

GEOPHYSICAL AND TOPOGRAPHICAL REPORT

AIR GROUP.

Trail Creek Mining Division

82 F / 4W

49 ° 3.3' N , 117 ° 49 ' W

Owner: Rubicon Resources Ltd.

Operator: Inland Au - Ag Resources Ltd.

Author: D. K. Bragg

Date: March 15, 1986.

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,883

MINISTRY OF ENERGY, MINES
AND PETROLEUM RESOURCES

Rec'd APR 9 1986

SUBJECT _____
FILE _____
VANCOUVER, B.C.

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INTRODUCTION

The Rossland mining camp in its hayday was one of the major gold and silver producers of British Columbia. It had its beginning in the early 1890's when some of the first claims were staked. Since then the camp has produced in excess of some five million tons of ore. Since the late 1920's little production has taken place except for leasors on some of the old properties and the production 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 worlds major producer of lead, zinc, and silver. The company is now Cominco.

Most of the early production was centered around the northern and western part of the camp where the veins were predominantly copper and gold producers ie: the War Eagle, Centre Star and the Le Roi claims. However many properties satellite to the main producing area were discovered. It is on these satellite properties that most of the recent exploration has taken place, although sporadic.

The writer has been involved in the Rossland camp since 1970 and was actively mining on the Blue Bird crown grant from 1972 to 1976. Since then he has been involved in exploration on claims mainly in the south belt.

The Air I claim, comprising of 12 units was located in Jan. 1981. The Morning Star Lot 2023 was acquired by application in the same year. On Jan 9, 1986 thes two claims were grouped together under the Air Group.

These claims had been overflown by the Helicopter Magnetic and Electro-magnetic Survey, which report dated March 25, 1981 by Apex Surveys Ltd. was filed for assessment requirements. Assessment work was also filed during 1985.

The work covered by this report covers a magnetic survey on the Air I claim in the vicinity of the Rhoderick Dhu Lot 1493 and the Fairview Lot 1053, where an SP survey by Rossland Mines Ltd . had delineated a number of anomalies. See assessment report 34 dated March 5, 1983

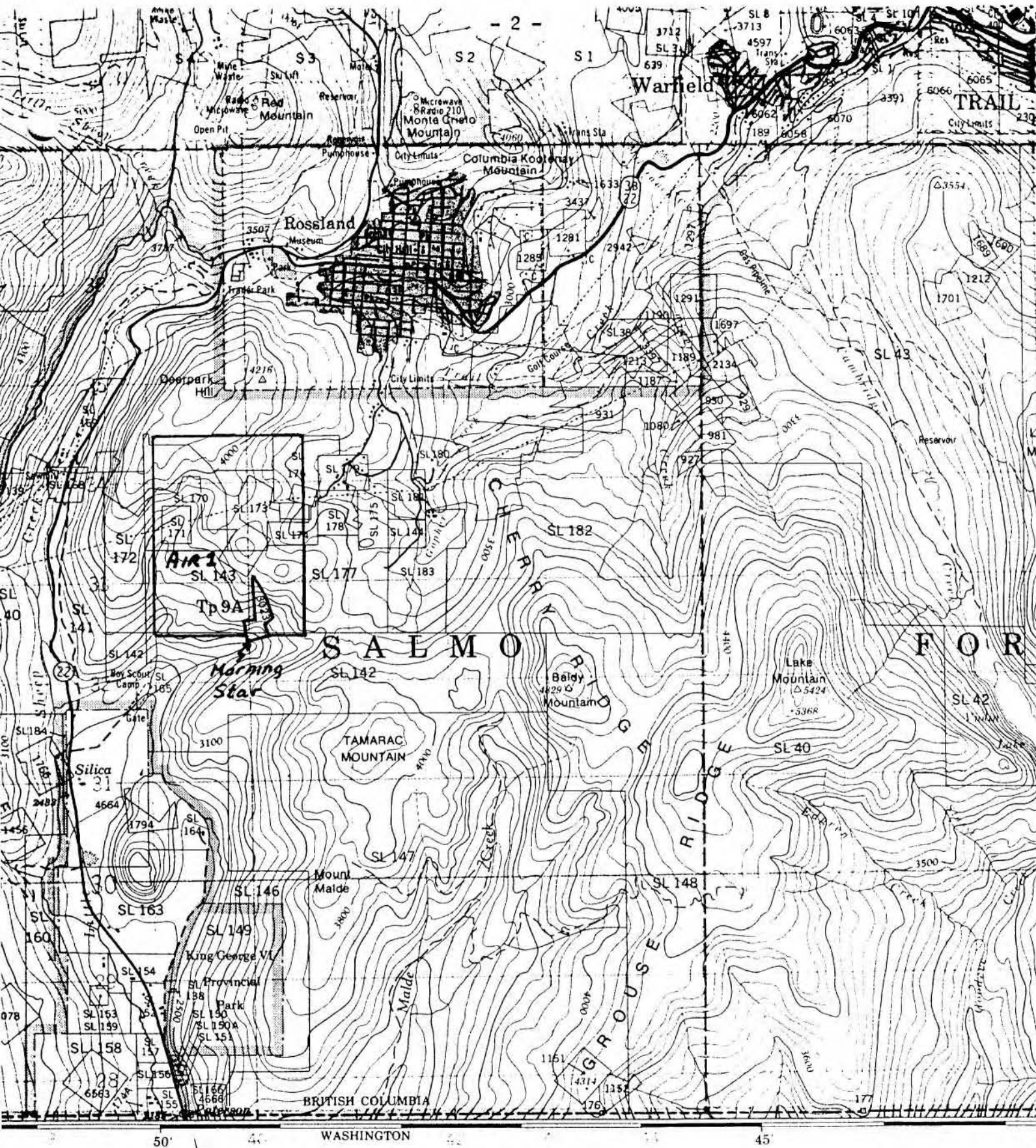
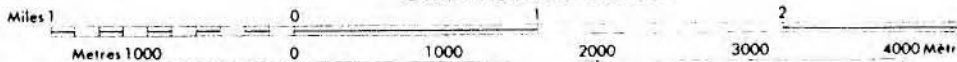


Fig. 1
Index Map

Location of the Air I and
Morning Star Lot 3023

ROSSLAND-TRAIL BRITISH COLUMBIA

Scale 1 50 000 Échelle



PROPERTY LOCATION AND ACCESSIBILITY

The Air I claim on which this work was performed lies south of Deerpark Hill and to the east of Highway 22. The centre of the claim is approximately 3.5 km southwest of the City of Rosslund. Elevations on the claim range from 850 to 1300 metres on southern rocky slopes. Access to the southern portion of the claim is by means of the old abandoned rail grade to North Port Wash, and by old logging roads from Highway 22, most of which are impassible to vehicles at this time due to washouts. The working area lies 1.5 walking kilometers east of Highway 22.

The area of the current survey has been recently logged and in places the new growth of commercial timber is not well established and much of the area is choked with non commercial scrub that, along with the steep rocky slopes, makes traversing difficult and slow in places.

GEOLOGY

The Rosslund area is underlain by sedimentary and volcanic rocks which have been intruded and metamorphosed by igneous rocks (see G. S. C. Memoir 308 by L. W. Little).

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

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

The above rocks in turn have 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 have been subjected to faulting and the intrusion of numerous dykes of various composition from monzonites 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 a hundred feet horizontally and has been drilled vertically to a depth of two hundred and forty feet and is still 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 meters from the eastern portion of the Hattie Brown crown grant through the Blue Bird, Copper Queen, Olla Podrida and on to the Alfi crown grant 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 S D R claim.

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

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FIELD WORK

On Nov 16 , 1985 a magnetometer survey grid was started on the Air I claim in the vicinity of where the power line crosses the claim, and in the vicinity of Rhoderick Dhu Lot 1493 and the Fairview Lot 1058. The survey lines were run 25 metres apart with stations being established every five metres along the lines. a total of 6.7 km of line were run using a compass and topochain for controll.

A base station was set up in the area to be surveyed and numerous readings were taken prior to commencing the survey. The magnetometer had been calibrated previously at a controll station for all the surveys so that the lower range scales would be used in the surveys. As the survey progressed the base station was checked into in order to monitor the diurnal drift. A number of duplicate readings were also taken as a controll over the continuity of the survey.

About 1350 readings were taken over the grid using a M^CPhar M 700 vertical field magnetometer which works off the fluxgate principle. A total of 31 duplicate readings were taken.

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

During the course of the survey field notes were kept of all the topographical features as the lines crossed them. From these notes a topographical map on the scale of 1 - 500 was constructed. An attempt was made to show the outline of the rock outcrops as well, however no attempt was made to differentiate the different rock types. During the course of the survey an altimeter was carried and readings were taken at every 25 metre station. However when the corrections were made it was found that the readings had fluctuated too much to be of any accurate use in an attempt to contour elevations on the topographical map and so were not included in the report.

While in the field we were not sure of the boundaries of the two crown granted mineral claims and ran the survey well into the claims to be sure we did not miss any of the Air I. The topographical map helped in plotting the approximate boundaries of the claims.

RESULTS

Of the 29 duplicate readings that were taken 43% of them were within 25 gammas while 76 % were within 50 gammas. On the basis of this the accuracy of the survey can be assumed with some confidence. This survey has a common boundary with the magnetometer survey on the Black Diamond Lot 1444 (see Geophysical Report on the Black Diamond dated Aug 15 1934). Assuming a correction figure of 500 gammas of the 19 common readings about 70 % are duplicated within 50 Gammas.

Within the survey area there are numerous single high anomalous readings, but in most cases they are enclosed in a envelope of well above background readings and do tend to align along an axis. Four of these axis tend S 50° to 60° W and parallel about 30 to 40 metres apart. The northern most axis runs from 57+00 S, 35+00 E to 31+25 E, 59+25 S. These four axial trends are interrupted by a low or series of lows trending N 55° W through 35+00 E , 59+40 S to 57+00 S, 32+60 E.

The highs along these four axis seem to be clustered mainly in the southwest corner of the survey area as well as some in the northeast corner. In the southwest the four southwesterly axial trends are intersected by another axial trend running N 75° W. Where these intersect some of the strongest readings were obtained.

In the Northwest corner of the survey area is another cluster of anomalous highs that have an aparent axial trend that is E - W.

The series of lows that run through the lake in a S 30° to 40° W direction is thought to represent a fault line.

No single anomaly or axial trend seems to stand out although some of the gradients are as much as 11,000 gammas.

CONCLUSIONS

The field magnetometer did delineate many of the S P anomalies of the former surveys as the axial trends of the magnetometer results seem to coincide with the S P anomalies. The fact that the magnetometer is being run on a closer spaced grid it is believed that it is picking up some of the anomalous situations that seem to have been missed by the S P survey. It would enhance the information on the area to conduct both VLF and EM surveys as well as S P on a closer spaced grid.

STATEMENT OF COSTS

D.K. Bragg	Nov 16 to 22	
	Nov 23 $\frac{1}{2}$ man day	
	Total $7\frac{1}{2}$ man days at \$ 180.00 per day	\$ 1350.00
Board	$7\frac{1}{2}$ man days at \$ 40.00 per day	\$ 300.00
Equipment and supplies		\$ 75.00
Truck	$7\frac{1}{2}$ days at \$ 50.00 per day	\$ 375.00
Prorated transportation to Rossland and return		\$ 150.00
Report preparation and costs		\$ 750.00
		<hr/>
	Total	\$ 3000.00

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 a field supervisor for Alrac 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 reconnaissance and mapping, mineral sampler, draughting, air photo interpretation, geochemistry, geophysics and supervising property exploration programs.

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

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

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

Bruce, E.L., 1917,

Geology and ore deposits of Rossland, Minister of Mines, B.C. Annual Report pp 214-244.

Drysdale, C.W., 1915,

Geology and ore deposits of Rossland, B.C., GSC Memoir 77, 317 p.

Little, H.W., 1960,

Nelson map area, west half, B.C. (32F W $\frac{1}{2}$), GSC Memoir 303, 205 p.

Santos, P.J., 1978,

Report on Standonray Mines and Zinc claims, Rossland south belt, B.C., unpublished report, 24 p.

Skerl, A.C., 1964,

Rossland Mining Company, geology of the mine, unpublished report, 4p.

_____, 1951,

Summary report, Rossland Mining Company Ltd., unpublished report, 3 p.

Standonray Mines Ltd.,
1978, 1972-1977

Production records, smelter settlement sheets, claim maps, drill logs, sections, mine plans, personal interviews.

Thompson, R.M., 1952,

A mineralographic study of Rossland Mining Co. ore, U.B.C. unpublished report, 31 p.

Thorpe, R. I., 1967

Controls of hypogene sulphide zoning, Rossland, B.C., Ph. D. Thesis, U. of Ws., 141 p.

White, W.H., 1949,

Metal mining (lode) south belt, B.C., Minister of Mines, B.C., Annual Report, pp 157-163.

D. K Bragg., 1981

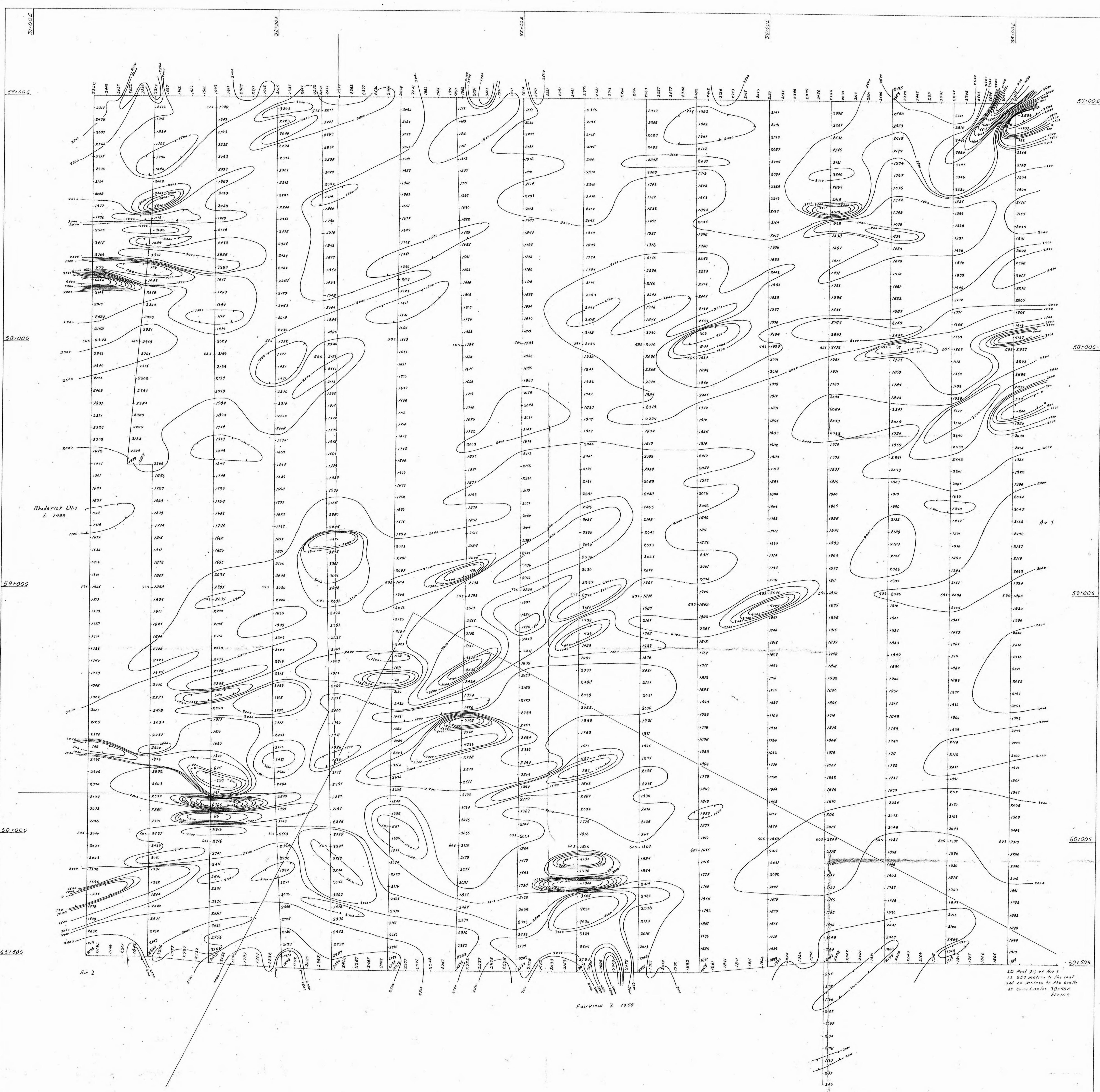
Prospecting Report on the S D R and Hillside claims.

D. K. Bragg., 1982

Geophysical Report on the S D R claim

D. K. Bragg., 1983

Geophysical Report on the Hillside Claim



Contour Interval 500 gammas

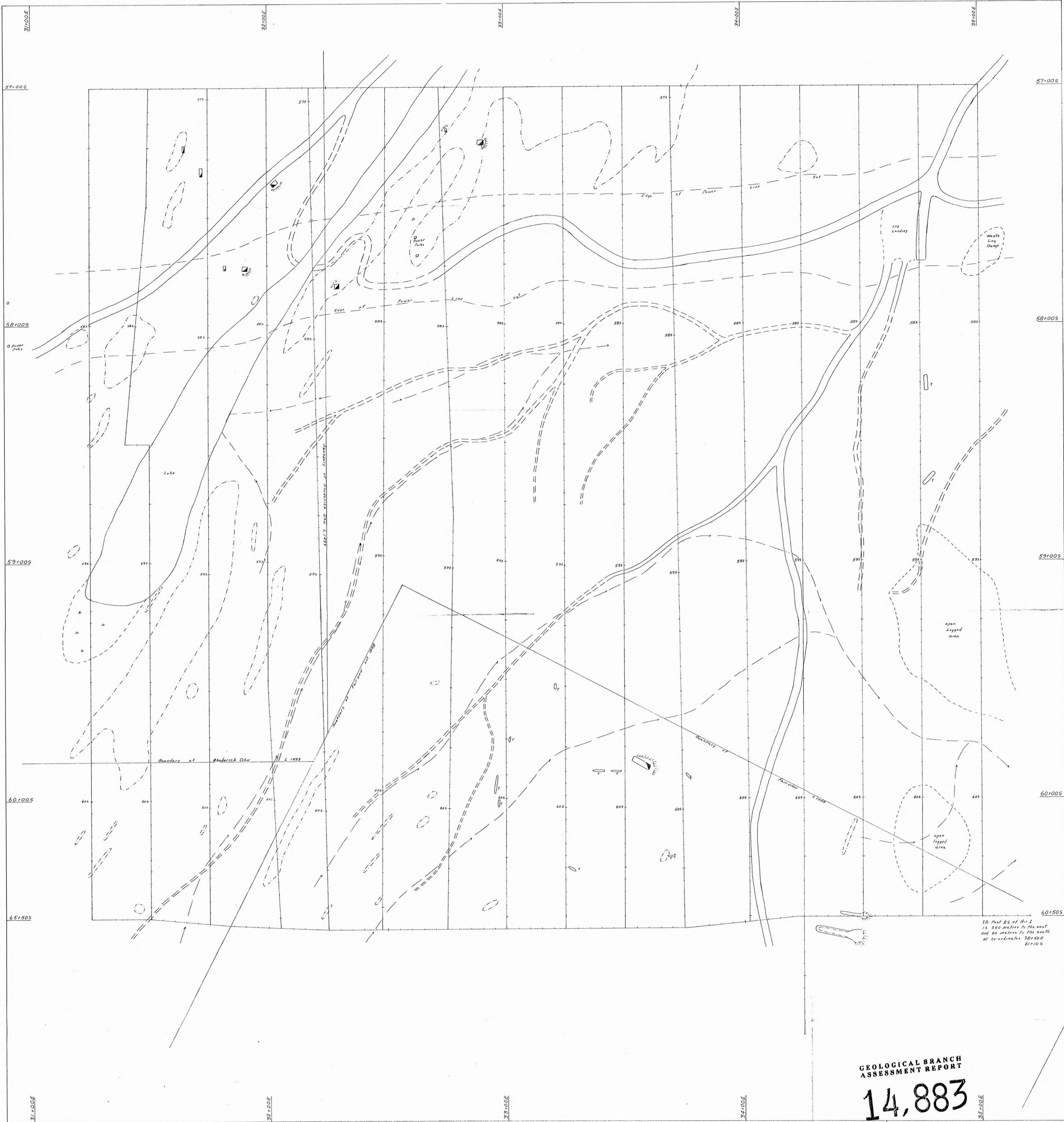
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MAGNETOMETER SURVEY

AIR GROUP
ROSSLAND B. C.
82 F 4 W
49° 3' N, 117° 49' W
20 20 20 20 20 20
Metres

To accompany 'GEOLOGICAL AND TOPOGRAPHICAL REPORT' on the Air Group of Claims,
Rossland B. C., Trail Creek, M.D. by D.K. Bragg, March 15, 1986
SCALE: 1 = 500 DATE: March 15, 1986
DRAWN BY: D.K. Bragg FIG. 2



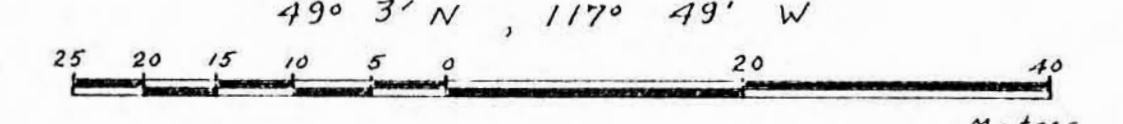
10 Post 25 of Air 1
 is 330 meters to the east
 and 40 meters to the south
 at coordinates 38+50E
 61+10S

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TOPOGRAPHY

AIR GROUP
 ROSSLAND B.C.
 82 FA W
 49° 3' N, 117° 49' W



To accompany 'Geophysical (Topographical Report)' on the Air Group of Claims,
 Rossland B.C., Trail Creek M.D. by D.K. Bragg, March 15, 1986
 SCALE: 1 - 500 DATE: March 15, 1986
 DRAWN BY: D.K. Bragg FIG: 3

LEGEND

- Intermittent stream or gully
- Gravel or Logging road
- Skid Trails
- Rock outcrop boundary
- Trench or cut
- Shaft

