## ANACONDA CANADA EXPLORATION LTD

SKWIM PROJECT

FINAL REPORT

1984 EXPLORATION ACTIVITIES
ON THE
DIADEM CLAIM

VANCOUVER MINING DIVISION

Latitude: 50<sup>0</sup>00'N Longitude: 124<sup>0</sup>02'W NTS: 92 K/1

by

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December 1984

## TABLE OF CONTENTS

	PAGE
LIST UF FIGURES	11
LIST OF TABLES	11
LIST OF APPENDICES	11
SUMMARY	1
INTRODUCTION	2
LOCATION, OWNERSHIP, ACCESS	2
DIAMOND DRILLING PROGRAM	4
Results	7
Lithology and Structure	7
Sulphide Mineralization and Alteration	7
Sulphide Zones	8
CONCLUSIONS AND RECOMMENDATIONS	10
REFERENCES	11

# LIST OF FIGURES

		PAGE
FIGURE 1:	Property Location map.	3
FIGURE 2:	Claim map.	5
FIGURE 3:	Drill Plan Compilation.	12
FIGURE 4:	Cross section DDH 84-1	13
FIGURE 5:	Cross section DDH 84-2	14
FIGURE 6:	Cross section DDH 84-3, 4	15
FIGURE 7:	Cross section DDH 84-5	16
FIGURE 8:	Cross section DDH 84-6	17
FIGURE 9:	Cross section DDH 84-7	18
FIGURE 10:	Cross section DDH 84~8	19
FIGURE 11:	Cross section DDH 84-9	20
	LIST OF TABLES	
TABLE 1:	Diamond Drill hole Summary.	6
TABLE 2:	Significant Drill Intercepts.	21
	LIST OF APPENDICES	
APPENDIX I -	DIAMOND DRILL LOGS	24

#### SUMMARY

Nine BQ holes totalling 899.3 m were diamond drilled in 1984 to investigate known polymetallic, silver-bearing sulphide mineralization exposed in trenches and open cuts in the vicinity of the Upper Adit. This program outlined three en echelon, stratabound, stringer sulphide zones, up to 30 m wide and aggregating 120 m in length, occurring in brecciated altered (quartz-chlorite-epidote + garnet) banded and argillites at or near contacts with intercalated chloritic flows and silis. The sulphide zones consist of high grade polymetallic pods enveloped by low grade, Ag-poor, Zn  $\pm$  Cu mineralization. intercepts, in DDH-84-4, assayed 0.79% Cu, 2.74% Pb, 1.61% Zn, 135 g/t Ag over 12 m including 2.1% Cu, 7.9% Pb, 2.5% Zn, 359.5 g/t Ag over 4 Work to date indicates that the mineralized zones are open to the south. It is recommended that the massive sulphide potential of the pendant be further investigated through drilling and detailed lithogeochemical sampling.

#### INTRODUCTION

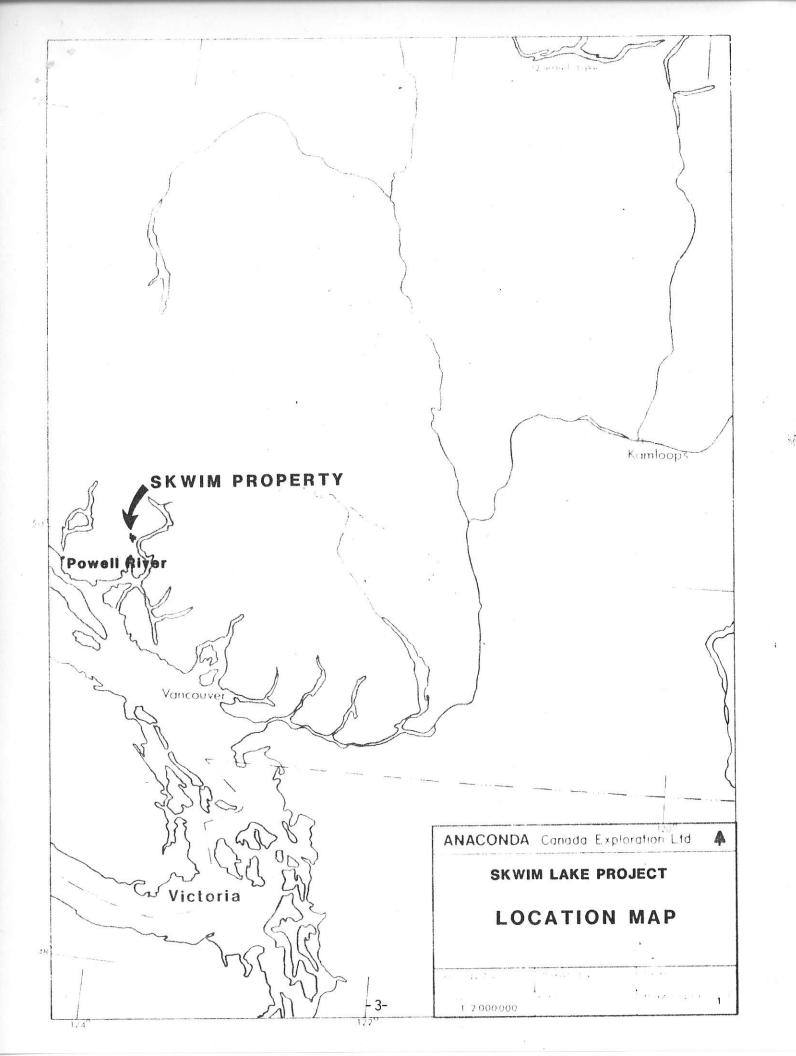
In 1983 Anaconda Canada Exploration Ltd carried out a program of geological mapping, soil, stream and rock sampling, EM and magnetometer surveys (Riccio et.al. 1983) to explore for precious metal-rich volcanogenic massive sulphides within the Skwim Lake Pendant south of Jervis Inlet. Known silver ± gold bearing polymetallic sulphide showings exposed in two areas (Upper and Lower Adit Zones) located 800 m apart and separated by 300 m vertical relief and precipitous terrain were re-examined, trenched and extensively sampled.

Sampling results outlined significant (2-3 m wide) mineralized zones carrying 200-400 g/t Ag and 10% or more combined base metals. Geological and geophysical data indicated these mineralized zones to be spatially related to the contact between Unit 2 volcanics (chloritic rocks) and Unit 3 sediments (banded argillites) and to coincide with a series of subparallel EM conductors intermittently traceable for several km along this contact zone. Based on this information, a decision was made to drill test the Upper Adit Mineralized Zone between the Upper Adit and the cliffs to the south, a distance of 200 m. The purpose of this program was to establish continuity and geological controls of known sulphide mineralization.

This report summarizes the results of the 1984 drill program. For information regarding property geology and previous exploration activities in the area the reader is referred to the 1983 report by Riccio et.al.

## LOCATION, OWNERSHIP AND ACCESS

The property is located 35 km ENE of Powell River and 100 km NW of Vancouver, B.C. (Figure 1, page 3). It consists of 7 claims (Lois claims) totalling 156 units wholly owned by Anaconda Canada, the Fox



claim (9 units) under option to Anaconda from R. Schmidt of North Vancouver, and the Diadem claim (9 units) under option from Fury Exploration Ltd of Vancouver (Figure 2, page 5). Access to the 1984 drill area is by helicopter. A newly built logging road along the Lois River Valley reaches the southern boundary of the Diadem claim (Figure 2, page 5) to within 900 m of the Lower Adit.

#### DIAMOND DRILLING PROGRAM

Nine BQ holes totalling 899.3 m were diamond drilled on the Diadem claim between August 21st and October 2, 1984. Drilling was efficiently performed by M & B Drilling Ltd of Powell River, B.C., employing a Boyles 15 A drill. Moves were skillfully executed by Rotortech Helicopters Ltd with a 61 m (200 ft) longline cable. Average helicopter time for a drill move was 1.5 hours. Complete mob-demob and moves between drill sites were accomplished on average in one day. Drill pad set-ups were made with available timber and required direct bedrock anchoring to the drill frame. Very hard ground resulted in 2 abandoned holes (DDH 84-2 and 7). Bit, core barrel, and rods were left in DDH 84-2 and 84-3. Except for the first couple of metres of each hole, core recovery was excellent. A mislatch in DDH 84-4 resulted in 2.3 metres of lost core.

Acid tests were done at the bottom of each hole. The inclination of DDH 84-1 is  $-45^{\circ}$  initially and  $-37^{\circ}$  at 134.7 m depth. All other holes deviated  $<1^{\circ}$  from their initial dip. Drill data is summarized in Table 1 (page 6).

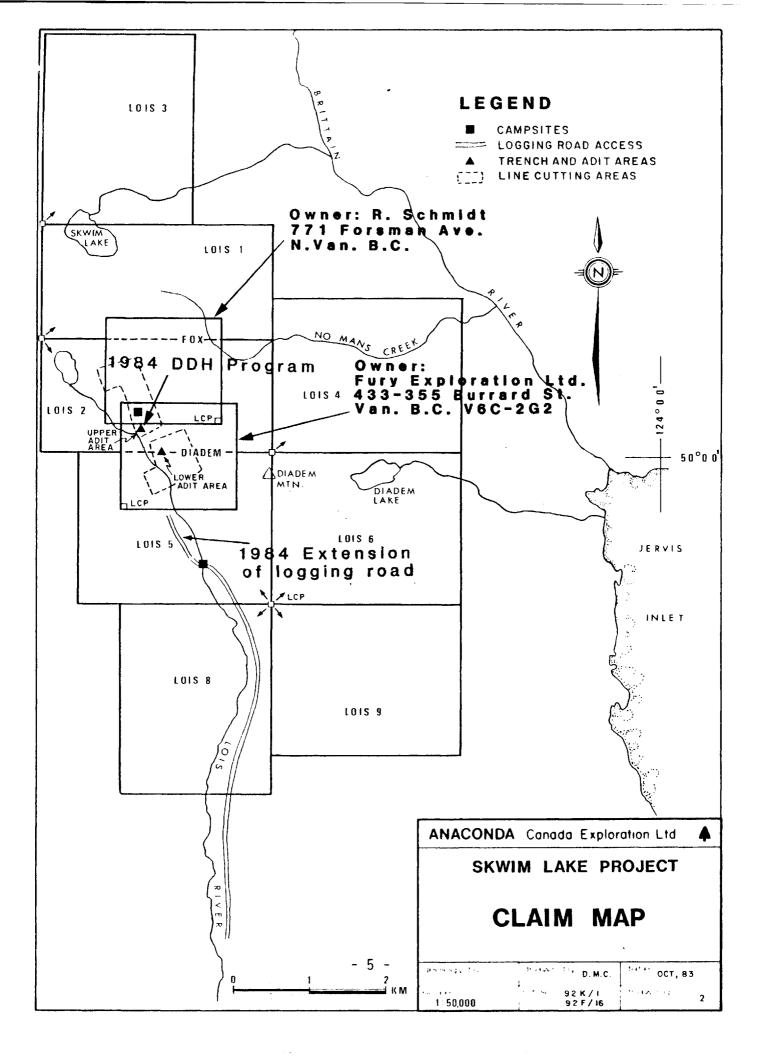


TABLE 1
Diamond Drill Hole Summary

Hole No.	Grid Coordinates	Elevation (m)	Inclination	Az imuth	Final Depth (m)
1	2+245	1150	-45 <sup>0</sup>	260 <sup>0</sup>	134.7
	0+47E				
2	2+74\$	1145	-50°	260°	75.0
	0+58E				
3	1+70\$	1155	-45 <sup>O</sup>	260 <sup>0</sup>	41.5
	0+11E				
4	1+70\$	1155	-70 <sup>0</sup>	260 <sup>0</sup>	88.88
	0+11E				
5	1+22\$	1174	-48 <sup>O</sup>	080°	93.6
	0+25W				
6	1+22\$	1174	-58 <sup>0</sup>	145 <sup>0</sup>	124.1
	0+25W				
7	0+68\$	1182	-47 <sup>0</sup>	270 <sup>0</sup>	79.6
	0+23W				
8	2+17\$	1133	-65 <sup>0</sup>	047 <sup>0</sup>	159.2
	0+35W				
9	2+69\$	1126	-60°	100°	102.8
	0+19W				
				TOTAL	899.3

#### Results

Diamond drilling results are summarized in Figures 3 to 11 (Geological Compilation Plan and Cross Sections, pages 12 to 20) and Table 2 (Significant Assay Intervals, pages 21-23). Diamond drill logs are shown in the accompanying Appendix. Detailed descriptions of the geology and mineralization are summarized below.

## Lithology and Structure

Rock types encountered in the drill program include:

- a) grey-black, thinly bedded to finely laminated argillites, cherty argillites, and argillaceous siltstones alternating with greyish-white tuffaceous sandstones,
- b) green, fine-grained andesitic flows (or tuffs?) intercalated with the sedimentary package;
- c) green, medium-grained diorites; and
- d) porphyritic dacitic to andesitic dykes. grey. fel dspar Contacts between andesite and diorite İs generally transitional, both rock types being composed of chlorite (30-50%), epidote (15-20%), oligoclase (20-30%) subordinate pyrrhotite.

Bedding to core orientations coupled with surface structural observations indicate consistent easterly dips steepening from east to west south of line 1+50S, and subvertical to steep westerly dips north of that line.

#### Sulphide Mineralization and Alteration

Sulphide mineralization observed in drill core consists of stringers, veinlets, blebs, bands, pods and minor disseminations of pyrrhotite, chalcopyrite, sphalerite, galena, minor tetrahedrite, and trace arsenopyrite within brecciated, quartz-chlorite-epidote  $\pm$  garnet altered portions of the argillite unit. Stringers and veinlets of pyrrhotite,

chalcopyrite, sphalerite and rare galena also occur in fine grained chloritic andesites and locally in chloritized diorites. Some barren diorite bodies sandwiched between mineralized andesites (e.g. 98.9-103.4 m in DDH 6) appear to postdate the mineralization event.

Four main mineral assemblages are recognized:

- a) pyrrhotite-sphalerite
- b) phrrhotite-sphalerite-galena
- c) pyrrhotite-chalcopyrite  $\pm$  tetrahedrite and
- d) pyrrhotite-sphalerite-chalcopyrite-galena

High silver values correlate positively with high copper and/or lead contents suggesting a genetic link between silver, galena, and probably tetrahedrite. The presence of garnet within the alteration assemblage is also an indicator of high silver values.

## Sulphide Zones

Three main base metal bearing sulphide zones, (Northern, Central, and Southern, page 12) have been delineated by drilling and surface trenching.

The northern sulphide zone is up to 30 m wide and can be traced from Line 1+50S to trench 7, a distance of approximately 50 m. It is truncated by an ENE trending fault-shear just north of trench 4 and possibly offset to the west by another ENE trending fault between lines 1+50S and 1+75S. This zone was intersected in DDH 3, 4 and 6. not penetrated by DDH 8 (Figure 10. page 19) due to a combination of easterly dipping stratigraphy and steep inclination (65 $^{\rm O}$ ) of the hole. The central zone consists of two "high grade" mineralized horizons (10-30% sulphides) occurring mostly in sediments at the contact with a chloritic andesite unit. The two horizons are separated and enveloped by low grade pyrrhotite-sphalerite mineralization (2-6% sulphides). The upper horizon contains up to 76.1 g/t Ag and 2.95% combined base metals over 1.5 m (22.2-23.7 m, DDH 3). The lower horizon averages 12.51% combined base metals and 359.4 q/t Aq over 4 metres (27.2 - 31.2 m DDH 3). Metal zonation within this intercept is from top to bottom: Cu-Ag;

Cu-Pb-Zn-Ag; Pb-Zn-Ag. In contrast, the lower mineralized horizon, encountered in DDH 4 only, contains one narrow Cu-Ag zone (46.3 - 47.3 m) which is cut by a dacitic dyke and underlain by weakly geochemically anomalous sediments. This relationship suggests that the bottom 2/3 of the lower horizon in DDH 4 may have been faulted off.

The Central Zone, intersected in DDH 1, consists of four discrete short (0.5-1.5 m) intervals assaying up to 47.1 g/t Ag and 5.02% combined base metals, mutually separated and enveloped by lower grade mineralization (0.42% Cu, 0.29% Pb, 0.77% Zn, 19.3 g/t Ag over 15.25 m). This zone occurs in sediments overlying intercalated andesitic flows, dioritic sills, and minor argillite.

The Southern Zone as intersected in DDH 9 consists of a 7.7 m interval (70.7-78.4 m) enriched in sphalerite and galena (0.1% Cu - 1.48% Pb - 1.53% Zn - 40.8 g/t Ag) overlain by low grade Zn-Pb mineralization (.02% Cu - .09% Pb - 0.36% Zn - 4.6 g/t Ag over 11.5 m) in turn overlain by discontinuously weakly mineralized intervals with progressively higher Cu/Zn ratios and minor to no lead. The southern zone occurs in sediments overlying a thin green chloritic andesite flow.

A zone of base-metal silver mineralization hosted by green chloritic andesite was intersected in the bottom 5.7 m of DDH 7. Unfortunately this zone, which averages 7.93% combined base metals and 68.9 g/t Ag over a short interval (0.7 m) could not be fully evaluated because of a drill breakdown.

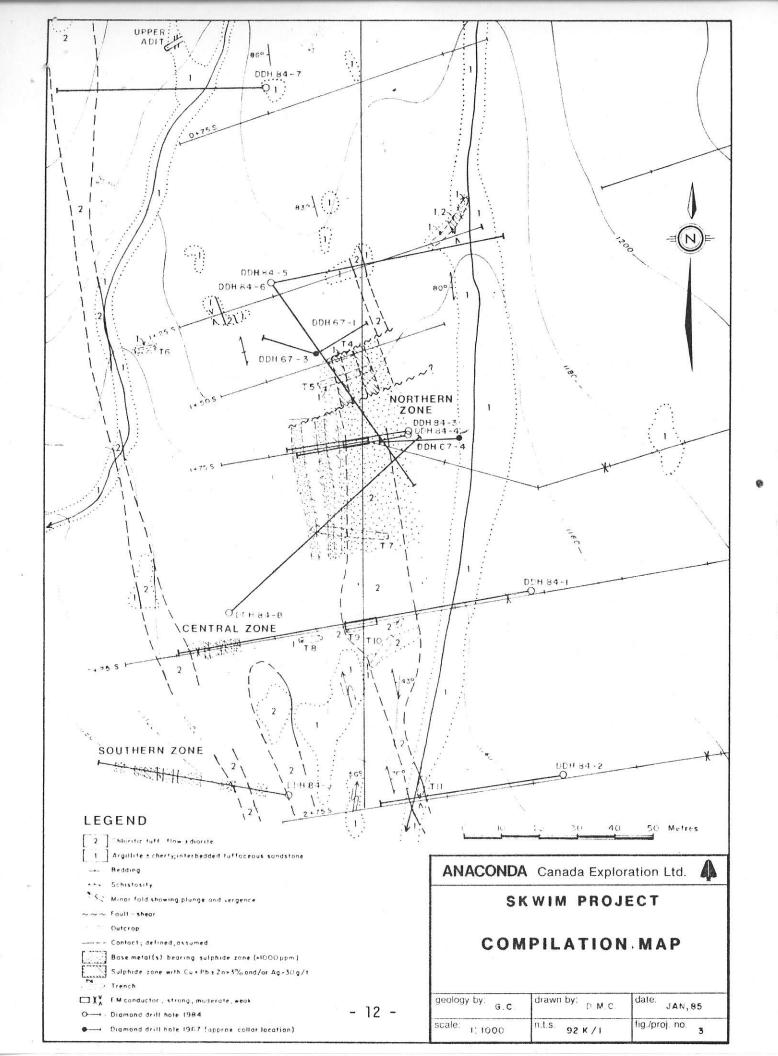
#### CONCLUSIONS AND RECOMMENDATIONS

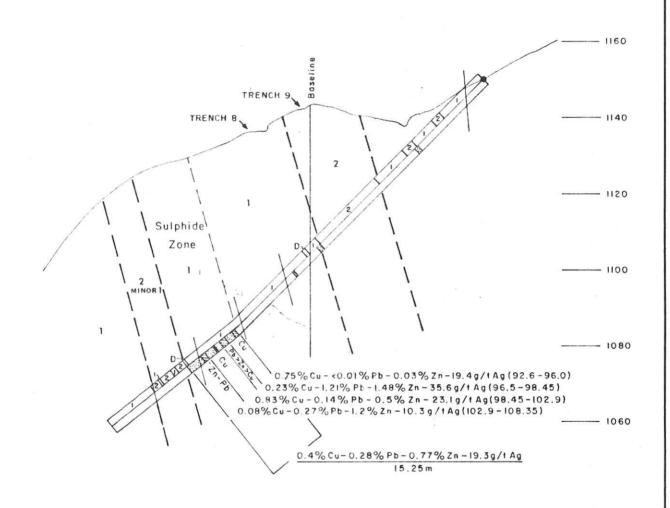
The 1984 diamond drill program at the Skwim property established the presence of three steeply dipping, en echelon, polymetallic base-metal silver zones south of the Upper Adit. The three zones are up to 30 m wide and occur over an aggregate strike length of 120 m. Assay values in the northern zone range up to 0.79% Cu. 2.74% Pb. 1.61% Zn. 135 q/t Aq over 12 m and 2.1% Cu, 7.9%Pb, 2.5% Zn, 359.5 g/t Ag over 4 m. Overall grades of the Central and Southern zones are 0.47% Cu, 0.29% Pb, 0.77% Zn, 19.3 g/t Ag over 15.25 m and 0.1% Cu, 1.48% Pb, 1.53% Zn, 40.8 g/t Ag over 7.7 m respectively. The three zones are made up of stringer mineralization, display metal zonation, and appear to be stratabound. They are largely confined to brecciated, quartz-chlorite-epidote  $\pm$ garnet altered portions of banded argillites at/or near contacts with intercalated chloritic andesites. Based on these features the three zones can be interpreted to represent syngenetic (volcanogenic ?) sulphide horizons probably remobilized during deformation and metamorphism accompanying the Intrusion of Coast Range granitoids. If this is the case, contact zones between sediments and volcanics, especially those characterized by hydrothermal alteration, coincident Em conductors should be carefully qeochemistry. and investigated.

Further work at the property should include: a) additional drilling between the cliffs south of DDH-84-9 and the Lower Adit to establish continuity of sulphide mineralization along the contact zone between Units 2 and 3; b)soil and lithogeochemical follow up along the same contact zone between the Upper Adit and Skwim Lake. Areas with coincident geochemical and geophysical signatures should subsequently be drill tested; c) Lithogeochemical follow up of hydrothermally altered (silica-pyrite±sericite) intermediate to felsic tuffs exposed near Mt. Diadem and in the northern part of the Upper Grid between lines 13 N and 17 N.

## REFERENCES

Riccio, L., Crowe, G., Scott, A., Matysek, P.,(1983) - Skwim Project,
Final Report 1983 - Anaconda's Internal Report.







2 Chloritic tuff-flow ± diorite

1 Argillite ± cherty; interbedded tuffaceous sandstone

Base metal(s) bearing sulphide zone (>1000ppm)

Sulphide zone with Cu+Pb±Zn>3% and/or Ag>30 g/t

Trace of bedding

D Dyke

ANACONDA Canada Exploration Ltd.

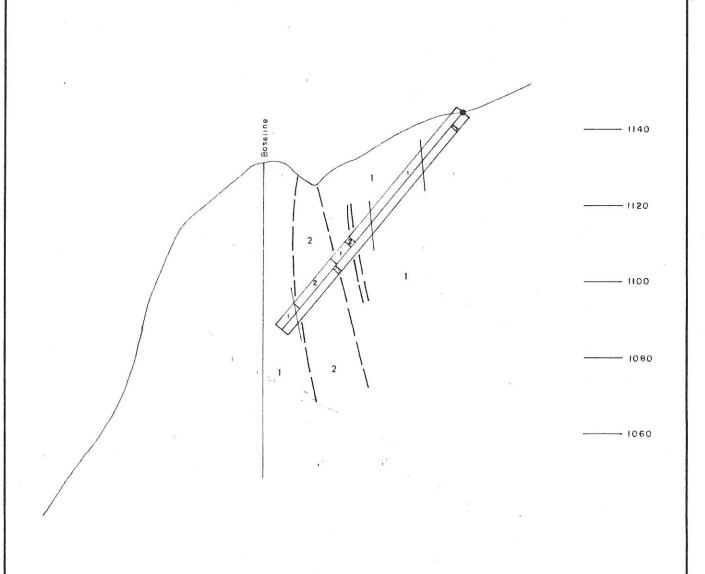


SKWIM PROJECT

CROSS SECTION
DDH 84-1

geology by A.K,L.R. drawr try D.M.C. date JAN, 85
scale 1:1000 92 K/1 fig proj no 4

- 13 -





2 Chloritic tuff-flow ± diorite

1 Argillite ± cherty; interbedded tuffaceous sandstone

Base metal(s) bearing sulphide zone (>1000ppm)

Sulphide zone with  $Cu+Pb\pm Zn 3\%$  and f Ag>30 g/t

Trace of bedding

D Dyke

ANACONDA Canada Exploration Ltd.

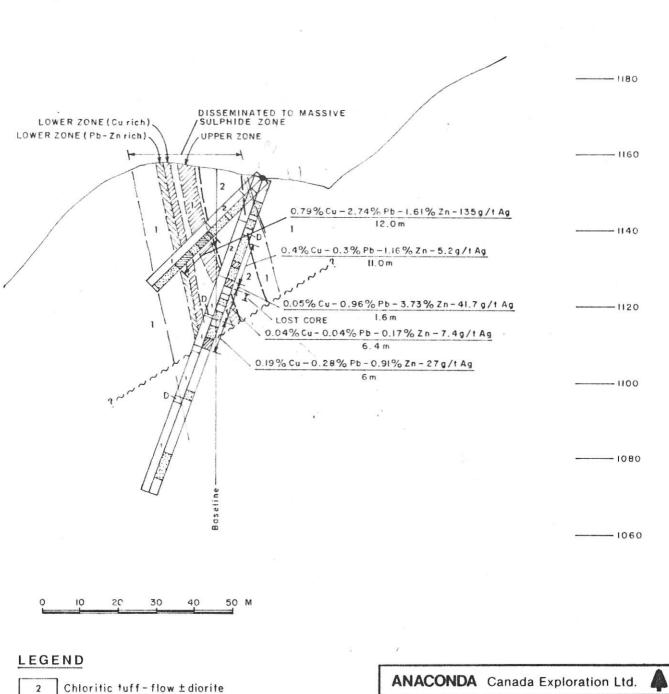


SKWIM PROJECT

CROSS SECTION
DDH 84-2

geology by A.K, L.R. drawn by D.M.C. date JAN, 85
scale 1:1000 nts 92 K/I fig/proj no 5

- 14 -



- 15 -

Dyke

Trace of bedding

Argillite ± cherty; interbedded tuffaceous sandstone

Sulphide zone with Cu+Pb±Zn>3% and/or Ag>30g/t

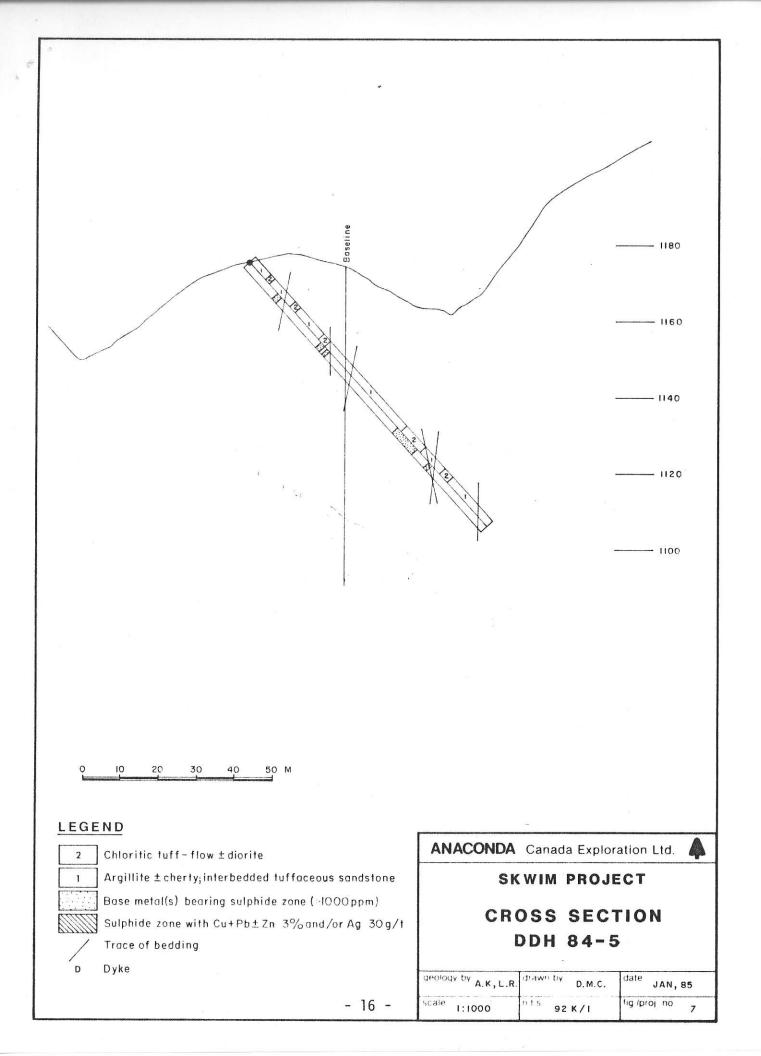
Base metal(s) bearing sulphide zone (>1000ppm)

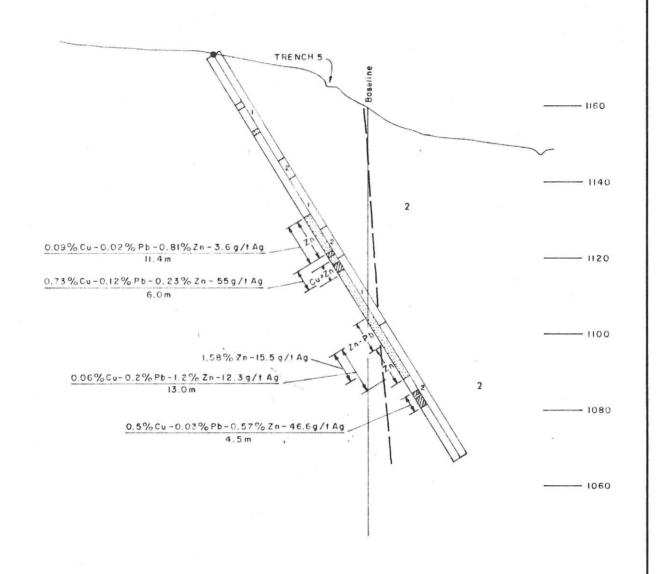
ANACONDA Canada Exploration Ltd.

SKWIM PROJECT

CROSS SECTION DDH 84-3,4

geology by A.K, L.R.	drawn by D.M.C.	date JAN, 85
scale   1:1000	n15 92 K/I	fig /proj. no. 6







2 Chloritic tuff-flow ± diorite

1 Argillite ± cherty;interbedded tuffaceous sandstone

Base metal(s) bearing sulphide zone (>1000ppm)

Sulphide zone with Cu+Pb±Zn 3%and/or Ag>30g/t

Trace of bedding

D Dyke

ANACONDA Canada Exploration Ltd.

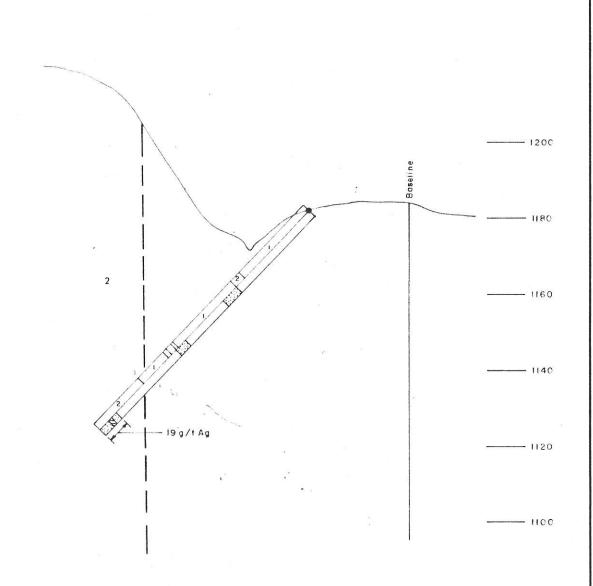


SKWIM PROJECT

CROSS SECTION
DDH 84-6

geology by A.K, L.R. drawn by D.M.C. date JAN, 85
scale 1:1000 nts 92 K/1 fig/proj no 8

- 17 -





Chloritic tuff-flow ± diorite

Argillite ± cherty; interbedded tuffaceous sandstone

Base metal(s) bearing sulphide zone (>1000ppm)

Sulphide zone with  $Cu+Pb\pm Zn \ 3\%$  and/or  $Ag \ 3Og/t$ 

Trace of bedding

Dyke

ANACONDA Canada Exploration Ltd.

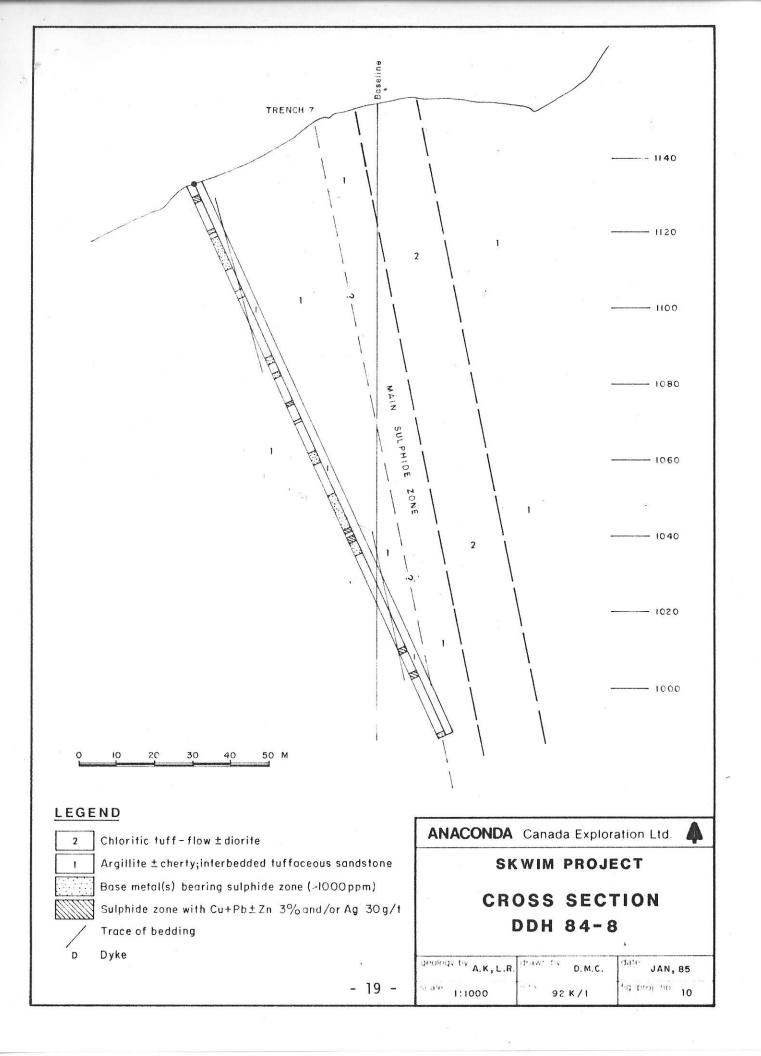


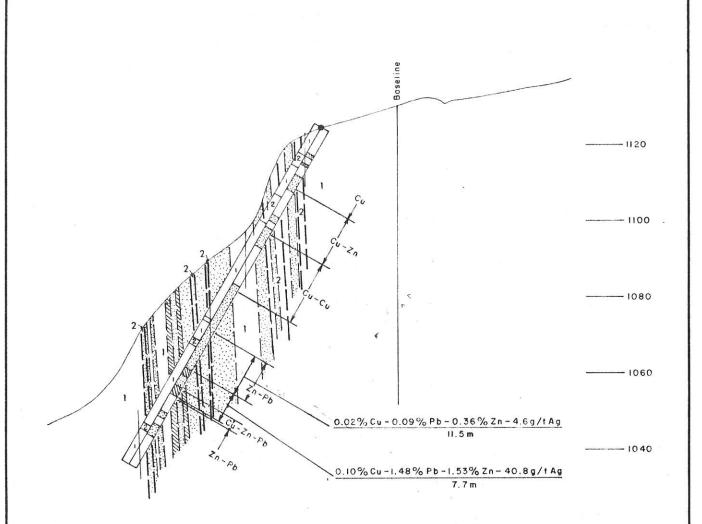
SKWIM PROJECT

**CROSS SECTION** DDH 84-7.

geology by A.K,L.R. drawn by. JAN, 85 fig /proj no. 9 scale 1:1000 nls 92 K/I

- 18 -







Chloritic tuff-flow ± diorite

Argillite ± cherty; interbedded tuffaceous sandstone

Base metal(s) bearing sulphide zone (>1000ppm)

Sulphide zone with Cu+Pb±Zn>3% and/or Ag>30 g/t

Trace of bedding

D Dyke

ANACONDA Canada Exploration Ltd.

SKWIM PROJECT

CROSS SECTION
DDH 84-9

geology by. A.K, L.R drawn by: D.M.C. date: JAN, 85
scale: 1:1000 n.t.s. 92 K/1 fig./proj. no. 11

- 20 -

SKWIM LAKE PROJECT

SIGNIFICANT DRILL INTERCEPTS

(AG > 30 PPM AND/OR CU+PB+ZN > 3.0%)

TABLE 2

HOLE NO.	FROM	TO m	I NT m	au \$	PB ≸	ZN ≴	CU+PB+	ZN AG g/t	AU ppb
				•	•	•	•	3	FF-
DDH84.01	93.0	93.5	.5	2.28	.01	.06	2.35	52.5	70.
DDH84.01	93.5	94.0	.5	1.76	.01	.05	1.82	41.8	70.
			1.0	1.64	.01	.05	2.08	47.1	70.
DDH84.01	96.5	97.0	.5	.43	2.25	.86	3.54	55.9	70.
DDH84.01	97.0	97.5	•5	.13	1.33	.81	2.27	53.8	70.
	97.5	98.0	•5	.24	0.91	2.00	3.15	22.6	70.
			1.5	.27	1.50	1.22	2.99	44.1	70.
DDH84.01	99.9	100.4	•5	2.32	.02	.16	2.50	46.6	5.
DDH84.01	102.9	103.4	.5	.09	1.16	3.83	5.08	17.8	170.
DDH84.01	103.4	103.9	.5	.04	1.22	3.70	4.96	17.8	70.
			1.0	.06	1.19	3.76	5.02	17.8	120.
DDH84.03	20.2	20.7	.5	.05	.04	6.00	6.09	24.0	10.
DDH84.03	22.2	22.7	.5	.11	.34	2.72	3.17	30.0	200.
DDH84.03	22.7	23.2	.5	.15	.30	.84	1.29	43.0	90.
DDH84.03	23.2	23.7	.5	.76	.89	2.74	4.39	155.3	440.
			1.5	.34	.51	2.10	2.95	76.1	110.
DDH84.03	27.2	27.7	.5	1.51	.01	.30	1.82	123.8	50.
DDH84.03	27.7	28.2	•5	3.72	.01	.32	4.05	236.9	80.
DDH84.03	28.2	28.7	.5	8.07	2.87	3.60	14.54	582.8	60.
DDH84.03	28.7	29.2	•5	1.20	5.35	2.68	9.23	237.2	30.
DDH84.03	29.2	29.7	.5	.46	.86	.58	1.90	36.3	5.
DDH84.03	29.7	30.2	.5	.66	8.35	4.25	13.26	169.0	40.
DDH84.03	30.2	30.7	•5	•55	30.20	4.15	34.90	812.5	35.
DDH84.03	30.7	31.2	.5 4.0	.96 2.14	15.75 7.92	3.73 2.45	20.44 12.51	677.1 <b>359.4</b>	55. 45.
			4.0	4.14	1.94	2.43	12.71	JJ3.4	47.

HOLE NO	FROM	TO m	INT m	CU \$	PB	ZN \$	CU+PB+	ZN AG	AU ppb
DDH84.04	23.7	24.7	1.0	.05	.03	7.47	7.55	13.0	10.
DDH84.04 DDH84.04 DDH84.04	28.7 29.2 29.7	29.2 29.7 30.2	.5 .5 .5	.08 .04 .02 .05	.04 1.59 .90 .84	3.32 3.24 4.62 3.72	3.44 4.87 5.54 4.61	11.0 74.4 39.8 41.7	70. 70. 70. 70.
DDH84.04 DDH84.04	32.6 33.1	33.1 33.6	.5 .5 1.0	.19 .20 .19	.04 .04 .04	.51 .16 .39	.74 .40 .63	34.0 33.0 33.6	70. 45. 55.
DDH84.04 DDH84.04 DDH84.04 DDH84.04	44.8 45.3 46.3 46.8	45.3 46.3 46.8 47.3	.5 1.0 .5 .5	.01 .01 1.33 .34	.57 .68 .30 .16	2.65 2.24 .19 .07 1.48	3.23 2.93 1.82 .57 2.30	12.7 13.4 160.4 46.6 <b>49.3</b>	70. 70. 70. 70.
DDH84.06	14.6	15.6	1.0	7.15	.01	.49	7.65	319.2	800.
DDH84.06 DDH84.06 DDH84.06	60.4 63.4 64.4	61.4 64.4 65.4	1.0 1.0 1.0 3.0	1.04 1.32 1.08 1.20	.01 .26 .36	.27 .39 .44	1.32 1.97 1.88 1.92	37.6 127.2 120.7 <b>123.9</b>	10. 10. 10.
DDH84.06	86.4	86.9	0.5	.06	1.24	8.40	9.70	93.9	120.
DDH84.06 DDH84.06 DDH84.06 DDH84.06 DDH84.06 DDH84.06 DDH84.06 DDH84.06	103.4 103.9 104.9 105.4 105.9 106.4 106.9	103.9 104.4 105.4 105.9 106.4 106.9 107.4	0.5 0.5 0.5 0.5 0.5 0.5 0.5 4.0	.20 .32 .12 .15 1.43 1.08 .62 .62	.04 .02 .11 .10 .01 .01 .01	1.83 .07 1.10 1.79 .14 .04 .02 .04	2.07 .41 1.33 2.04 1.58 1.13 .65 .67	34.3 35.7 43.2 83.6 85.7 65.5 35.0 31.9 51.9	5. 45. 15. 100. 40. 15. 10. 30.
DDH84.07	75.9	76.6	0.7	.13	1.57	6.23	7.93	68.9	20.

HOLE NO	FROM m	TO m	INT m	CU \$	PB ≸	ZN \$	CU+PB+	ZN AG g/t	AU ppb
DDH84.08	2.5	3.7	1.2	3.25	.01	.18	3.44	86.7	15.
DDH84.08	61.8	62.6	0.8	.34	.08	.25	.67	39.0	5.
DDH84.08	98.9	99.9	1.0	1.62	.28	1.20	3.10	175.2	40.
DDH84.08	101.4	102.4	1.0	.05	.78	2.67	3.50	8.9	15.
DDH84.08	133.2	134.2	1.0	.07	.33	2.00	2.40	32.0	5.
DDH84.08	140.6	141.6	1.0	.02	.95	1.50	2.47	45.0	5.
DDH84.09 DDH84.09	72.7 73.4 74.1	73.4 74.1 74.7	0.7 0.7 0.6 2.0	.06 .04 .03	1.08 1.06 1.12 1.08	2.59 1.65 4.33 2.78	3.73 2.75 5.48 3.90	22.8 17.1 17.2 19.1	5. 5. 60. 20.
DDH84.09 DDH84.09 DDH84.09	77.7 78.4 79.4	78.4 79.4 80.4	0.7 1.0 1.0 2.7	.13 .27 .38 .27	12.30 .08 .05 3.24	5.15 .25 .12 1.47	17.58 .60 .55 4.98	261.6 42.0 44.0 99.7	480. 20. 5. 130.