

**REPORT ON
GEOLOGICAL AND GEOCHEMICAL STUDIES
ON THE CAT CLAIMS
OF L.G. MORRISON ET. AL.
KASLO, B.C. AREA
SLOCAN MINING DIVISION
NTS 82F/14E**

L.G. Morrison

17954

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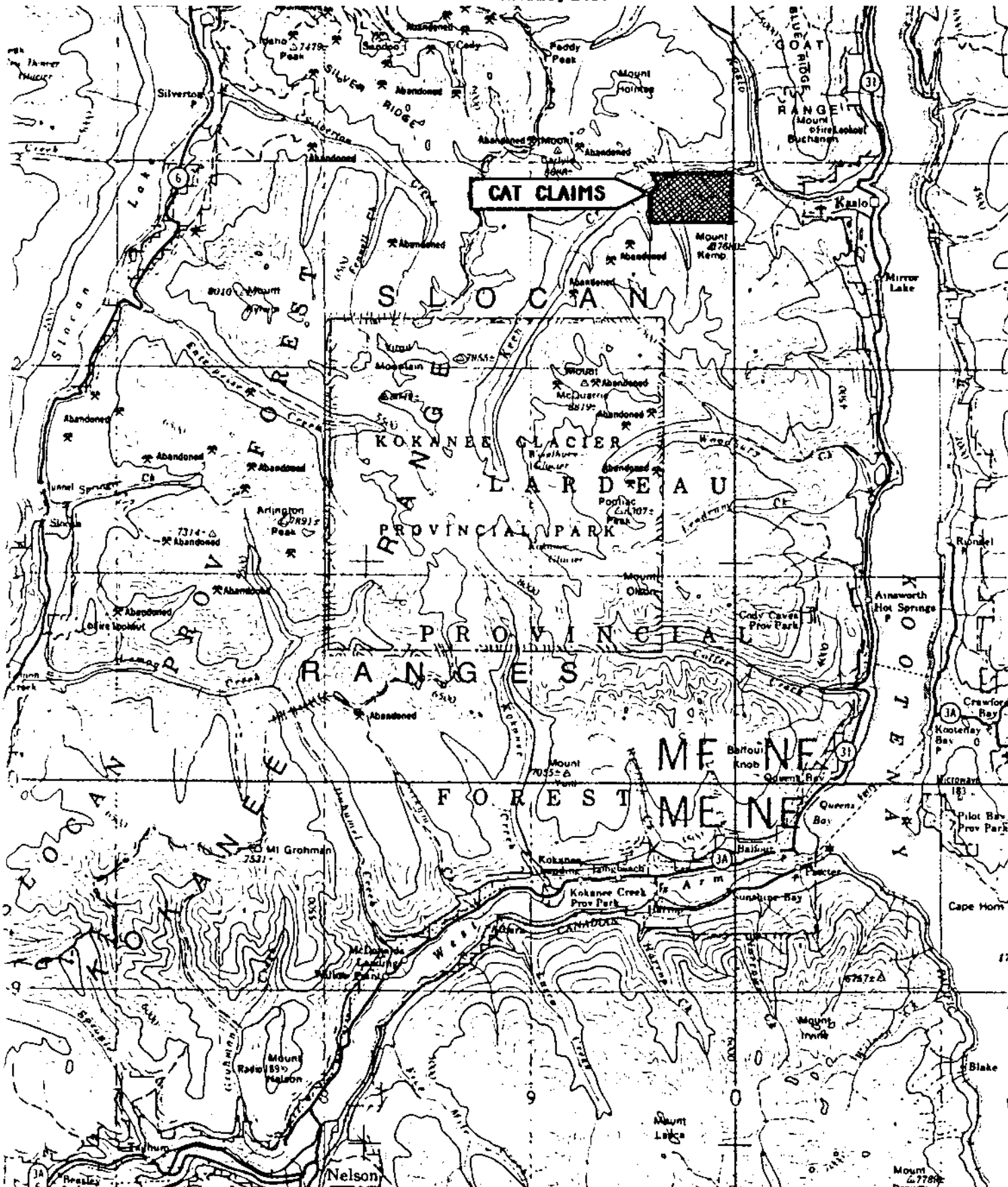
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LOCATION MAP

CAT PROPERTY

KASLO, B.C.



SCALE: 1:250,000



KILOMETERS

**REPORT ON THE CAT CLAIMS
KASLO AREA
SLOCAN MINING DISTRICT, BRITISH COLUMBIA**

INTRODUCTION

The Cat claims, west of Kaslo, British Columbia were staked in August, 1986 to cover the strike extension of some old workings southwest of the property and for proximity to others. The claims are mostly blanketed by deep overburden.

Geological mapping and soil sampling were done on the easily accessible north end of the property in 1986-87.

In June and August, 1988, mapping and sampling were done in the southwest quarter of the property. The mapped area is rugged with many cliffs and steep slides, and progress was slow. In eleven field days the writer, with one assistant, geologically mapped about 120 hectares at a scale of 1:5,000.

Concurrent with the geological mapping, 144 soil samples were taken, mostly at intervals of 50 meters along traverse lines 200 meters apart. Soil samples and 25 bedrock samples were analysed for silver, lead, copper and zinc.

Fourteen samples of vein quartz were analysed for silver, gold, lead and zinc.

A quartz lens 50 cm to 2 meters wide and about 10 meters long, containing low concentrations of highly argentiferous galena was found 1,200 meters south and 800 meters west of the NE corner (legal corner post) of Cat 2. Old trenches and an inclined pit 5 meters deep probably date from before WW I, but there is no record of the work, and the showing was unknown to current claim owners. A dump sample of chips selected to contain visible galena assayed 266 g Ag/t and 1.5% Pb.

Additional exploration with a budget of \$75,000 is recommended in this report.

LOCATION AND MEANS OF ACCESS

The centre of the property is eight kilometers west of the town of Kaslo, British Columbia.

Motor vehicle access from Kaslo is six kilometers west on Highway 31A to Keen Creek, and then 4.8 kilometers west on a dirt road to an abandoned logging road which climbs southeast on the Cat 2 claim.

A branch logging road follows the west side of Deer Creek almost to the south end of the property. It is heavily overgrown, but aside from brush clearing and the repair of a bridge across Deer Creek, it would require very little work to make it passable to four-wheel-drive vehicles. For the 1988 program, the southwest corner of the property was accessed from a fly-camp established by helicopter.

PHYSICAL FEATURES OF THE AREA

The property lies mostly on a steep north slope traversed by small north-flowing creeks in V-shaped valleys. The north boundary is along Keen Creek, at an elevation of about 850 meters. The maximum elevation at the south edge of the claims is 2,000 meters. Slopes steeper than 30 degrees are common and, in the south quarter of the property, there are many cliffs from 10 to 30 meters high.

About ten percent of the property was logged about 25 years ago. Most of the remainder is well timbered with fir, spruce, hemlock and cedars from 20 centimeters to more than 50 centimeters in diameter, but access to most of it would be difficult. Part of the south boundary is more or less at the timber line.

Bedrock outcrops are rare and, except for cliff faces at the south end of the property, are confined to creek beds and road cuts.

PROPERTY AND OWNERSHIP

The property consists of two claims, Cat 1 (Record No. 5062) and Cat 2 (Record No. 5063), with a combined net area of about 970 hectares.

The claims were recorded August 26, 1986. The registered owners are Lee

Morrison of Robsart, Saskatchewan with an interest of seventy percent and Barrie G. Dargie, A.H. Pfeffer and Jack Wild, all of Calgary, Alberta, each with an interest of ten percent.

MINING HISTORY OF THE AREA

Silver was discovered in the Slocan district in about 1890. The first shipments of high-grade ore were taken out by packhorse in 1891. By 1895, several mines were in operation, and two railways had been built into the district. Mining activity peaked during World War I, declined sharply in the 1930's, revived during World War II and has continued on a modest scale to the present.

At least 250 properties have yielded some ore, and a few mines each produced more than 200,000 tonnes. Total metal production from the area to date has been in the order of 2.6 million kilograms of silver, 525,000 tonnes of lead, 442,000 tonnes of zinc, 1,270 tonnes of cadmium and 625 kilograms of gold.

There were two significant producers southeast of Keen Creek. The Cork-Province, about one kilometer west of Cat 2, operated during the periods 1900-1929, 1950-1953 and 1964-1966. Total production was about 191,000 tonnes containing 86 grams of silver per tonne, 3.1% lead, 4.7% zinc and 400 grams of cadmium per tonne. The Bismark mine, two kilometers southwest of Cat 2, was a small high-grade shipper during the period 1900-1924. It produced 966 tonnes of sorted ore containing 3.5 kilograms of silver per ton with lead values reported as 15% by Alcock (1930) and 87.5% by Cairns (1935). The former figure seems more probable.

North of Keen Creek, near the northwest corner of Cat 2, the Black Bear prospect produced about two kilograms of silver from five tonnes of sorted ore. The Last Chance, 600 meters west of Cat 2, shipped about 1,800 tonnes in 1979-80, with a reported mill-head grade of about 70 grams Ag/tonne, 0.34 grams Au/tonne, 0.8 kg Cd/tonne, 1% Pb and 19% Zn.

DISTRICT GEOLOGY

Rock Types

The mining district is mostly underlain by Triassic metasediments of the Slocan group. The metasediments are intruded by the Nelson batholith and

related dykes, sills and stocks. Within the mineralized belt the Nelson intrusive rocks are mostly porphyritic granite.

The Slocan group comprises predominately argillaceous sediments intercalated with limestone and quartzite. There are minor conglomerate beds and rare tuffaceous material.

The dominant metasediments are platy or fissile argillites locally known as "slates". They are distinguished from massive argillites only by their fissility. Slates and argillites are grey, green or black and carbonaceous. They vary compositionally from limy to quartzitic. They are very fine grained and contain microscopic sericite and biotite. Some argillaceous members are highly metamorphosed to hornfels and schists containing staurolite, garnet and/or andalusite.

Limestone occurs as well defined beds mostly less than 15 meters wide. The beds vary compositionally from nearly pure limestone to calcareous argillite and calcareous quartzite.

White, grey, brown or black quartzite is mostly thinly interbedded with argillite, but there are some thick beds with no noticeable stratification.

Conglomerate, composed of greenstone fragments in an argillaceous matrix, occurs as a narrow band at the base of the Slocan group. Minor conglomerate lenses containing small granite pebbles have been reported higher in the section.

Rare tuffs are grey to brown massive rocks indistinguishable in the field from quartzites and calcareous argillites.

Structure

The major structure in the area is the north to northwest-trending Slocan syncline with its core of Slocan group metasediments. Within the syncline there are numerous folds which, because of monotonous stratigraphy, are difficult to define. Dips are steep and predominately towards the southwest.

Numerous relatively small faults are mostly parallel or sub-parallel to the the bedding. There are no positively identified major faults, but the district is bounded on the west and east by Slocan Lake and Kootenay Lake, both of which may reflect north-striking fault zones.

Tension fractures and minor breccia bands striking northeast and dipping mostly southeast are the principal depositional sites for ore in the Slocan district.

Mineralization

Silver-lead-zinc orebodies in the Slocan district occur as simple fissure fillings and as chimneys and lenticular masses in brecciated zones. The principal ore minerals are sphalerite and argentiferous galena. Rare but economically important minerals include pyrargyrite, native silver and argentiferous tetrahedrite. Common gangue constituents, listed in decreasing order of abundance, are calcite, siderite, quartz and pyrite. Metal contents are commonly in the order of 350 grams of silver per tonne, 12% combined lead and zinc, 250 grams of cadmium per tonne and a trace of recoverable gold. Many small shipments of sorted ore containing abundant crystalline galena yielded from 3.5 to 10 kilograms of silver per tonne.

Veins are from a few centimeters to more than 15 meters wide, but widths of one to two meters are the norm. Individual ore shoots rarely contain more than a few thousand tons, but they are sufficiently abundant that, with intensive underground exploration, several small mines in the district produced more than 100,000 tonnes, and one produced 680,000 tonnes.

Ore has been found in all facies of the Slocan metasediments, in dykes and sills and (with somewhat different mineralogy) in the Nelson batholith. Veins are sharply defined, and wallrocks other than limestone are almost never mineralized.

The most useful rules to guide exploration in the area are that veins strike mostly northeast and that ore is rare in shear zones containing abundant gouge. High-grade shoots tend to be localized where the strike or dip of a vein changes sharply, at vein intersections and where fissure veins cross limestone.

PROPERTY GEOLOGY

Rock Types

The dominant rock types on the north half of the property are Slocan argillites and phyllites. They are mostly calcareous and are locally interbedded with nearly pure limestone.

In the southwest corner of Cat 2, where most of the 1988 traversing was done, the degree of metamorphism is markedly higher than along Keen Creek. The dominant rock types are quartzite, staurolite-bearing hornfels and schist and nodular schist.

East of Deer Creek, in the south half of Cat 2, there is abundant cliff-forming limestone intruded by small lenticular felsic bodies believed to be mostly granodiorite.

Staurolite hornfels and *staurolite schist* contain abundant (5-20% each) porphyroblasts of staurolite and biotite in an intermediate grey, very fine grained matrix varying in composition from siliceous argillite to impure quartzite. Brownish grey euhedral to subhedral staurolite metacrysts 0.5 mm to 3 mm long are mostly randomly oriented. Cruciform twins are common. Resistance of the staurolite to weathering yields a distinctive "knobby" weathered surface. Ragged biotite flakes less than 1.0 mm in diameter display random to mostly parallel orientation and occasionally impart true schistosity to the rock. Rare accessory minerals are andalusite, 0.5 mm to 1.0 mm crystals of pink garnet and lenticular blebs of a pearly grey scaly mineral believed to be stilbite.

Quartzite occurs along a northwest trending cliff on the west side of Deer Creek, mostly south of the property. It is light grey to brownish grey, fine grained (0.1 mm) equigranular, massive to faintly bedded. Accessory minerals are biotite, sericite and rare pink garnet. *Impure quartzite* is slightly coarser grained. It contains more than 10% biotite or, less commonly, sericite. Impure quartzite grades into *siliceous phyllite* which contains more than 20% megascopic biotite and probably has a significant feldspar content.

Meta-siltstone is tan to intermediate grey, very fine grained, very finely bedded material of intermediate hardness. A single thin sectioned sample (RC) of material from S+50N, 1E contained approximately 65% quartz, 30% plagioclase and 6% mica and chlorite. More micaceous and felsic varieties are equivalent to the phyllitic argillite which is abundant at the north end of the property.

Nodular schist occurs mostly as narrow bands within meta-siltstone and impure quartzite. It is probably intensely metamorphosed argillite. An intermediate grey, very fine grained matrix of quartz, feldspar and biotite contains lenticular nodules, up to 5 mm long, composed mainly of a pearly grey soft, tabular mineral tentatively identified as stilbite.

A *limestone* band about 300 meters wide is well exposed on a series of cliff faces which cross line 16N on the east side of Deer Creek. The rock is mostly very light grey to white, medium grained and finely bedded, with strata about 1 cm thick. It is composed of densely packed but weakly cemented 0.5 mm to 1 mm angular calcite grains and is commonly sandy-weathering. Freshly broken surfaces have a strong fetid odor of H₂S. The rock may be a calcarenite with peripherally recrystallized grains. Minor, discontinuous, dark grey strata mostly less than 1 cm thick are nearly pure limestone with acid solubilities of more than 90 percent.

Argillite, of a type which is abundant along the forestry road at the north end of the property, subcrops along the east margin of the wide limestone band. It is intermediate to dark grey, very fine grained, finely fissile and partly calcareous.

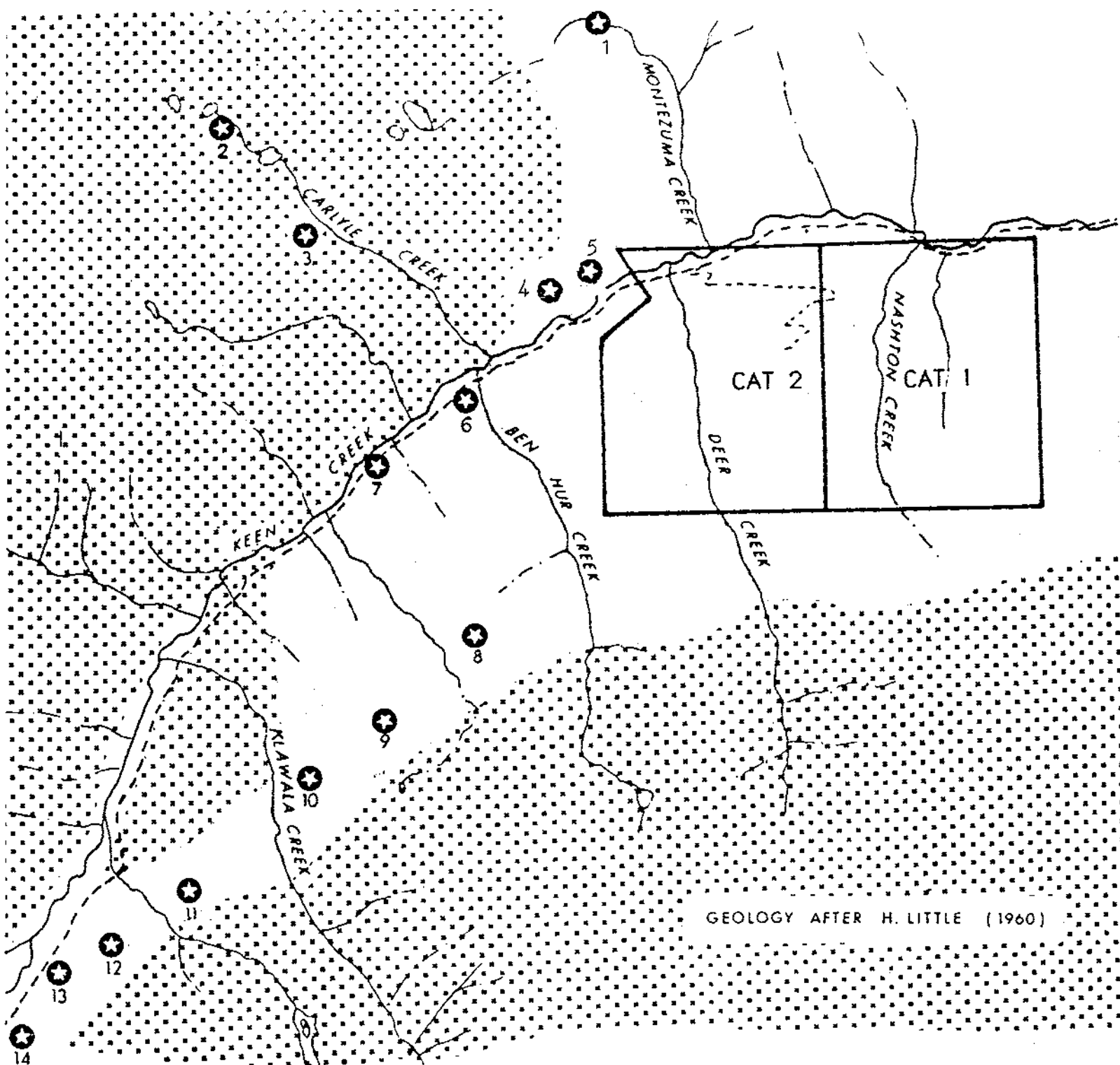
Felsic intrusive rocks occur as narrow lenticular dykes and sills throughout the mapped area. They are buff, grey or pink, very fine grained equigranular to medium grained porphyritic. The most abundant facies contains 10-20% white, subhedral, corroded 2 mm to 4 mm feldspar phenocrysts in a fine grained matrix composed of feldspar, quartz and less than 5% biotite. A single thin sectioned sample (RE) from 10N, 3E had a granodiorite composition.

Structure

Within the 1988 map area, bedding in the high grade metamorphics west of Deer Creek strikes mostly N 40°E and dips of 70°NW to vertical. In the limestone east of Deer Creek bedding strikes about N 30°W and dips about 60°NE.

Minor local folds with amplitudes of less than one meter are common in the limestone.

The valley of Deer Creek is sharply linear, V-shaped, and bounded at higher elevations by cliffs 10 to 30 meters high. In spite of the creek's steep gradient, outcrops in the stream bed are almost non-existent. Topographic



RECORDED PRODUCTION

	<u>Tons Ore</u>	<u>Ounces Silver</u>
1 Montezuma	3,362	44,976
2 Flint	316	10,874
3 Martin	59	3,268
4 Last Chance	2,000	4,000
5 Black Bear	5	60
6 Cork-Province	210,996	523,348
7 Black Fox	1,227	2,200 ±
8 Bismark	1,063	108,109
9 Gold Cure	20	2,000 ±
10 Gibson-Daybreak	571	27,000 ±
11 BNA	78	11,359
12 Silver Bear	193	25,000 ±
13 Silver Bell	499	72,301
14 Index	11	936

SCALE: 1:50,000



- NELSON BATHOLITH
- SLOCAN GROUP METASEDIMENTS

ABANDONED MINE WORKINGS

KEEN CREEK AREA

SLOCAN MINING DISTRICT
BRITISH COLUMBIA

evidence, together with abrupt differences in bedding attitudes and metamorphic grades on opposite sides of the creek, strongly suggest a major north-striking fault.

Mineralization

Lenticular quartz veins a few centimeters to more than two meters wide are common in the mapped area, mostly within or peripheral to felsic intrusions. West of Deer Creek the veins are all barren, but east of the creek, at about 13E,17N quartz in granodiorite(?) porphyry intruding granolose limestone contains minor concentrations of highly argentiferous galena.

The principal quartz lens at the 13E showing is 50 cm to 2 m wide x about 10 m long. It strikes N 70°E and dips 25° to 40° SE. A trench across the lens and an inclined pit about 5 meters deep are probably about 75 years old. A 5 kg sample of mineralized chips from the dump contained only 1.5% Pb but nevertheless assayed 266 g Ag/t (7.76 oz/st). A chip sample with a true width of 1.7 m assayed 0.24% Pb and 58 g Ag/t. The average silver : lead ratio of 185 grams Ag/percent Pb is comparable to ore from the Bismark, Silver Bell, Gibson-Daybreak and other former producers along the Bismark-Index trend. Samples of quartz with no visible galena assayed from 1.5 to 12.5 g Ag/t.

About 50 m east of the pit, at a contact between limestone and felsic intrusive rock, a quartz lens 10 cm wide assayed 0.13% Pb and 26 g Ag/t.

EXPLORATION CONCEPT

The Cat claims were staked for proximity to the Cork-Province and Last Chance mines and to cover the strike extension of seven abandoned workings along the N 50°E Bismark-Index trend (cf. facing page).

The 1988 program was designed to investigate a band about 1,500 meters long x 800 meters wide along strike from the Bismark mine. Emphasis was on traditional geological mapping and prospecting. In conjunction with the mapping, reconnaissance soil sampling was done along traverse lines perpendicular to the trend.

The Bismark orebody was hosted by limestone in proximity to a sill of quartz-porphyry. The prospecting objective was silver-lead mineralization in a similar environment.

GEOCHEMISTRY

Overburden

Overburden on the property consists mostly of colluvium and soil derived from colluvial material. Within the 1988 survey area, soil profiles are relatively mature and well developed with sharply defined yellow to reddish brown "B" horizons 2 to 20 centimeters thick. However, on the steepest slopes the humic "A" horizon rests directly on weathered parent material.

Soil Sampling and Interpretation

One hundred and fourteen samples were collected at 50 meter intervals, mostly along lines perpendicular to the strike of the Bismark deposit and spaced 200 meters apart. An additional 30 samples were collected in the 13E showing area, at intervals of 25 meters, along lines spaced 50 meters apart.

Most samples were taken from the "B" horizon, but where it was absent the "C" horizon was sampled. Sample depths varied from 10 to 40 centimeters depending upon the maturity of the profile.

The minus 80 mesh fractions of the soils were analysed for silver, lead, copper and zinc by standard AAS methods (cf. Appendix 4) by Loring Laboratories Ltd. in Calgary.

To increase the sample population for statistical analysis, values from 120 samples collected on the property in 1987 were combined with results from the 144 samples collected in 1988. Mean values for each metal were then calculated and, in order to eliminate scatter effect at the end of normal distribution curves, values greater than six times the mean and less than one sixth of the mean were omitted from the calculation of adjusted means (m') and standard deviations.

Upper threshold values (t_{2s}) at two standard deviations above the adjusted means and lower threshold values (t_s) at one standard deviation above the adjusted means were calculated for each metal.

Mean and threshold values are tabulated below:

	m (ppm)	m' (ppm)	t_{2s} (ppm)	t_s (ppm)
Ag	0.74	0.72	1.9	1.3
Pb	25.2	24.8	47	36
Zn	229	220	462	341
Cu	30.2	30.2	60	45

Two isolated samples contained very high zinc values. One, at 1W, 9N assayed 1,400 ppm Zn and was also anomalous in lead. A second, at 1E, 15N assayed 1,500 ppm Zn and was also anomalous in copper. There is no obvious explanation for these high values.

Most soil samples with anomalous copper contents were collected on the west side of Deer Creek where the source bedrock and colluvium are staurolite hornfels and staurolite schist. On the east side of the creek, where outcrops and float are mostly limestone and felsic intrusive rock, samples tend to be anomalous in lead and silver. However, five of the high silvers and four of the high leads are on the detailed grid in the 13E showing area.

Two samples anomalous in lead and silver were collected southeast of (up slope) from the principal 13E showing on detailed lines "E" and "F", and two anomalous samples were on strike from mineralized outcrops. The up slope samples could have been contaminated when the trenching was done, but this is not considered likely as fly rock, especially from the inclined pit, would have travelled mostly northwest.

The only sample anomalous in four metals was taken at 11E, 17+50N, 200 meters down drainage from the 13E showing.

Rock Geochemistry

Thirty-nine samples (Appendix 3) were collected for geochemical analysis and/or assaying. No trends were discernible in the small number of bedrock samples taken.

Quartz vein samples were analysed for gold, silver, lead, and zinc. No significant gold values were reported (Appendix 5).

CONCLUSIONS

Based on the fieldwork performed, in conjunction with a review of published geological and historical data, the following conclusions were reached:

1. The geological environment on the property is favourable for mineral deposits of the Slocan type;
2. Because of its pervasive blanket of overburden, the property cannot have been effectively prospected in the past;

3. Silver-lead mineralization (the 13E showing) exists on the property, on strike from abandoned workings along the Bismark - Index trend;
4. The 13E showing, although of no direct economic importance is, especially in view of its high silver : lead ratio, a promising discovery and a useful guide to further exploration;
5. Although the principal 13E quartz lens is hosted by felsic intrusive rock, the dominant rock type in the immediate area is an unusually wide band of limestone considered to be a very favourable host for silver-lead-zinc deposits in the Slocan district;
6. In the 13E showing area, the favourable limestone and its contacts with felsic intrusions should be explored in detail for blind ore lenses;
7. The most cost effective initial method of exploring the limestone horizon in the 13E area would be shallow drilling with a Winkie or similar small, easily portable diamond drill;
8. Vehicle access to within 200 meters of the proposed exploration area can be readily obtained by brushing out an existing logging road and removing a few small slides;
9. The nearest source of water for drilling is Deer Creek, 450 meters west of and 200 meters below the 13E showing, and the most practical means of placing a pump would be by helicopter.

RECOMMENDATIONS

The following program is proposed:

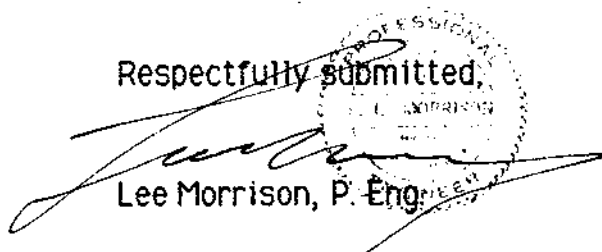
1. Provide vehicle access to the limestone area by clearing brush and slides from the abandoned logging road which ends within 200 meters of the 13E showing;
2. Extend geochemical traverse lines 9E, 11E and an intermediate line 10E south to 7N;
3. Extend detailed grid lines C, E and G north 100 meters and south 300 meters;

4. Collect soil samples at intervals of 25 meters along the new lines and on existing portions of lines 9E and 11E;
5. In conjunction with the soil sampling, do geological mapping at a scale of 1:2,500 ;
6. With guidance from the mapping and soil sampling, diamond drill not less than 10 short (± 50 m each) holes to prospect the favourable limestone horizon and its contacts with felsic dykes and sills, and to test the 13E showing on strike and down dip from the inclined pit;
7. Prospect and collect check samples around the two highly anomalous zinc sample locations at 1W, 9N and 1E, 15N;
8. Extend the N 30°W reconnaissance geochemical survey grid northeast across the property to about 40E. In order to correlate survey results with the work of a previous locator who detected geochemical anomalies on what is now the Cat 1 claim, traverse lines should be tied, wherever possible to his old east-west grid.

COST ESTIMATES

Field geologist, 6 weeks @ \$2,400	\$14,400
Field assistant, 6 weeks @ \$550	3,300
Food & lodging, 80 man days @ \$45	3,600
Access road repairs	1,000
Diamond drilling (incl. mob. & demob.), 500 m @ \$72	36,000
Sample preparation & analysis	
400 soils (4 metals) @ \$6.15	\$2,460
40 Pb+Zn+Ag assays @ \$25.00	<u>1,000</u>
	3,460
Vehicle rental (4 x4), 6 weeks @ \$200	1,200
Mileage & fuel, 2,000 km @ \$0.40	800
Helicopter (incl. fuel), 3 hrs. @ \$580	<u>1,740</u>
Sub-total	\$65,500
Contingency of 15%	<u>9,825</u>
Total	\$75,325
 Proposed budget	 \$75,000

Respectfully submitted,


Lee Morrison, P. Eng.


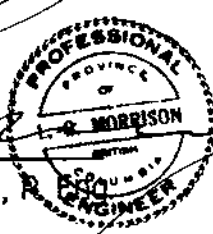
Appendix 1

CERTIFICATE OF QUALIFICATIONS

I, LEE G. MORRISON, of the Village of Robsart, in the Province of Saskatchewan

HEREBY CERTIFY:

1. THAT, I am a registered Professional Engineer in the provinces of Alberta and British Columbia;
2. THAT, I am a graduate of the University of Saskatchewan with Bachelor's degrees in Arts (1956) and Geological Engineering (1957)
3. THAT, I am a Consulting Mining Geologist;
4. THAT, I have practiced my profession continuously for more than thirty years;
5. THAT, I am familiar with the geology and ore deposits of the Slocan mining district;
6. THAT, I personally performed the field work which is the basis for this report;
7. THAT, I am the registered owner of a seventy percent working interest in the Cat claims.


Lee G. Morrison, P.


Appendix 2

STATEMENT OF COSTS

Field Personnel (including payroll burden)

L.G. Morrison, Consulting Geologist

June 14 - 18, 1988)

August 16 - 24, 1988) 11 1/2 days @ \$400 \$4,600.00

Barry Ziegler, Field Assistant & Sampler

June 14 - 18, 1988)

August 17 - 22, 1988) 10 1/2 days @ \$65 + 20% 819.00

Rod Chambers, Labourer

August 19, 1987

75.00 5,494.00

Food and Accommodations

Groceries for fly camp

86.20

L. Morrison, 10 days Kaslo @ \$45

450.00 536.20

Transportation

3/4 ton 4x4, 8 days @ \$40

320.00

Helicopter

1,098.68 1,418.68

Laboratory Analyses

144 soil geochemical (Ag, Pb, Cu, Zn) @ \$6.15

885.60

20 rock geochemical (Ag, Pb, Cu, Zn) @ \$8.00

160.00

8 rock geochemical (Ag, Pb, Zn) @ \$7.00

56.00

16 rock geochemical (Au) @ \$7.00

112.00

3 assays (Au+Ag) @ \$11.00

33.00

3 assays (Pb) @ \$6.75

20.25

7 assays (Zn) @ \$6.75

47.25 1,314.10

Supplies (topofil thread, flagging, bags & envelopes)

60.30

Petrographic Studies

216.60

Report Preparation

L. Morrison, 3 1/2 days @ \$400

1,400.00

Draughting, typing, reproduction

505.00 1,905.00

Total

\$10,944.88

Appendix 3

ROCK SAMPLE DESCRIPTIONS

(See Plate 1 for locations)

- C-30 Rusty quartzite with quartz lenses and minor disseminated pyrite
- C-31 Siliceous phyllite: brownish grey; $\pm 25\%$ biotite, $< 5\%$ staurolite
- C-32 Impure quartzite: light grey; $\pm 10\%$ biotite, Tr sericite
- C-33 Impure quartzite: greyish tan, weakly foliated; $\pm 10\%$ sericite, Tr biotite
- C-34 Quartzite: light grey, massive; $\pm 5\%$ biotite, Tr garnet
- C-35 Metasiltstone: pearly grey, weakly foliated to phyllitic; $\pm 20\%$ muscovite
- C-36 Quartz float: brownish, vitreous; barren
- C-37 Nodular schist: lt. grey matrix of sericite, quartz & feldspar; rare 1mm books of biotite; aggregates to 4mm of pale grey stilbite(?)
- C-38 Metasiltstone: lt. grey to tan, weakly foliated to phyllitic; $\pm 10\%$ sericite
- C-39 Staurolite-quartz hornfels: lt. grey quartzite matrix; $> 10\%$ 1-2 mm euhedral staurolite metacrysts
- C-40 Quartz vein; > 2 meters wide; barren
- C-41 Meta-siltstone: Int. grey, fn. grained; sericitic, Tr staurolite
- C-42 Meta-siltstone: as above except no staurolite
- C-43 Quartz float: angular; Fe-stained; solution cavities to 1 cm
- C-44 Felsic intrusive: lt. grey to buff, fn. grained $\pm 10\%$ micas; $> 20\%$ megascopic (1 mm) quartz
- C-45 Meta-siltstone: int. grey, vy. fn. grained, phyllitic; $> 20\%$ biotite
- C-46 Staurolite hornfels: int. grey, vy. fn. grained siliceous matrix; $\pm 10\%$ staurolite metacrysts < 1 mm long; $\pm 10\%$ ragged flakes of biotite
- C-47 Limestone: lt. grey, granuloze, friable; 0.5 mm - 2 mm sub-angular grains finely dusted with unidentified opaque mineral; recrystallized calcarenite(?)
- C-48 Meta-siltstone: lt. grey, rusty, vy. fn. grained, siliceous, finely foliated
- C-49 Quartz: tan to lt. grey, vitreous; width 20 cm; barren
- C-50 Quartz: as above; 30 cm wide; barren
- C-51 Felsic intrusive: buff, med. grained felsic groundmass with $< 5\%$ mafics & 2-3% magnetite; $\pm 20\%$ 3-5mm subhedral plagioclase phenocrysts
- C-52 Limestone: same as C-47
- C-53 Quartz float: yellowish stained, vitreous, barren; odor of H_2S when freshly broken
- C-54 Quartz: buff to bluish grey, vitreous; odor of H_2S ; Tr sphalerite, 50 cm wide
- C-55 Quartz: dump sample; $> 2\%$ sulphides; 266 g Ag/t
- C-56 Quartz: rusty; H_2S odor; 60 cm wide; 5 g Ag/t
- C-57 Quartz: as above; 1.7 m wide; 58 g Ag/t
- C-58 Quartz: colourless, vitreous; Fe-stained vugs; 5 cm wide
- C-59 Limestone: lt grey, vy. fn. grained, dense & hard; rust specks & Tr Py
- C-60 Felsic intrusive: buff, fn. grained equi. groundmass with $\pm 20\%$ 1 mm quartz, $< 5\%$ mafics & 2-3% finely divided magnetite; $> 10\%$ white euhedral plagioclase phenocrysts to > 1 cm
- C-61 Quartz: white, vitreous; hairline sutures of limonite; > 50 cm wide; barren; 50 cm wide
- C-62 Quartz-sericite schist & grey, aphanitic, slightly limy chert: 50 cm x 1 m lens from limestone; rusty; Tr crystalline calamine
- C-63 Felsic intrusive: buff, med. grained equi.; $< 10\%$ quartz, $< 5\%$ biotite
- C-64 Siltstone: int. grey, vy. fn. grained, equi.; finely bedded; $\pm 50\%$ granuloze quartz; friable
- C-65 Felsic intrusive: buff, med. grained; $\pm 30\%$ quartz, no mafics, Tr magnetite; quartz veinlets to 3 cm wide
- C-66 Quartz: dump sample; bluish grey to buff, vitreous; Tr sulphides; few amorphous blebs limonite; < 2 g Ag/t
- C-67 Felsic intrusive: same as C-65 except more quartz veinlets
- C-68 Quartz: white, vitreous; Tr galena; included biotite flakes to 1 mm; muck from small trench 40 m east of main 13E showing; 26 g Ag/t

Appendix 4



Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
A.L. LITTLEJOHN, M.Sc. Geologist
JEFF HARRIS, Ph.D. Geologist

P.O. BOX 39
8887 NASH STREET
FORT LANGLEY, B.C.
VOX 1J0

PHONE (604) 888-1323

Report for: Lee G. Morrison,
Box 105
Robsart,
Saskatchewan
S0N 2G0

Invoice 7456

July 15th, 1988

Samples:

3 rock specimens labelled RC, RE and IE-13N, for sectioning and petrographic description.

Summary:

These rocks are all crystalline metamorphics of various kinds.

RC is a fine-grained, essentially non-foliated, quartzo-feldspathic meta-siltstone.

RE is a recrystallized granodiorite porphyry.

IE-13N is a strongly foliated, fine-grained, quartz-biotite schist with prominent metacrysts of staurolite.

Individual petrographic descriptions are attached.

J.F. Harris Ph.D.

(phone: (604) 929-5867)

Sample RC

META-SILTSTONE

Estimated mode

Quartz	64
Plagioclase	30
Sericite	1
Biotite	3
Chlorite	2
Epidote	trace
Garnet	trace
Zircon	trace
Apatite	trace
Sphene	trace
Opaques	trace

This rock is a fine-grained meta-sediment, probably originating from a rather pure quartzo-feldspathic siltstone.

It now consists essentially of an even, sub-polygonal/interlocking granoblastic mosaic of intergrown quartz and plagioclase, of grain size 0.05 - 0.2mm.

Accessories consist of evenly disseminated, tiny, individual, sub-oriented flakes of brown biotite, chlorite and sericite. These occur in intergranular relation to the quartzo-feldspathic matrix.

The micas are nowhere sufficiently abundant to coalesce as distinct schlieren. Also, the matrix is notably devoid of laminar grain size variations. As a result, the rock appears essentially non-foliated. The incipient banding apparent on the etched cut-off block is a reflection of slight variations in quartz/plagioclase ratio.

A variety of other minerals occur in trace amounts, evenly disseminated as tiny, individual grains, 0.03 - 0.1mm. Zircon, apatite, sphene, and possibly the opaques, are presumably of detrital origin. Epidote and garnet are of metamorphic origin. The occasional garnet sometimes forms coalescent, irregular grains to 0.3mm.

All minerals of the rock are fresh except locally, at one end of the slide, where sericitization of plagioclase and chloritization of biotite is observed marginal to a hairline veinlet of feldspar.

Sample RE

RECRYSTALLIZED GRANODIORITE PORPHYRY

Estimated mode

Quartz	24
Plagioclase	45
K-feldspar	25
Biotite	3
Sericite	2
Epidote	trace
Apatite	trace
Opagues)	1
Limonite)	

This is a metamorphically recrystallized, leucocratic granitoid rock in which a distinct porphyritic texture survives.

The form of the phenocrysts - which make up about 30% of the rock - is partially obscured by peripheral recrystallization, but still recognizably equant/prismatic. They range from 0.5 - 2.0mm in size and consist of fresh plagioclase and K-feldspar (microcline) in approximately equal proportions. Some phenocrysts are made up of clumps or intergrowths of the two kinds of feldspar.

The groundmass is a recrystallized, sub-polygonal/interlocking mosaic, of grain size 0.03 - 0.1mm. Streaks and patches of relatively coarser groundmass grains tend to segregate within a predominantly finer matrix. The groundmass is composed of quartz, plagioclase and minor K-feldspar, in proportions which are difficult to determine, as all the minerals are fresh and clear, and the feldspars are often untwinned.

Accessories are minor. They consist of biotite and sericite flakes, 0.02 - 0.1mm in size. These occur as scattered individuals and, in part, as small clumps - often peripheral to the phenocrysts.

Traces of epidote occur as disseminated, ragged granules - usually associated with biotite - and apatite is seen as rare, sometimes relatively coarse, euhedra.

The rock contains scattered, fine-grained opaques, sometimes limonitized, which may include sulfides. The rock shows diffuse, intergranular staining by limonite and scattered, discrete, limonite pseudomorphs (after sulfides?).

A very weak, irregular foliation is perceptible in the thin section, produced by partial orientation of biotite flakes and local streakiness and grain elongation in the groundmass.

Sample IE 13N

STAUROLITE-BIOTITE SCHIST

Estimated mode

Quartz	42
Plagioclase	7
Biotite	26
Staurolite	22
Garnet	trace
Muscovite	trace
Andalusite	trace
Opagues	3

This is a high-grade metasediment, characterized by abundant, porphyroblastic metacrysts of staurolite and biotite set in a very fine-grained, foliated, quartzose matrix.

The latter is composed essentially of a mosaic of strongly flattened/elongate grains of quartz and minor intergrown plagioclase, 0.02 - 0.1mm in size. It is diffusely dusted throughout with micron-sized inclusions of opaque material (graphite?). Fine-grained biotite, as tiny, strongly oriented, intergranular flakes, is the principal accessory. Minor amounts of a disseminated opaque (sulfide or oxide) occur as discrete, often elongate, granules, 0.01 - 0.05 in size.

Within this matrix, coarser, porphyroblastic, orange-brown biotite forms abundant ragged flakes, 0.2 - 1.0mm in size. These are moderately well oriented and sieved with included groundmass material. Staurolite forms sharply euhedral, randomly oriented metacrysts, 0.5 - 2.0mm in size, typically incorporating foliated groundmass material.

Other constituents are traces of garnet, as tiny disseminated individuals, and one or two rather coarse (3 - 4mm) clots of andalusite, mantled by well-crystallized muscovite.

The staurolite, and part of the biotite, in this rock appear to have developed as late, porphyroblastic components superimposed on the strongly foliated, cataclastically recrystallized schist. There is no evidence of any retrograde phase of metamorphism, as both biotite and staurolite are strikingly fresh.

Appendix 5



629 Beaverdam Rd. N.E.
Calgary, Alberta T2K 4W2

LORING LABORATORIES LTD.

Phone 274-2777

Preparation Procedures for Geochemical Samples

1 - Soil And Silts:

- a) The soil sample bags are placed in dryer to dry at 105°C.
- b) Each sample is passed through an 80 mesh nylon seive. The +80 mesh material is discarded.
- c) The -80 mesh sample is placed into a coin envelope and delivered to the laboratory for analysis.

2 - Lake Sediments:

- a) The sediment sample bags are placed into the dryer at 105°C until dry.
- b) The dried material is transferred to a ring and puck pulverizer and ground to -200 mesh.
- c) The -200 mesh pulp is then rolled for mixing, placed into a coin envelope, and taken to the laboratory for analysis.

3 - Rocks and Cores:

- a) The samples are dried in aluminum disposable pans at 105°C.
- b) They are then crushed to 1/8" in jaw crusher.
- c) the 1/8" material is mixed and split to sample pulp size.
- d) The sample is then pulverized to 100 mesh, using a ring and puck pulverizer.
- e) The -100 mesh material is rolled on rolling mat and transferred to sample bag. The sample is then sent to the laboratory for analysis.



629 Beaverdam Rd. N.E.
Calgary 67, Alberta

LORING LABORATORIES LTD.

Phone 274-2777

METHODS OF ANALYSIS FOR GEOCHEMS

1. COPPER, LEAD, ZINC, NICKEL, COBALT, SILVER

500 milligrams of -80 mesh material are weighed into coor cups, placed in muffle at 500 C to remove organics. The oxidized samples are then transferred to test tubes, aqua regia added and digested in water bath at 100 C for three hours.

The test tubes are then bulked to the 10 ml. level, mixed and allowed to settle overnite.

The samples are then put through the atomic absorption with appropriate standards and reported in PPM.

2. MOLYBDENUM GEOCHEMS

The same sample weight is used; the organics are also removed; aqua regia is also used, but just prior to bulking up to 10 mls. volume, 3 mls. of aluminum chloride solution is added to enhance the molybdenum atom. After standing overnite the samples are put through the atomic absorption using a nitrous oxide and acetylene flame. Reported in PPM Mo.

Appendix 6

To: Mr. Lee Morrison,
 Box 105,
 P. hcart, Sask.
 SuN 2G0



File No. 31430
 Date July 11, 1988
 Samples Soil

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LORING LABORATORIES LTD.

Page # 2

SAMPLE No.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
<u>"Soil Samples"</u>				
Geochemical Analysis				
1W- 9 -N	27	54	+1000	0.7
9+50	13	20	142	0.5
9+90	17	15	54	0.5
10+50	28	23	133	0.6
11+00	25	15	141	0.5
11+50	33	25	74	0.5
12+00	34	21	122	0.6
12+50	46	30	116	0.7
13+00	28	24	136	0.5
13+50	37	21	178	0.5
14+00	27	21	200	0.8
14+50	30	23	430	0.3
15+00	12	15	53	0.4
1E- 2+00-N	36	20	62	0.5
3+00	18	16	50	0.4
4+00	34	22	250	0.3
6+00	40	20	92	0.7
7+00	88	19	107	0.3
8+00	36	21	195	0.2
9+00	15	14	127	0.2
9+50	101	28	290	0.4
11+00	58	29	169	0.4
12+00	28	21	310	0.2
12+50	25	17	280	0.3
12+88	31	22	147	0.6
13+50	25	15	63	0.5
14+00	32	23	134	0.7
14+50	47	23	230	0.5

I **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulp Retained one month
 unless specific arrangements
 made in advance.

Angus Searcy
 Assayer

To: Mr. Lee Morrison,
 Box 105,
 Pobsart, Sask.
 SUN 2G0



File No. 31430
 Date July 11, 1988
 Samples Soil

Certificate of
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LORING LABORATORIES LTD.

Page # 3

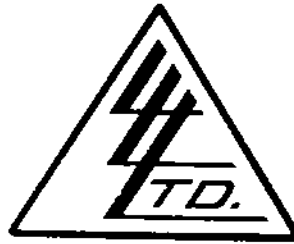
SAMPLE No.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
1E-14+90-N	55	26	+1000	0.5
3E 7+00-N	41	21	69	0.3
8+15	63	26	133	0.5
8+50	55	27	131	0.6
8+90	45	21	207	0.4
9+50	36	23	163	0.4
10+40	36	22	206	0.4
11+00	88	25	141	2.7
5E- 0+ 0-N	36	26	88	0.5
1+00	30	15	83	0.7
2+00	25	25	300	0.1
3+00	27	24	310	0.2
3+50	29	24	280	NIL
4+00	22	26	270	0.2
4+50	25	24	250	0.2
5+00	25	18	250	0.2

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 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

Angus Swales
 Assayer

To: Mr. Lee Morrison,
Box 105,
Tobiasart, Sask.
SON 260



File No. 31430
Date July 11, 1988
Samples Soil

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Page # 1

SAMPLE No.	% Zn
<u>"Soil Samples"</u> <u>"Assay Analysis"</u>	
1W-9-N	.14
1E 14+90N	.15

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
made in advance.

Henry Swearing
Assayer

To: MR. LEE MORRISON
Box 105,
Robsart, Saskatchewan SON 2G0

File No. 31757

Date September 27, 1988

Samples Soil



Certificate of Assay LORING LABORATORIES LTD.

Page # 1

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
"Soil Samples"				
Geochemical Analysis				
5E- 5+50 N	35	34	144	0.4
6	34	31	206	0.4
6+50	39	55	243	0.5
7	32	48	242	0.5
7+50	17	22	87	0.5
9	29	14	48	0.5
9+50	52	20	76	0.7
10	101	23	128	0.9
10+50	44	21	104	0.7
11	53	27	188	0.8
11+50	32	17	143	0.2
12	57	28	810	0.5
12+50	31	22	229	0.7
13	58	20	264	0.7
13+50	59	26	474	0.5
13+90	52	21	317	0.5
14+50	46	21	281	0.5
15	58	21	193	2.3
6E- 7+90N	39	26	113	0.5
8+42	32	35	165	0.4
9	26	29	123	0.7
10	27	18	38	0.5
10+50	27	23	101	0.5
11	19	12	44	0.9
11+50	36	26	187	1.0
12	27	16	106	1.2
7E- 6 N	31	34	182	1.2
6+50	31	33	203	0.7
7	29	37	230	0.6
8	24	75	340	0.6

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
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Assayer

To: MR. LEE MORRISON,
Box 105,
Robsart, Saskatchewan SON 2G0

File No. 31757
Date September 27, 1988
Samples Soil



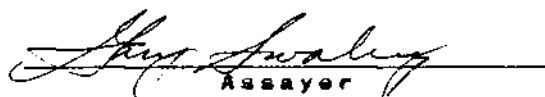
Certificate of Assay LORING LABORATORIES LTD.

Page # 2

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
7E- 8+50 N	52	98	234	1.0
9	32	21	102	0.5
9+39	36	22	179	1.1
10	30	23	182	2.4
10+50	35	21	131	0.9
11	38	31	238	1.2
11+50	28	24	241	0.7
12	25	23	204	1.1
12+50	33	27	222	0.9
12+93	38	26	165	0.7
13+50	30	26	219	0.7
15+50	31	19	76	0.6
9E- 5+50 N	34	28	186	0.6
13+50	41	29	225	3.2
14	30	18	208	0.5
14+50	40	21	214	0.6
15	39	23	252	1.8
15+50	39	23	287	4.3
16	33	26	282	0.8
16+60	31	21	185	1.2
17+50	38	21	223	0.7
11E-16 N	37	44	314	1.0
16+50	27	24	241	0.9
17	59	35	316	2.9
17+50	62	54	401	1.7
16N-12 E	26	35	282	0.6
12+50	37	132	340	1.0
13	22	36	288	1.2
13+50	32	19	262	0.9
14	23	18	216	1.2
14+50	21	20	236	0.8
14+95	17	18	202	0.7
15+50	10	19	164	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
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Assayer

To: MR. LEE MORRISON,
Box 105,
Tobsart, Saskatchewan SON 2G0

File No. 31757

Date September 27, 1988

Samples Soil



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Page # 3

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
16N-15+88 E	20	19	195	0.8
16+50	17	19	191	0.9
17	16	16	73	1.0
17+50	17	19	112	0.8
18	16	16	200	0.7
18+50	10	17	83	0.7
19	25	19	98	0.7
C- 1+50 N	28	19	218	1.3
1+75	33	20	169	0.6
2	22	20	225	0.9
2+25	22	24	265	0.7
2+50	11	30	196	0.6
2+75	16	31	291	0.8
D- 1+50 N	16	19	235	1.0
1+75	28	21	293	1.0
2	23	20	422	1.0
2+25	34	18	340	0.8
2+50	21	47	229	0.9
2+75	15	27	357	0.5
E- 1+50 N	12	34	108	1.0
1+75	17	61	597	1.4
2	25	75	297	1.5
2+25	31	21	193	0.6
2+50	36	18	272	0.7
2+75	24	20	227	0.8
F- 1+50 N	20	64	211	2.1
1+75	25	22	239	0.9
2	21	98	322	1.3
2+25	18	42	260	0.6
2+50	25	20	294	0.8
2+75	19	17	120	0.7
G- 1+50 N	42	19	326	0.7
1+75	45	20	272	0.8

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

To: MR. LEE MORRISON,
Box 105,
Robsart, Saskatchewan SON 2G0

File No. 31757
Date September 27, 1988
Samples Soil



Certificate of Assay LORING LABORATORIES LTD.

Page # 4

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag
G- 2 N	28	23	229	0.8
2+25 N	35	19	200	0.9
2+50	43	19	382	0.5
2+75	25	21	254	0.6

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

To: Mr. Lee Morrison,
Box 105,
Robart, Sask.
LJN 260



File No. 31430
Date July 11, 1988
Samples Rock

Certificate of
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LORING LABORATORIES LTD.

Page # 4

SAMPLE No.	PPB Au	PPM Ag
<u>"Rock Samples"</u> Geochemical Analysis		
C-30	NIL	0.1
C-36	NIL	NIL
C-40	25	NIL
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>		

Rejects Retained one month.

Pulps Retained one month
unless specific arrangements
made in advance.


Assayer

To: MR. LEE MORRISON,
 Box 105,
 Robsart, Sask.
 ON 2G0

File No. 31756
 Date September 28, 1988
 Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

Page # 2

SAMPLE NO.	PPB Au	PPM Cu	PPM Pb	PPM Zn	PPM Ag
"Rock Samples"					
Geochemical Analysis					
C-31	-	9	16	27	0.1
32	-	19	12	23	0.1
33	-	21	14	32	0.1
34	-	10	11	22	0.1
35	-	3	10	22	NIL
37	-	13	18	20	0.2
38	-	11	11	62	0.1
39	-	16	16	33	0.1
41	-	41	14	17	0.2
42	-	12	11	14	0.1
43	40	-	-	-	0.1
44	-	7	15	84	0.1
45	-	20	16	78	NIL
46	-	15	16	16	0.1
47	-	6	48	20	0.6
48	-	39	22	58	0.3
49	25	-	-	-	0.1
50	20	-	-	-	0.1
51	-	31	90	670	0.9
52	-	7	46	23	0.7
53	15	-	-	-	NIL
54	10	-	275	-	12.5
58	10	-	34	29	1.2
59	-	9	34	21	0.7
60	-	95	22	31	0.5
61	15	-	-	-	0.5
62	-	-	19	-	0.2
63	10	-	63	65	0.7
64	-	41	18	207	0.6
65	15	-	13	21	0.1

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.

Loring Swaley
 Assayer

To: MR. LEE MORRISON,
Box 105,
Robsart, Sask.
SON 2G0

File No. 31756
Date September 28, 1988
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

Page # 3

SAMPLE NO.	PPB Au	PPM Cu	PPM Pb	PPM Zn	PPM Ag
C-66	10	-	63	-	1.5
67	10	-	67	127	1.3
68	20	-	-	51	26.4

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

To: MR. LEE MORRISON,
Box 105,
Robsart, Sask.
SON 2G0

File No. 31756
Date September 28, 1988
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

Page # 1

SAMPLE NO.	OZ./TON GOLD	OZ./TON SILVER	% Pb	% Zn
------------	-----------------	-------------------	---------	---------

"Rock Samples"
"Assay Analysis"

C-54	-	-	-	.06
55	.004	7.76	1.47	.21
56	.002	.14	-	-
57	.002	1.70	.24	.08
62	-	-	-	.10
66	-	-	-	.01
68	-	-	.13	-

I Hereby Certify that the above results are those
assays made by me upon the herein described samples....

Subjects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

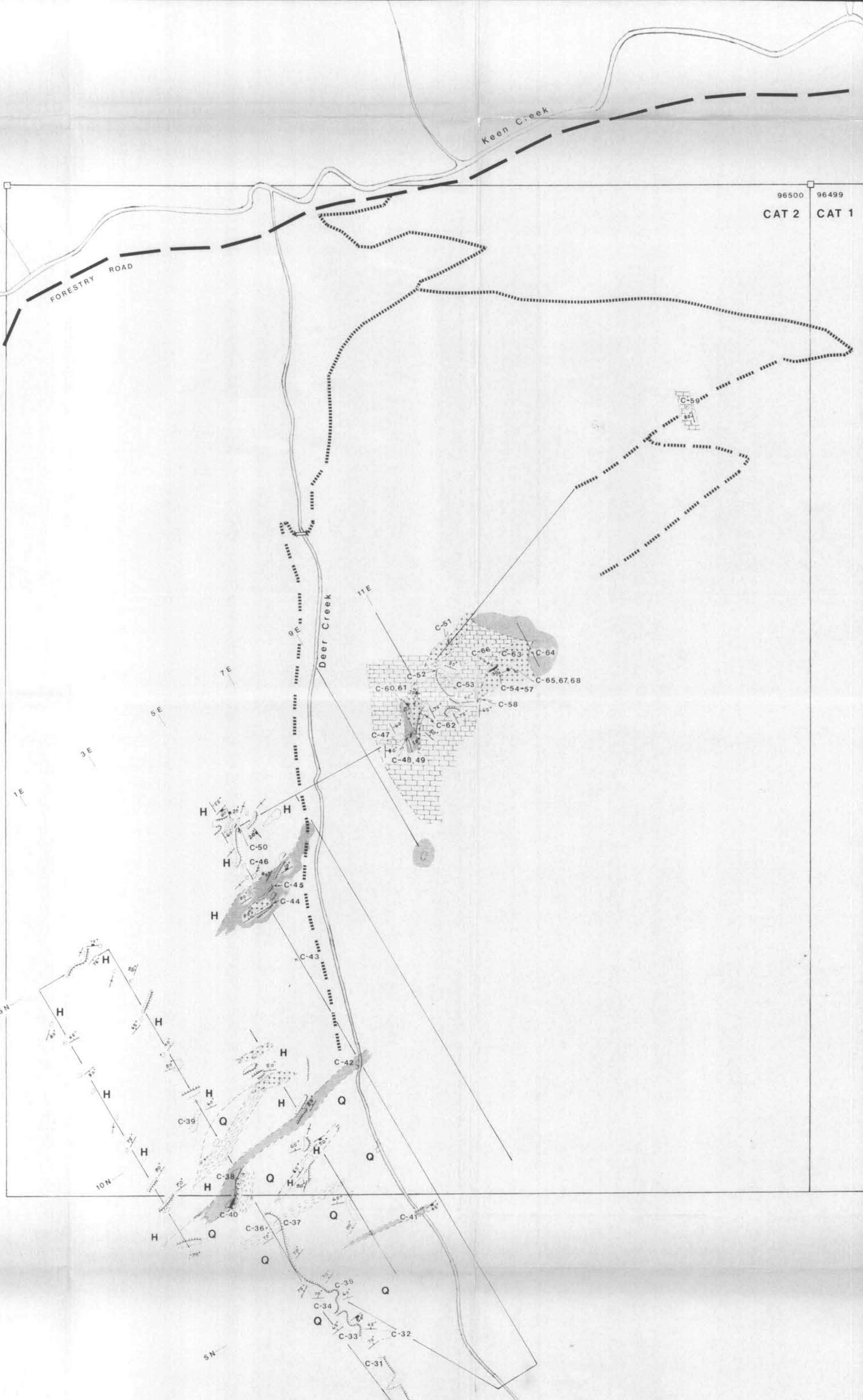

Assayer

Appendix 7

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96500 96499
 CAT 2 CAT 1

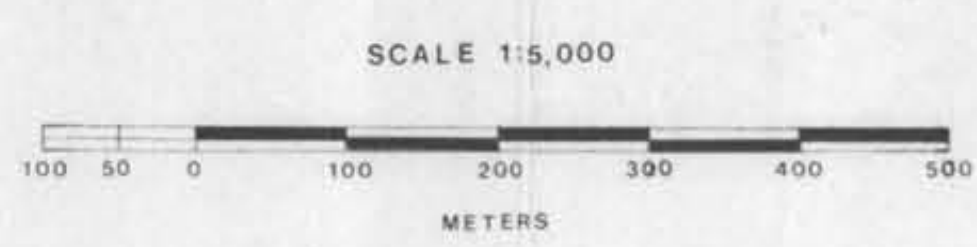


LEGEND

- QUARTZ VEIN
- FELSIC INTRUSIVE ROCKS
- LIMESTONE
- ARGILLITE: Dark, partly calcareous
- META-SILTSTONE: Partly phyllitic
- QUARTZITE: IMPURE QUARTZITE; SILICEOUS PHYLLITE
- NODULAR SCHIST
- STAUROLITE HORNFELS & SCHIST
- OUTCROP
- BEDDING (inclined, vertical)
- SHEARING (inclined, vertical)
- JOINTING (inclined, vertical)
- C-10 ROCK GEOCHEMICAL SAMPLE
- TRAVERSE LINE
- ABANDONED LOGGING ROAD
- ACCESSIBLE BY 4x4
- IMPASSABLE
- CLIFF

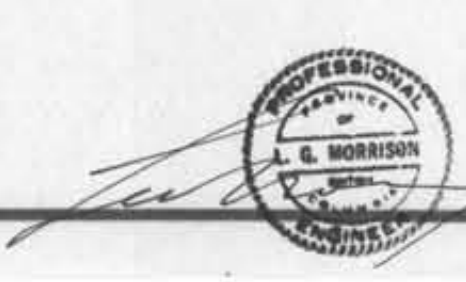
GEOLOGICAL BRANCH
 ASSESSMENT REPORT

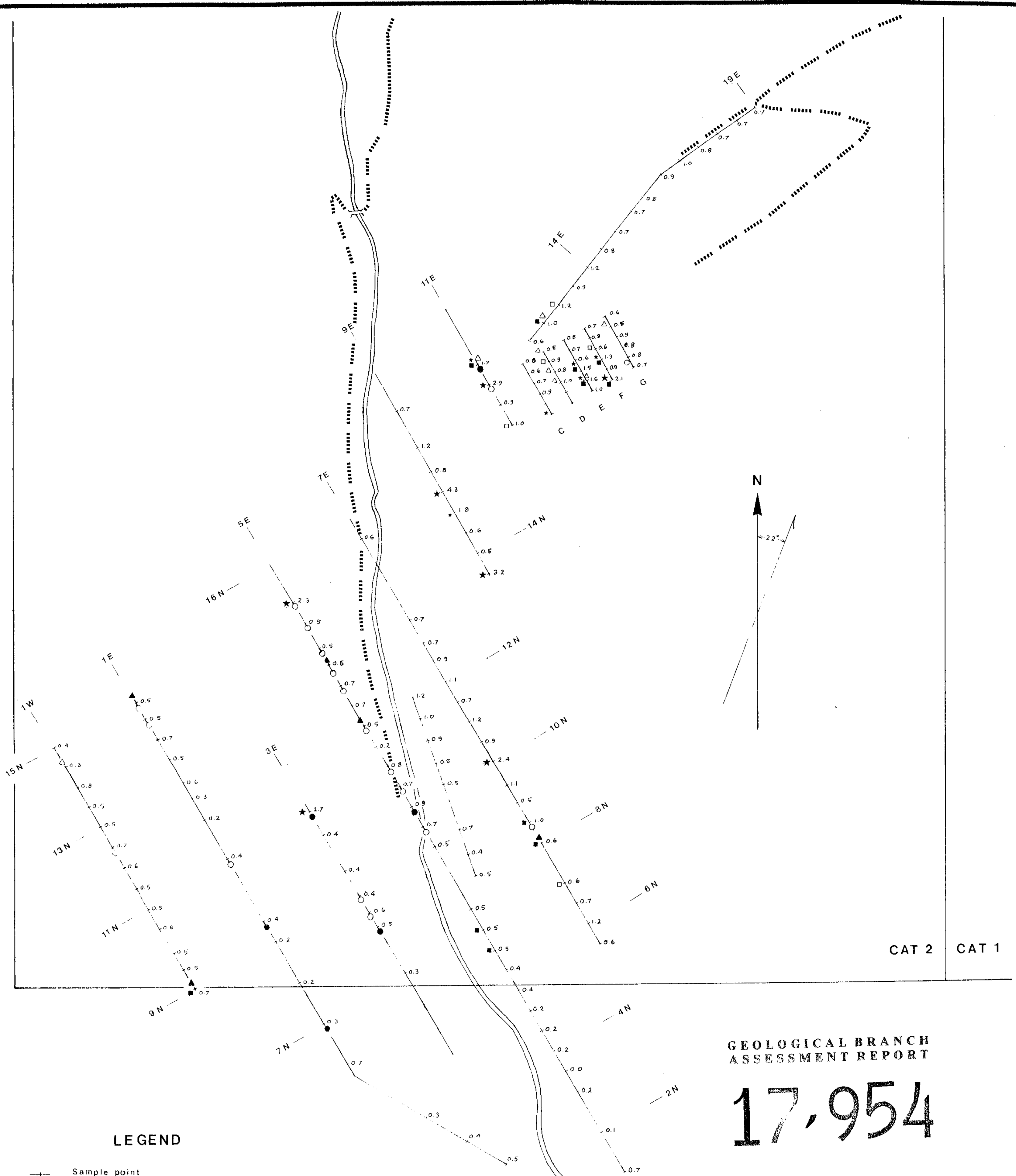
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CONTROL BY COMPASS & TOPOFIL

GEOLOGY
 CAT 2 CLAIM
 KEEN CREEK AREA
 KASLO, B.C.
 L. Morrison August, 1988





CAT 2 CAT 1

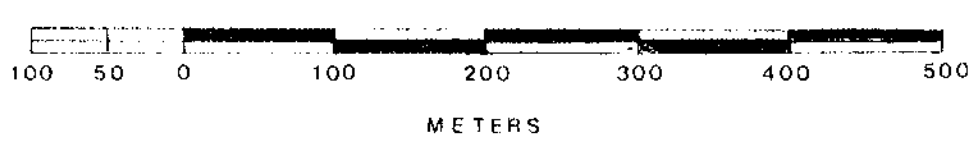
LEGEND

- Sample point
- ★ Sample anomalous in Ag ($\geq t_s$; $\geq t_{2s}$)
- Sample anomalous in Pb ($\geq t_s$; $\geq t_{2s}$)
- △ Sample anomalous in Zn ($\geq t_s$; $\geq t_{2s}$)
- Sample anomalous in Cu ($\geq t_s$; $\geq t_{2s}$)
- Claim boundary (Approximate)
- Impassable old logging road

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,954

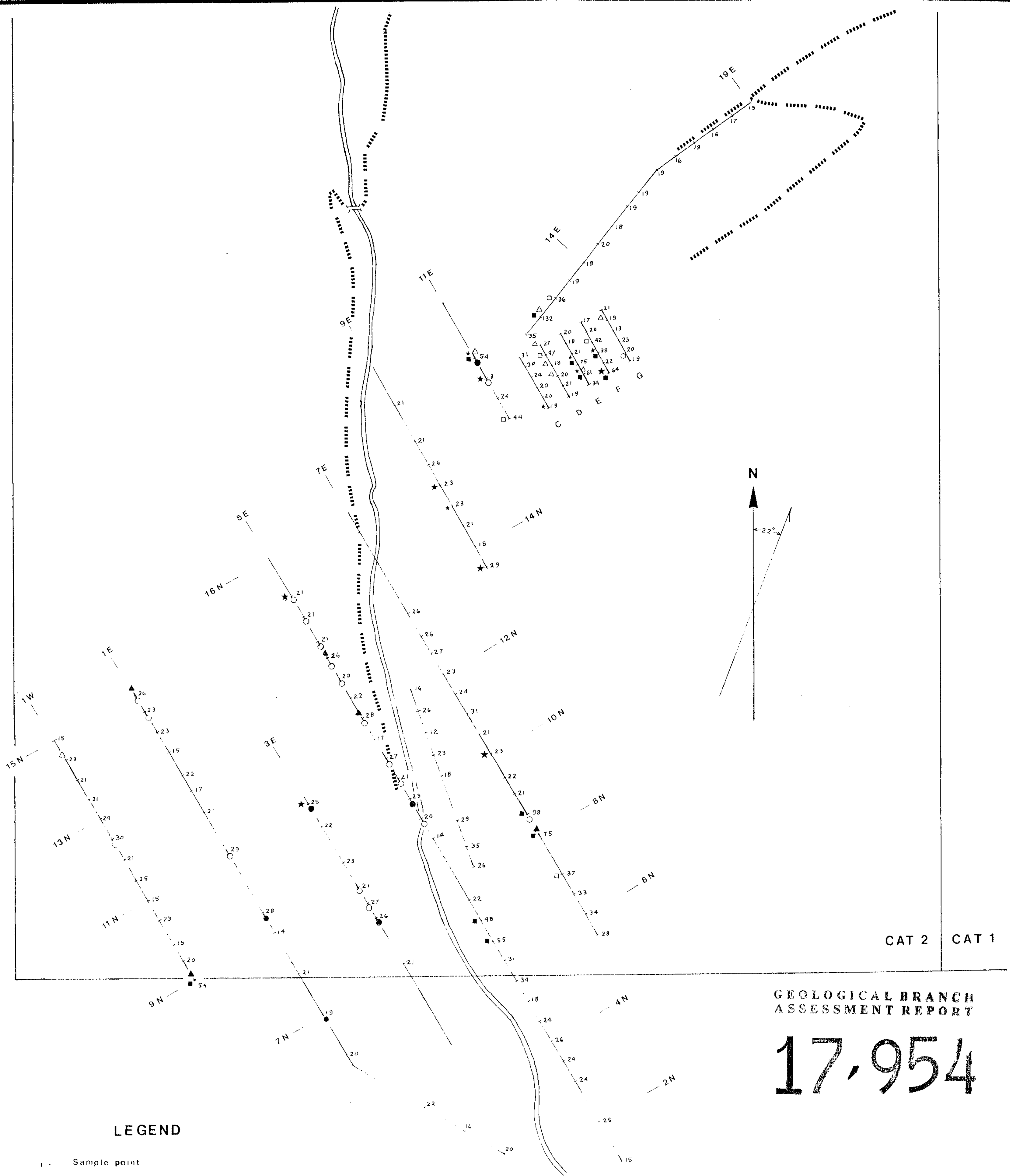
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CONTROL BY COMPASS & TOPOFIL



SOIL GEOCHEMISTRY
Ag (ppm)
CAT 2 CLAIM
KEEN CREEK AREA
KASLO, B. C.
 L. Morrison
 Sept., 1988



CAT 2 CAT 1

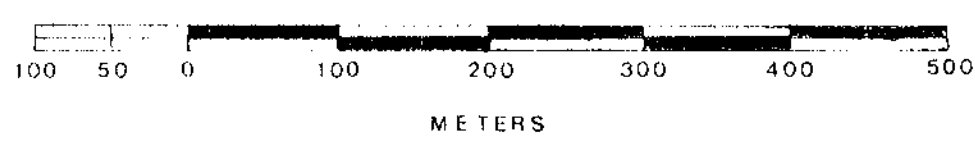
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,954

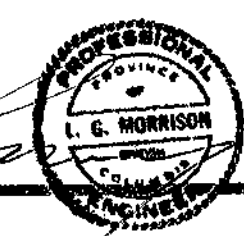
LEGEND

- +— Sample point
- * * Sample anomalous in Ag ($\geq t_s$; $\geq t_{2s}$)
- ■ Sample anomalous in Pb ($\geq t_s$; $\geq t_{2s}$)
- △ ▲ Sample anomalous in Zn ($\geq t_s$; $\geq t_{2s}$)
- ● Sample anomalous in Cu ($\geq t_s$; $\geq t_{2s}$)
- - - Claim boundary (Approximate)
- ==== Impassable old logging road

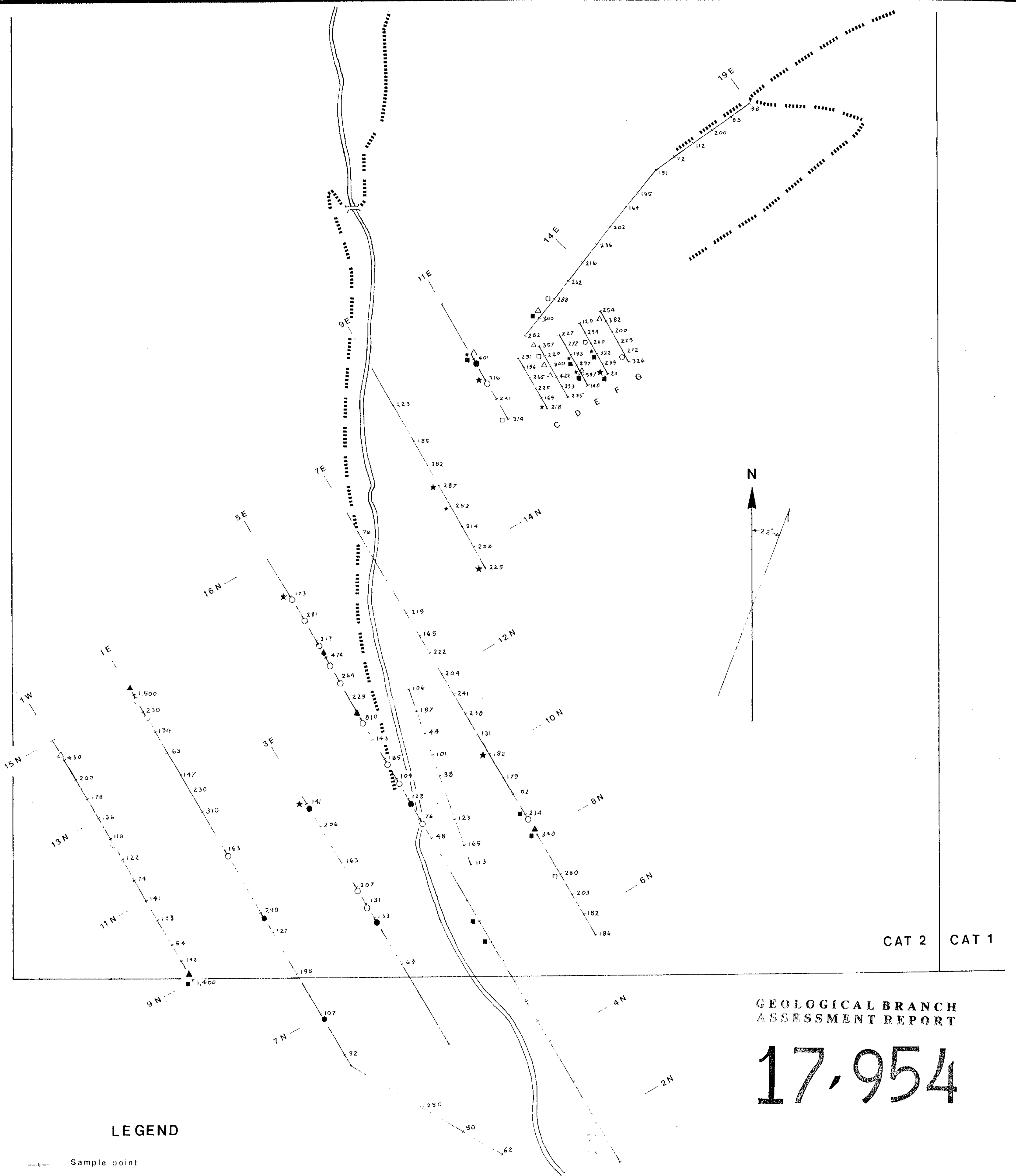
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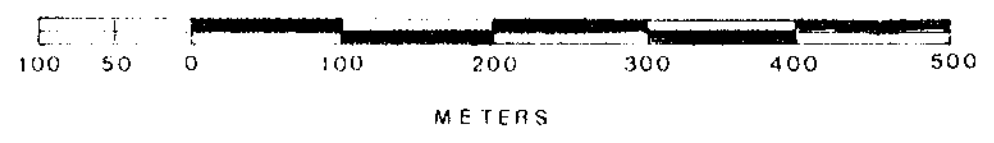
SOIL GEOCHEMISTRY
Pb (ppm)
CAT 2 CLAIM
KEEN CREEK AREA
KASLO, B. C.
L. Morrison
Sept., 1988



LEGEND

- +— Sample point
- * ★ Sample anomalous in Ag ($\geq t_s$; $\geq t_{2s}$)
- ■ Sample anomalous in Pb ($\geq t_s$; $\geq t_{2s}$)
- △ ▲ Sample anomalous in Zn ($\geq t_s$; $\geq t_{2s}$)
- ● Sample anomalous in Cu ($\geq t_s$; $\geq t_{2s}$)
- Claim boundary (Approximate)
- Impassable old logging road

SCALE 1:5,000

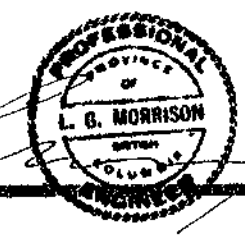


CONTROL BY COMPASS & TOPOFIL

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

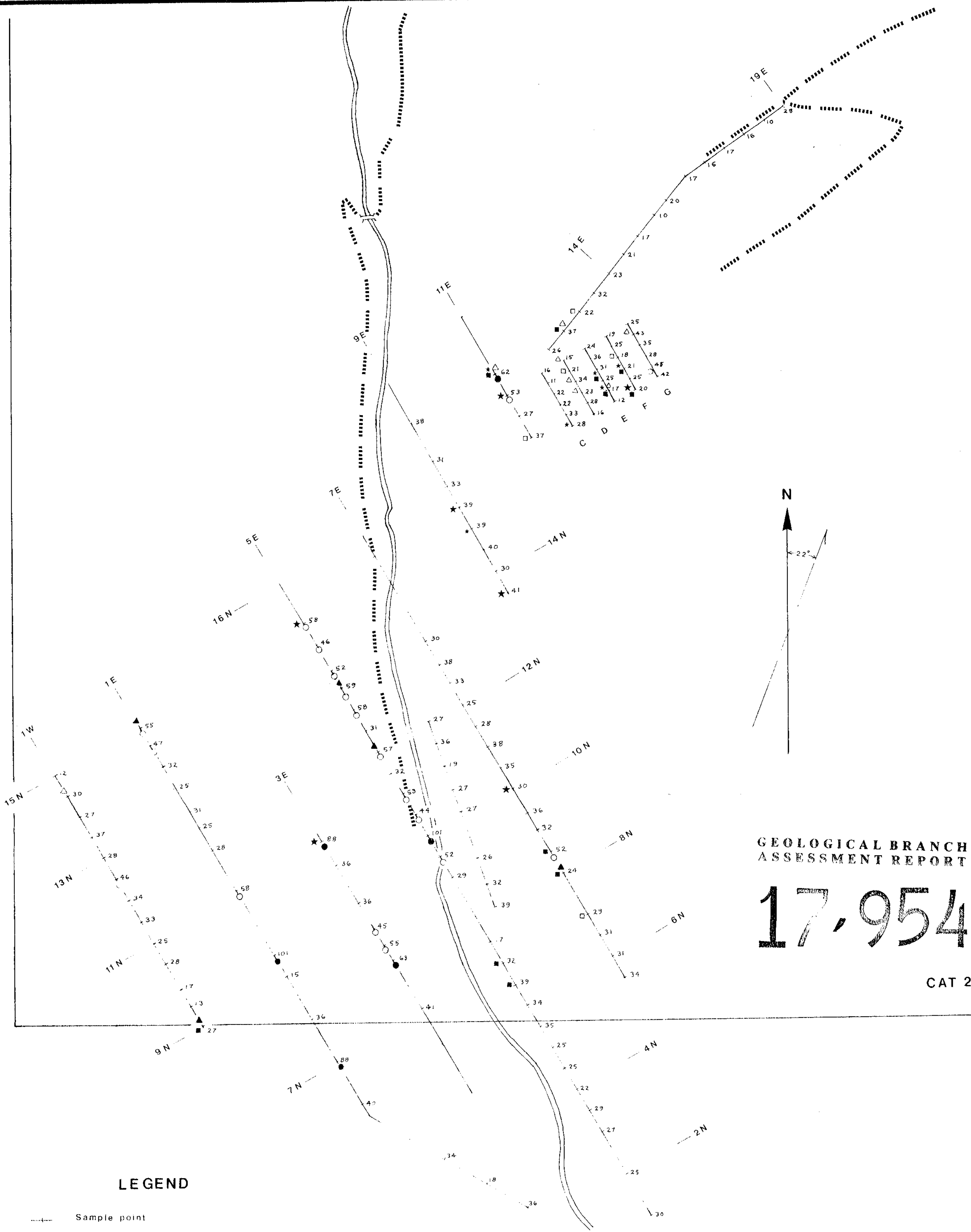
17,954

SOIL GEOCHEMISTRY
Zn (ppm)
CAT 2 CLAIM
KEEN CREEK AREA
KASLO, B. C.



L. Morrison

Sept., 1988



GEOLOGICAL BRANCH
ASSESSMENT REPORT

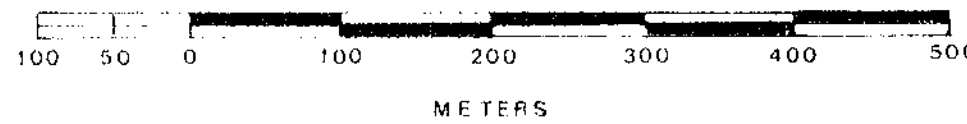
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CAT 2 CAT 1

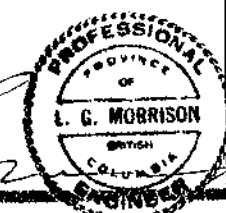
LEGEND

- Sample point
- ★ ★ Sample anomalous in Ag ($\geq t_3; \geq t_{2s}$)
- ■ Sample anomalous in Pb ($\geq t_3; \geq t_{2s}$)
- △ ▲ Sample anomalous in Zn ($\geq t_3; \geq t_{2s}$)
- ● Sample anomalous in Cu ($\geq t_3; \geq t_{2s}$)
- Claim boundary (Approximate)
- Impassable old logging road

SCALE 1:5,000



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L. Morrison

Sept., 1988

SOIL GEOCHEMISTRY
Cu (ppm)
CAT 2 CLAIM
KEEN CREEK AREA
KASLO, B. C.