

COMINCO LTD.

EXPLORATION DIVISION

WESTERN DISTRICT

1977

DIAMOND DRILLING REPORT

on

VINE NO. 1 CLAIM

NTS 82G/5W

RECEIVED

SEP 5 1978

GOLD COMMISSIONER
FORT STEELE MINING DIVISION
CRANBROOK, B.C.

Fort Steele Mining Division

August 1978

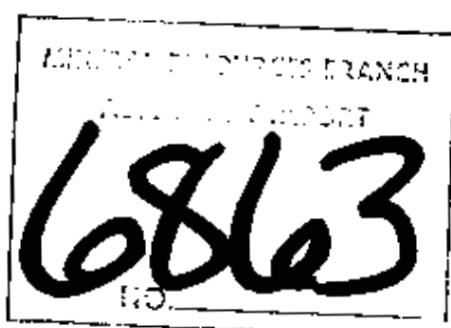
Latitude: 115°50'

Longitude: 49°30'

Report by:

G.L. WEBBER
Geologist

Kootenay Exploration
2450 Cranbrook Street
Cranbrook, B.C.
V1C 3T4



Under the supervision of:

E.W. BATCHELOR P.Eng.
Geologist

**Part 1 of
2**

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Location Map and Plan of Drilling area, Plate V-77-21 (in pocket). Drill Hole Sections (in pocket). Detailed Geologic Logs.	

COMINCO LTD.

EXPLORATION DIVISION

WESTERN DISTRICT

VINE GROUP 1

Fort Steele Mining Division

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GENERAL STATEMENT

This report describes the results and expenditures relating to diamond drilling on the Vine No. 1 claim.

Diamond drilling was performed during November 1st, 1977 and November 30th, 1977.

Total expenditures relating to this diamond drill program amounted to \$49,355.

It is requested that \$44,400 be applied as follows:

Vine 1 (20 units) @ \$100 - 2 years	\$ 4,000
Vine 1 (20 units) @ \$200 - 8 years	32,000
Vine 27(6 units) @ \$200 - 7 years	8,400
	<u>\$44,400</u>

It is requested that \$4,955 be applied to Cominco PAC account.

INTRODUCTION

General

Four NQ holes, totalling 467m, were drilled to test Cu/Pb/Zn vein mineralization exposed on Vine #1 claim and the coincident VLF-EM anomaly. The holes were completed between November 1st and 30th, 1977 by D.W. Coates Enterprises Ltd. Plate #V-77-21 shows plan location of each hole.

The drilling established some continuity in mineralization and its relationship to the geological environment. No economic tonnage and grade of mineralization was established.

The drill program was under the direction of E.W. Batchelor and supervised by E.A.U. Parviainen.

Location and Access

The centre of the claim block is approximately 12 km SSW of Cranbrook. Access to all parts of the property is excellent via secondary gravel roads leading from Highway 3/95. The C.P. Rail line and B.C. Hydro high voltage transmission line also cross the property. The elevation of the property ranges from 935 to 2140m.

EXHIBIT "A"

Statement of Expenditures

Vine 1 Claim

Fort Steele Mining Division

Diamond Drilling - Indirect

Salaries (field)

E.W. Batchelor (Geologist) 21 days @ \$117	\$ 2,457.00
E.A.U. Parviainen (Geologist) 5 days @ \$130	650.00

Salaries (office)

G.L. Webber (Geologist) report & map preparation 3 days @ \$102	306.00
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Analyses:

Core sample assays - Pb/Zn/Cu/Fe/Ag/Au 72 determinations @ \$6.00 each	432.00
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Transportation:

Ford 4 x 4 1/2 ton - 1 month @ \$600 including gas	<u>600.00</u>
TOTAL. . .	<u>\$ 4,445.00</u>

Diamond Drilling - Direct

D.W. Coates Enterprises Ltd.

DD Hole V-77-1 93.6m @ 96.09	\$ 8,994
DD Hole V-77-2 63.0 @ "	6,053
DD Hole V-77-3 36.0 @ "	3,459
DD Hole V-77- 4 91.6 @ "	8,801
DD Hole V-77- 4 183.2 @ "	<u>17,603</u>
467.4 @ \$96.09(av.)	\$44,910

TOTAL EXPENDITURES

Diamond Drilling - Indirect	\$ 4,445.00
Diamond Drilling - Direct	<u>44,910.00</u>
	<u>\$49,355.00</u>

This Exhibit "A" to Statutory Declaration
 of G.L. Webber declared before me this
 _____ day of _____, 1978.

A Commissioner for taking Affidavits for
 the Province of British Columbia.

IN THE MATTER OF THE
B.C. MINERAL ACT
AND
IN THE MATTER OF A DIAMOND DRILL PROGRAM
CARRIED OUT ON THE VINE 1 MINERAL CLAIM
PEAVINE CREEK AREA

in the Fort Steele Mining Division
of the Province of British Columbia

More particularly N.T.S. 82G/5W

A F F I D A V I T

I, G.L. WEBBER, of the City of Kimberley, in the Province of British Columbia, make Oath and say:

1. That I am employed as a Geologist by Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose:
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is a true copy of expenditures incurred on a diamond drill programme, on the Vine 1 Mineral Claim.
3. That the said expenditures were incurred between the 1st day of November, 1977 and the 31st day of December, 1977, for the purpose of mineral exploration on the above noted claim.

Sworn Before Me at Gardock
in the Province of British Columbia,
this 7 day of Sept, 1978

G.L. Webber
G.L. WEBBER

R.W. Crawford
A Commissioner for taking Affidavits
in the Province of British Columbia.

SUMMARY LOGS AND ASSAYS

1. V-77-1 (1+50W; 0+43S; -45°). Section: Plate V-77-22

0	-	3.9m	Overburden
3.9	-	39.0	Quartzite with minor argillite
39.0	-	58.2	Shear zone
58.2	-	76.0	Quartzite
76.0	-	76.9	Mineralized zone; veins containing sphalerite, galena, pyrrhotite, chalcopyrite with chlorite, quartz and calcite gangue.

From	To	Pb%	Zn%	Cu%	Fe%	Ag(oz/t)	Au(oz/t)
75.0	76.0	0.06	0.04	0.01	3.6	0.05	tr
76.0	76.9	6.5	1.7	0.05	10.3	2.2	0.11
76.9	77.9	0.03	0.06	0.01	8.7	0.07	nil
	76.9	-	78.3	Quartzite			
	78.3	-	87.9	Gabbro			
	87.9	-	93.6	Quartzite			
			93.6	End of hole			

2. V-77-2 (1+30E; 0+10S; -45°).

0	-	7.9	Overburden
7.9	-	25.3	Quartzite. Fine- to medium-grained with very minor argillite.
25.3	-	29.0	Mineralized Zone.
			Massive pyrrhotite vein minor galena, sphalerite and chalcopyrite. Gangue is quartzite fragments, quartz, calcite and chlorite.

From	To	Pb%	Zn%	Cu%	Fe%	Ag(oz/t)	Au(oz/t)
24.3	25.3	0.45	0.68	0.05	11.1	0.21	0.04
25.3	29.0	0.88	1.14	0.19	21.1	0.26	0.11
29.0	30.0	0.07	0.04	0.005	2.5	0.05	tr
	29.1	-	31.2	Quartzite			
	31.2	-	35.0	Gabbro			
	35.0	-	37.6	Quartzite			
	37.6	-	47.6	Gabbro			
	47.6	-	63.0	Quartzite			
			63.0	End of hole			

Summary Logs and Assays - continued.

3. V-77-3 (2+50E; 0+20N, -55°)

0 - 36.0	Overburden Hole abandoned with broken casing in overburden.
4. V-77-3A(2+50E; 0+17N, -60°)	Section: Plate V-77-24.

0 - 34.5	Overburden
34.5 - 43.0	Quartzite
43.0 - 57.7	Gabbro
57.7 - 62.1	Granophyric quartzite
62.1 - 64.7	Gabbro
64.7 - 71.75	Altered Quartzite; actimolite(?) 10%; chlorite 5%.
71.75-75.83	Mineralized Zone: Massive pyrrhotite with minor galena, sphalerite and trace chalcopyrite.

From	To	Pb	Zn	Cu	Fe	Ag(oz/t)	Au(oz/t)
70.75	71.75	0.09	0.04	0.02	6.5	0.06	tr
71.75	75.85	2.43	0.36	0.21	46.0	0.66	0.08
75.85	76.85	1.12	0.05	0.05	7.5	0.26	0.01
71.75 - 91.6							Quartzite
91.6							End of hole.

5. V-77-4 (4+50E; 0+75N; -60°) Section: Plate V-77-25

0 - 33.6	Overburden
33.6 - 68.4	Quartzite
68.4 - 83.6	Gabbro
83.6 - 84.8	Quartzite
84.8 - 88.0	Gabbro
88.0 - 91.24	Quartzite
91.24-92.17	Mineralized Zone: Massive to semi-massive pyrrhotite vein with moderate sphalerite, galena and trace chalcopyrite. Gangue is comprised of quartzite fragments, calcite, quartz and chlorite.

From	To	Pb%	Zn%	Cu%	Fe%	Ag(oz/t)	Au(oz/t)
90.24	91.24	0.13	0.05	0.01	2.8	0.06	tr
91.24	92.17	4.9	3.5	0.09	17.0	1.54	0.08
92.17	93.17	0.14	0.14	0.01	4.2	0.09	0.01

92.17 - 183.2 Thin-bedded argillite and quartzite;
alternating as 2 cm
beds of argillite and chloritic quartzite.
Pyrite (1-2%) occurs throughout in
very thin irregular veinlets. Fault contact.
183.2 End of hole.

COMINCO LTD.

EXPLORATION DIVISION

WESTERN DISTRICT

SUBMITTED BY: G.L. Webber
G.L. WEBBER
Geologist

ENDORSED BY: E.W. Batchelor
E.W. BACHELOR, P. Eng.
Geologist

APPROVED FOR
RELEASE BY: J.M. Hamilton, P. Eng.
J.M. HAMILTON, P. Eng.
Kimberley

August 1978

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EXPLORATION DIVISION

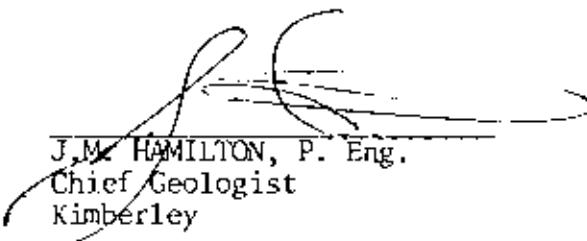
WESTERN DISTRICT

STATEMENT OF QUALIFICATIONS

E.W. BACHELOR graduated from U.B.C. during 1966 with a B.A.Sc degree in Geological Engineering.

Since that time he has been employed in various phases of base metal exploration.

He is registered as a Professional Engineer in British Columbia (Reg. No. 11335).


J.M. HAMILTON, P. Eng.
Chief Geologist
Kimberley

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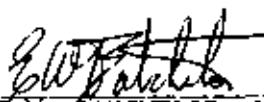
EXPLORATION DIVISION

WESTERN DISTRICT

STATEMENT OF QUALIFICATIONS

G.L. WEBBER has personally conducted many types of mineral exploration work for Cominco Ltd. over the last twenty-five years.

I consider him well qualified to prepare this report.


E.W. BACHELOR, P. Eng.
Geologist

Diamond Drill Geological Log

Learned
X

Objective: To test a VTF anomaly thought to be coincident with the extension of a Cu/ Sph/Po qtz vein.

Sampled:

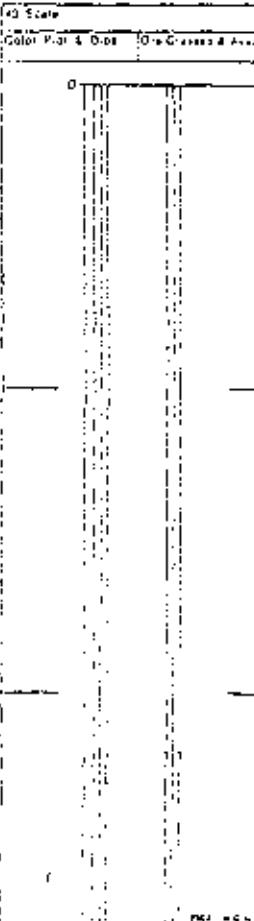
Logged By: E.W. MATHIASSEN

Date: November 25, 1977

Composites:

Rock	Sect.	Spec.	App. Dip.	Length
250 ft	L. Z=50E; 0=17 N	VINE # 1 M.C.	030°	50° at 01. cm = 21.6
From	To	Section		

0	33.2m	Overburden; no core.
33.2	34.5	Overburden? core? boulders of gabbro, quartzite and quartz grit.
34.5	43.0	Quartzite: fine- to medium-grained. Generally thick-bedded and dark grey colour but 10-20cm sections consist of alternating light grey and brown 1-2mm wide laminae. Brown laminae contain more biotite and may have originally been argillaceous. Angle of core axis to bedding = 60°. Irregular quartz-sulcite veins 1-20m wide occur throughout. Quartz (70%); Biotite (10%); Chlorite (10%); Matrix (10%).
39.8m	veinlet (2m wide)	with minor galena, sphalerite and pyrite.
43.0	57.7	Gabbro: Coarse-grained plagioclase (30%) and pyroxene (30%) in fine-grained feldspathic matrix. Pyroxene is partially chloritized. Joints cut core axis at 45° - 60° and often have 1-mm chloritic selvages.
43.40	43.5m	Quartzite same as above CBA + 50°. Quartz veins (1-10mm wide) oriented parallel to bedding.
55.7	+56.3	Granophytic Quartzite. Recrystallized medium-grained mosaic of quartz (65%); biotite (15%); feldspar (10%); actinolite (5%). Biotite is partially chloritized. Quartz vein, 4 cm wide on upper contact.
57.7	62.1	Granophytic Quartzite: Partially recrystallized mosaic of quartz (65%); biotite (20%); feldspar (5%).
60.2	- 61.3	Quartz vein, subparallel to core, with 15% pyrite; 1% PbS, 1% ZnS.
62.1	64.7	Gabbro: Same as 43.0 to 57.7 m.



Note No.

N-22-3A

Page

1/1

Diamond Drill Geological Log

SCOTTISH

40 Scale

Color Pic & Dips [Die Class & Ave]

Objective:		Sampled:							
Logged By: _____		Date: _____	Composites:						
Block	Spec.	Place: VINE 1 M.C.	App Batt.	App Dip:	Length:				
From	To	Discard	Reason:						
64.7	71.75	Altered Quartzite (?): Fine- to medium-grained, colour is variable from light brownish grey to dark grey green. Rock is partially recrystallized and appears to be comprised of quartz (60%), hornblende (10%); actinolite (10%); biotite (10%); and chlorite (5%). Pyrrhotite (~1%) occurs along joints cutting core axis at 35-60°. Bedding is completely obscured.							
70.9 - 71.8: Fault breccia zone.									
71.75-75.85 Mineralized vein: Massive pyrrhotite (60%) with minor galena (5%); sphalerite (1%); and chalcopyrite. Fragments of quartzite, ranging from 1mm to 5 cm occur throughout and constitute ~20% of the mineralized interval. The smaller fragments are recrystallized to fine-grained vitreous matrix. Calcite occurs as coarse crystals (2cm) over 10cm of core. Both contacts with the wall rocks are sharp.									
ASSAYS:		From	To	Ph	Zn	Cu	Be	Ag(oz/t)	Au (oz/t)
		70.75	71.75	0.04%	0.04%	0.02%	6.5%	0.06	Ir
		71.75	75.85	2.43	0.36	0.21	46.0	0.60	0.08
		75.85	76.85	4.12	0.09	0.05	7.5	0.26	0.01
75.85-91.6: Quartzite: very similar to 34.5-45.0m but thinner-bedded. Light grey and dark brownish grey beds, 1m to 20 cm thick, alternate throughout. Bedding cuts core axis at 30°.						Core Site			
93.0 - END OF HOLE						Core Site			
						Note No.	V-77-3	Page	
								2	

Diamond Drill Geological Log



Objective: To test a VLF anomaly thought to be coincident with extension of a Cu/Spy/Po/Qtz. vein.

Sampled:

Logged By: E. W. RATHJENOR Date: November 1977

Compositions:

Block: *E.W. Rathenor* | Sect: 1 1+50W; 0+43S | Place: VINE #1 M.C. | App Bear: 032° | App D.P.: +45° E On Lagoon
From: 0 | To: 104.60m | Reason:

10 Scale
Color Plot & Depth Drilled & Assayed

0 - 3.9	Overburden: no core.							
3.9 - 39.0	Quartzite: Medium-grained, light to dark grey quartzite. Alternating 0.5m to 1.5m massive beds with 5 to 20 cm thickly laminated intervals. Beds are not graded. Bedding planes cut core axis at 30 to 35°. Irregular quartz-carbonate veins to 1cm wide occur throughout this section. At 13.5m there is a 30cm vein.							
39.0 - 70.70	Interbedded quartzite and argillite laminations 3 to 20mm thick.							
70.0 - 58.2	Fault zone: Thoroughly "crushed" quartzite with largest fragment being about 20cm. Most fragments are smaller than 5 cm. Core recovery is approximately 60%.							
58.2 - 76.4	Quartzite: Same as 3.9 to 30.0m.							
76.4 - 77.0	Mineralized Vein: Pyrrhotite (30%), Galena (8%), and sphalerite (3%) and chalcopyrite (0.2%). As veins and disseminated crystals in quartzite. Mica (5%) and chlorite (2%) are alteration minerals related to mineralization.							
ASSAYS: From To Pb Zn Cu Fe Ag(oz/t) Au(oz/t)								
75.0	76.0	0.06%	0.04%	0.01%	3.6%	0.05	tr	Core Size
76.0	76.9	6.5	1.7	0.05	10.3	2.2	0.31	Mole No.
76.9	77.0	0.03	0.06	0.01	8.7	0.00	n/a	Page

V-77-1

1

Revised 10/84

Diamond Drill Geological Log

Comments

No Scale
Copy Plot & Digs Dip Classes & Aves

Objective:		Sampled:	
Logged By: _____ Date: _____		Compositus:	
Block:	Sect.:	Place:	App. Basal:
		VINE #1 M.C.	App. Dip:
From	To	checked	Reason:
77.0	78.3		Quartzite; same as 3.0 to 39.0.
78.3	87.0		Diorite. Medium-grained mosaic of feldspar (25%) and pyroxene (?) (40%) crystals, in a "felited" ground mass of feldspathic character. The pyroxene(?) is thoroughly chloritized. Contacts with the enclosing sediments are strongly altered over 50 to 100cm. to chlorite and actinolite.
87.0	93.6		Quartzite: same as 3.0 to 39.0.
93.6	100. DR 30%		
			Core Bits
			Sheet No. _____
			Page 2

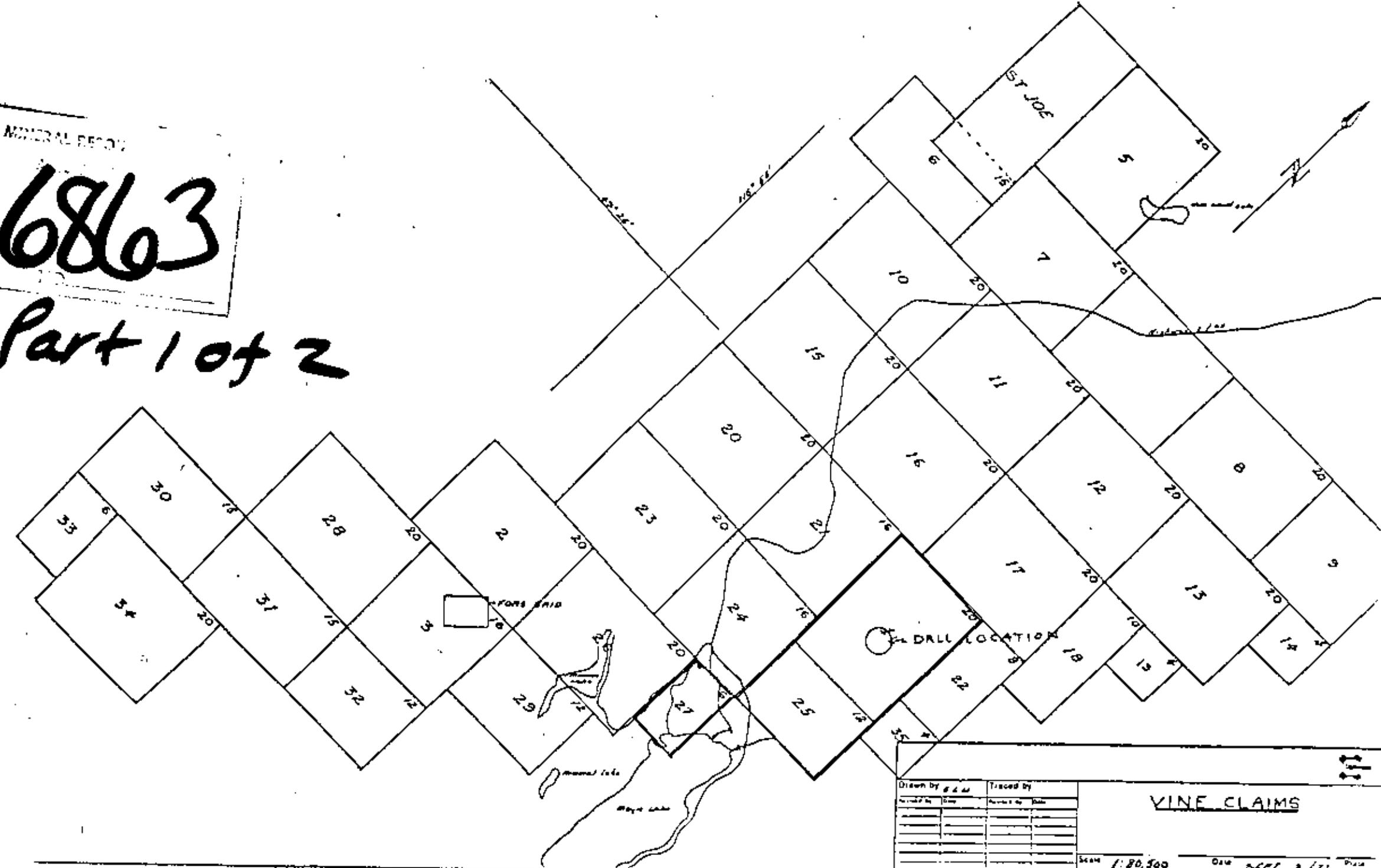
Diamond Drill Geological Log

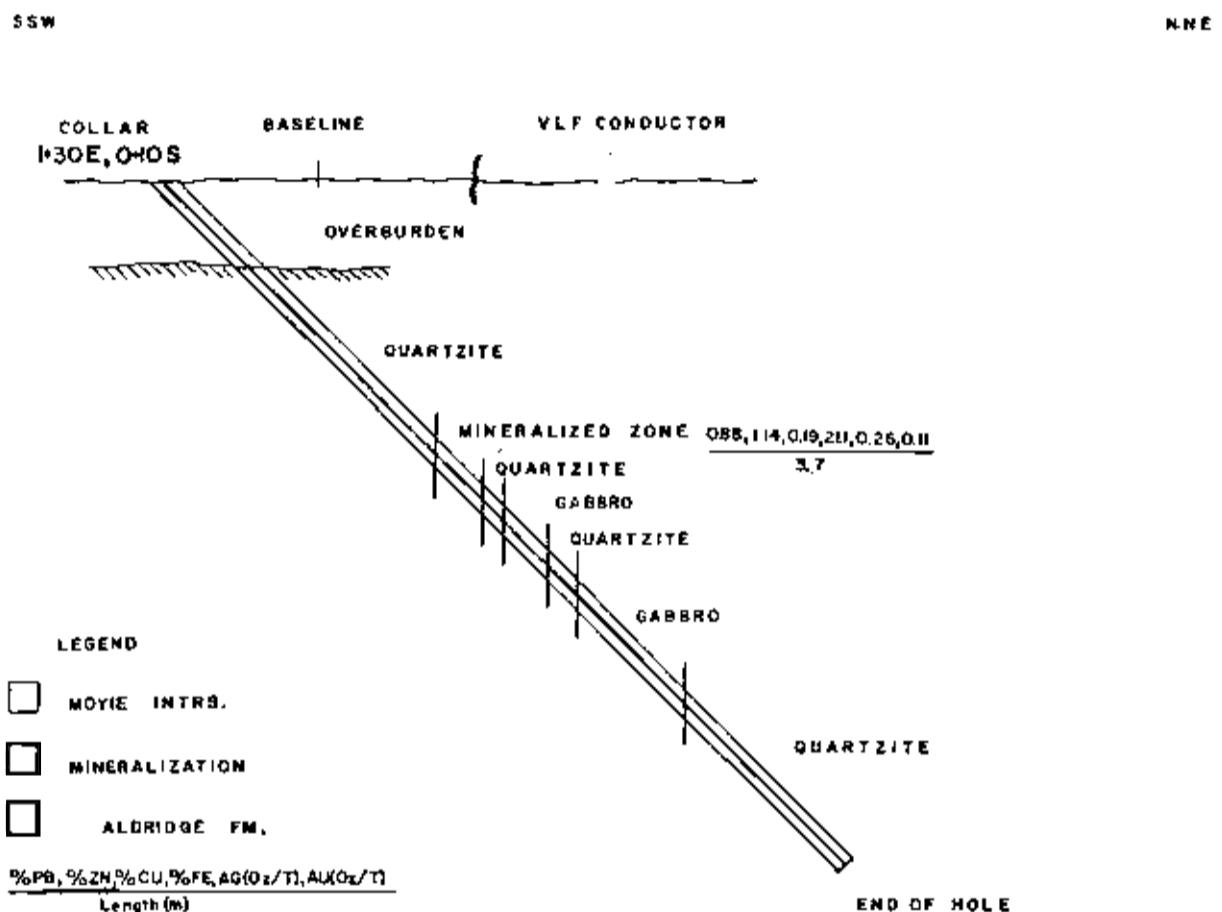


Objective:		Sampled:			
Logged By:		Date:	Composition:		
Bloc#:	Spec#:	Place:	VINE #1 M.C.	App. Basal:	App. Top:
From	To	Reason:			
31.2	35.0	Gabbro Dyke: Medium-grained mosaic of feldspar (30%) and pyroxene(?) (40%) in a fine-grained feldspathic ground mass. Contacts with the quartzite wall rocks are gradational. Pyroxene(?) is thoroughly chloritized.			
35.0	37.6	Altered Quartzite: Same as 29.0 to 32.2 but with 3% pyrrhotite in irregular veins (1cm) and as disseminations throughout.			
37.6	48.6	Gabbro Dyke: Similar to 32.2 to 35.0 but coarser grained and slightly more feldspathic. Upper contact is gradational but lower contact is very sharp.			
48.6	63.0	Quartzite: Same as 7.9 to 25.2 but contains fewer argillite intervals. For 0.6m from contact with the gabbro dyke, the quartzite contains biotite (5%). bedding cuts core axis at 50-55°. Irregular 1-2mm calcite veins occur throughout.			
END OF LOG					
Core Site					
Hole No:		V-77-2		Page	2
PRINTED BY					

6863

Part 1 of 2





6863

Part 1 of 2



Drawn by: RJK

Traced by: RJK

Revised by:

Date:

Revised by:

Date:

VINE DRILLING

DDH V-2-77

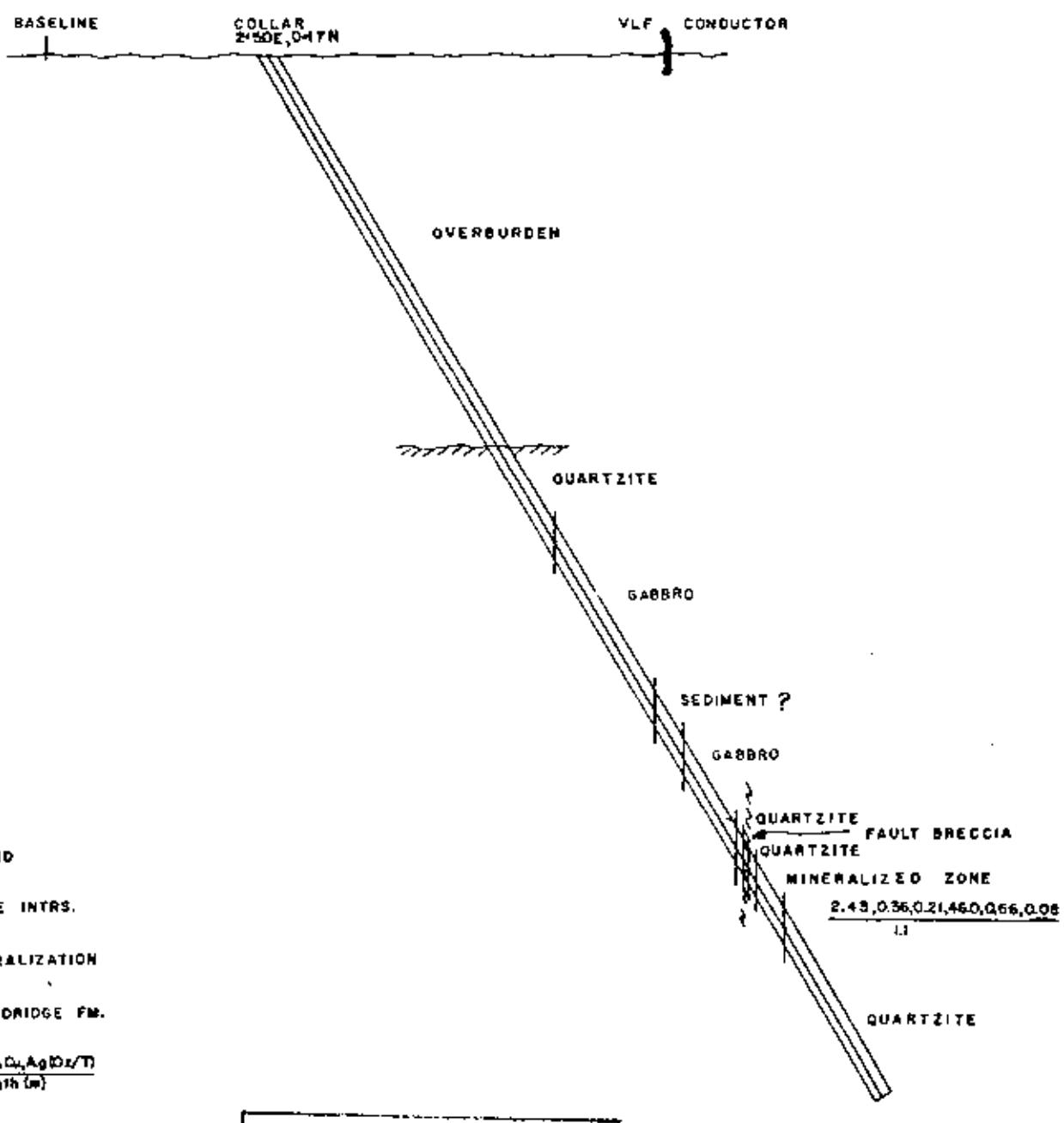
Scale: 1:500

Date: NOV 23rd 1977

Plate:

SSW

NNE



6863

Part 1 of 2



Drawn by: RJK

Traced by: RJK

Revised by	Date	Revised by	Date

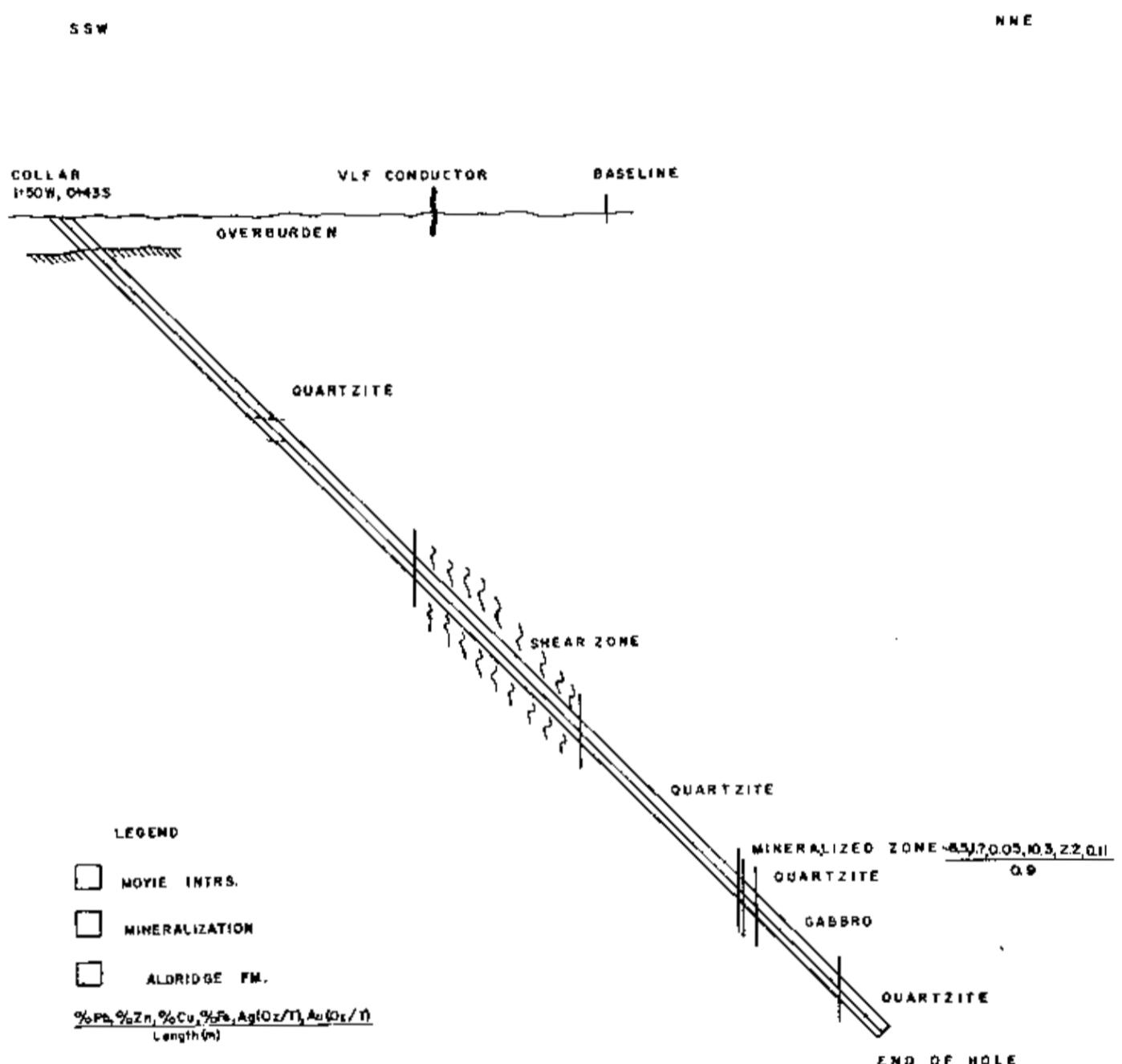
VINE DRILLING

DDH V-3 A-77'

Scale: 1:500

Date: DEC 5th 1977

Plate:



EST. 1911. 2000-10000 VOLUME
6863 NO.

Part 1 of 2



VINE DRILLING

DDH V-1-77

Part 1 of 2

6863

