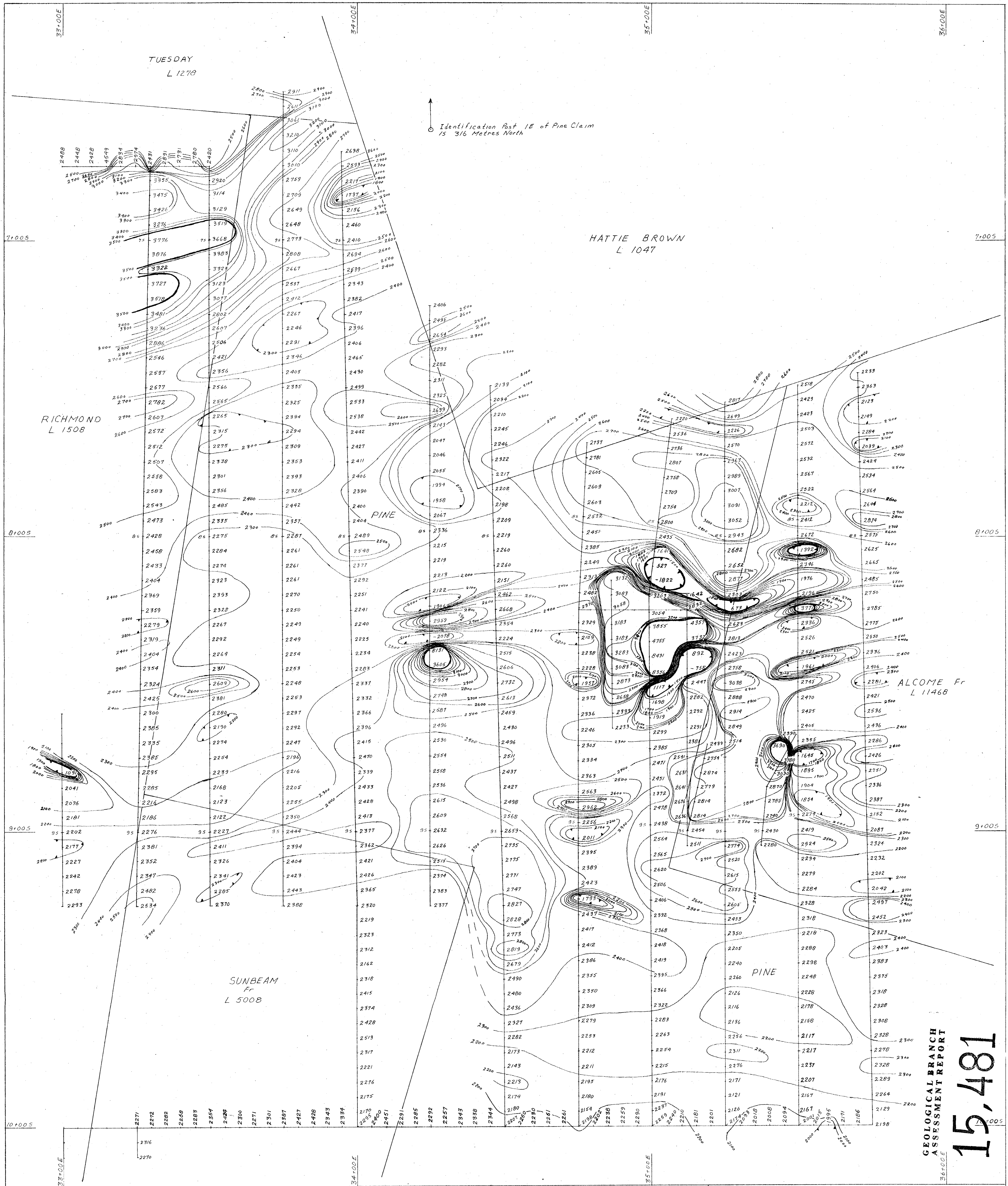
Has assisted in teaching the geochemical section of the Ministry of Energy, Mines and Petroleum Resources Mineral Exploration Course For Prospectors under the direction of Dr. S. Hoffman in 1984, 1985, 1986,

Has recieved the B.C. Provincial Grubstake for the years 1964, 1968, 1969, 1970, 1980, 1981, 1982, 1983, and 1985.

Has worked in the Rossland camp since 1971 as a miner on the Snowdrop and BlueBird claims. Has spent considerable time in the camp as a prospector and mining exploration contractor.

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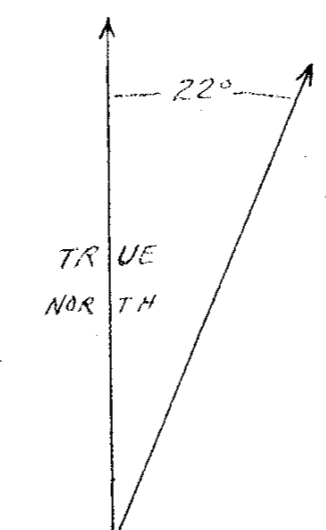
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LEGEND
 A Møpher M 100 vertical field or fluxgate magnetometer was used in the survey
 Readings are in gammas
 Readings were contoured at 100 gamma intervals between 1500 and 3500 gammas
 Above 3500 gammas 8131
 Below 1500 gammas 750

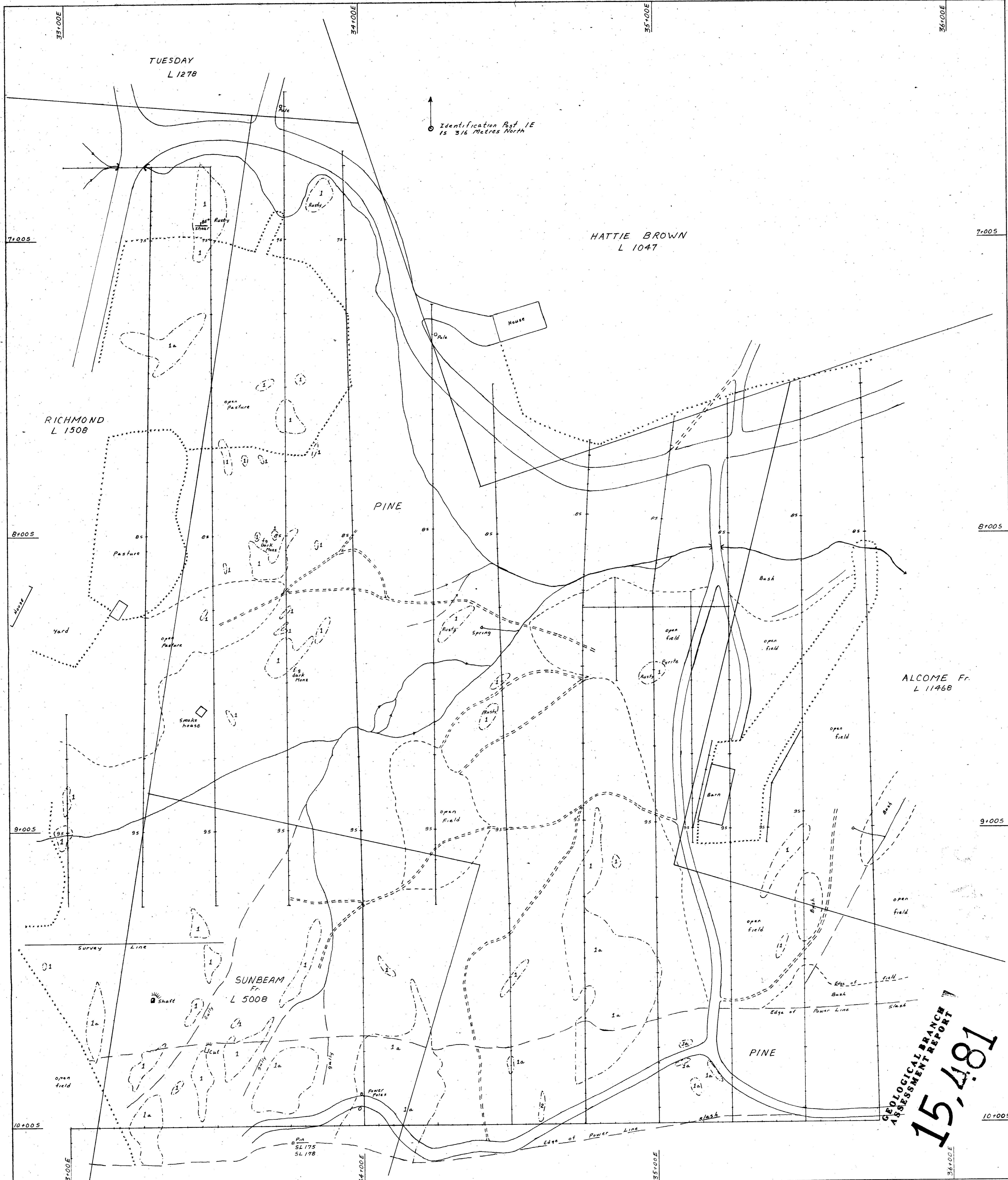


MAGNETOMETER SURVEY
 PINE CLAIM
 ROSSLAND B.C.
 82 F 4 W
 49° 3' 25" N 117° 42' W

10 20 30 40 50 METRES

SCALE: 1:500
 DATE: JAN. 10, 1987
 DRAWN BY: G.K. Braeg
 FIG. 3

This report is a summary of the 'GEOLOGICAL & GEOPHYSICAL REPORT' by Dr. Brown on the Pine Claim, Rossland, B.C., Trans. Creek, 1987. Called Jan. 10, 1987.



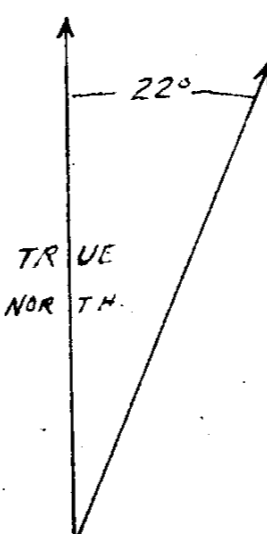
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LEGEND

- Shaft
- Cut
- Adit
- outcrop boundary
- Fence
- intermittent stream or gully
- Skid road
- Grid Line

GEOLOGY

- 1 ROSSLAND MONZONITE & QUARTZ MONZONITE
1a - Mostly Monzonite but in places very difficult to distinguish from the Volcanics. May include Volcanics
- 2 ROSSLAND VOLCANICS mainly augite porphyry



TOPOGRAPHY & GEOLOGY

PINE CLAIM
 ROSSLAND B.C.
 82 F 4 W
 49° 3' 25" N 117° 42' W



TOPOGRAPHY & GEOLOGICAL REPORT by D.K. Bragg on the PINE Claim
 Rossland B.C. Trail Creek M.C. Dated Jan. 10, 1987
 SCALE: 1 - 500 DATE: JAN 10, 1987
 DRAWN BY: D.K. Bragg FIG: 4