

84-#931 - 12958  
8/85

GEOPHYSICAL, GEOCHEMICAL  
and

PHYSICAL REPORT

on the

DOMINIC PROPERTY

Kamloops Mining Division - British Columbia

N.T.S. 92 I 10/E

Lat. 50° 35' N

Long. 120° 43' W

for

GREEN VALLEY MINE INC.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,958**

by

Douglas R. MacQuarrie, B.Sc.

Vancouver, B.C.

October 10, 1984

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## INTRODUCTION

Green Valley Mine Incorporated holds the DOMINIC North, DOMINIC South and the DOMINIC Lake claims located 27 kilometers south west of Kamloops, B.C.

The claim area is underlain by rocks of the Upper Triassic Nicola Group (GSC Map 886A) consisting primarily of andesites and basaltic andesites. Alteration is generally weak, with hematite, chlorite, epidote, calcite and minor hornblende reported (Goldsmith, 1980, Sookochoff, 1981).

Previous work on the claims area by Mark, Sookochoff (1981), indicated the presence of low scale induced polarization anomalies with co-incident anomalous multi-element geochemistry,

A percussion drill-hole program was completed in 1980, to test the resistivity low area outlined by Mark. Drill results, reported by Goldsmith, were "low and flat but correlated with lithology".

The 1984 program consisted of 3.6 line kilometers of grid relocating. Induced Polarization and VLF\_EM surveying, and a total of 42 rock and soil geochemical assays.

The work was carried out from July 10 to August 20, 1984, under the supervision of Mr. Charles Boitard of Green Valley Mine Incorporated.

LOCATION

The claim area (Figure 1) is located 27 kilometers west of Dominic Lake. The area is accessed from Highway 1 via the Tunkwa Lake road a distance of 15.6 kilometers south to the Evans-Durand Creek Intersection, then a further 10.9 kilometers southeasterly to grid Line 0 440W.

CLAIM DATA

The property is comprised of three contiguous claims totalling 38 units (Figure 2).

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
DOMINIC NORTH	474	August 16
DOMINIC SOUTH	475	August 16
DOMINIC LAKE	473	August 16

The property is owned by Green Valley Mine Incorporated.

1984 PROGRAM

Recent logging activity within the claim area obliterated large sections of the previously located grid. It was therefore necessary to relocate a chain and compass grid for the 1984 program. As future drilling was contemplated it was further required to relocate the induced polarization-resistivity features previously located by MARK. To this end 3.6 line kilometers of induced polarization

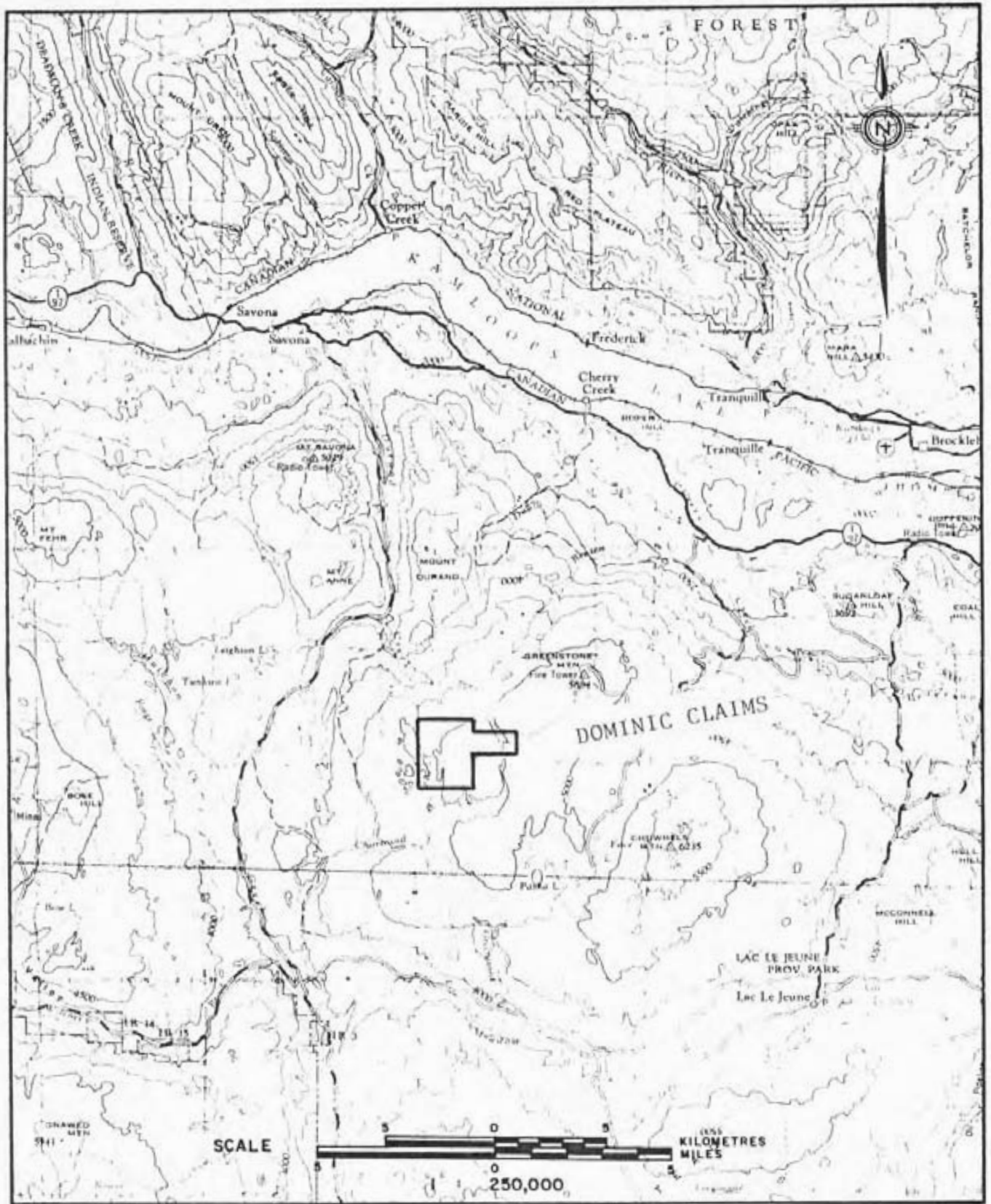
surveying, a VLF -EM survey, rock and soil geochemical sampling and a very limited trenching program were also completed.

1) INDUCED POLARIZATION SURVEY

The induced polarization survey was conducted utilizing a four man crew on July 28 and 29th, 1984. The equipment consisted of a Sabre portable 500 watt frequency domain unit. The dipole-dipole array, with an 'a' spacing of 60 meters and  $n=1$  and 2 was used. The percent frequency and apparent resistivity data is plotted in plan at a scale of 1:2000 on figures 3 and 4.

Very weak percent frequency effects were noted by the survey. Values range from a background of 1% FE to 3.5% FE. The higher values are associated with local apparent resistivity high, indicating a correlation with geology. A very small pyrite content (say up to 1%) in the underlying rocks bounded by the greater than 200 ohm meters contour would account for the observed data. Alternatively, a thinning of overburden over the higher PFE areas would also account for the data. Trenching in the vicinity of 1+40S 3+00W exposed some rusty weathering volcanic sediments, under overburden. (C. Boitard, Personal Communication).

In general the  $n$  equals 1 resistivities are somewhat lower than the  $n$  equals 2 resistivities indicating generally thin overburden conditions. The low apparent resistivity values (less than 100 ohm meters) are probably indicative of thicker, somewhat conductive overburden.



N.T.S. 92 I

GREEN VALLEY MINE INC.  
**ACCESS MAP**  
 DOMINIC CLAIMS

Kamloops Mining Division - British Columbia

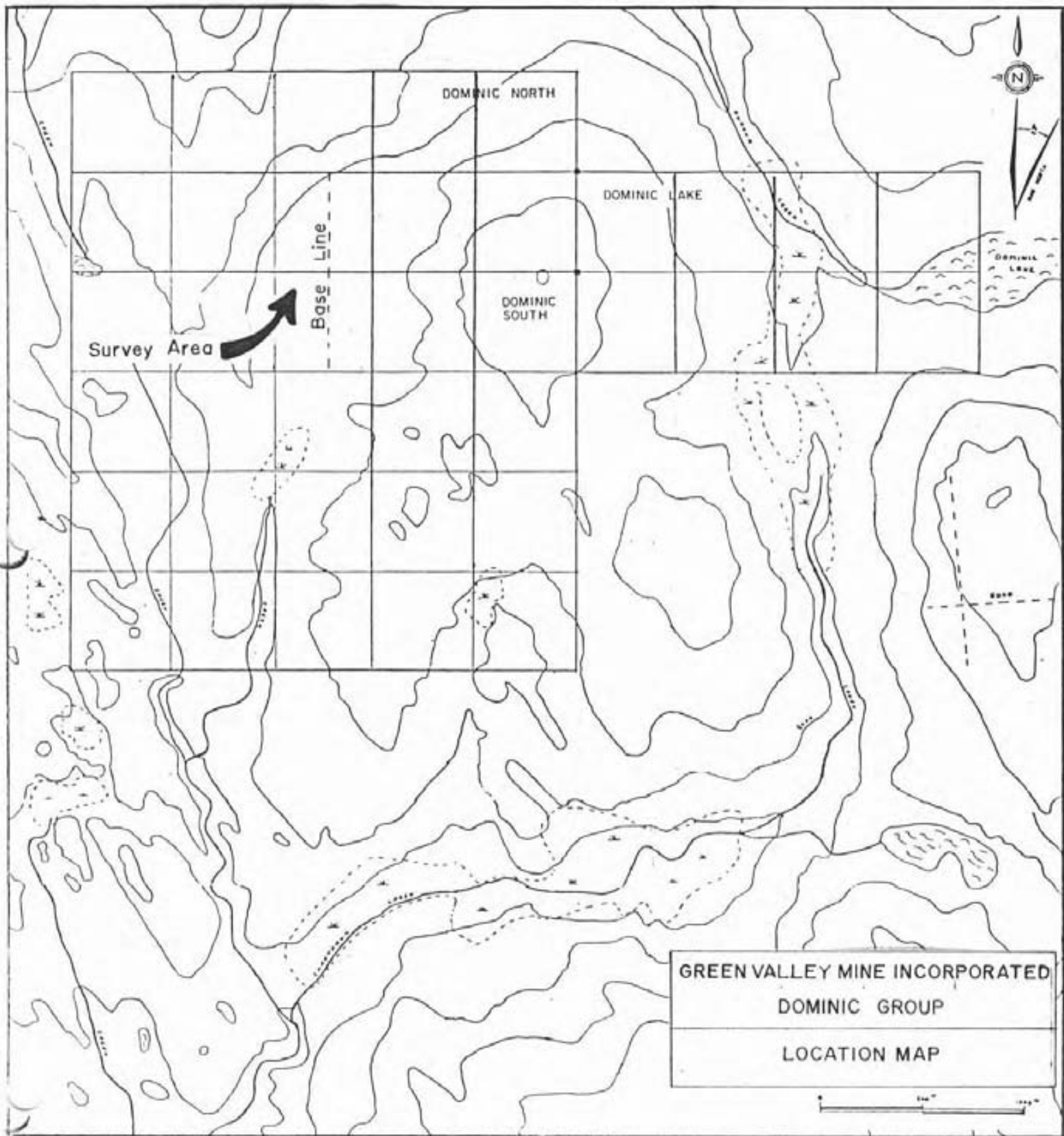


Figure 2



### VLF-EM SURVEY

The data was collected using a Sabre Model 27 VLF-EM receiver, tuned to Seattle, Washington. This instrument measures both the relative field strength (Figure 5) and dip angle (Figure 6) of the electromagnetic field. Conductors are located at local field strength highs where co-incident with dip angle crossovers.

The data suggests the presence of three wide northerly trending conductive zones. The first zone runs along the road from 5+00W on L 4+00S to 4+00W on L 0. The second zone runs from 2+00W on L 4+00S to 2+00W on L 2+00S. The third zone extends from the Baseline on L 4+00S to 0+60W on L 1+00N. These anomalies are all co-incident with apparent resistivity and I.P. low areas mapped by the I.P. survey and are interpreted to be caused by areas of thicker overburden. One possible bedrock conductor is located just east of the road on L 2+00S to 4+60W. This conductor does not have any associated high percent frequency effects and is therefore most likely related to ionic conductors such as clay or shear zone.

### ROCK AND SOIL GEOCHEMISTRY

A total of 42 samples were assayed for Zn, Ag, Cu, Au and As. All analyses were performed using standard atomic absorption techniques on the -80 mesh fraction, by Rossbacher



Laboratory Ltd. of Burnaby, B.C. The samples were obtained from depths ranging from 10 to 40 cm. Cu values range from 6 to 430 ppm, Zn from 52 to 166 ppm, Ag from 0.2 to 0.4 ppm, Au - all were 10 ppb and As from 2 to 200 ppm.

One sample had anomalous Cu content, located along the road cut on the Dominic Lake claim at 1+15E. This sample was taken from an outcrop of rock containing pyrite. The only other significant geochemical anomaly is the 200 ppm arsenic observed in a "rusty quartz and calcite" outcrop noted by C. Boitard in the trench at 1+40S 3+00W. This sample is highly anomalous in arsenic and may be indicative of nearby precious metal mineralization.

#### TRENCHING PROGRAM

Two trenches totalling a surface area of approximately 95<sup>m</sup>2 were cut at 1+40S 3+00W. A D7' cat was used for this work. The trenching revealed the presence of an arkosic sandstone unit hosting rusty quartz calcite zones (C. Boitard, personal communication).



REFERENCES

Boitard, C. Personal communication, October, 1984.

Sookochoff, L. Geological Report on the Dominic Property for Green Valley Mine Inc. Private report, dated August 24, 1981.

2

CERTIFICATE OF QUALIFICATIONS

- I, Douglas R. MacQuarrie, of the City of Surrey in the Province of British Columbia, do hereby certify that:
1. I am a Consulting Geophysicist of A & M Exploration Ltd., with offices at #214 - 850 West Hastings Street in Vancouver, British Columbia.
  2. I am a graduate of the University of British Columbia with a degree in Geology and Geophysics (B.Sc., 1975).
  3. I have been practising my profession since 1975 and have been active in the mining industry since 1971.
  4. I am an active member of the Canadian Institute of Mining and Metallurgy and a member of the British Columbia Geophysical Society.
  5. This report is based on data acquired by Mr. Charles Boitard of Green Valley Mine Inc., and on a review of the available literature.
  6. I hold no direct or indirect interest in the Dominic properties or in Green Valley Mine Inc.



Douglas R. MacQuarrie,  
B.Sc.

AFFIDAVIT OF EXPENSES

This will certify that geophysical and geochemical surveying and trenching were carried out in July, 1984 on the Dominic North, Dominic South, and Dominic Lake claims, Kamloops Mining Division, British Columbia, to the value of the following:

Induced Polarization Survey 2 survey days at all inclusive price of \$1,500.00/day	\$3,000.00
VLF Survey 2 man days, including instrument rental at \$165/day	330.00
Geochemical Sampling, 2 man days at \$125/day	250.00
Grid preparation, 2 man days @ \$125/day	250.00
Mobilization-Demobilization, Vancouver to Dominic Lake, all inclusive	1,500.00
Room and board charges, 12 man days @ \$30/day	480.00
Assaying	245.00
Trenching, D7 cat	1,350.00
Report D. R. MacQuarrie, 1 day @ \$350/day	350.00
Draughting, 16 hours @ \$15/hour	240.00
Compilation, Map reproduction, typing, photocopying	225.00
	_____
<b>Total</b>	<b>\$8,220.00</b>

**ROSSBACHER LABORATORY LTD.**

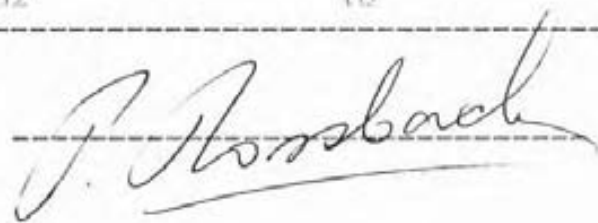
2225 S. SPRINGER AVENUE  
 BURNABY, B.C. V5B 3N1  
 TEL : (604) 299 - 6910

**CERTIFICATE OF ANALYSIS**

TO : GREEN VALLEY MINE INC.  
 2245 W. 13TH AVE.  
 VANCOUVER, B.C.  
 PROJECT No.: DOMINIC CLAIMS

CERTIFICATE No.: 84372 - 1  
 INVOICE No.: 5029  
 DATE ANALYSED: AUG. 10, 1984  
 FILE NAME: GV372

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPB Au	PPM As
S	LINE 0 - 0						10
S	20 W						8
S	40 W						6
S	60 W						4
S	80 W						2
S	100 W						4
S	120 W						6
S	140 W						2
S	160 W						8
S	LINE 0 - 180 W						2
S	200 W						10
S	220 W						6
S	240 W						6
S	260 W						2
S	280 W						10
S	300 W						8
S	320 W						6
S	340 W						2
S	360 W						4
S	LINE 0 - 380 W						4
S	400 W						2
S	420 W						6
S	440 W						6
S	460 W						4
S	480 W						8
S	500 W						6
S	520 W						2
S	540 W						6
S	560 W						2
S	LINE 0 - 580 W						2
S	600 W						4
T	L 500N - 180 W	52	0.2	66			10
T	L 600N - 38 E	42	0.2	84			12
T	68 F	30	0.2	84			4
T	108 E	18	0.2	70			8
T	113 E	12	0.2	146			2
T	115 E	430	0.4	160			20
T	117 E	22	0.2	144			2
T	130 E	30	0.2	52			8
T	L 600N - 172 E	126	0.2	82			16

CERTIFIED BY : 

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE  
 BIRMINGHAM, ALA. 35201  
 TEL: (804) 299-6410

CERTIFICATE OF ANALYSIS

TO: THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 FEDERAL BUREAU OF INVESTIGATION  
 PROJECT NO. 100-100000-0000

CERTIFICATE No: 6437 - 2  
 INVOICE No: 5029  
 DATE ANALYSED: 04/10/1984  
 FILE NAME: BV372

PRE FIX	SAMPLE NAME	PPM Cu	PPM Ag	PPM Zn	PPM Pb	PPM Au	FT. As
T	TR 5307 - 200 E	6	0.2	166			2
T	TR 1405 - 300 W	30	0.2	80	12	10	200
T	TR 1505 - 300 E	104	0.4	70		10	

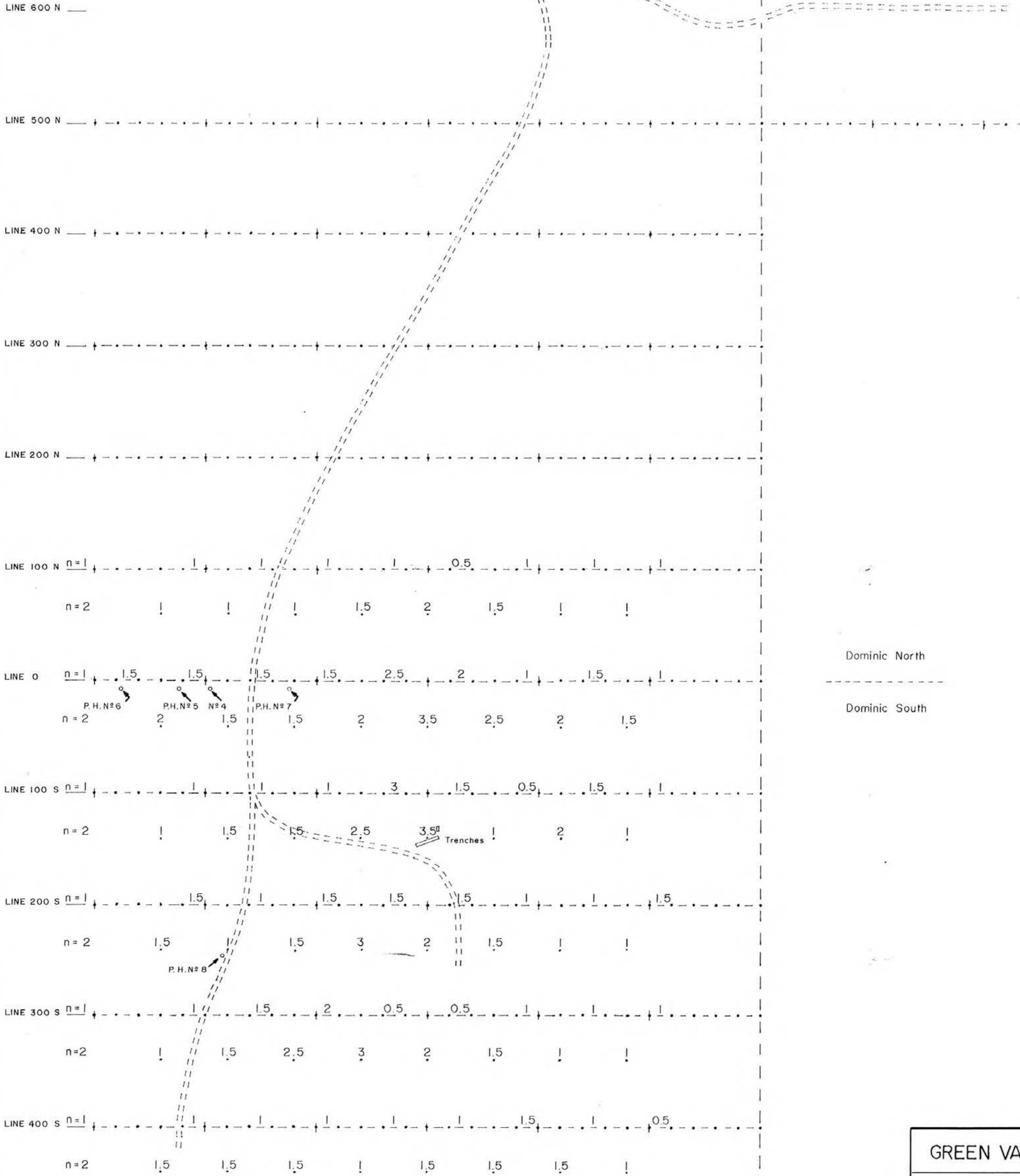
CERTIFIED BY :

*J. Rossbach*

600 W 500 W 400 W 300 W 200 W 100 W 0 100 E 200 E 300 E 400 E

To Savona 26.5 km

Acces Road



50°35'

Dominic North

Dominic South

Instrument Sabre Model 21  
 Type Frequency Domain  
 Frequency: 0.3, 10.0 Hz  
 Array Dipole - Dipole  
 Electrode spacing 60 metres  
 Dipole separation: n=1 60 metres  
 n=2 120 metres

Units: percent  
**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

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GREEN VALLEY MINE INCORPORATED		
Dominic Property KAMLOOPS M.D. B.C.		
Induced Polarization Survey		
Frequency Effect		
SCALE 1 = 2,000	DATE JULY 1984	FIGURE N <sup>o</sup> 3

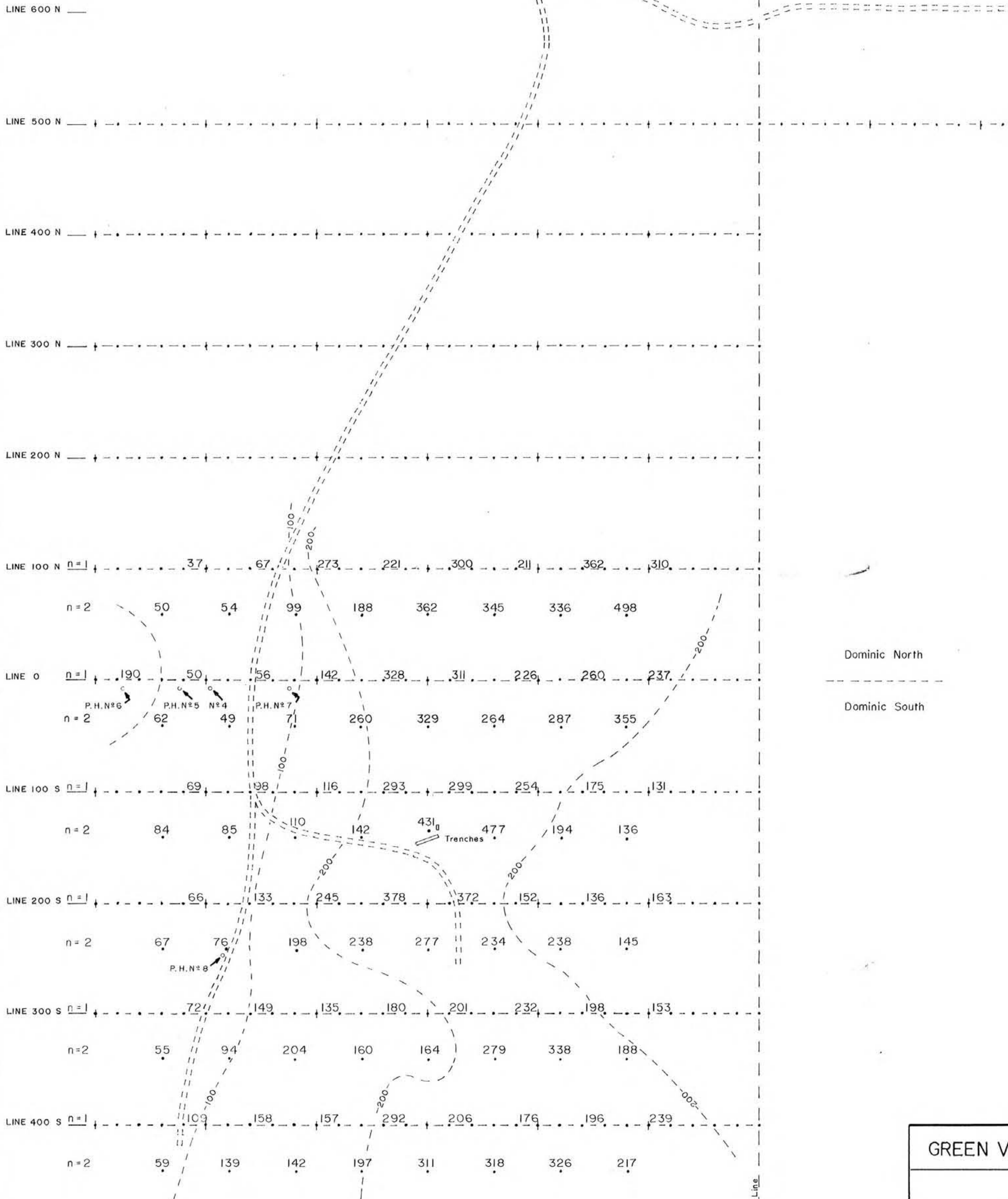
120°44'



600 W 500 W 400 W 300 W 200 W 100 W 0 100 E 200 E 300 E 400 E

To Savona 26.5 km

Access Road



50°35'

Dominic North

Dominic South

GEOLOGICAL BRANCH  
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GREEN VALLEY MINE INCORPORATED

Dominic Property  
KAMLOOPS M.D. B.C.

Induced Polarization Survey  
Apparent Resistivity, n=1, n=2

SCALE 1:2,000      DATE JULY 1984      FIGURE N° 4

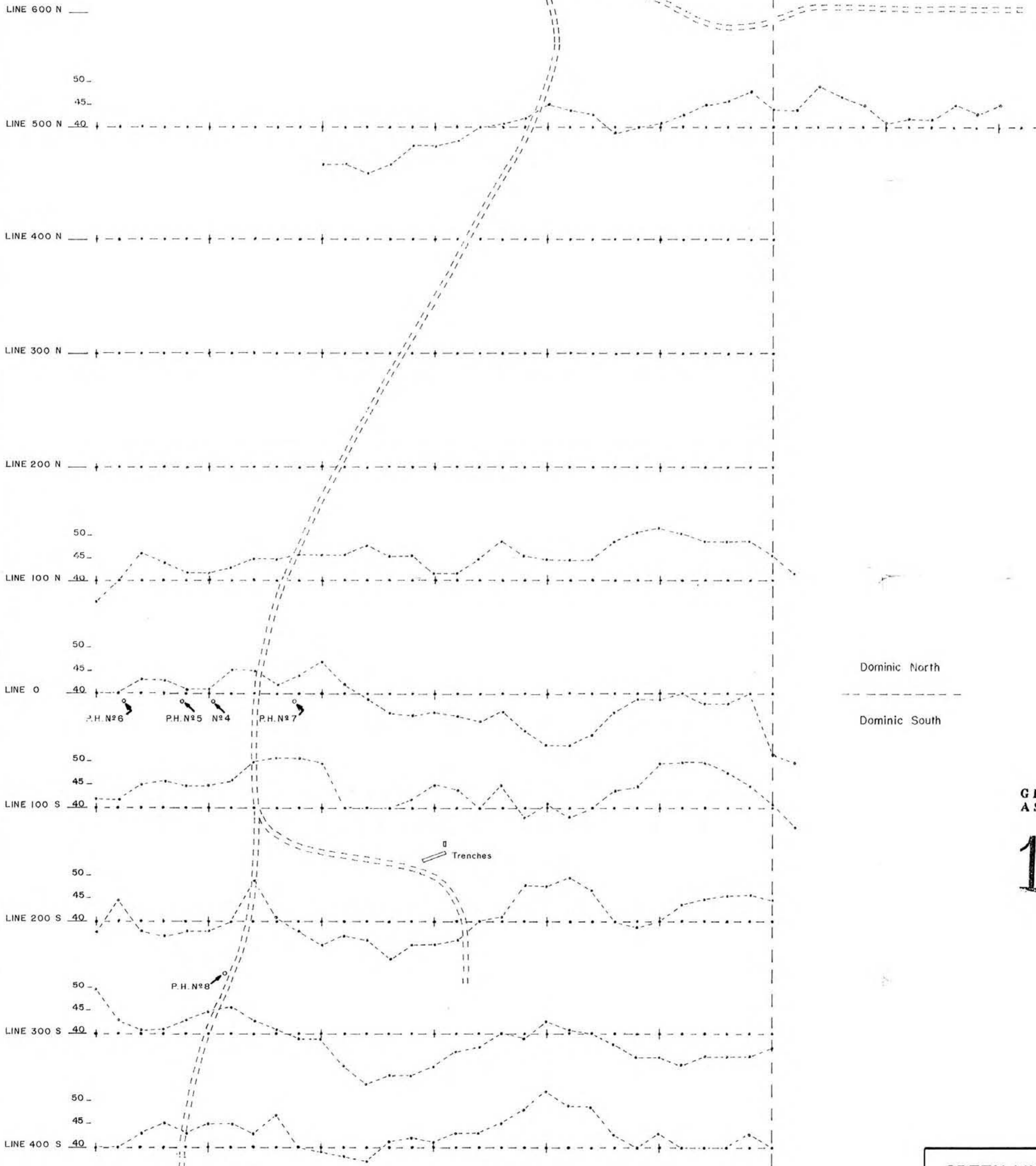
Base Line

120°44'

600 W 500 W 400 W 300 W 200 W 100 W 0 100 E 200 E 300 E 400 E

To Savona 26.5 km

Access Road



50°35'

Dominic North

Dominic South

GEOLOGICAL BRANCH  
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Instrument Sabre Model 27 V.L.F.E.M.

GREEN VALLEY MINE INCORPORATED		
Dominic Property KAMLOOPS M.D. B.C.		
V.L.F.-E.M. Field Strength		
SCALE 1 = 2,000	DATE JULY 1984	FIGURE N° 5

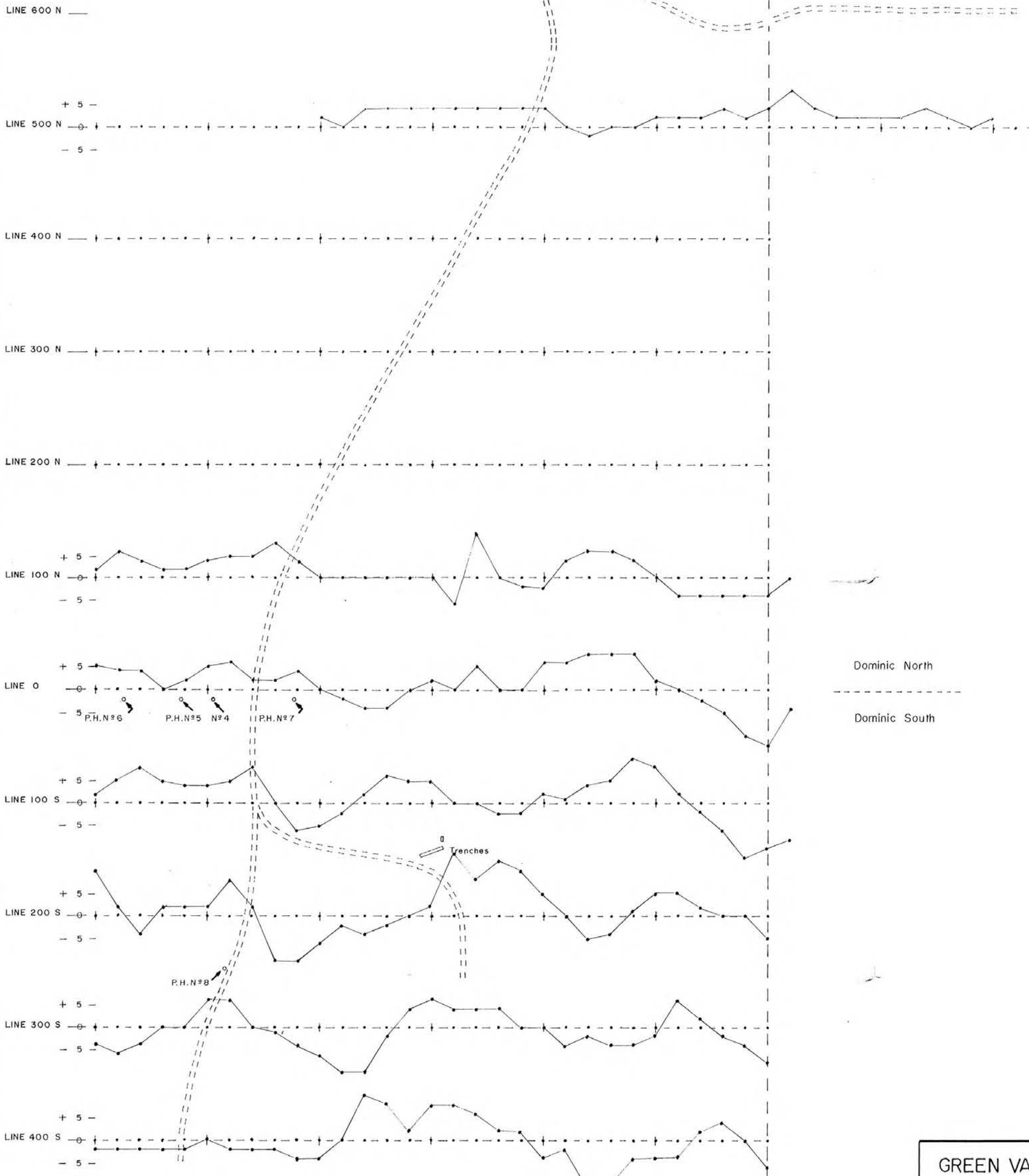
120°44'



600 W 500 W 400 W 300 W 200 W 100 W 0 100 E 200 E 300 E 400 E

To Savona 26.5 km

Access Road



50°35'

Dominic North

Dominic South

GEOLOGICAL BRANCH  
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Approximate Direction to V.L.F. Station  
Seattle Washington U. S. A.  
Instrument Sabre Model 27 V.L.F.E.M.

Base Line

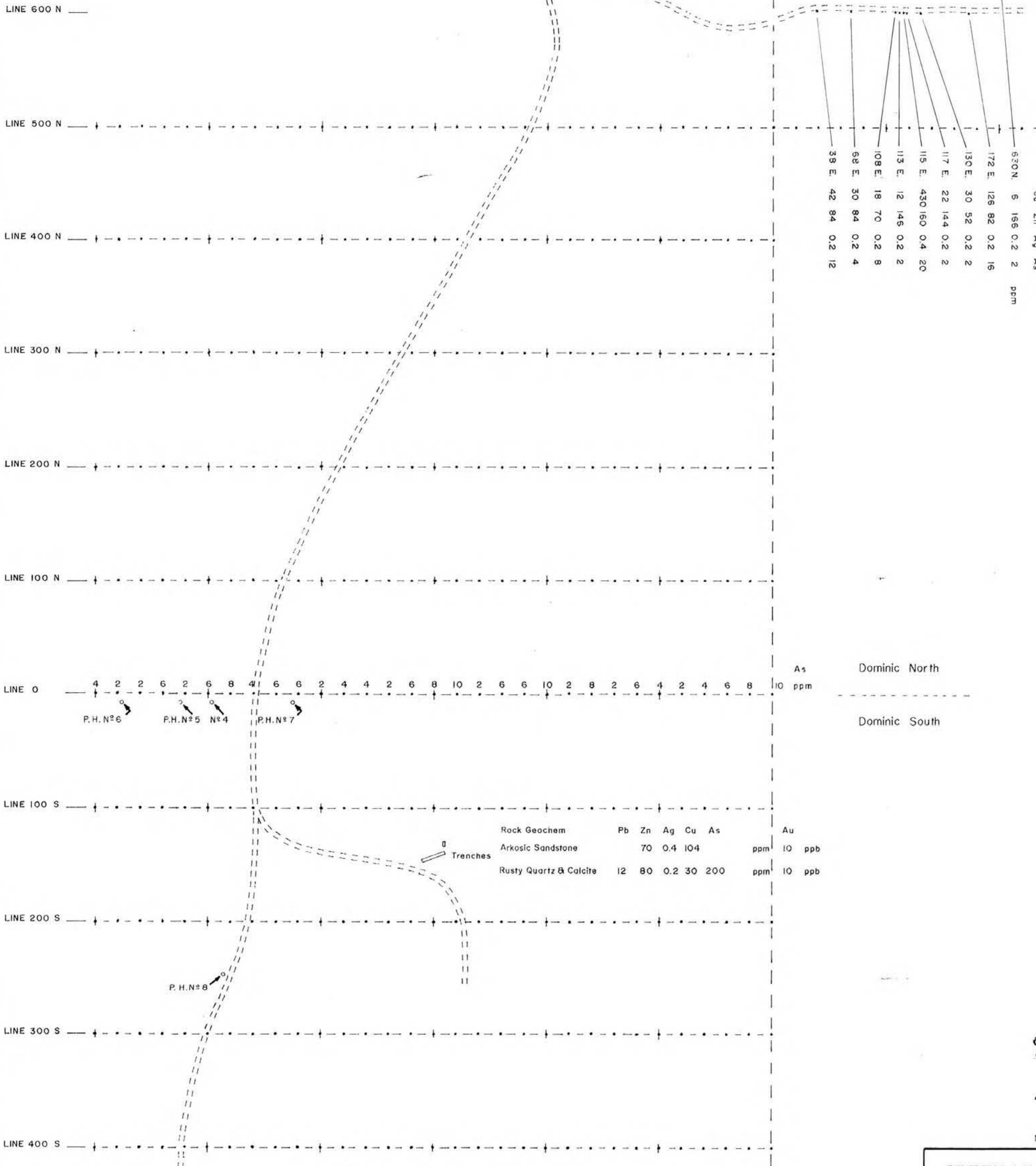
120°44'

GREEN VALLEY MINE INCORPORATED		
Dominic Property KAMLOOPS M.D. B.C.		
V.L.F.-E.M Dip-Angle		
SCALE 1=2,000	DATE JULY 1984	FIGURE N° 6

600 W 500 W 400 W 300 W 200 W 100 W 0 100 E 200 E 300 E 400 E

To Savona 26.5 km

Access Road



Rock Geochem

	Cu	Zn	Ag	As
670 N	6	166	0.2	2
172 E	126	82	0.2	16
130 E	30	52	0.2	2
117 E	22	14.4	0.2	2
115 E	430	160	0.4	20
113 E	12	145	0.2	2
108 E	18	70	0.2	8
68 E	30	84	0.2	4
38 E	42	84	0.2	12

As ppm

4	2	2	6	2	6	8	4	6	6	2	4	4	2	6	8	10	2	6	6	10	2	8	2	6	4	2	4	6	8
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	---	---	---	----	---	---	---	---	---	---	---	---	---

Dominic North

Dominic South

Rock Geochem

	Pb	Zn	Ag	Cu	As	Au	
Arkasic Sandstone	70	0.4	104		ppm	10 ppb	
Rusty Quartz & Calcite	12	80	0.2	30	200	ppm	10 ppb

Trenches

GEOLOGICAL BRANCH  
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GREEN VALLEY MINE INCORPORATED		
Dominic Property KAMLOOPS M.D. B.C.		
Geochem Map		
SCALE 1 = 2,000	DATE JULY 1984	FIGURE N° 7

120°44

50°35