

ARIS SUMMARY SHEET

District Geologist, Victoria

Off Confidential: 89.09.30

ASSESSMENT REPORT 18047

MINING DIVISION: Victoria

PROPERTY: Rat
LOCATION: LAT 48 36 00 LONG 124 29 00
UTM 10 5383834 390637
NTS 092C09W

CAMP: 023 Sarita - Gordon River Area

CLAIM(S): Rat 1-2, Rat 4-5
OPERATOR(S): Tavela, M.
AUTHOR(S): Tavela, M.
REPORT YEAR: 1988, 30 Pages

COMMODITIES

SEARCHED FOR: Gold

GEOLOGICAL

SUMMARY: Low grade volcanic strip between Island Intrusions and Leech Formation; gold in chlorite/kaoline alterations resembling pipes.

KEYWORDS: Andesite, Basalt, Intrusive, Alteration, Anomaly, Mercury, Gold

WORK

DONE: Geological, Geochemical

GEOL 350.0 ha

Map(s) - 2; Scale(s) - 1:5000

ROCK 334 sample(s) ;AU,AG,HG

Map(s) - 2; Scale(s) - 1:2500, 1:625

LOG NO: 1130 RD.
ACTION:
30 p.

GEOLOGICAL AND GEOCHEMICAL REPORT
ON RAT 1,2,3,4 and 5 MINERAL CLAIMS
SITUATED 8 KM NW OF PORT RENFREW
VICTORIA M.D.
NST 92C.058

Lat. 48°36'N Long. 124°29'W

OWNER, OPERATOR AND AUTHOR
MATTI TAVELA

LOG NO: 2411 RD2
ACTION: Date received report
back from amendments.
30 p.
FILE NO:

FILED

CONTENTS

	<u>page</u>
LOCATION MAP	1 /
INTRODUCTION	2 /
GEOLOGICAL REPORT	4 /
GEOCHEMICAL REPORT	8 /
STATEMENT OF COSTS	28 /
QUALIFICATIONS	29 /
FIGURES 4,5 and 6	in text /
FIGURES 1,2 and 3,7	in pocket /

GEOLOGICAL BRANCH
ASSESSMENT REPORT

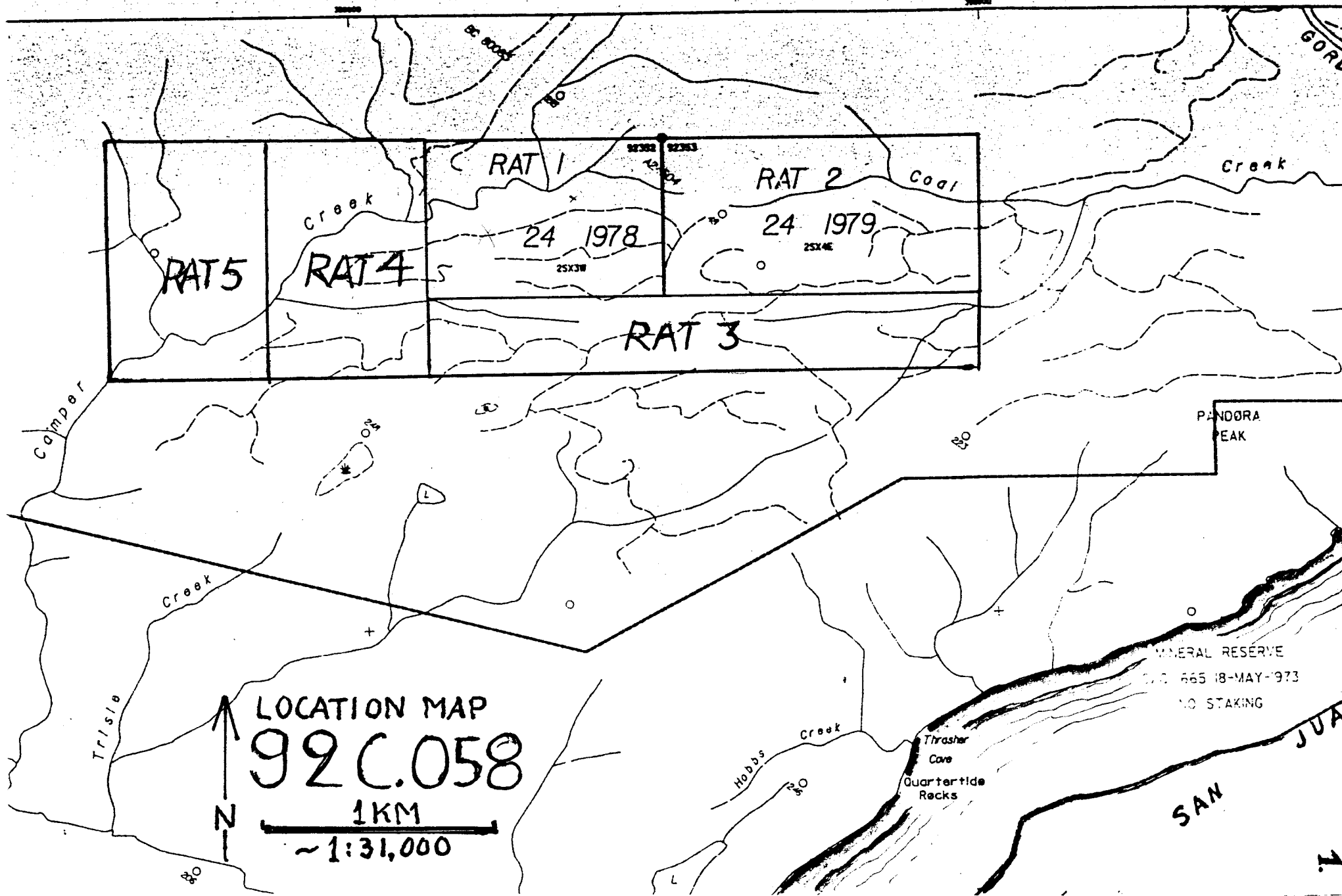
18,047

SUB-RECORDER
RECEIVED
SEP 30 1988
M.R.# \$
VANCOUVER, B.C.

92C.058

MINERAL TITLES REFERENCE

TO NORTH SEE MAP 92C.068



INTRODUCTION

(Location Map, Fig's 1,2, and 3)

General Description

RAT claim group is accessible by automobile: 10 km W from Gordon River Bridge (5.5 km NNW from Port Renfrew) succesively along Pandora, San Juan and Camper MLs. to the latter's dead end.

Topo Controll is based on 1:5,000 maps surveyed by theodolite and chain by B.C. Forest Product Ltd. and MacMillan Bloedel Ltd. and compiled, MacMillan's concession being surrounded by B.C.F.P's concession. Both are situated N of Port Renfrew Bay, N of West Coast Trail Park.

Property Definition

Geochemical gold prospect between the escarpment of Island Intrusions and Pandora Ridge (Leech formation) in a narrow low metamorphic volcanic strip.

Four individual prospects along 2 km EW strike have 50 to 800 ppb Au (43 of 334 rock samples in place) in chlorite/kaoline rocks resampling pipes.

Summary of Work

Geological survey: scale 1:5,000, 14 units = 350 ha

Geochemical survey: 334 rocks and 9 soils for Au

121 rocks for Hg

40 rocks for multi-elements

Physical work: 290 m of terrace trenching

30 m of conventional trenching

Camp/storage shed: 6 x 8 x 8 feet, insulated

Prospecting was done in 1984, hence not eligible. Based on information in this report prospecting will resume and reported later.

GEOLOGICAL REPORT

(FIG'S 1,2, and 4)

The character of the San Juan river valley changes abruptly at the site of its delta, where Gordon River joins from N. The 2km wide trough narrows to a 0.5km wide Renfrew bay representing the S part of the trough.

Simultaneously the 1.5 km wide N part of the, by now only a geological trough, continues at a higher elevation forming a mini plateau. This is the site of Rat claim group between Island Intrusions in N and Pandora ridge's Leech rocks in S.

GLACIAL GEOLOGY

The regional end moraines are thickest immediately E of the present shore. Here fluvial and ocean waters have exposed the bedrock sparsely. Further to inland the topo highs are well exposed. Rat area is between the above: two U-valleys and a ridge between, all striking E-W.

Transported material overwhelm the local making prospecting in soils difficult. Float tracing has succeeded with one durable and distinct vein type rock. Exposures are mainly on the ridge and on valley flanks where till has collapsed. Roads, also mainly in E-W direction, have made decisive contribution to expose the bedrock; X-sections are few.

BEDROCK

Overview

Claims (width 1.5 km NS; length 5.5 km EW) cover a 700 m wide strip of low grade Leech volcanics between a ridge of medium grade Leech

rocks in S and Island Intrusion rocks in N.

This strip is the W extension of a 1300 m wide, mainly similar, belt between San Juan river bed and the Intrusion's escarpment continuing E of Gordon River delta along the strike. The belt's main units are andesite/basalt flows and sills with minor amounts of their submarine equivalents, mainly cherts.

At Rat the submarine units are extensive, massive or laminated, chlorite shales interrupted frequently by mounds of pure quartz laminites. A subvolcanic unit of the andesite clan also is unique for Rat area: a fine to medium, light grey intrusive, called in this report diorite for distinction from its spacial intimates: an assortment of fine grained, greenish to a dirty, andesites, the latter consisting a disorganized uneven mass of various sizes low grade ferromagnesian. Porphyritic textures are lacking.

Successive subduction movements from S to N have pushed the volcanics against the Intrusion: in E into and below, at Rat mainly below. At Rat the lateral contraction is twice the same at E of Gordon River. Also the Renfrew bay and Pandora ridge are deviations and so is the diorite intrusion.

The subduction compression has been milder on the S-trough than on the N-trough, where the main diorite bodies appear together with accompanied thermal activity leading to the gold mineralization.

Events

Besides the Pandora and Intrusion's rocks the oldest and bottom formation seemingly is a chlorite/amphibolite schist, a regional contact zone against the Intrusions, here also against Pandora, where a relic like dirty andesite suggests a volcanic parent. The opposite site the schist has pinkish dioritic augen like nodules

and veinlets with elevated Au content up to 20 ppb.

A well definable submarine sedimentation appeared next, origins of which are expressed by a pillow formation and by the rhythmic quartz mounds supported by down pour of ferromagnesian fine particles, now chlorite shales, occasionally massive and chaotic.

The steady compression was possibly in effect from the start culminating when near vertical altitude was reached and simultaneous basaltic lavas and sills filled the now S parts of the strip.

In the N half the contortions are most intense in the Camper Creek. Between it and the ridge's crest diorite intruded and andesites poured towards the end of dying volcanism.

Mineralization

The shale/chert sediments, the andesite clan and the aftermat units, all contain mercury in high, rather uniform fashion and largely alone without usually accompanying volatile, precious or sulfur clan elements.

This Hg preponderance continues through and over the thermal phase into the last occurrences on both flanks of the ridge of roundish or short sheet like vertical bodies of silica glass. The style of the intrusion is explosive but not brecciating. Pyrite content varies from isolated sizable cubes to massive vertically oriented tube like columns interwoven with quartz; titanite prisms are not rare, some parts of groundmass are cryptocrystalline; SiO₂ content around 90%^o; Hg content ~ 4000 ppb.

Between the above pipes and the upturning events falls a widespread type of soft chlorite/kaoline masses. Chlorite rock is nearly monomineralic with zeolite clan as accessory; kaoline is used as

descriptive term only: it is white possibly a mixture of many minerals of the silicate-hydrothermal clan and includes quartz. Both appear as distinctly separate or distinctly mixed but never as undefinable transitional bodies. They have a fresh look possibly due to their ability hold excess of connate water preventing the oxidation by the surface waters. Connected with these mushy rocks are silicified shales and altered andesites, now loose sandy clay masses, both presumably of same general origin as the kaoline/chlorite mush rocks. These silicic/clay and kaolin/chlorite alteration, the latter possibly after pipes, have non visible gold from 50 up to 800 ppb. The suggestion is that they represent a distinct sequence of thermal activity originating from the same source as the glass pipes and andesite/diorite clan and below from where they are now.

Mineralization is presently divided into three parralell zones. The central zones is as outline above. It is on the center parts of the central ridges N-slope. Below it a weaker N-zone having minor chlorite pods and Au bearing diorite veinlets in the basal schist. The S-slope has also a few chlorite pods essentially in basaltic country rock with few elevated Au values. Notable in these side zones is that chlorite/kaoline rocks have less connate water then in the central zone.

Outside of the above and concentrated at the topo/geological culmination, are four lens-like monzonite rocks, times fresh, times deuteric, highest Au 80 ppb. This enigmatic coarse rock may also have a significance as discussed in following report's reference (d).

GEOCHEMICAL REPORT

(FIG'S 1,2,3,4,5 and 6,7)

Mainstay for both surveys has been ordered sampling by trenching through overburden into bedrock to an average sample depth of 0.3 m. Most trenches are on steep natural or road slopes and when mucked, form terraces mainly along the strike.

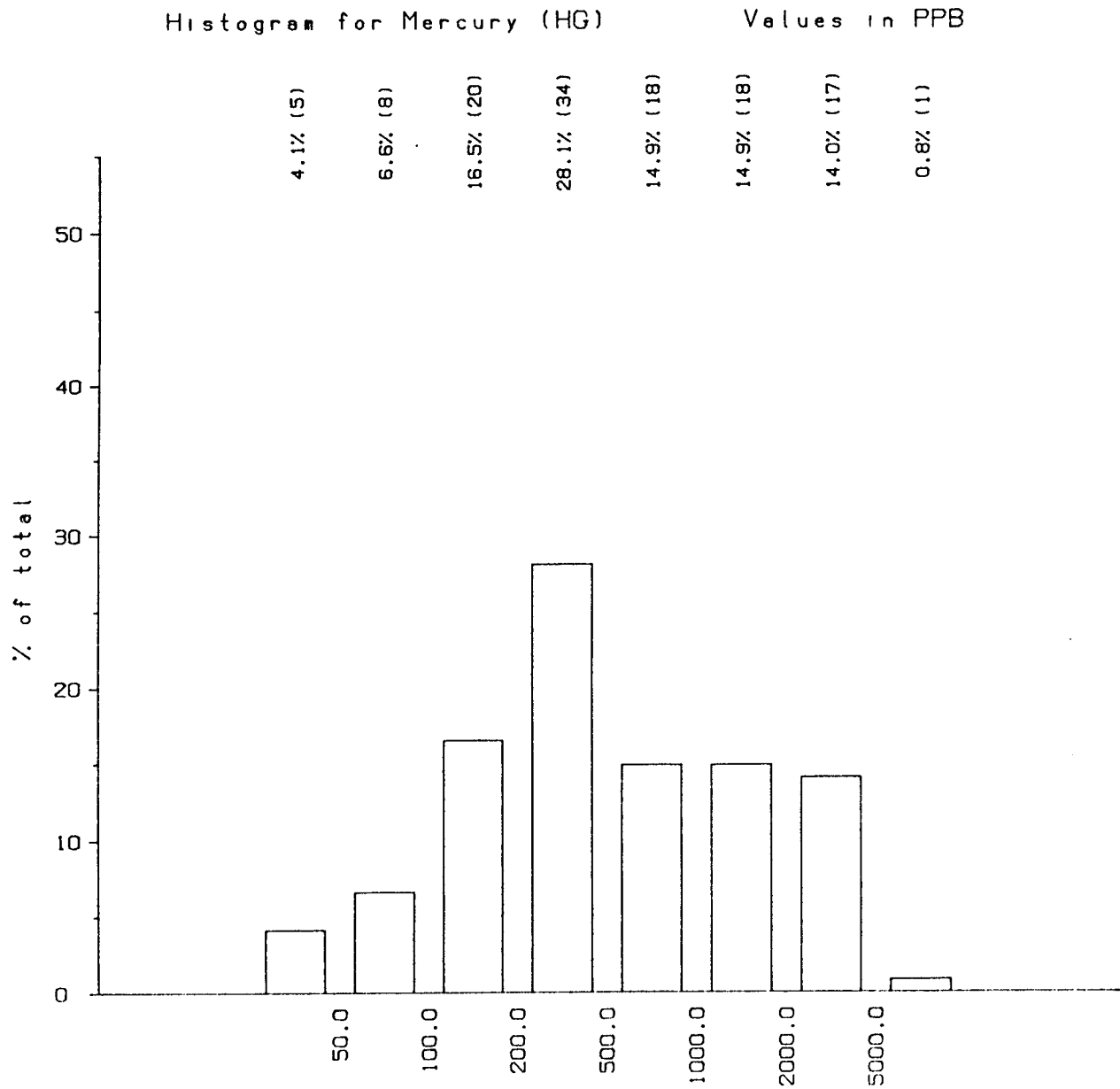
To obtain controls and because gold mineralization remained invisible, non vein type, initial sampling was continuous with flexible spacing up to 8 m; then analysis directed second and subsequent passes with shorter spacing up to 1.0 m; sample size 1.0-1.5 kg; small chips; overall character semi-quantitative.

Distribution of Hg and Au

Hg is the characterizing trace element in all rock units excluding basalts and chlorite/amphibolite schists. Routine analysis has been for Au added with Hg and package-method type element sets sporadically. The Hg stayed ubiquitously high and puzzling levels. Finally all samples having Au $\bar{\geq}$ 15 ppb were analysed for Hg, in total 121 analysis (35% of total 343).

Hg histogram (FIG 4) shows an atypical distribution for a trace element and has its wide apex at the median/mean range of 500-1000 ppb and beyond up to 4000 ppb. This resembles minor element (eg: Mn, Ti, even Fe) distribution in intermediate rocks. Here the dominant igneous suite of andesite/diorite has similar distribution (60-2500 ppb Hg, consolidated into p 25) the implication being that the ultimate parent has been rather uniformly enriched by Hg.

Au histogram (FIG 5) is a two apex situation suggesting two partially

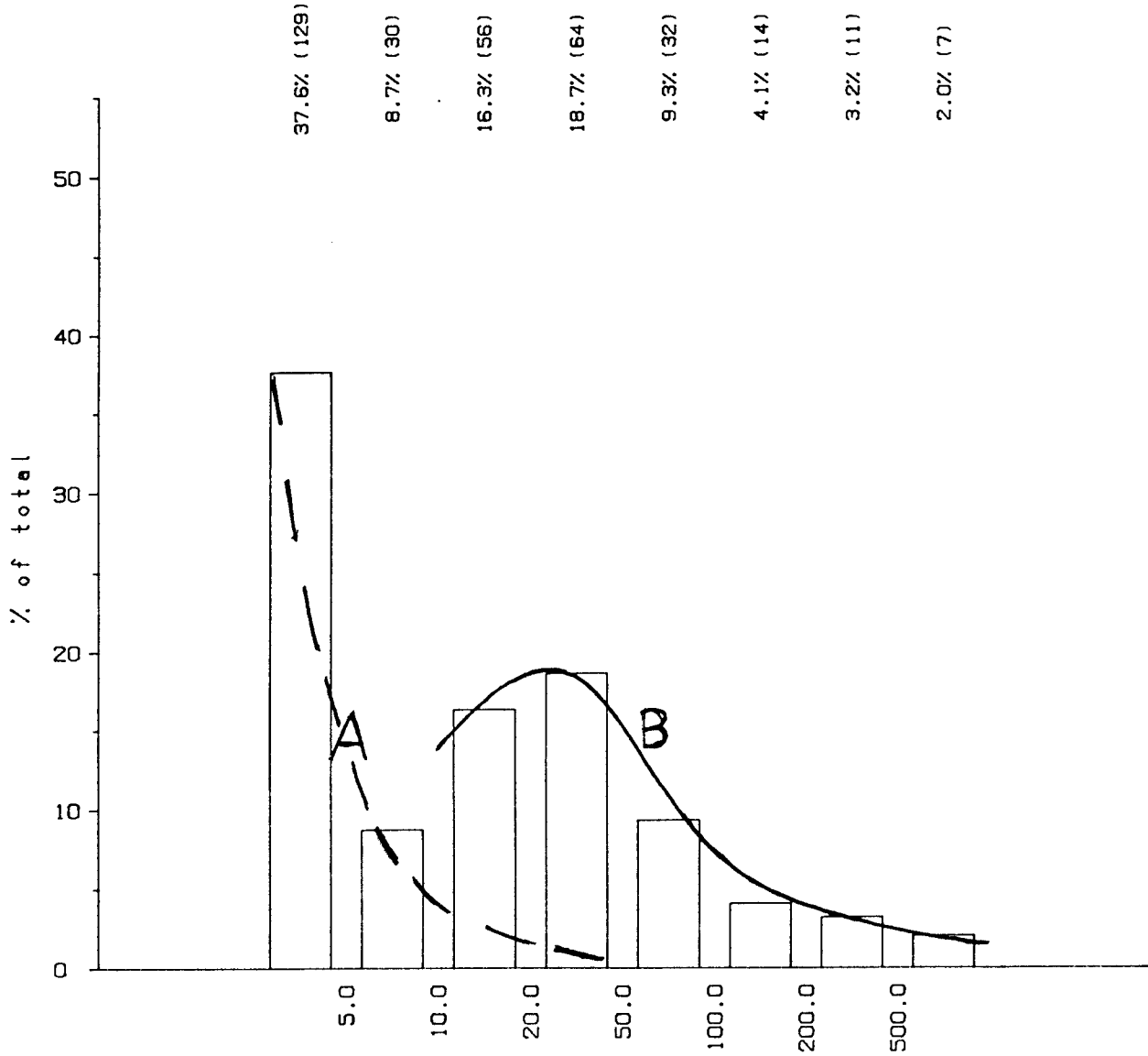


<u>Summary Statistics</u>			
Number of samples	: 121	Mean value	: 936.6
Number of intervals	: 8	Standard deviation	: 1100.79
Minimum value	: 20	Coeff. of variation	: 1.175
Maximum value	: 5000	Skewness	: 1.60
Median value	: 445	Kurtosis	: -0.418
Modal range	: greater than or equal to 200.0 to less than 500.0		
Values in modal range	: 34 (28.1 % of total)		

FIG
4

Histogram for Gold - Fire Assay (AU)

Values in PPB



Summary Statistics			
Number of samples	: 343	Mean value	: 43.6
Number of intervals	: 8	Standard deviation	: 108.84
Minimum value	: 3	Coeff. of variation	: 2.496
Maximum value	: 811	Skewness	: 4.55
Median value	: 10	Kurtosis	: 21.713
Modal range	: less than 5.0		
Values in modal range	: 129 (37.6 % of total)		

FIG
5

overlapping populations. This is supported by statistical parameters in general and particularly when compared with the same for Hg and by field data.

With exception of 23, all Au analysis are in chlorite shales and in altered rocks within or at their periphery. Analytical and observed boundaries between the two is rather sharp.

The chlorite shales can be divided into two sub-units:

- very fine grained, finely laminated, linear
- fine to medium grained, undulating to massive

Prior to the statistics, the former, the most common, was "eyeballed" to have a maximum of 30 ppb Au and the latter having a maximum of 260 ppb.

As a result the distribution patterns A (lower) and B (higher) are drawn to the histogram. In the higher B distribution 18% or 55 have Au between 75-800 ppb. If the 12 diorite vein types are excluded, the remaining 43 are in chlorite mush and its cohorts. This leaves an uncounted area from 30-75 ppb. Bulk of them are within or in the peripheries of prospects (a),(b),(c) and (d) or represent lesser prospects, (e)(e), and sporadic values in (h) and (i).

OTHER TRACE ELEMENTS

The Au mineralization is traceable by alteration and in detail, but not always, by appearance of medium zeolite cubes or very fine and scarce sulfide/arsenide disseminations.

The attempts to characterize the latter and to find an analytical/economical substitute for Au, are summarized on p25, and p26.

Usable pathfinders could be, in order of their ability to pinpoint

12.

Au, are: As, Zn and Ag. The Au-Ag ratio based on rather inadequate analysing, is in order of 1.3. This low ratio excludes other methods except AA and even then the low detection limit and resolution are restrictive. Besides Ag seems to spill over to shales adjoining Au bearing alterations (FIG 6). The background content of base metals is high/variable in the chlorite shale. This leaves As as the safest alternative.

PROSPECTS IN DETAIL

The above results of alterations versus their shale host favor, in my opinion, epigenetic birth. Equally ubiquitous with the shales are the rocks of the andesite/diorite clan. Fewer results here indicate Hg distribution similar to the general and that Au distribution is also similar and divisible into two. All the andesite clan rocks are low in Au, up to 20 ppb; all the higher values up to 400 ppb are sporadic in background values and in diorite vein rocks in two areas: veinlets in chlorite/amphibolite schist in Camper Creek zone and rigidly patterned diorite veins in the center of the central zone's main diorite body. Although the diorite then produced a residual, its weakness and lack of contemporary stirrings, are not suggesting that the alterations are from there.

CENTRALS ZONES PROSPECTS FROM E TO W

FIG 7

(a) A trenched outcrop on Camper ML's S-roadside, 8 m long (EW), one + m thick, width not measurable, is a band of chlorite mush with zeolite (Au 50-600 ppb) with schlieren of kaoline/quartz. It is below a dirty pyritized andesite ledge (Au 20 ppb, 3 annal.) of small dimensions: 15 by 18 m.

15.

The band plunges on both ends and is not trenchable there nor in its center by hand tools, due to thick till, road bed and water. Trenched spotty exposures continue E and W about 100 m immediately after the band's plunge. They are in chlorite andesite/shale contact zone, which is barren, without alteration and with normal hardness. The Au-bearing band may be considered to be an upper section of (b) prospect's E extension. As exposed, it is useful geophysical reference point.

FIG 7

(b) is a landslide between Camper ML and the 90° bend in Camper Creek and below a silicified shale/andesite cliff. 230 m of terrace like trenchings cover 140 by 50 m, EW and SW respectively; the 140 m covers the total exposable area at the cliff site and the rest the step-down terrasses at the slide site. In addition to the alterations at sites (a),(c),and (d), two so far exclusive types appear here: silification in shale and clay alteration in andesite.

The cliff's rocks from E to W are: shale/andesite, silicified center 33 m, and massive but dry chlorite rock. The center has also felspatic additions and segregations of the chlorite component.

The Au bearing part has finely disseminated sulfide pockets. The 7 m wide, 4 m high mineralization's Au values are in FIG 2, Box. The chlorite W-end is massive, disorganized, and without connate water. The Au peaks of 75,148, and 260 ppb are not otherwise distinguishable; below is massive laminated quartz chert which also continues below the center's mud. The roundish mud/sand center is partially surrounded by its suggested andesite parent, upslope is the silicified cliff, below it is open or terminates on a quartz chert and elsewhere forms a re-crystallized chlorite mush against regular fine shale laminates. Inside the mud/sand appear few veinlets of Au-bearing quartz, the only ones at Rat area.

The shale/andesite contact is exposed in one area only (S,Box, FIG 2). It is similar as described for area (a) except has one isolated

17.
sliver of massive, but dry chlorite pocket with Au 90 ppb.

The alteration is divisible here (and possibly elsewhere) into two:

- chlorite/kaoline mush; restricted area with definite boundaries, forceful total alteration
- silification/sand-clay, a larger area with diffuse boundaries, gradual replacement, watery digestion.

The terrasses collapsed soon. Renewed mechanized trenching is proposed.

(c) is a narrow V-shaped ridge 40 m N of Camper ML at the confluence of two small creeks. The 15 m trenched E slope and nose are in regular, thinly laminated shale with high, steady Hg content and low steady Au content. 9 m of the lower W slope has the altered rock, blasted and mucked by 3 consecutive rounds. The chlorite/kaoline admixture is very soft with both surface and connate waters and caves fast. Within it slightly angular relics suggest that a vein type rock is part of the mush. Of the 9 mixed samples 7 have Au from 27 to 98 ppb; one with 33 ppb belong to the rather clean andesite contact. The dirty chlorite andesite continues S at least 60 m and is barren.

The mush plunges E and below the ridge and should be considered again depending on results from elsewhere.

(d) FIG. 6, by its roadside situation similar with (a) but well exposable. Its essential difference with the 3 other prospects is that a diorite compensates for andesite; also a basalts appear here and the site is 200 and 300 m distance from two glass pipes.

The 20 m wide altered portion of the diorite resembles the 4 diorite/montzonite lenses 1.5 km E. The dark hue has turned pinkish by oxidation of Fe, particularly in feldspars. In the lenses the same has been interpreted as deuteric, here as from effects below; to the same direction points the high Ag values without corresponding Au values in the shale. The alterations division into two, chlorite

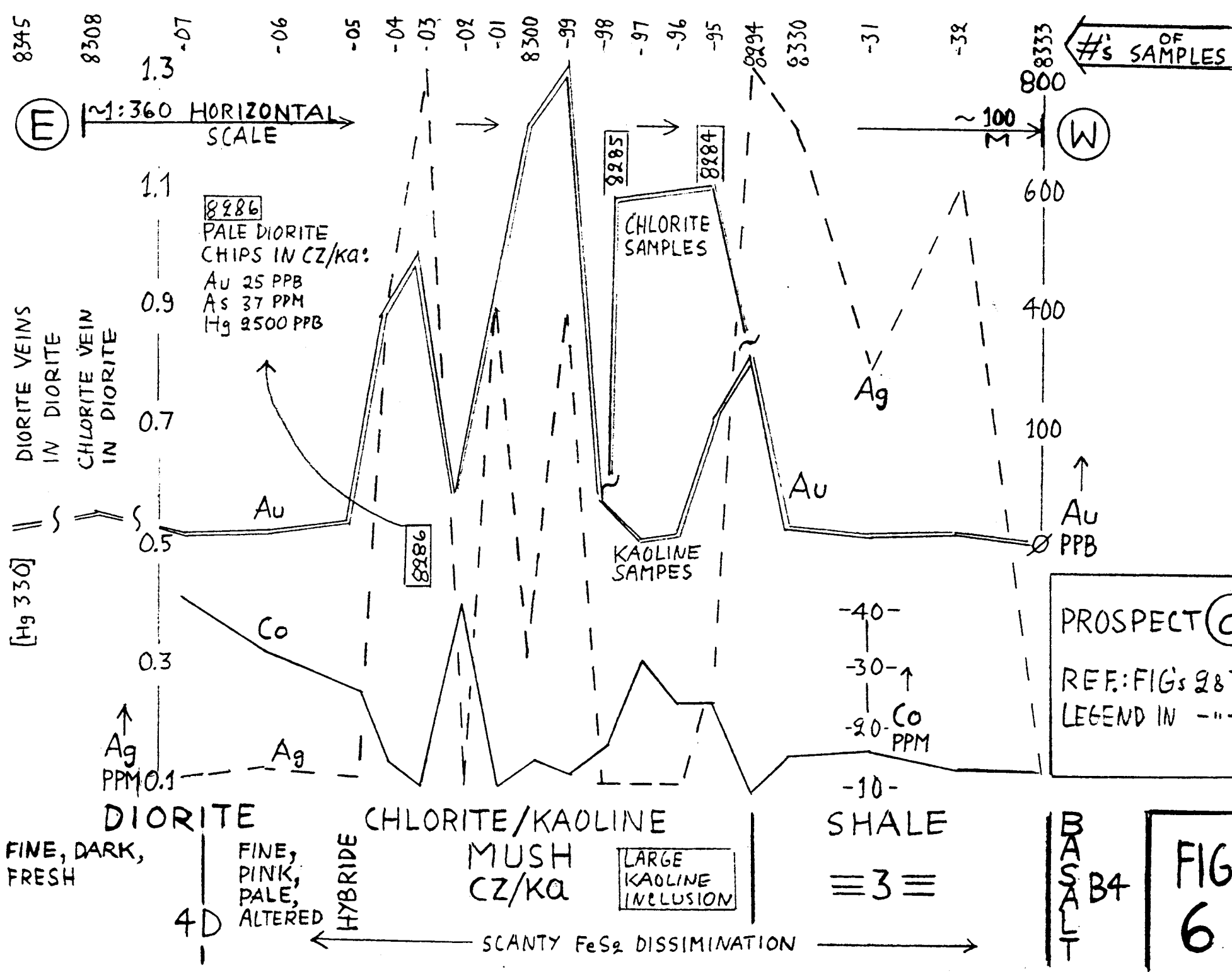


FIG 6

16.
and kaoline fraction, seems also more distinct here then elsewhere.

The andesite/diorite contacts with shale, without the alteration rocks is the rule versus the spotty character of the latter. The sterile contact with diorite are either cool, with slight angles or chlorite growths with barren pyrite. Contacts with andesite have a coarser then usual barren chlorite welding. The origin of these at times separated, at times tightly intermixed watery chlorite/kaoline mushes with gold is part of the key to further actions. This sharp division is explainable by thermal waters attacking along the contact zone as pipe-like channels the both walls: chlorite shale producing chlorite mush and andesite/diorite producing kaoline mush.

RECOMMENDATIONS

Results at hand suggest that machine trenching at prospect (b) and hand tool trenching at prospect (d) will yield new information.

At prospect (b) about 40 m of trenching should expose the E and W extension of the silicified zone at the cliff's upper, relatively flat and thinly covered rim with possible perpendicular extensions.

Overburden may be pushed for a short distance over the precipice.

Below the cliff trench should dissect the mud zone at the level of the quartz veinlets, also in EW direction, from contact to contact about 30 m. The soft and unstable 25° slope suggest that much overburden has to be moved.

At prospect (d) the trench exposes a protore at Camper ML's S slope; across and over the road, a 30° slope is covered by till. Several scattered pits or small terrace like trenches may well be placed here prior to a possible machine trenching.

The GSC's aeromag map shows a regional, oval, gradual low gradient low covering the claim area, its nadir coinsiding with prospects

17.

(c),(d) and (e)(e). A ground survey could clarify the geological picture and also add details to the search for hydrothermally altered, till covered part of it.

The rocks here are sharply divisible into low and high conductivity suites, the latter being shales and alterations. The conductivity contrast in the highly conductive rocks may be distinctive enough to separate the alterations. At least a model surveys should be made.

The area initially recommend for geophysics is 500 by 2500 m.

Bondar-Clegg & Company Ltd.

130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



BONDAR-CLEGG

Geochemical
Lab Report

MERCURY

REPORT: 127-3056

SAMPLE NUMBER	Hg PPB
R2 810	20
R2 811	600
R2 812	500
R2 813	1450
R2 814	185
R2 815	600
R2 816	800
R2 817	950

REPORT: 327-5604

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8114		750
R2 8116		4000
R2 8116		3900
R2 8117		3600
R2 8118		2400
R2 8119		1200
R2 8120		2300
R2 8121		1000
R2 8122		1500
R2 8123		1250

REPORT: 227-6780

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8161		380
R2 8162		100
R2 8165		380
R2 8167		30
R2 8168		1800
R2 8170		165
R2 8173		750
R2 8175		750
R2 8178		185

REPORT: 227-5211

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8100		85
R2 8101		165
R2 8107		145
R2 8108		240
R2 8109		250
R2 8110		455

R2 8125	1600
R2 8126	1500
R2 8127	230
R2 8128	3100
R2 8129	2100

REPORT: 227-7420

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8187		300

REPORT: 027-5604

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8112		60
R2 8113		60

R2 8130	460
R2 8131	1100
R2 8132	4000
R2 8133	3500
R2 8134	500
R2 8135	240
R2 8136	1750
R2 8137	2000
R2 8138	4000
R2 8139	1650

REPORT: 327-7420

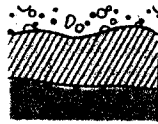
SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8191		2800
R2 8192		3600
R2 8193		3000
R2 8196		155
R2 8197		140

REPORT: 227-6101

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8140		3200
R2 8142		165
R2 8143		235
R2 8144		160
R2 8145		30
R2 8149		85

R2 8198	95
R2 8199	70
R2 8200	95
R2 8201	240
R2 8202	100
R2 8203	135
R2 8204	185
R2 8206	300
R2 8208	510
R2 8212	420
R2 8214	345

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 985-0681
 Telex: 04-352667



BONDAR-CLEGG

Geochemical Lab Report

REPORT: 327-8001

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8219		2800
R2 8220		1250
R2 8223		460
R2 8225		420
R2 8226		110
R2 8229		950
R2 8231		350
R2 8232		255
R2 8233		245
R2 8237		390
R2 8238		1850
R2 8239		45

REPORT: 227-8445

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8243		25
R2 8244		165
R2 8245		320
R2 8246		200
R2 8247		445
R2 8248		3400
R2 8249		400
R2 8250		2100
R2 8251		1800
R2 8252		650

R2 8253 300

REPORT: 327-8747

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8254		65
R2 8255		700

REPORT: 227-8747

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8259		1400
R2 8261		600
R2 8256		365
R2 8257		100
R2 8258		550
R2 8262		580
R2 8263		180
R2 8264		110
R2 8265		310
R2 8266		1250

REPORT: 227-9235

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8268		1250
R2 8269		900
R2 8270		490

REPORT: V88-00673.0

SAMPLE NUMBER	Hg PPB
R2 8275	230

REPORT: V88-01098.1

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
P4 8277 COMP		2000

REPORT: V88-02013.1

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8282		>5000
R2 8286		2500
R2 8288		650

REPORT: V88-02983.1

SAMPLE NUMBER	ELEMENT UNITS	Hg PPB
R2 8315		240
R2 8336		650
R2 8339		950
R2 8340		420
R2 8341		180
R2 8345		330
R2 8346		150

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 985-0681
 Telex: 04-352667



Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 985-0681
 Telex: 04-352667



Geochemical
 Lab Report

COLUMN 2

GOLD

COLUMN 3

SOILS: TOTAL 9

REPORT: 127-3680

REPORT: 127-4629

REPORT: 127-3056

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 818		<5
R2 819		5
R2 820		<5
R2 821		80
R2 822		55
R2 823		5
R2 824		<5
R2 825		<5
R2 826		<5
R2 827		10
R2 828		50
R2 829		600
R2 830		200
R2 831		10
R2 832		<5
R2 833		5
R2 834		<5
R2 835		110
R2 836		<5
R2 837		<5
R2 838		<5
R2 839		<5
R2 840		<5
R2 841		5
R2 842		5
R2 843		<5
R2 844		<5
R2 845		<5
R2 846		5
R2 847		<5
R2 848		5
R2 849		<5
R2 850		<5
R2 851		<5
R2 852		<5

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 853		20
R2 854		20
R2 855		5
R2 856		25
R2 857		35
R2 858		130
R2 859		<5
R2 860		50
R2 861		<5
R2 862		<5
R2 863		45
R2 864		10
R2 865		<5
R2 866		<5
R2 867		15
R2 868		15
R2 869		<5
R2 870		35
R2 871		<5
R2 872		<5
R2 873		<5
R2 874		<5
R2 875		5
R2 876		<5
R2 877		140
R2 878		75
R2 879		30
R2 880		25
R2 881		5
R2 882		15
R2 883		10
R2 884		10
R2 885		<5
R2 886		20
R2 887		<5

SAMPLE NUMBER	Au PPB
S1 801	<5
S1 802	<5
S1 803	<5
S1 804	<5
S1 805	<5
S1 806	<5
S1 807	<5
S1 808	<5
S1 809	<5
R2 810	<5
R2 811	80
R2 812	<5
R2 813	5
R2 814	<5
R2 815	<5
R2 816	10
R2 817	<5

ROCKS.
 COLUMN 1

Bondar-Clegg & Company Ltd.

130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Bondar-Clegg & Company Ltd.

130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Bondar-Clegg & Company Ltd.

130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



REPORT: 127-5211

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 888		<5
R2 889		<5
R2 890		<5
R2 891		<5
R2 892		10

R2 893		70
R2 894		5
R2 895		170
R2 896		<5
R2 897		<5

R2 898		<5
R2 899		<5
R2 8100		<5
R2 8101		10
R2 8102		75

R2 8103		260
R2 8104		30
R2 8105		20
R2 8106		25
R2 8107		5

R2 8108		5
R2 8109		15
R2 8110		15
R2 8111		20

REPORT: 127-5604

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8112		<5
R2 8113		<5
R2 8114		<5
R2 8115		5
R2 8116		<5

R2 8117		10
R2 8118		<5
R2 8119		<5
R2 8120		15
R2 8121		<5

R2 8122		10
R2 8123		10
R2 8124		20
R2 8125		<5
R2 8126		<5

R2 8127		<5
R2 8128		10
R2 8129		10
R2 8130		5
R2 8131		10

R2 8132		10
R2 8133		5
R2 8134		<5
R2 8135		<5
R2 8136		<5

R2 8137		<5
R2 8138		5
R2 8139		<5
R2 8140		<5

REPORT: 127-6101

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8141		50
R2 8142		15
R2 8143		5
R2 8144		<5
R2 8145		<5

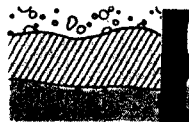
R2 8146		25
R2 8147		85
R2 8148		55
R2 8149		10
R2 8150		20

R2 8151		240
R2 8152		110
R2 8153		180
R2 8154		130

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667



REPORT: 127-6780

SAMPLE NUMBER	ELFMEI UNI	Au PPB
R2 8155		65
R2 8156		75
R2 8157		130
R2 8158		25
R2 8159		40
R2 8160		30
R2 8161		15
R2 8162		10
R2 8163		20
R2 8164		40
R2 8165		10
R2 8166		50
R2 8167		<5
R2 8168		15
R2 8169		90
R2 8170		5
R2 8171		80
R2 8172		25
R2 8173		10
R2 8174		25
R2 8175		15
R2 8176		95
R2 8177		160
R2 8178		10
R2 8179		30
R2 8180		30
R2 8181		35
R2 8182		35
R2 8183		30
R2 8184		20
R2 8185		30
R2 8186		25

REPORT: 127-7420

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8187		600
R2 8188		360
R2 8189		170
R2 8190		45
R2 8191		15
R2 8192		15
R2 8193		15
R2 8194		30
R2 8195		25
R2 8196		<5
R2 8197		10
R2 8198		<5
R2 8199		<5
R2 8200		<5
R2 8201		<5
R2 8202		<5
R2 8203		<5
R2 8204		10
R2 8205		25
R2 8206		10
R2 8207		20
R2 8208		300
R2 8209		55
R2 8210		25
R2 8211		30
R2 8212		15
R2 8213		90
R2 8214		240
R2 8215		70
R2 8216		50
R2 8217		80

REPORT: 127-8001

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8218		85
R2 8219		10
R2 8220		5
R2 8221		30
R2 8222		160
R2 8223		15
R2 8224		25
R2 8225		<5
R2 8226		<5
R2 8227		20
R2 8228		20
R2 8229		90
R2 8230		20
R2 8231		15
R2 8232		<5
R2 8233		5
R2 8234		25
R2 8235		20
R2 8236		25
R2 8237		<5
R2 8238		10
R2 8239		<5



REPORT: 127-8445

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8240		30
R2 8241		20
R2 8242		25
R2 8243		<5
R2 8244		<5

R2 8245		<5
R2 8246		10
R2 8247		<5
R2 8248		<5
R2 8249		<5

R2 8250		<5
R2 8251		5
R2 8252		<5
R2 8253		<5

REPORT: 127-8747

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8254		<5
R2 8255		55
R2 8256		<5
R2 8257		<5
R2 8258		<5

R2 8259		420
R2 8260		65
R2 8261		110
R2 8262		<5
R2 8263		<5

R2 8264		<5
R2 8265		5
R2 8266		5

REPORT: 127-9235

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8267		25
R2 8268		<5
R2 8269		<5
R2 8270		5

R2 8271		15
R2 8272		10
R2 8273		10
R2 8274		30

REPORT: V88-00673.0

SAMPLE NUMBER	ELEMENT UNITS	Au 30g PPB
R2 8275		10

REPORT: V88-01098.0

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8276		5
R2 8277		10
R2 8278		10
R2 8279		10

REPORT: V88-02013.0

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8280		<5
R2 8281		5
R2 8282		55
R2 8283		5
R2 8284		700

R2 8285		680
R2 8286		25
R2 8287		15
R2 8288		10
R2 8289		55

R2 8290		10
R2 8291		20
R2 8292		<5
R2 8293		35

REPORT: V88-02666.0

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 8294		319
R2 8295		207
R2 8296		18
R2 8297		8
R2 8298		60

R2 8299		811
R2 8300		715
R2 8301		478
R2 8302		54
R2 8303		501

R2 8304		371
R2 8305		33
R2 8306		19
R2 8307		15
R2 8308		41

R2 8309		41
R2 8310		27
R2 8311		26
R2 8312		26
R2 8313		77



S-SLOPE *i*

VERSUS N-SLOPE *d f k*

REPORT: V88-02983.0

ADOPTED VALUES; SEE TEXT

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	Au PPB	Au PPB	Au PPB	Au PPB	Au PPB
R2 8314	<5	56	<5		<5
R2 8315	<5	102	<5		<5
R2 8316	<5	84	<5		<5
R2 8317	<5	59	<5		<5
DUPLICATE		23			
R2 8318	<5	<5			
R2 8319	<5	7			
R2 8320	<5	22	<5	<5	
R2 8321	<5	<5		<5	
R2 8322	<5	5		<5	
R2 8323	<5	<5		<5	
R2 8324	<5	<5		<5	
R2 8325	<5	22			
R2 8326	<5	15			
R2 8327	<5	16			
8328	<5	<5			
R2 8329	<5	8			
R2 8330	20	32	20		15
R2 8331	15	23	9		7
R2 8332	20	34	8		6
R2 8333	<5	9			<5
R2 8334	<5	16			
R2 8335	<5	17			
R2 8336	<5	75	<5	<5	
R2 8337	<5	82	<5	<5	
R2 8338	<5	88	<5	<5	
R2 8339	50	177	<5	<5	
R2 8340	100	375	<5	<5	
DUPLICATE		20			
R2 8341	100	204	<5	105	
R2 8342	<5	194	<5	<5	
R2 8343	<5	17			
R2 8344	<5	31	<5		<5
R2 8345	25	72	12		<5
R2 8346	20	98	<5		<5
R2 8347	<5	33	<5		<5
8348	<5	8			<5

S-SLOPE = ROAD BR117

N-SLOPE = W-END OF CAMPER MIL

SELECTED ANALYSIS FOR As, Hg FOR INTERPRETATION:

REPORT: V88-02983.2

SAMPLF NUMBER	ELEMENT UNITS	As PPM
R2 8315		10
R2 8322		6
R2 8336		5
R2 8339		12
R2 8340		15
R2 8341		12
R2 8345		22
R2 8346		17

REPORT: V88-02983.1

SAMPL F NUMBER	ELEMENT UNITS	Hg PPB
R2 8315		240
R2 8336		650
R2 8339		950
R2 8340		420
R2 8341		180
R2 8345		330
R2 8346		150



ANDESITES CONSOLIDATED; MULTIELEMENT ANALYSIS

REPORT: 127-3056

PROJECT: NONE GIVEN

PAGE 1

SAMPLF NUMBER	ELEMENT UNITS	Cu	Zn	Ag	Mo	Sb	As	Hg	Au	REMARKS
		PPM	PPM	PPM	PPM	PPM	PPM	PPB	PPB	
R2 810		30	46	<0.5	1	<5	<5	20	<5	* SAMPLE # OUT OF SUCCESSION a, ⚡ AS IN FIGS 2 & 3
R2 811		51	63	<0.5	4	<5	61	600	80	
R2 812		67	95	<0.5	1	<5	<5	500	<5	
R2 813	d	85	136	<0.5	2	<5	43	1450	5	
R2 814		78	81	<0.5	1	<5	<5	185	<5	
R2 815		64	68	<0.5	3	<5	25	600	<5	
R2 816		80	85	<0.5	3	<5	44	800	10	
R2 817		85	101	<0.5	3	<5	52	950	<5	
R2 8275 *	g	18	67	<0.2	1	<5	5	230	10	

REPORT: V88-00673.0

REPORT: 927-5604

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu	Zn	Co	Ag	Tl	As			REMARKS
		PPM	PPM	PPM	PPM	PPM	PPM			
R2 8114	⚡	2	20	<1	<0.5	<1	<5	750	<5/10	SILICATE ANAL. BELOW
R2 8116		8	13	1	<0.5	<1	20	4000	<5	
R2 8187		75	64	12	0.8	<1	1693	300	600	
R2 8208		112	233	14	2.3	<1	789	510	300	
R2 8214	b	117	197	13	<0.5	<1	726	345	240	
R2 8229		27	72	<1	<0.5	2	480	950	90	
R2 8255	e/f	51	153	13	<0.5	<1	45	700	55	
R2 8259		90	221	15	<0.5	<1	52	1400	420	
R2 8261		141	179	11	<0.5	<1	26	600	110	

REPORT: 027-8747
 PORT: 027-7420
 REPORT: 027-8001

ADDITIONAL ANDESITES FROM PP. *

#	Hg	Au	PPB	AREA; NOTE
853		20		} a
854		20		
8107	200	10		} b; AV. OF RANGE / 7 ANAL.
8113	60-450	5-20		
8288	650	15		g

REPORT: V88-02013.2
 REPORT: V88-02666.1

REPORT: V88-02983.2

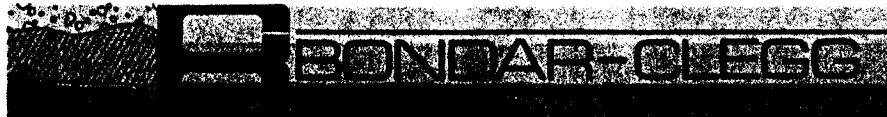
SAMPLE NUMBER	ELEMENT UNITS	As			REMARKS
P4 8277 COMP	g	11	2000	10	ANDESITE VEINS
R2 8282	e	450	>5000	55	ANDESITE
R2 8286		37	2500	25	
R2 8299	d	370		811	ANDESITE VEINS Au FROM DUPLI-CATES & REPEATS: P.
R2 8315	i	10	240	<5	
R2 8322		6		<5	
R2 8336		5	650	<5	
R2 8339		12	950	50	
R2 8340	g	15	420	100	
R2 8341		12	180	100	
R2 8345		22	330	25	
R2 8346		17	150	20	

SILICATE ANALYSIS

REPORT: 227-5604 REPORT: 127-6780

SAMPLE NUMBER	ELEMENT UNITS	SiO2 PCT	Na2O PCT	CaO PCT	K2O PCT				REMARKS
* R2 8114		95.08	0.02	0.10	0.09	750	<5/10		QUARTZ VEIN ⚡
R2 8178		86.93	0.03	0.67	0.35	185	10		WHITE CHERT h

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 985-0681
 Telex: 04-352667



Geochemical
 Lab Report

SILVER AND COBALT

REPORT: V88-02666.2 (COMPLETE)

REFERENCE INFO:

CLIENT: DR. MATTI TAVELA
 PROJECT: NONE GIVEN

SUBMITTED BY: MATTI TAVELA
 DATE PRINTED: 11-AUG-88

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	14	0.1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
2	Co Cobalt	14	1 PPM	HNO3-HCL HOT EXTR	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	14	2 -150	14	CRUSH, PULVERIZE -150	14

REPORT COPIES TO: DR. MATTI TAVELA

INVOICE TO: DR. MATTI TAVELA

REPORT: V88-02666.2

REPORT: V88-02983.3

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Co PPM
R2 8294		1.3	8
R2 8295		0.3	24
R2 8296		<0.1	24
R2 8297		<0.1	32
R2 8298		<0.1	16

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Co PPM
R2 8330		1.1	15
R2 8331		0.7	16
R2 8332		1.0	13
R2 8333		<0.1	13

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Co PPM
R2 8299		0.9	12
R2 8300		0.3	14
R2 8301		0.9	10
R2 8302		<0.1	40
R2 8303		1.3	10

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Co PPM
R2 8304		0.9	14
R2 8305		<0.1	26
R2 8306		0.1	32
R2 8307		<0.1	40

SILICATE ANALYSIS

ORDER	ELEMENT	ANALYSES	DETECTION LIMIT	EXTRACTION	METHOD
1	SiO2 Silica	1	0.01 PCT	MULT ACID TOT DIG	PLASMA
2	Na2O Sodium (Na2O)	1	0.01 PCT	MULT ACTD TOT DIG	PLASMA
3	CaO Calcium (CaO)	1	0.01 PCT	MULT ACID TOT DIG	PLASMA
4	K2O Potassium (K2O)	1	0.01 PCT	MULT ACTD TOT DIG	PLASMA

Bondar-Clegg & Company Ltd.
 130 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7P 2R5
 Phone: (604) 985-0681
 Telex: 04-352667



Geochemical
 Lab Report

ANAL. METHODS

REPORT: 127-3680 (COMPLETE)

REFERENCE INFO:

CLIENT: DR. MATTI TAVELA
 PROJECT: NONE GIVEN

SUBMITTED BY: M. TAVELA
 DATE PRINTED: 14-JUL-88

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold - Fire Assay	35	5 PPB	FIRE-ASSAY	Fire Assay AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	35	2 -150	35	CRUSH,PULVERIZE -150	35

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Hg	Mercury	3	5 PPB	HN03-HCL HOT EXTR	Cold Vapour AA

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	As	Arsenic	2	2 PPM	NITRIC PERCHLOR DIG	Colourimetric

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTTON	METHOD
1	Au 30g	Gold 30 grams	1	5 PPB	FIRE-ASSAY	Fire Assay AA
2	Cu	Copper	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
3	Zn	Zinc	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
4	Ag	Silver	1	0.5 PPM	HN03-HCL HOT EXTR	PLASMA
5	Mo	Molybdenum	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
6	As	Arsenic	1	5 PPM	HN03-HCL HOT EXTR	PLASMA
7	Sb	Antimony	1	5 PPM	HN03-HCL HOT EXTR	PLASMA

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTTON	METHOD
1	Cu	Copper	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
2	Zn	Zinc	1	1 PPM	HN03-HCL HOT EXTR	PLASMA

3	Co	Cobalt	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
4	Ag	Silver	1	0.5 PPM	HN03-HCL HOT EXTR	PLASMA
5	Tl	Thallium	1	1 PPM	HN03-HCL HOT EXTR	PLASMA
6	As	Arsenic	1	5 PPM	HN03-HCL HOT EXTR	PLASMA

STATEMENT OF COSTS

M. Tavela, P. Eng.

1987: Jun. 2-9; 19-27; Jul. 8-13, 21-25;
Aug. 2-6, 17-23,31; Sept. 5, 16-20,
29; Oct. 4, 12-17,29; Nov. 1; Dec. 26-27.

1988: Mar. 9-12,30; Apr. 5, 25-30; May 11-18

Total 93 days, 16 roundtrips, ferry TSWW-SWTZ;
ave. 530 kmby 4x4 vechicle trips and support
\$310/day

\$ 28,830

PAYROLL WITHIN THE ABOVE DATES,

all of Port Renfrew:

CHRIS THOMPSON - 62.5 days @ \$100/day, \$6,250.

JARI KOIKKALAINEN - 9.5 days @ \$70/day, \$665.

RHONDA CHESTER - 2 days @ \$40/day, \$80.

\$ 6,995

WORKER'S COMPENSATION BENEFIT PAYMENTS

\$ 271

EXPLOSIVES (forsite, B-line and fuses)

CONTINENTAL EXPLOSIVES LTD. BILLINGS

\$ 4,401

GEOCHEMICAL ANALYSIS (Au 343, Hg 121 and
multi-element: 40 anal. plus statistical
anal. and computer printings)

BONDAR-CLEGG CO. LTD. BILLINGS

\$ 4,257

CAMP AND STORAGE SHED (materials \$ 930,
labor contract \$ 500)

\$ 1,430

REPORTING

\$ 116

TOTAL \$ 46,300

Balance from P.A. account #9835

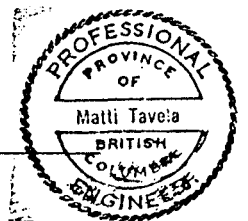
20

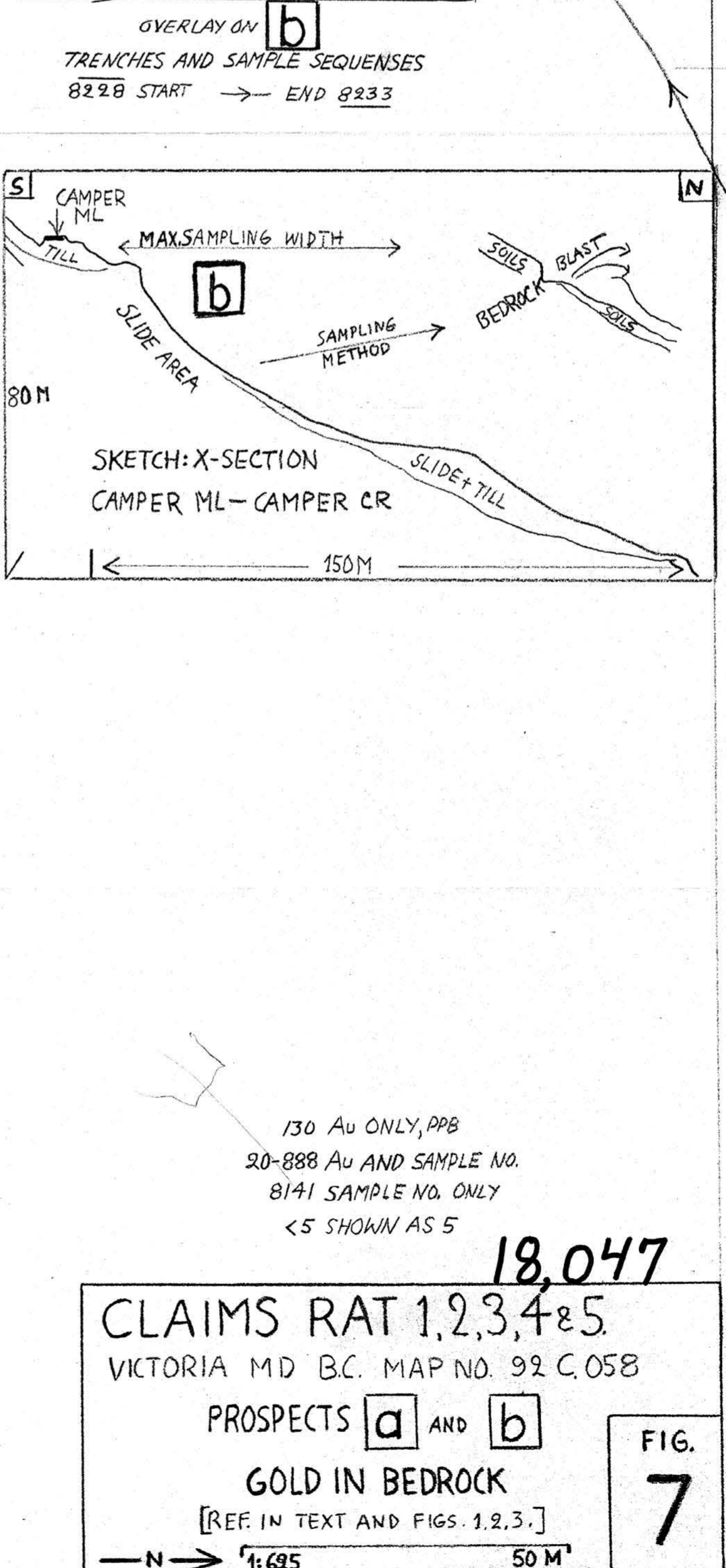
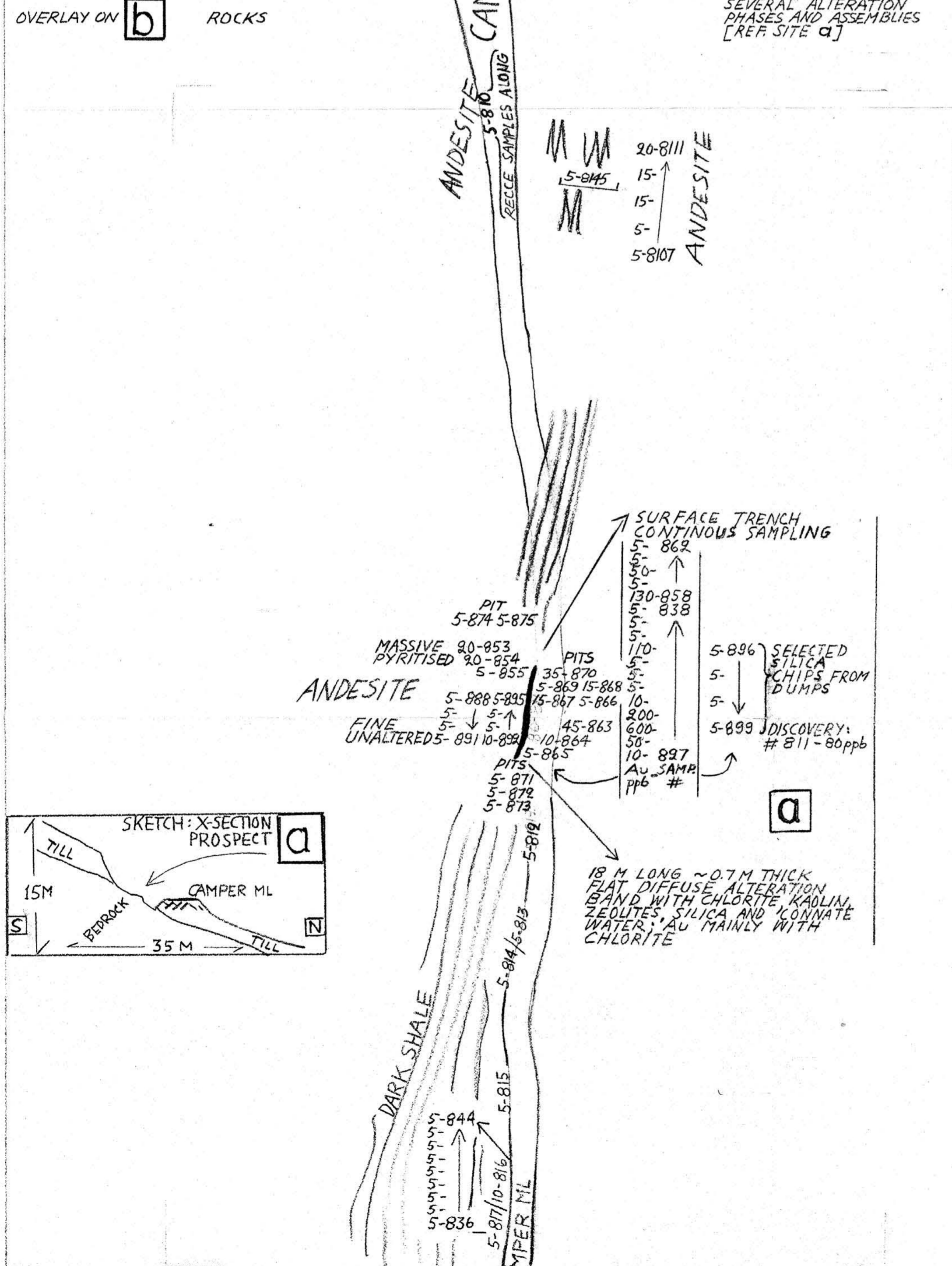
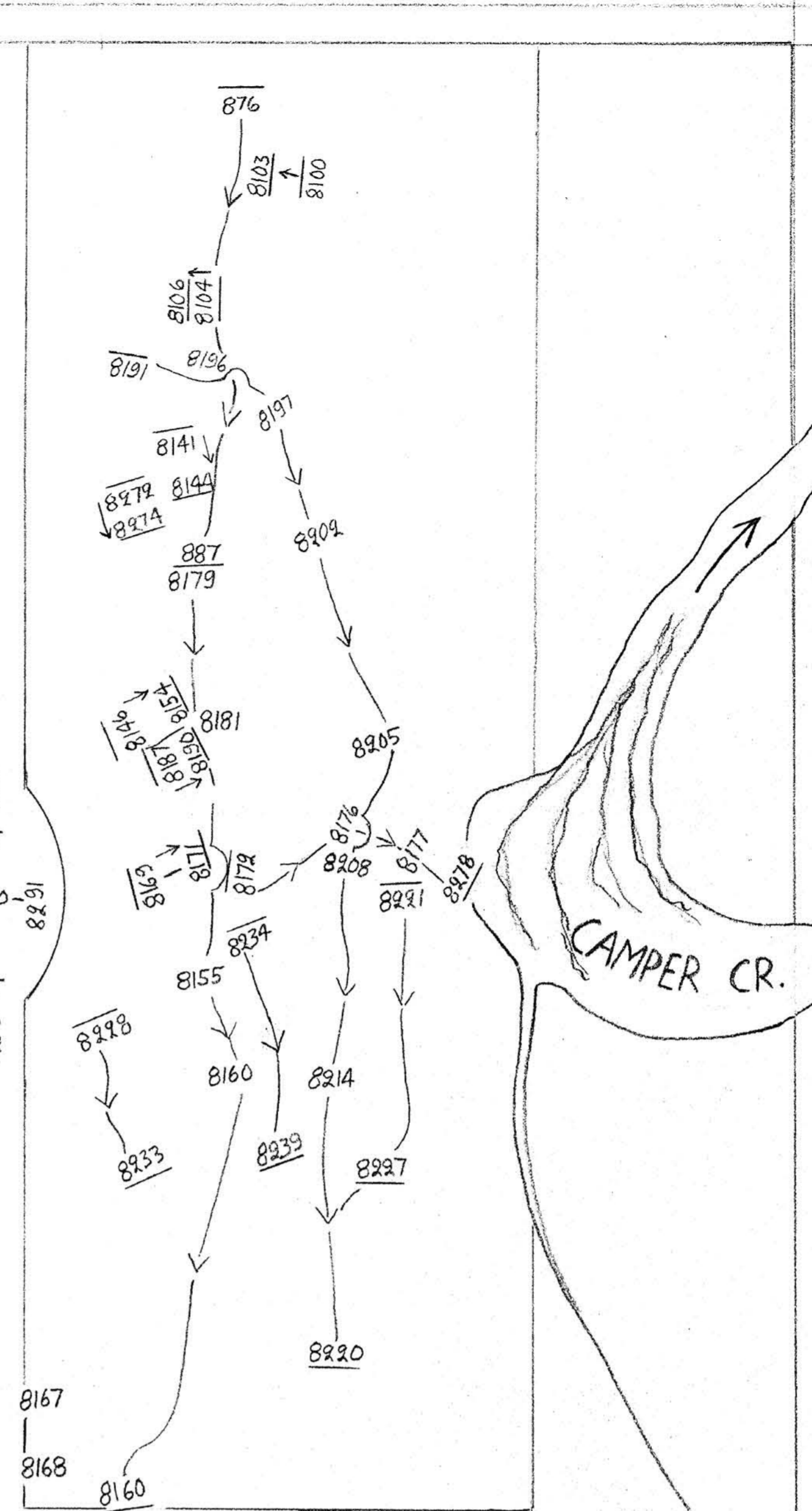
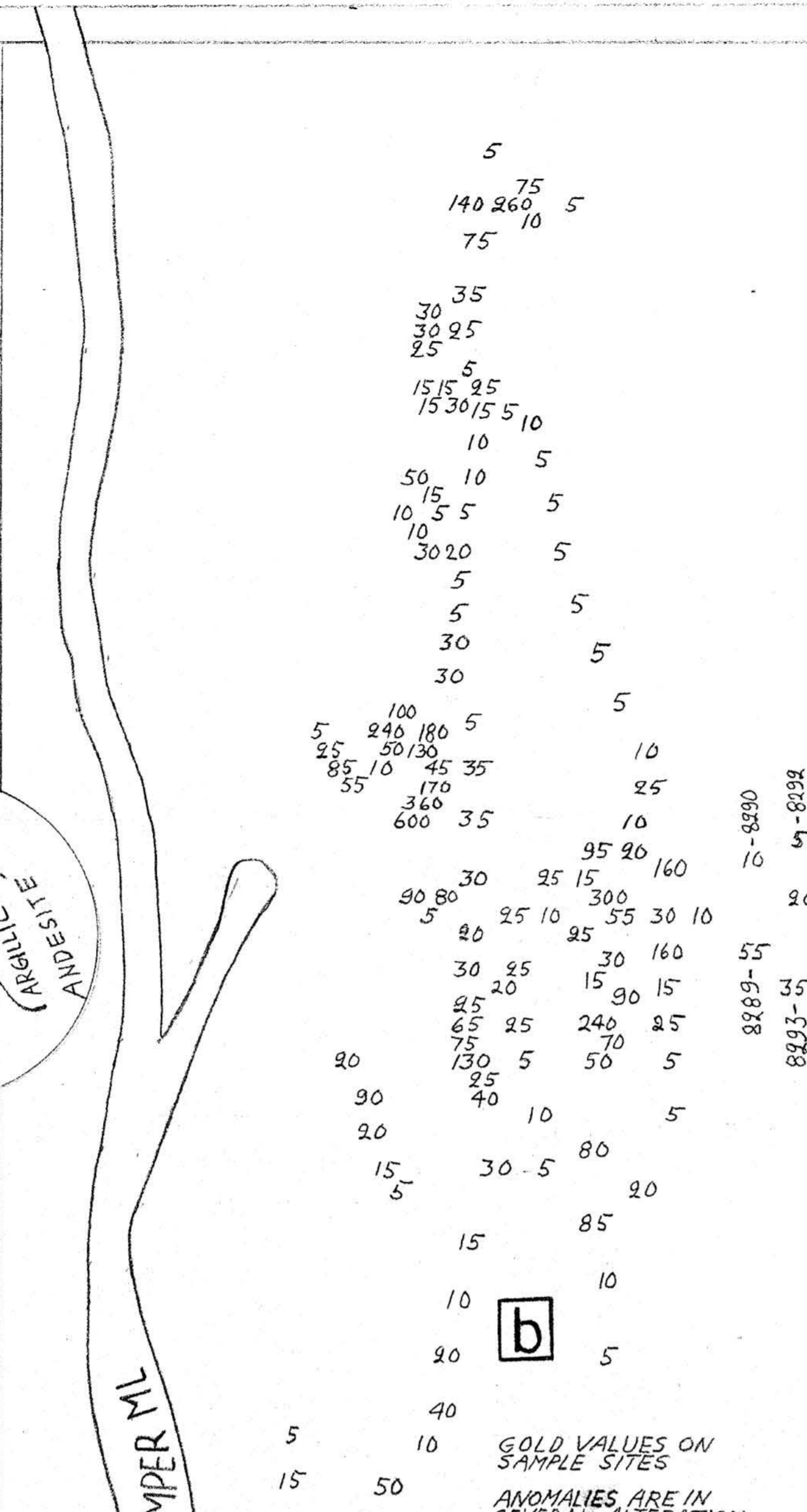
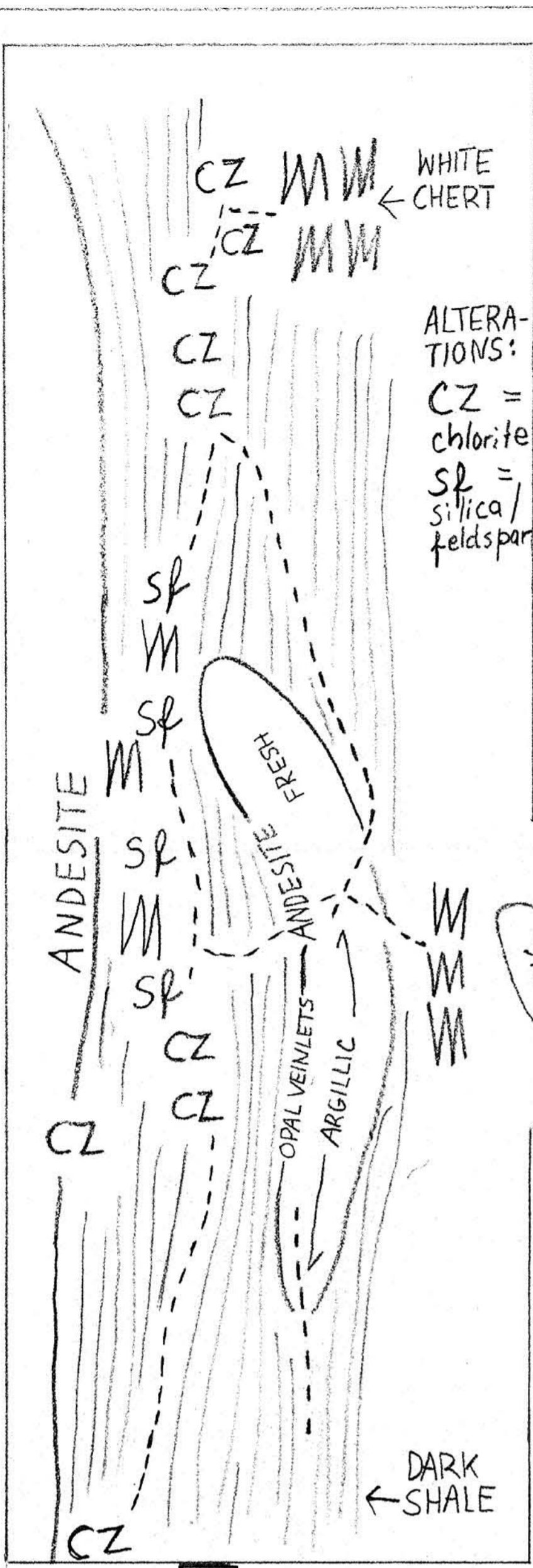
STATEMENT OF QUALIFICATIONS

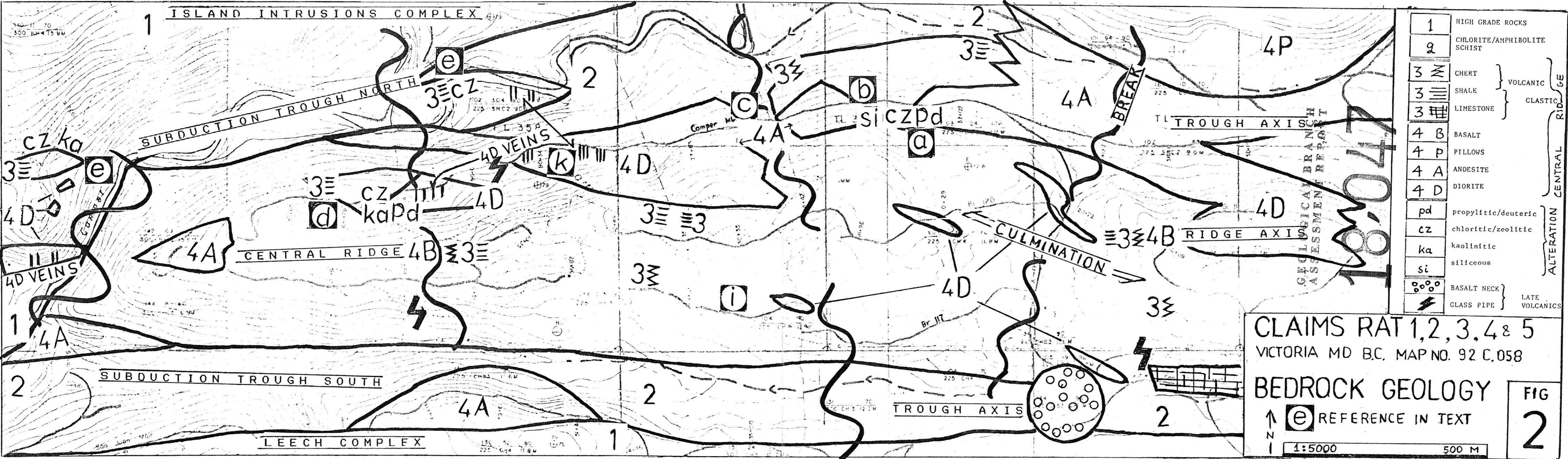
I, Matti Tavela, hereby state that:

1. I am a Prospector, a citizen of Canada and reside at 2125 Harrison Drive, Vancouver, in the Province of British Columbia.
2. I have a M.Sc. degree in Chemistry and a Ph.D. degree in Geology from the University of Helsinki, Finland. I have practiced these professions since 1947.
3. My Canadian experience is: 1961-62 Geologist/Geochemist for Selco Inc.; 1970-72 Geochemist for Kennco Explorations, (Canada) Limited; 1973 Project Manager for Brinco Limited; 1975-78 Vice President of Compass Exploration Limited; 1979-present as independent.
4. My foreign experience has been in Scandinavia, the Far East, NE Africa, Cental and West South America, and California.
5. I am a Registered Professional Engineer in B.C., Registered Geologist in the State of California, and Licenced Mining Surveyor in Finland.


Matti Tavela, P.Eng.







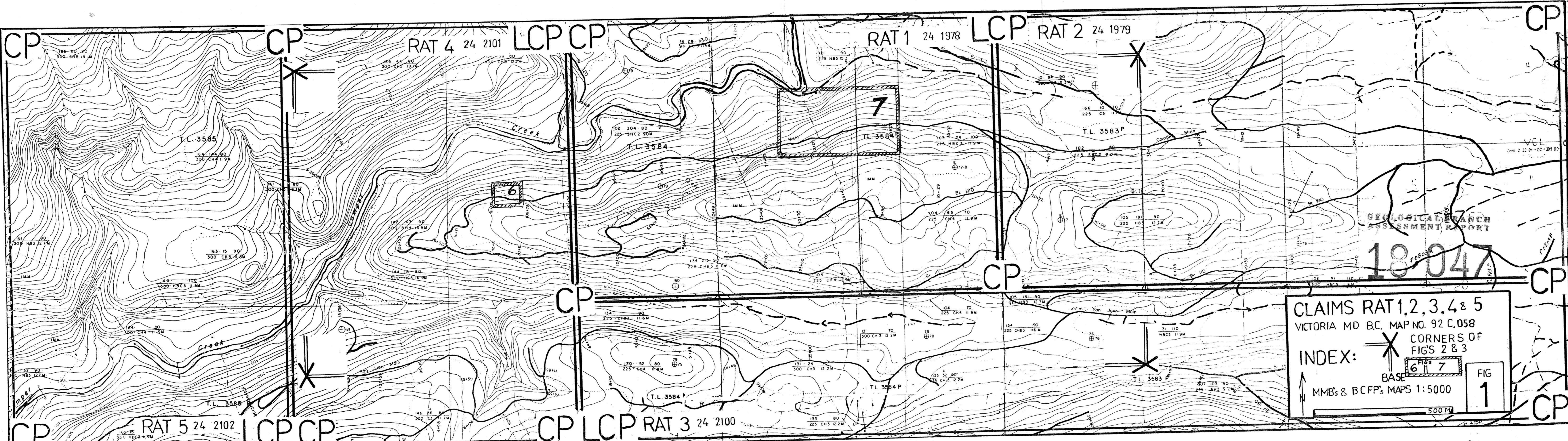
1	HIGH GRADE ROCKS		
2	CHLORITE/AMPHIBOLITE SCHIST		
3	CHERT	VOLCANIC	
3	SHALE		
3	LIMESTONE	CLASTIC	
3			
4 B	BASALT	CENTRAL	
4 P	PILLOWS		
4 A	ANDESITE		
4 D	DIORITE		
pd	propylitic/deuteric	ALTERATION	
cz	chloritic/zeolitic		
ka	kaolinitic		
si	siliceous		
o	BASALT NECK		LATE VOLCANICS
⚡	GLASS PIPE		

CLAIMS RAT 1,2,3,4 & 5
 VICTORIA MD BC, MAP NO. 92 C.058

BEDROCK GEOLOGY

↑ **e** REFERENCE IN TEXT
 1:5000 500 M

FIG
2



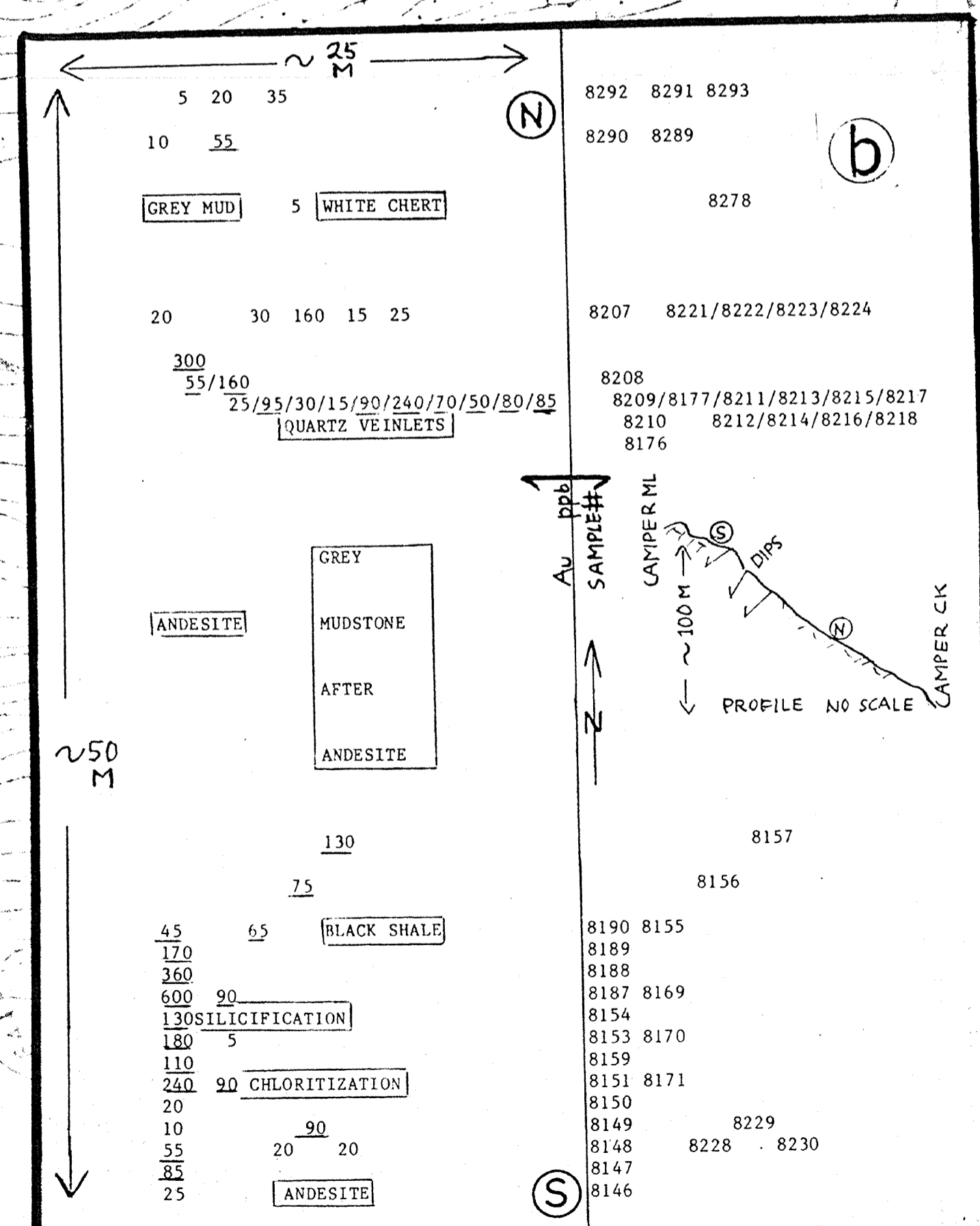
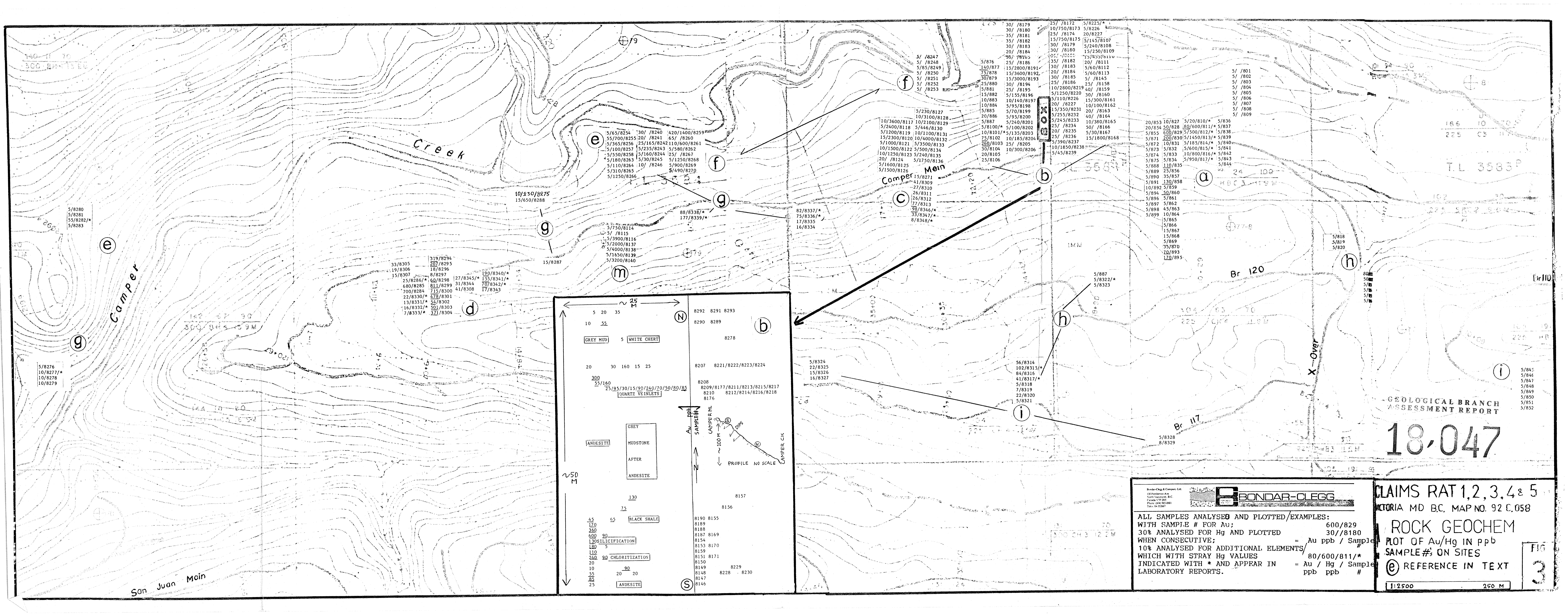
CLAIMS RAT 1, 2, 3, 4 & 5
 VICTORIA MD BC, MAP NO. 92 C.058

INDEX: X CORNERS OF FIGS 2 & 3

BASE: FIG 1

MMB's & BCFP's MAPS 1:5000

500 M



Bondar-Clegg & Company Ltd.
 131 Pemberton Ave.
 North Vancouver, B.C.
 Canada V7V 2P5
 Phone (604) 985-0941
 Telex 963200

BONDAR-CLEGG

ALL SAMPLES ANALYSED AND PLOTTED/EXAMPLES:
 WITH SAMPLE # FOR Au; 600/829
 30% ANALYSED FOR Hg AND PLOTTED 30//8180
 WHEN CONSECUTIVE; = Au ppb / Sample #
 10% ANALYSED FOR ADDITIONAL ELEMENTS/
 WHICH WITH STRAY Hg VALUES 80/600/811/*
 INDICATED WITH * AND APPEAR IN = Au / Hg / Sample #
 LABORATORY REPORTS. ppb ppb #

CLAIMS RAT 1, 2, 3, 4 & 5
 VICTORIA MD BC, MAP NO. 92 C.058

ROCK GEOCHEM
 PLOT OF Au/Hg IN ppb
 SAMPLE # ON SITES

ⓐ REFERENCE IN TEXT

1:2500 250 M

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

18-047

5/845
 5/846
 5/847
 5/848
 5/849
 5/850
 5/851
 5/852

FIG
 3