COMINCO LTD.

EXPLORATION

NTS: 82M/13E

WESTERN DISTRICT

NOVEMBER 1979

DIAMOND DRILLING - 1979

CK PROPERTY

KAMLOOPS M.D., B.C.

RAFT RIVER AREA

LATITUDE: 51°54'W LONGITUDE: 119°34'W

WORK PERFORMED

1 JUNE 1979 - 1 SEPTEMBER 1979

OWNER AND OPERATOR: COMINCO LTD.

NOVEMBER 23, 1979

M.R. MURRELL

TABLE OF CONTENTS

COMINCO LTD.

EXPLORATION
NTS: 82M/13E

WESTERN DISTRICT
23 NOVEMBER 1979

DIAMOND DRILLING ASSESSMENT REPORT

CK GROUP OF CLAIMS

KAMLOOPS MINING DIVISION

I INTRODUCTION

Location

The CK group of mineral claims are located in the Kamloops Mining Division, forty-three kilometres northeast of Clearwater, B.C. The property is on either side of the Raft River, centred on the junction of the Raft River with Kowalski Creek. It is 24 km long by 7 km wide.

II ACCESS

The town of Clearwater is located on the Trans Canada Highway, 130 km north of Kamloops. Access from Clearwater to the CK property is by 65 km of excellent gravel logging roads along the Raft River. Several logging roads provide access to some of the showings areas, but much of the property is accessible only by foot or helicopter.

III TOPOGRAPHY

Much of the CK group of claims consist of fairly steep tree and brush covered side hills. The higher portion is flat to rolling, containing scattered swampy areas.

IV PROPERTY DEFINITION

(a) History

1973 - Discovery of mineralized boulders and in-place mineralization by Andy Horne, Chase, B.C.
1974, 1975 - Optioned by Rio Tinto - Airborne EM; geochemistry, I.P., minor magnetometer work, and 7 diamond drill holes.
1976 - Sicintine Mines - backhoe trenching on one showing.
1977 - Optioned by Cominco Ltd.
1978 - I.P., magnetometer, VLF, minor geochemistry, Cat trenching, diamond drilling (20 holes).

(b) Current Owner and Operator

Cominco Ltd., 200 Granville Square, Vancouver, B.C.

(c) Extent of Claims Covered by This Report - See Appendix "C"

V SUMMARY OF WORK DONE

B.Q. drilling totalled 2768.4 metres in 18 holes during 1979.

VI GEOLOGY

The claims are underlain by metasediments and intrusives of the Shuswap Metamorphic Complex. Exposure is quite poor over much of the claim group, but mapping has suggested that limy and siliceous calc-silicates, biotite gneisses, marbles, and pegmatite underlie the extensive overburden. Several showings have been found, most have an associated goechemical expression.

VII PURPOSE OF DRILLING PROGRAM

The diamond drilling program on the CK mineral claims was continued during the 1979 field season. It's purpose was:

1. To test the down-dip continuity of surface exposure and intersections discovered in 1978.

2. To determine the lateral continuity of mineralization between previous intersections.

3. To determine the structure of the mineralized zone.

4. To determine the variability of the grade of the mineralized zone.

5. To help determine the economic significance of the mineralization on the property.

VIII INTERPRETATION OF 1979 DRILL RESULTS

The 1979 drilling program has helped to confirm that the stratiform mineralized body is a long narrow mainly east-dipping Zn-Pb body. The body is much thinner and more structurally deformed than originally expected, but appears to be locally thickened. Fifteen of the eighteen holes drilled encountered mineralization ranging from 0.02 m thick to 1.6 m wide and grading from 0.69% Zn/Pb to 30.93% Zn/Pb. Most of the drilling was within the 2.1 km zone described last year, but two other zones were tested as well. Holes CK79-1, 2, 3, 13 in the Main Boulder area, and CK79-15 to 18 in the Mist Showing area. Neither of these two zones have returned significant assays in the drill core.

The stratiform mineralization is associated with a complexly folded relatively narrow belt of calc-silicate gneiss and carbonates enclosed within an overall envelope of metasediments and pegmatite. All form part of the highly metamorphosed Shuswap Metamorphic Complex.

The 1979 program has shown the mineralization on the CK program to be very extensive, but usually narrow. Much more drilling and testing is required to determine if locally thickened portions of the mineralized body can be of economic size and grade.

Report by: _____
M.R. Murrell
Project Geologist

Endorsed by: _____
F.D. Gill
Senior Geologist

Approved for
Release by: _____
G. Harden, Manager
Exploration
Western District

MRM/gk

IX ATTACHMENTS

Statement of Expenditures	-	Exhibit "A"
Statement of Qualifications	-	Exhibit "B"
List of Claims and Work Per Claim	-	Exhibit "C" (3 pages)
Location Map 1:1,900,000	-	Plate 1
Location Map 1: 250,000	-	Plate 2
Drill Hole Location 1:5,000	-	Plate 3
Drill Hole Location 1:5,000	-	Plate 4 (In pocket)
Drill Hole Logs - CK 79-1 to CK 79-18		

COMINCO LTD.

EXPLORATION
NTS: 82M/13E

WESTERN DISTRICT
8 NOVEMBER 1979

EXHIBIT "A"

STATEMENT OF EXPENDITURES

DIAMOND DRILLING PROGRAM ON CK MINERAL CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

LATITUDE: 51°55'N LONGITUDE: 119°35'W

Dates of Work: This statement covers diamond drilling carried out on the CK property between 1 June 1979, and 1 September 1979.

I.	CONTRACT COSTS			
	Cameron McCutcheon Drilling Ltd (2,768.4 m)			$ 162,656.00
II.	DRILL SITE PREPARATION AND CORE RACKS			
	1) Lewis Bloomfield	1515		
	2) Roy Unterschultz	80		
	3) Miscellaneous	474		
		2067		2,067.00
III.	ASSAYING			110.00
IV.	STAFF TIME			
	1) M.R. Murrell	4 days per week @ 172.31/day 172.31 x 4 x 4 x 3	$ 8,720.88	
	2) Bill Kling	2 days per week @ $69/day 69 x 2 x 4 x 3	1,659.00	
	3) Timm Rittberg	2 days per week @ $69/day 69 x 2 x 4 x 3	1,659.00	
			$11,588.88	11,588.88
V.	DOMICILE			
	1) M.R. Murrell 48 days @ 15/day		720.00	
	2) Bill Kling, Timm Rittberg total 48 days @ 15/day		720.00	
			1,440.00	1,440.00

MRM

APPENDIX "A" CONT'D.

VI TRANSPORTATION		
Truck Rental - 3 mos. @ $629/mo.	$1,887	
Fuel - 90 days @ $10/day	900	2,787.00
TOTAL COST OF DRILLING:		$180,642.88

Cost of Drilling, per metre:

$$= \frac{180,642.88}{2,786.4} = \$65.251726$$

COMINCO LTD.

EXPLORATION
NTS: 82M/13E

WESTERN DISTRICT
8 NOVEMBER 1979

Exhibit "B"

STATEMENT OF QUALIFICATIONS

I, Michael R. Murrell, hereby state that I graduated from the University of Alberta with an Honours degree in Geology, in 1966. During my undergraduate years I was seasonally employed by B.A. Oil (now Gulf) and by a small mining exploration company. Upon graduation I commenced employment with Cominco Ltd. During the past fourteen years I have been engaged in several different projects dealing with mining exploration.

Mike Murrell

M.R. Murrell
Project Geologist

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

CK OPTION

KAMLOOPS M.D., B.C.

CLAIMS	UNITS	RECORD NUMBERS	PRESENT GROUPING	GEOCHEM MAY 9 - SEPT 30/79 NO. SAMPLES	GEOCHEM MAY 9 - SEPT 30/79 VALUE	GEOPHYSICS JUNE 13 - OCT 2/79 LENGTH	GEOPHYSICS JUNE 13 - OCT 2/79 VALUE	DRILLING JUNE 1 - SEPT 1/79 LENGTH	DRILLING JUNE 1 - SEPT 1/79 VALUE	TOTAL
CK 3	1	127074N	CK 79-5 Supp.	-	-	-	$ 2,368.00	607.4 m	$ 39,633.90	$ 42,001.90
CK 4	1	127075N	CK 79-3 Supp.	-	-	-	-	311.6 m	20,332.44	20,332.44
CK 6	1	127077N	CK 79-3 Supp.	-	-	1,150 m	1,015.05	-	-	1,015.05
CK 7	1	127078N	CK 79-3 Supp.	-	-	1,250 m	1,103.32	-	-	1,103.32
CK 8	1	127079N	CK 79-3 Supp.	-	-	1,800 m	1,588.78	-	-	1,588.78
CK 11	1	127080N	-	-	-	-	-	130.6 m	8,521.88	8,521.88
CK 34	1	127225P	CK 79-3 Supp.	-	-	210 m	185.36	-	-	185.36
CK 39	1	127230P	CK 79-4 Supp.	-	-	440 m	388.37	-	-	388.37
CK 40	1	127231P	CK 79-3 Supp.	-	-	1,170 m	1,032.71	-	-	1,032.71
CK 42	1	127233P	CK 79-4 Supp.	-	-	360 m	317.76	-	-	317.76
CK 45	1	127236P	CK 79-5 Supp.	11	89.23	1,350 m	1,191.58	-	-	1,280.81
CK 46	1	127237P	CK 79-5 Supp.	-	-	1,590 m	1,403.42	-	-	1,403.42
CK 47	1	127238P	CK 79-4 Supp.	3	24.33	-	-	-	-	24.33
CK 48	1	127239P	CK 79-3 Supp.	-	-	-	-	272.1 m	17,754.99	17,754.99
CK 63	1	128600M	CK 79-4 Supp.	-	-	350 m	308.93	-	-	308.93
CK 69	1	128606M	-	-	-	370 m	326.58	-	-	326.58
CK 70	1	128607M	-	-	-	230 m	203.01	-	-	203.01
CK 71	1	128608M	-	-	-	20 m	17.65	-	-	17.65
CK 72	1	128609M	-	-	-	1,490 m	1,315.16	-	-	1,315.16
CK 73	1	128610M	CK 79-4 Supp.	-	-	600 m	529.59	-	-	529.59
CK 75	1	128612M	CK 79-4 Supp.	-	-	1,170 m	1,032.71	-	-	1,032.71
CK 76	1	128613M	-	-	-	110 m	97.09	-	-	97.09
CK 78	1	128671M	-	-	-	240 m	211.84	-	-	211.84
CK 83	8	1031	-	-	-	-	-	42.0 m	2,740.57	2,740.57
CK 84	6	1032	CK 79-4 Supp.	-	-	-	-	1,051.9 m	68,638.29	68,638.29
CK 87	20	1060	CK 79-3 Supp.	12	97.34	160 m	141.22	-	-	238.56
CK 88	15	1361	-	121	981.49	3,080 m	2,718.58	-	-	3,700.07
CK 89	8	1362	-	25	202.79	270 m	238.32	-	-	441.11

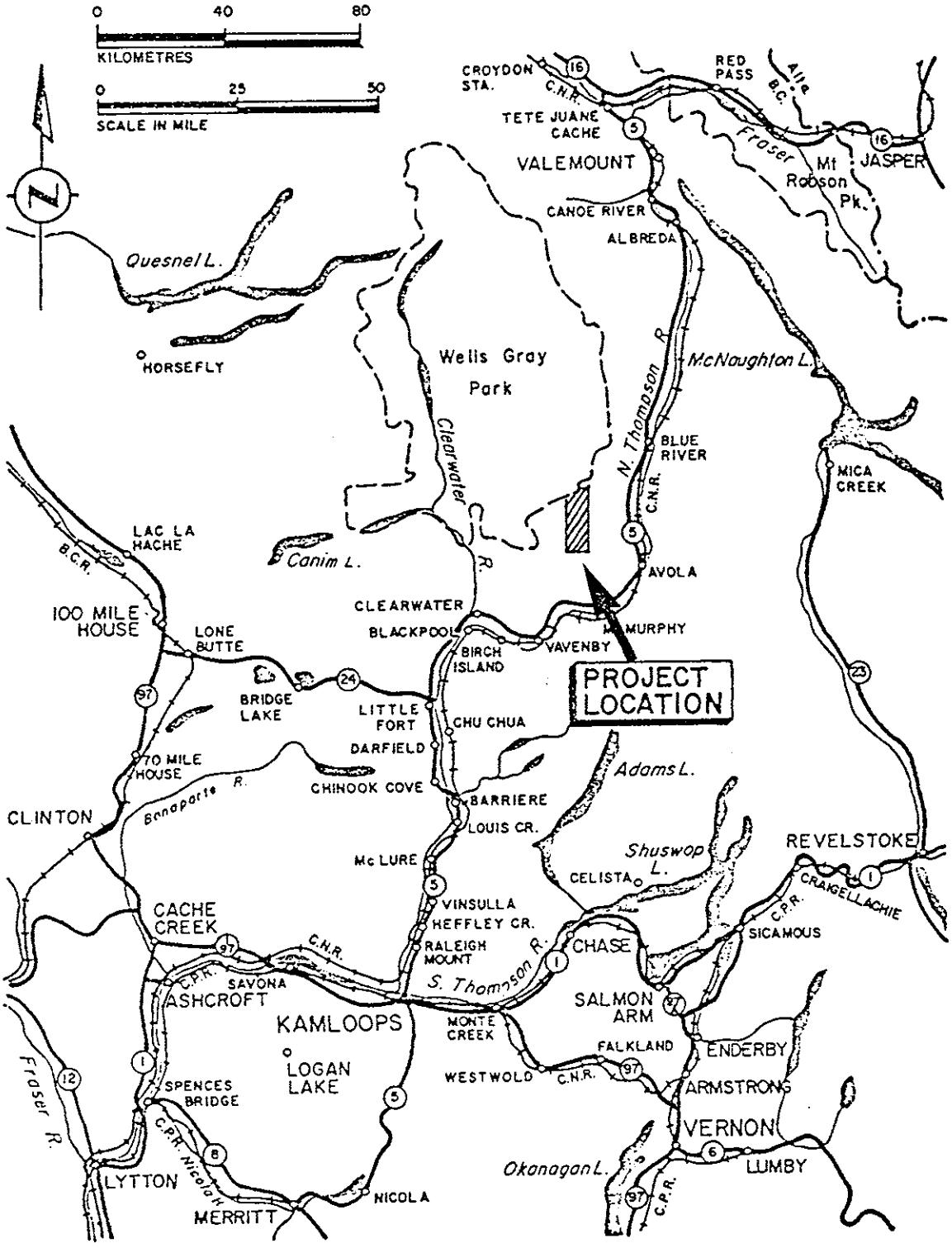
CK OPTION

CLAIMS	UNITS	RECORD NUMBERS	PRESENT GROUPING	GEOCHEM MAY 9 - SEPT 30/79 NO. SAMPLES	GEOCHEM MAY 9 - SEPT 30/79 VALUE	GEOPHYSICS JUNE 13 - OCT 2/79 LENGTH	GEOPHYSICS JUNE 13 - OCT 2/79 VALUE	DRILLING JUNE 1 - SEPT 1/79 LENGTH	DRILLING JUNE 1 - SEPT 1/79 VALUE	TOTAL
CK 90	20	1363	CK 79-12	-	-	540 m	$ 476.63	-	-	$ 476.63
CK 95	16	1511	CK 79-14	298	2,417.22	-	-	-	-	2,417.22
NORTH 1	20	1512	CK 79-8	531	4,306.20	5,780 m	11,774.27	-	-	16,081.47
NORTH 46	1	128302H	CK 79-4 Supp.	-	-	-	-	136.3 m	8,893.81	8,893.81
RAFT 23	1	127286P	CK 79-5 Supp.	-	-	260 m	229.49	-	-	229.49
RAFT 24	1	127287P	CK 79-5 Supp.	14	113.56	1,100 m	970.92	-	-	1,084.48
RAFT 25	1	127288P	CK 79-5 Supp.	-	-	330 m	291.28	-	-	291.28
RAFT 26	1	127289P	CK 79-5 Supp.	-	-	1,550 m	1,368.12	-	-	1,368.12
RAFT 27	1	127290P	CK 79-3 Supp.	-	-	330 m	291.28	-	-	291.28
RAFT 28	1	127291P	CK 79-3 Supp.	-	-	1,510 m	1,332.81	-	-	1,332.81
RAFT 29	1	127292P	CK 79-5 Supp.	18	146.01	-	-	-	-	146.01
RAFT 30	1	127293P	CK 79-5 Supp.	5	40.56	-	-	-	-	40.56
RAFT 31	1	127294P	CK 79-4 Supp.	17	137.90	-	-	-	-	137.90
RAFT 32	1	127295P	CK 79-5 Supp.	5	40.56	-	-	-	-	40.56
RAFT 33	1	127296P	CK 79-4 Supp.	17	137.90	-	-	-	-	137.90
RAFT 34	1	127297P	CK 79-5 Supp.	5	40.56	-	-	-	-	40.56
ULO 1	1	128674M	-	-	-	1,120 m	988.57	-	-	988.57
ULO 2	1	128675M	-	-	-	1,150 m	1,015.05	-	-	1,015.05
ULO 3	1	128676M	-	-	-	1,160 m	1,023.88	-	-	1,023.88
ULO 4	1	128677M	-	-	-	1,800 m	1,588.78	216.5 m	14,127.00	15,715.78
STRAT 1	18	1542	CK 79-12	380	3,082.37	-	-	-	-	3,082.37
STRAT 2	18	1551	-	373	3,025.59	-	-	-	-	3,025.59
STRAT 4	9	1553	CK 79-13	230	1,865.64	-	-	-	-	1,865.64
STRAT 5	15	1554	CK 79-13	304	2,465.89	-	-	-	-	2,465.89
STRAT 7	20	1555	CK 79-11	375	3,041.81	-	-	-	-	3,041.81
STRAT 8	12	1543	CK 79-11	330	2,676.79	-	-	-	-	2,676.79
PARK 1	20	1557	CK 79-7	459	3,723.17	1,800 m	3,867.82	-	-	7,590.99
PARK 2	20	1558	CK 79-10	516	4,185.53	-	-	-	-	4,185.53
PARK 3	5	1559	CK 79-9	107	867.94	-	-	-	-	867.94
PARK 4	20	1560	CK 79-10	329	2,668.68	-	-	-	-	2,668.68
PARK 5	20	1561	CK 79-9	245	1,987.32	-	-	-	-	1,987.32
RAF 1	18	1549	CK 79-14	395	3,204.04	-	-	-	-	3,204.04
RAF 2	15	1550	-	200	1,622.30	-	-	-	-	1,622.30
HIGH 1	20	1702	CK 79-6	476	3,036.88	-	-	-	-	3,036.88
HIGH 2	20	1703	CK 79-6	478	3,877.29	-	-	-	-	3,877.29
HIGH 3	16	1704	CK 79-7	439	2,800.82	-	-	-	-	2,800.82
HIGH 4	16	1705	-	396	3,212.15	-	-	-	-	3,212.15

CLAIMS	UNITS	RECORD NUMBERS	PRESENT GROUPING	GEOCHEM MAY 9 - SEPT 30/79 NO. SAMPLES	GEOCHEM MAY 9 - SEPT 30/79 VALUE	GEOPHYSICS JUNE 13 - OCT 2/79 LENGTH	GEOPHYSICS JUNE 13 - OCT 2/79 VALUE	DRILLING JUNE 1 - SEPT 1/79 LENGTH	DRILLING JUNE 1 - SEPT 1/79 VALUE	TOTAL
HIGH 5	18	1706	-	354	$ 2,258.52	-	-	-	-	$ 2,258.52
HIGH 6	18	1707	-	287	1,999.01	-	-	-	-	1,999.01
HIGH 7	18	1708	-	228	1,849.43	-	-	-	-	1,849.43
HIGH 8	18	1709	CK 79-8	20	162.23	-	-	-	-	162.23
SUBTOTAL				5,634	$ 43,173.91					
TOTAL				8,003	$ 62,390.05	35,840 m	$ 42,953.93	2,768.4 m	$ 180,642.88	$285,986.86

29 October 1979

SSS:hmr



Cominco NTS 82 M

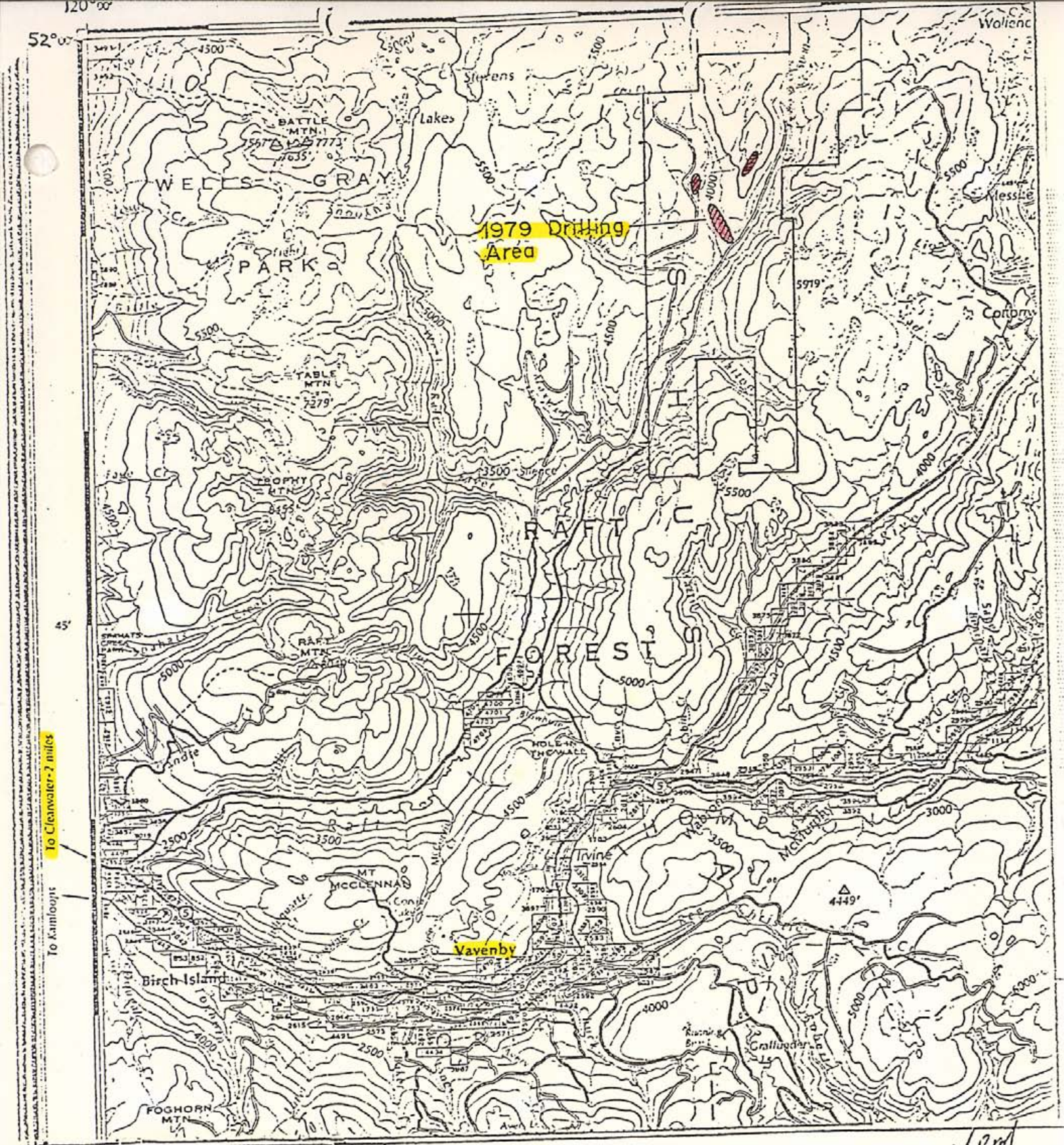
Drawn by: MRM		Traced by:	
Revised by	Date	Revised by	Date

CK PROPERTY
LOCATION MAP

Scale: 1" = 30 miles | Date: November 29, 1979 | Plate: 1

BCIL-2187-C

210-961

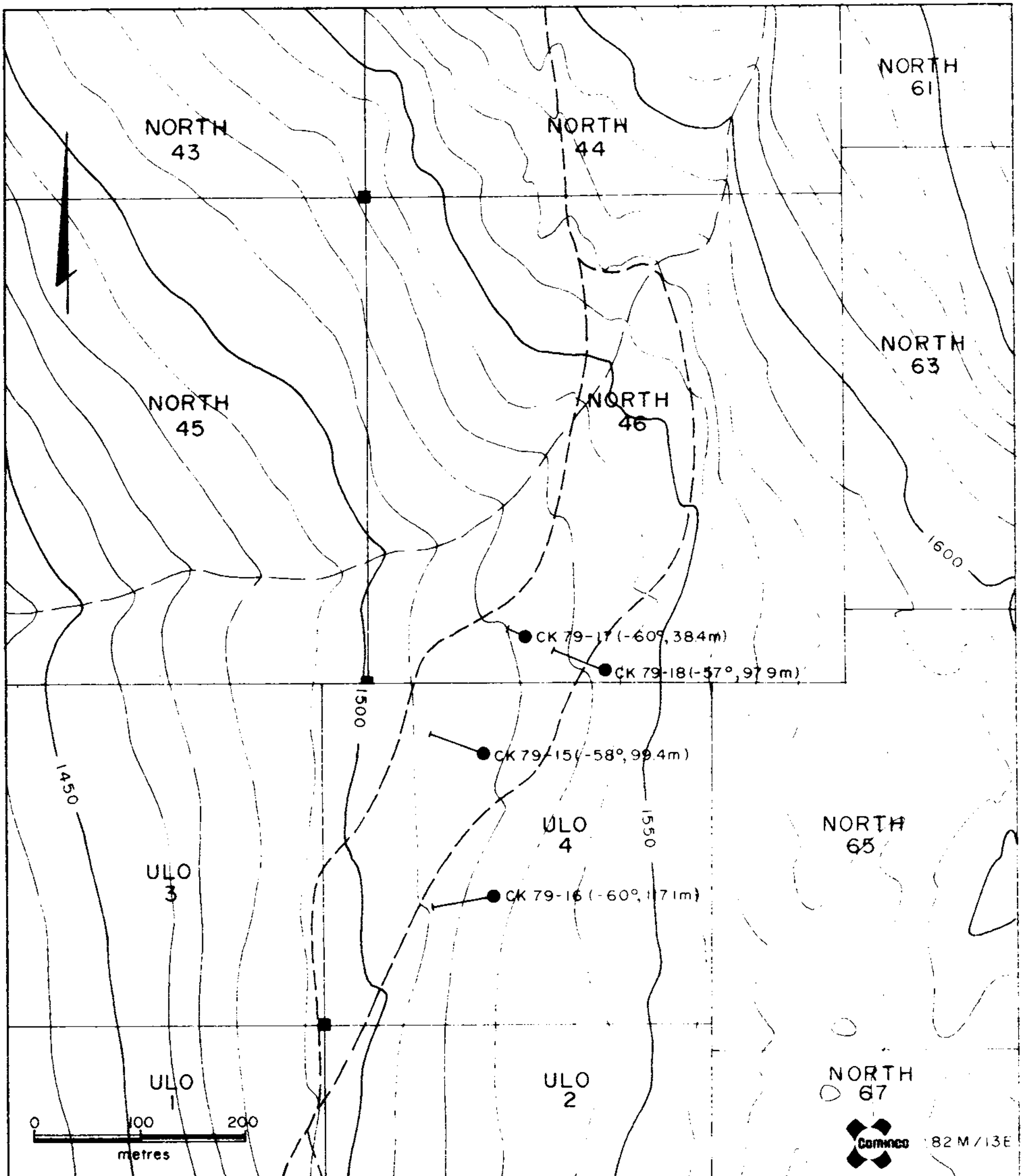


Drawn by: MRM	Traced by:		
Revised by	Date	Revised by	Date

CK PROPERTY

LOCATION MAP & 1979 DRILLING AREA

Scale: 1:250,000 Date: Nov. 8, 1979 Figure 2



Drawn by:		Traced by: FJF	
Revised by	Date	Revised by	Date

CK PROPERTY

DRILL HOLE LOCATION

Scale: 1 : 5,000 | Date: NOV 23, 1979 | Plate 3

BCR 2187 C

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK 52 m-13	District	Kamloops M.D.	Hole No.	CK 79-1		
Commenced	June 4, 1979	Location	Main Boulder Area	Tests at	126.5(-63°), 170.1(-65°)	Appr. Comp.	97 m
Completed	June 10, 1979	Core Size	BQ	Corr. Dip	-63° overall	Vert. Comp.	185 M
Co-ordinates	12039.96N, 9023.69E			True Brg.	50°	Logged by	MRM
Objective	To test the northerly extention of a Zn/Pb surface showing beneath an I.P. anomaly.			% Recov.		Date	June 7, 11, 1979

Claim: CK 3 | T Brg.: 50° | Collar Dip: -60° | Elev.: 1118.5ft | Length: 209.8 m | Hole No. CK-79-1 | Sheet

METRES From	To	Description	Sample No.	Length	Analysis
0	7.3	Casing - Overburden			
7.3	23.2	Pegmatite- Coarse-grained and grey with local slight greenish cast. Sprinkle of small red garnets. Quite fractured, often with calcareous films in fracture surfaces. Minor oxidation to 14.0.			
23.2	29.3	Siliceous Biotite Gneiss- Graphitic @ 3-4% overall. Dark grey to black, fine-grained. Central section is white to cream and may be a fine-grained biotitic pegmatite. Foliation dominantly at 60° but locally is 40°. Much is massive, and no foliation is visible. At 26.2, appears pegmatized, with cross-cutting colouration. About 2 cm solid graphite at upper contact 23.2.			
29.3	36.1	Siliceous calc-silicate with minor mixed siliceous biotite geniss. Overall dark green and grey slightly mottled colour, with fine-grained orange locally. Pyrrhotite and graphite disseminated throughout at 2-3% and as a few narrow (1-2 cm) 20% bands. Foliation at 70°. 30.9 - 31.1 Apple green tremolite - actinolite zone.			
36.1	40.1	Pegmatite- Typical - very coarse-grained, overall greenish (microcline) colouration.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim CK3 | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
40.1	47.2	Pegmatized calc-silicate - Foliated white and light green, with minor (1%) disseminated pyrrhotite and graphite throughout (locally greater %). Includes some vestiges of original calc-silicate. Foliation well developed at 60°, but varies to 35° at central part. Last 0.5 m is fault gouge - broken pegmatized pieces loosely cemented by softer greenish sericite(?) and graphite.			
47.2	50.0	Siliceous biotite gneiss - Pyritic and graphitic (1-2%) fine-grained, dark grey to black, but local greenish colouration suggests some intermixed calc-silicate. Pyrite often as smears on fracture surfaces, and occasionally as large grains. Foliation moderately developed at 45°.			
50.0	50.7	Pegmatite or pegmatized calc-silicate - white, dark green, cream, medium to coarse-grained.			
50.7	59.8	Mixed graphitic siliceous biotite gneiss and minor graphitic calc-silicate. Dark grey to black, fine-grained. Massive to moderate foliation at 70-80°. Graphite and pyrrhotite evenly disseminated at 3%. Some chlorite and larger pyrite cubes on fractures at 30°.			
59.8	60.5	Pegmatite - Fine-grained, white, siliceous, speckled up to green spots (poss. altered calc-silicate).			

Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District		Hole No.	CK 79-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim CK 3 | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 3

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
60.5	80.0	Foliated calc-silicate - White grey, with green. Partially pegmatized, and contains pegmatite with pyrite fractures and trace minute chalcopyrite specks over a 0.5 m section. Minor mottled orange and green sections. Foliation well developed at 70°. 64.4-64.9 Apple green tremolite actinolite section, coarse-grained, minor biotite. Grades into limy calc-silicate. Local pyrrhotite @ 3%, with minor pyrite. Much of this section is badly broken, and the 3 m section from 72.0 to 75.0 has only 0.4 m of rock (possible fault zone?).			
80.0	92.8	Limy calc-silicate - Mottled and locally pegmatized. Badly broken. Dark green and grey. Contains local marble sections. Much is coarse-grained and looks almost like amphibolite. Overall foliation at 75°, but much is non-foliated. 86.9-87.5 Dark green banded amphibolite 90.5-91.2 Marble-white with green splotches to streaks at 60°-70° 91.2-92.8 Coarse pegmatized biotite gneiss. (altered bio. gn.)			
92.8	93.3	Pegmatite - Coarse, but has moderate foliation at 65-70°.			
93.3	108.9	Calc-Silicate - Coarse-grained green and white throughout, but contains local marble sections and shorter sections that are vaguely banded (75°).			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK79-1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 4

METRES From	To	Description	Sample No.	Length m	Analysis Pb		Zn		
		Impression of intense alteration throughout. Grades overall from almost no calcite to quite calcareous. Many broken zones healed by calcite. Last metre in mainly pegmatite with coarse chloritized hornblende and a few narrow (10 cm) marble sections. Main marble section is 102.7-104.7.							
		- Mineralization - 1 cm of reddish fine-grained ZnS in three bands at 93.4. Contains a few speckles of fine galena. Possibly represents the smeared-out mineralized zone. Sample 93.40 - 93.42	19354	0.02	1.05		3.05		
108.9	117.1	Biotite gneiss slowly gradational to a biotitic calc-silicate. Most is typical medium-grained silicified biotite gneiss with foliations at 70^{0}. Calc-silicate section is not typical, and may be pegmatized to some degree. Has local coarse garnets and creamy spicules. Overall dark green and becomes coarse-grained at the bottom contact.							
117.1	121.4	Pegmatite — Overall creamy yellow colour. Variable from very coarse to fine-grained.							
121.4	125.9	Mixed biotite gneiss and limy calc-silicate. Biotite gneiss is fine-grained, silicified, may be partially pegmatized. Calc-silicate is limy, sometimes coarse-grained with irregular garnets, mottled to banded. Foliation is consistent at 70^{0}. Has minute (1%) amounts of fine-grained disseminated graphite.							

211-8437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK-79-1
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 5

METRES From	To	Description	Sample No.	Length	Analysis
129.5	126.6	Pegmatite - Irregular mottled texture. Medium-grained. No foliation.			
126.6	131.3	Mixed biotite gneiss and limy calc-silicate. Biotite gneiss is typical medium to coarse-grained and has trace amounts of graphite, pyrrhotite. Calc-silicate is medium green, very limy and granular textured, with local patchy orange colouration. Breakdown as follows: 126.6-126.8 Biotite gneiss 126.8-127.0 Calc-silicate 127.0-127.7 Biotite gneiss 127.7-129.5 Very limy calc-silicate 129.5-131.3 Mixed zone, but dominantly biotite gneiss			
131.3	133.5	Pegmatite - Typical, but has a central 30 cm section of altered biotitic calc-silicate.			
133.5	135.1	Silicified biotite gneiss. Medium-grained grey and white with segregation banding moderately developed. Contains minor pegmatite. Foliation constant at 75^{o}, but contacted at 133.8.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	CK	District	Hole No. CK79-1	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
135.1	138.8	Limy calc-silicate gradational to silicic calc-silicate that becomes intermixed with silicic biotite gneiss. Has a few minor pegmatite bands. Trace disseminated pyrrhotite. Foliation is constant at 75° to 60°.			
138.8	145.8	Coarse biotite gneiss with minor interbeds of silicified biotite gneiss and silicified calc-siliciate. Fuzzy ill defined garnets scattered throughout. Local patches of biotite-muscovite are very coarse. Foliation consistent at 75°, but a few areas of crenulation folds are present. Pegmatite present in three ½ metre bands.			
145.8	150.5	Pegmatite - Typical coarse-grained, but takes on an overall cream-green colouration. Broken and shattered over much of its length.			
150.5	161.0	Limy calc-silicate, with minor biotite gneiss sections and a few pegmatite bands. Overall is dark green and white coarse-grained although variation exists. Lime content varies. Alteration locally intense (adjacent to pegmatite) so that the calc-silicate appears pegmatized. Short limy sections approach marble in texture. Foliation 60-65°, fairly consistent.			
161.0	162.7	Marble - White with green diopside specks. Typical granular texture. Weak to moderate foliation at 65°. Central 20 cm is coarse pegmatite.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK79-1
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 7

METRES From	To	Description	Sample No.	Length	Analysis
162.7	164.3	Limy Calc-Silicate - Medium green with white. Banded appearance. Granular texture. Foliation is variable, occasionally parallel to core. Most are about 30°. May represent a fold of some magnitude. Last 20 cm typical pegmatite.			
164.3	167.0	Marble - Coarse-grained white and green with local slight yellowish cast. Fairly massive with no distinct foliation. Broken in one section, but not a fault. Contains a 10 cm wide band of pegmatite.			
167.0	171.8	Pegmatite Typical coarse-grained and white. Has a few ill defined garnets with fine-grained pyrrhotite surrounding them (minor).			
171.8	186.0	Marble with a few pegmatite sections. White, granular, with only a low percentage of green diopside. Foliation not usually well developed except over a few short sections where it is usually 65°. Contains a 25 cm band of amphibolite (?) at 173.5. Trace pyrite usually associated with the pegmatite.			
186.0	188.8	Limy calc-silicate and marble interbanded. Banded green and white with local mottled texture with minor orange garnets. Very limy sections are almost marble with coarse granular texture. Foliation pronounced only locally at 65-70°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No. CK79-1	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-1 Sheet 8

METRES From	To	Description	Sample No.	Length	Analysis
188.8	189.9	Biotite Gneiss - Gradational to dark green calc-silicate. Altered and possibly partially pegmatized. Foliation at 70-75°.			
189.7	193.8	Marble - Typical white with green diopside speckles, but is intruded by pegmatite so that it often appears as a limy pegmatite. Contains a few fine-grained speckles of pyrite. Foliation at 70°.			
193.8	195.1	Altered coarse biotite gneiss. Greyish soft foliated texture throughout, looking more like typical biotite gneiss toward the end of the section. Few fuzzy pink garnets. Scattering of fine pyrite.			
195.2	198.3	Pegmatite - Typical white, coarse-grained. Short sections are quite broken and calcareous.			
198.3	199.9	Limy Calc-Silicate - Typical medium green and white, banded to speckles with coarser green diopside and minor amphibole. Streaked with white calcite stringers. Foliation moderate at 70°.			
199.9	201.9	Coarse Biotite Gneiss- Has augens of quartz at beginning where good segregation banding is in evidence. Overall looks slightly altered or "cooked". Some short portions are actually green calc-silicate. Foliations at 70-75°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79- 1
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK-79-1 | Sheet 9

METRES From	To	Description	Sample No.	Length	Analysis
201.9	209.8	Marble with short tiny calc-silicate and pegmatite sections.			
		201.9-202.7 Mottle calc-silicate with orange garnet blobs.			
		202.7-205.0 Typical marble with minor pegmatite intergrowths.			
		205.0-205.9 Pegmatite			
		205.4-206.6 Marble			
		206.6-209.0 Limy calc-silicate grading to marble. Slightly contorted.			
		209.0-209.8 Pegmatite- typical coarse textured.			
		End of Hole - 209.8			
		Mineralized section at 93.4 consists of a 2 cm band of siliceous calc-silicate with three very thin bands of red ZnS with minor specks of PbS.			
		Assay - 0.02% Pb.			
		3.05% Zn.			

Scale

Colour Plot & Dips

Drill Hole Record

Property	CK	District	Kamloops M.D.	Hole No.	CK79-2		
Commenced	June 11, 1979	Location	Main Boulder Area	Tests at 35.1(-57°) 53.4(-55°)		Hor. Comp.	94.7 m
Completed	June 17, 1979	Core Size	B.Q.	Corr. Dip 57° 82.7(-59°) 126.9(-60°)		Vert. Comp.	145.7 m
Co-ordinates	12106.09n, 8964.08E			True Brg. 55°		Logged by	MRM
Objective	To test possible northward extension of a mineralized surface showing, beneath an I.P. anomaly.			% Recov.		Date	June 16, 17, 1979

Claim CK 3 | T Brg. 55° | Collar Dip -55° | Elev. 1153.43 m | Length 173.8 m | Hole No. CK79-2 | Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0	- 37.8	Overburden - Penetrated several large boulders - mainly pegmatite and biotite gneiss.			
37.8	- 57.2	Pegmatite - Typical coarse-grained, white, slightly cream. Few scattered patches of small pink garnets. Contains a spotted dyke at 54.9-55.3			
57.2	- 58.3	Garnet rich amphibolitic biotite gneiss. White, dark green, and spotted with 15-20% larger red ill formed garnets. Weak to moderate foliation at 75-80%. May have seen a similar unit in CK 79-1.			
58.3	- 63.0	Altered biotite gneiss gradational to speckled calc-silicate throughout. Medium-grained dark green to black with white. Thin segregation bands. Well foliated throughout at 80°. Granular.			
63.0	- 72.3	Silicified calc-silicate with a few biotitic interfingers; minor pegmatite and short sections of pegmatized calc-silicate. Light and dark green with grey, Splotchy to moderately foliated at 75-80°. 67.1-69.6 Diopside with light green and white, massive, silicified. 69.6-70.4 Pegmatite			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
63.0	72.3	Continued			
		70.4-72.3 Pegmatized calc-silicate graphitic and phyrrhotite rich over the last metre. Few fractures healed in calcite.			
72.3	74.7	Pegmatite - Broken - chalky white and cream			
74.7	87.0	Mixed graphitic silicified biotite gneiss and silicified calc-silicate. Biotite gneiss is dark grey to black, with 3-5% graphite. Calc-silicate is light green and grey-white, often with greyish altered biotite grains. Foliation constant at 85°. 0.5 m pegmatite at 79.0 has large patches of pyrrhotite.			
87.0	87.7	Laminated quartz - slightly limy. Possible marker unit as seen on surface?? Has short streaks of brownish-red micas, and small amounts of disseminated pyrrhotite. Foliation moderate at 80-85°.			
87.7	93.0	Mainly pegmatized calc-silicate, with short sections of silicified calc-silicate. Overall texture of silicified calc-silicate - dark green and white with irregular bands of lighter green diopside. Most is moderately foliated, but much is massive. Graphite and pyrrhotite is common where alteration is not intense. Last two metres are very			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 3

METRES From	To	Description	Sample No.	Length metres	Analysis Pb		Zn			
87.7	93.0	Continued pegmatized, showing interbands (1-2 cm wide) of coarse pegmatite and cream coloured pyritic calc-silicate. Foliation usually about 75°, but at 93.2, it is distorted, possibly representing a small fold.								
93.0	95.1	Pegmatite - Typical coarse-grained. Mottled texture, Minor patches of pyrrhotite.								
95.1	97.9	Pegmatized silicified calc-siliciate. Grey-white and dark green, variably foliated. Trace reddish or pink colouration from altered biotite grains. Pyrrhotite disseminated throughout, but variable from trace to 2-3%. Foliation at 70-75°.								
97.9	99.5	Amphibolite or a hornblende-biotite gneiss. Well foliated, black, medium-grained softish texture due to alteration. Minor white filled fractures (not calcite). Trace interbedded pegmatite. Foliation constant at 75°.								
99.5	100.6	Graphitic silicified calc-silicate. Very pyrrhotitic - perhaps 10-15% combined graphite and pyrrhotite. Dark green to black, fine-grained. Few fuzzy garnets (minor). Foliation somewhat variable from 50° to 75°. Sample 99.5-100.6.	86771	1.1	<.001		.002			

Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District		Hole No.	CK 79-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 4

~~XXXXXX~~ METRES From	To	Description	Sample No.	Length	Analysis
100.6	125.0	Pegmatized altered silicified calc-silicate with short sections of pegmatite, orthogneiss(?) and graphitic calc-silicate.			
		100.6-103.7 Quite variable. Locally slightly limy. Local disseminated pyrrhotite.			
		103.7-104.2 Pegmatite. Coarse, rounded crystals.			
		104.2-108.8 Pyrrhotite rich (5-7%) as patches and disseminations in a non-foliated white and green silicified rock. Pyrrhotite often fills small fractures and stringers			
		108.8-109.4 Graphitic silicate, calc-silicate like 99.5-100.6			
		109.4-110.8 Graphitic altered calc-silicate. Green grading to white. Medium-grained.			
		110.8-111.7 Orthoclase and biotite rich pegmatite - coarse-grained.			
		111.7-114.1 Variable - foliated to massive and speckled. Some graphite in fracture surfaces (20-30°). Most foliation is 60-70°, but locally is 50°.			
		114.1-114.7 Pegmatite			
		114.7-119.2 Altered, soft white and green chloritic and diopside rich. Possible fold or overturning at 117.8.			
		119.2-120.0 Fine-grained pegmatite or orthogneiss.			
		120.0-123.0 Pegmatized, broken. Trace pyrrhotite. Foliation at 60°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-2
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 5

Footage METRES From	To	Description	Sample No.	Length	Analysis
100.6	125.0	Continued — 123.0-125.0 Grades through an orthoclase with intrusive(?) to a thin white quartz-phlogopite unit, to a silicified pyrrhotite rich calc-silicate.			
125.0	127.3	Pegmatite - Coarse, white and yellow-green. Numerous chloritic fractures. Pyrrhotite as irregular masses and patches.			
127.3	135.5	Pegmatized Calc-Silicate - Silicified, grey white with speckles of light green and dark green diopside, locally interlaced with minor pegmatite. Minor graphite locally sprinkled, pyrrhotite as disseminations and small patches to 1-2%. Foliation has changed - now at 25-40° throughout.			
135.5	137.9	Limy Amphibolite - Dark green to black, with white peppered texture. Moderate banding or foliation at 60-65°, with minor contortions at 136.4. Slightly limy throughout, and on numerous calcitic fractures. Quite coarse-grained just before a 40 cm internal pegmatite band.			
137.9	139.5	Limy Amphibolite as previous, but contains numerous small to medium-grained ill formed garnets. Both disseminated and patchy. Limy throughout, and contains a 10 cm wide yellowish-cream silicic marble unit at			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK79-2
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
137.9	139.5	Continued 138.9. Foliation not developed.			
139.5	141.0	Limy calc-silicate with minor pyrrhotite as small grains. Broken and re-cemented. Has a silicified look to it, but is actually limy. Changes to coarse textured white marble with green speckles over the last 30 cm.			
141.0	142.4	Pegmatite - Coarse granular texture, but has local interstitial small biotite flecks.			
142.4	149.2	Limy calc-silicate with narrow silicic sections, and several short (20-30 cm) white with green marble units. Overall is white, green and minor orange, poorly banded to slightly mottled, looking more like the calc-silicate seen in the New Showing core. Several chloritic fractures parallel to core. Foliation at 85-90° to core axis.			
149.2	152.6	Mixed silicified biotite gneiss, coarse biotite gneiss and minor dark silicified calc-silicate (with small white spicules). All slightly garnetiferous. Foliation overall is 80-85°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-2	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-2 Sheet 7

METRES From	To	Description	Sample No.	Length	Analysis
152.6	154.5	Pegmatite - Fine-grained grey and white speckled appearance with a few thin sections, typical coarser grey material. Last 1 metre is Fault Gouge - sheared up and muddy greenish material that likely was pegmatite and biotite gneiss.			
154.5	173.8	Mixed calc-silicate and silicified biotite gneiss. Calc-silicate is silicified looking, but is slightly limy throughout. Coarse textured but slightly banded light green, dark green and white. Gradational into and out of the gneiss. Biotite gneiss is the fine-grained variety; often has the biotite bleached to white-brown appearance. Foliation somewhat variable - often is at 60°, but variable to low angles and locally somewhat contorted (possibly fault associated drag-folding). Few open fractures have dog-tooth calcite grains. Few pegmatite bands, but minor, some pegmatizing of biotite gneiss. Fault zone - 162.2-164.0 Much the same as previous.			
		173.8 - End of Hole			
		No ZnS mineralization apparent. I.P. anomaly caused by disseminated graphite and pyrrhotite.			

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Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-3		
Commenced	June 17, 1979	Location	Main Boulder area	Tests at	78m(47.5°)150.6m(47°)	Hor. Comp.	117.5 m
Completed	June 23, 1979	Core Size	B.Q.	Corr. Dip	-47°	Vert. Comp.	126.5 m
Co-ordinates				True Brg.	-90°	Logged by	MRM
Objective	To test an I.P. anomaly.			% Recov.		Date	June 22, 24, 1979

Claim CK | T Brg. 90° | Collar Dip -45° | Elev. | Length 172.6 m | Hole No. CK-79-3 | Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0	24.4	Overburden			
24.4	32.8	Slightly limy calc-silicate. White and dark green and light green speckled, coarse. Graphite locally present and abundant as either disseminations or as disseminated bands which often has associated pyrite. Minor pegmatite. Foliation at 45 to 60°, averaging 55°.			
32.8	35.5	Graphitic altered biotite gneiss. Medium to coarse-grained dark grey to black. Has local medium-grained white muscovite. Graphite is disseminated throughout at 3-5%, and is often patchy. Microcline pegmatite is enfolded into the biotite gneiss at 34.4-34.6.			
35.5	53.5	Calc-silicate with short sections of altered biotite gneiss and minor pegmatite. Calc-silicate usually appears limy, but is limy only over a few short sections. Overall is medium green and white with grey streaks. Graphite as 3-5% disseminations throughout and as local bands, especially with pyrrhotite adjacent to pegmatite zones (35.8-36.2). 50.2-52.1 Pyrrhotite-garnet silicified calc-silicate. Well banded to laminated red-green, grey and pyrrhotite coloured. Hard and silicified. Pyrrhotite plentiful throughout,			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK79-3
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 Sheet 2

METRES From	To	Description	Sample No.	Length metres	Analysis Pb	Zn
35.5	53.5	Continued but increases in % until it is 25% over the last 30 cm. Fine red-orange garnets disseminated at 10%. Foliation fairly constant at 65°. Sample 50.2-52.1	86772	1.9	0.01	0.01
53.5	56.5	Amphibolite - Well foliated dark green, black and grey. Biotite and/or hornblende rich. Almost laminated looking texture. Foliation at 60° and constant, but there is a weird fold(?) at 54.8.				
56.5	67.7	Banded garnetiferous calc-silicate. Overall siliceous, but is limy where splotchy garnet build-ups are present. Quite variable in colour and texture from banded white and green with minor garnet to somewhat mottled, and is even pyrrhotitic graphitic and garnetiferous like. 50.2-52.1. (ie. at 56.7-49.7, note also there is only 1.8 m of core recovered over this 3 m section). Graphite locally intense over this section (5%). Contains a few short (30-40 cm) pegmatite sections.				
67.7	84.6	Coarse Biotite Gneiss- Mixed with several short (20-30 cm) typical coarse pegmatite sections. Grain size actually variable from minor sections of fine-grained dark grey siliceous to coarse grained muscovite-biotite gneiss with ill defined segregation banding. Bleaching or altering the biotite to the tan-brown colour is common adjacent to the pegmatite. Foliation somewhat variable from 25° at				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-3	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK-79-3 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
67.7	84.6	Continued the start where it is very graphitic (10%) over one metre, through to 65° at 74.0, then a long section where foliation is not apparent (mottled), through crenulated folding at 77.3 (section repeats?). Few sections of garnet build-up where calc-silicate minerals are present. 83.4-84.0 Foliation almost parallel to core, with crenulations. Contact and foliations at 50° over last 20 cm. Contains no significant graphite or pyrrhotite after the first metre.			
84.6	90.6	Pegmatite - Very coarse, typical from 84.6-86.9, changes to fine-grained greenish from then on may be pegmatized calc-silicate. Contains a dark green-grey, fine-grained dyke at 86 to 86.4, and a 50 cm section of coarse muscovite-biotite gneiss at the end. No foliation, but contacts are about 45°.			
90.6	91.5	White Marble - Massive, but has trace amounts of disseminated graphite flakes that give the core a weak foliation at 60°. The first 20 cm of core is actually a mottled green limy calc-silicate, the last 50 cm is leached, slightly diopside marble and a dark green pegmatized (brecciated?) calc-silicate. Foliation at 60°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
91.5	97.2	Pegmatite - Coarse-grained cream-white with a few scattered garnets and local muscovite. Broken throughout (fractures) but not a fault zone.			
97.2	100.9	Pegmatized calc-silicate and siliceous calc-silicate, with minor local biotite. Broken, stringy to moderate banded at 55°. Somewhat speckled dark green and white and gradational to the underlying unit.			
100.9	106.5	Coarse silicified biotite gneiss gradational to and interbanded with silicified garnetiferous diopside calc-silicate. Very well foliated throughout with coarse biotite, locally bleached. Black and white, thin, segregation bands at 65°. Few minor pegmatite bands.			
106.5	111.1	Pegmatite - Typical very coarse-grained, grey and cream, but the cream coloured plug has a slight greenish tinge. Coarse garnets at 107.5. Numerous healed hair-line fractures throughout.			
111.1	117.5	Coarse biotite gneiss and minor pegmatite. Well developed segregation banding. Coarse-grained well foliated at 40-45°. Becomes mottled and contorted (?) where the biotite is very coarse. Some bleaching of the biotite. Occasional large fuzzy garnets.			

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Scale

Colour Plot & Clips

Drill Hole Record

Comaco

Property CK	District	Hole No. CK79-3	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 | Sheet 5

~~XXXX~~ METRES From	To	Description	Sample No.	Length metres	Analysis Pb	Zn
117.5	138.8	Marble with short sections of spotted dyke and pegmatite. Mineralized zone over part of this core as speckled sphalerite and minor galena.				
		117.5-118.7 Massive, white, silicic marble; lower portion has intense muscovite development.				
		Sample 117.4-118.7	86773	1.2	0.07	0.01
		118.7-119.2 Mineralized zone - calcite with clear fluorite and streaky to banded brown sphalerite with a few speckled bands of minor granular PbS. Pyrrhotite as a disseminated band over first 10 cm, and as a few scattered grains thereafter. Foliation at 40°.				
		Sample 118.7-119.2	86774	0.5	2.60	0.74
		119.2-120.9 Intermixed pegmatite and marble (silicified marble?) with minute speckles of fine sphalerite and pyrrhotite, both in trace amounts. Changes to diopside, fluorite(?) rich over last half.				
		Sample 119.2-120.9	86775	1.7	0.32	0.05
		120.9-121.3 Dark green spotted dyke.				
		121.3-123.0 20 cm white marble, then typical pegmatite (possible fault contact), last 30 cm is mixed pegmatite and marble, with trace amounts of sphalerite.				
		Sample 120.9-123.0	86776	2.1	0.07	0.05

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK79-3
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 Sheet 6

METRES From	To	Description	Sample No.	Length metres	Analysis Pb	Zn
		123.0-123.3 Brecciated limy calc-silicate to marble with epidote and interstitial fine-grained brown ZnS.				
		Sample 123.0-123.3	86777	0.3	1.59	0.51
		123.3-124.4 Mixed pegmatite and pegmatized calc-silicate, limy on fractures. Fault at 124.0. Very epidote rich over last 35 cm.				
		124.4-126.5 Spotted light coloured dyke.				
		126.5-130.2 Marble - white with metallic grey and yellow speckles (pyrrhotite). Somewhat silicified (pegmatized?)				
		130.2-130.7 Medium green spotted dyke.				
		130.7-138.8 Speckled quartzitic white and grey marble with local disseminated bands of fine-grained black sphalerite (locally up to 2-3% over very thin (1-2 cm) bands. Contains two short green speckled dykes and a 30 cm band of coarse pegmatite.				
		Samples: 132.9-133.8	86778	0.9	0.08	<0.01
		133.8-135.1	86779	1.3	0.29	<0.01
		Note: Foliations often parallel to core on this interval. Possible overfolding is present.				
138.8 - 141.2		Pegmatite - Typical coarse-grained cream white and grey, broken.				

Drill Hole Record

Colour Plot & Dips

Cominco

Property	CK	District		Hole No.	CK79-3
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 Sheet 7

Footage From	Footage To	Description	Sample No.	Length	Analysis
141.2	145.0	Limy Calc-Silicate - Crudely banded to semi-mottled medium green and white, and light green granular diopside. Trace amounts of minute disseminated pyrrhotite. Foliation at 65°.			
145.0	165.3	Interbanded pegmatite, pegmatized biotite gneiss and biotite gneiss, grading to pyrrhotitic garnet calc-silicate. About equal ratios. Very broken and shattered throughout. Locally chloritic and graphitic on fractures. Biotite often bleached to tan-brown. 147.2-148.0 Graphitic and pyrrhotitic silicate, calc-silicate. Starts with 10 cm massive graphite. Then is garnet rich calc-silicate with stringers and wisps of pyrrhotite. Foliation is at 50°. Biotite gneiss is quite graphitic 153.3-154.0. 158.3-158.9 Green spotted dyke 159.4-159.6 Green spotted dyke 159.4-165.3 Fine-grained quartzite-pyrrhotite rock gradational to a calc-silicate. Pyrrhotite content increases from disseminated to almost 10% by 162.0, and is semi-massive at 162.5 to 162.8. Last metre is dark coloured garnet-diopside calc-silicate with 20% pyrrhotite.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK79-3
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-3 Sheet 8

METRES From	To	Description	Sample No.	Length	Analysis
165.3	167.1	. Silicified calc-silicate with garnet patches and local limy sections. Mottled to crudely banded, with foliations at 50°. Trace disseminated pyrrhotite; gradational from above.			
167.1	172.0	Pegmatite - Typical white and light cream-yellow with local mottled grey and cream.			
172.0	172.6	Graphitic pegmatized calc-silicate. Brecciated zone with black graphite masses filling the interstitial area, locally to 20-25% over several cm.			
		End of Hole - 172.6 m			
		I.P. anomaly caused by up to 5% disseminated graphite. The small amount of disseminated ZnS mineralization was beyond the main I.P. anomaly.			
		Mineralized Intersection - 118.7 - 119.2 0.5 m of 2.60% Pb, 0.74% Zn.			

211-9437

Scale .

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-4		
Commenced	June 25/79	Location	New Showing Area	Tests at	38.4 m(-52°) 85.7 m(-51°) 53.6 m(-50°)	Hor. Comp.	102.8 m
Completed	June 30/79	Core Size	B.Q.	Corr. Dip	-51°	Vert. Comp.	126.9 m
Co-ordinates	11169.22 N, 10217.9E			True Brg.	239°	Logged by	MRM
Objective	To test for down dip extensions of mineralization encountered in a hole 30 m away, on the same section.			% Recov.		Date	June 27, 30, 1979

Claim	CK 84
T Brg.	239°
Collar Dip	-52°
Elev.	1122.86 m
Length	163.4 m
Hole No.	CK 79-4
Sheet	1

METRES From	To	Description	Sample No.	Length	Analysis
0	10.9	Casing - Overburden			
10.9	16.9	Silicified Calc-silicate- Dark green, light green and grey. Coarse-grained, especially the darker green (amphiboles?). Percentage varies. Foliation varies from 30° at the start, through to 45°, then back to about 30° or less. Contains two coarse pegmatite bands at the centre and end. Probable small fault at 16.2.			
16.9	33.9	Orthogneiss - White cream, with black biotite speckles throughout forming moderate good foliation at 45°, constant throughout. Varies in overall colour due to amount and grain size of the mafics. Locally broken, but not faulted. Minor coarse pegmatite.			
33.9	49.4	Interbanded siliceous calc-silicate and coarse biotite gneiss in bands about two metres wide. Most of the calc-silicate is coarse-grained light green diopside and grey with larger darker amphibole grains which has a mottled to semi-banded appearance. The biotite gneiss is typical coarse-grained and semi-silicified. Segregation banding not well developed. Local trace amounts of fine disseminated graphite. Foliation varies from 55-60° at the start to 35° by 44.0 to almost parallel at the end. A broad overfold is apparent at 45.0. 33.9 - 36.6 Siliceous banded calc-silicate, minor amphibolite. 36.6 - 37.8 Coarse biotite gneiss. Foliation at 55-60° (folded over) 37.8 - 38.4 Pegmatite - typical, coarse-grained. 38.4 - 42.3 Siliceous calc-silicates. Foliation at 45° and 15°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No. CK 79-4	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
		42.3 - 43.9 Coarse biotite gneiss. Foliation at 30° overall.			
		43.9 - 44.5 Siliceous calc-silicate.			
		44.5 - 46.0 Coarse biotite gneiss with minor calc-silicate. Foliation changes from 35° to parallel back to 35° indicating folding.			
		46.0 - 47.8 Pegmatite.			
		47.8 - 49.4 Coarse biotite gneiss. Some foliation parallel to core.			
49.4 -	85.7	Siliceous Calc-Silicate - Medium and coarse-grained. Light to medium green sugary diopside, coarser green hornblende, with interstitial and banded (minor) grey quartz and plug. Biotite is present throughout but is very variable in amounts from trace to that approaching biotite gneiss. Often has a coppery colour. Undulatory folding is evident throughout. Much of the foliation is parallel to core, with shorter sections up to 35' broad (2-3 m) open folds with minor amplitudes are suggested. Pyrite and pyrrhotite locally disseminated in trace amounts, sometimes as disseminated bands in non-pegmatic sections (ie. 68.0-68.5). Pegmatite present in three short sections: Representative measured foliations: 62.8 - 68.3 - 0' (parallel) 68.3 - 78.1 - 25-30°, with intervals to 0°. 78.1 - 83.0 - 15-20°, with minor parallel 83.0 - 83.9 - 25° average. 83.9 - 85.7 - 20°, with a 0.5 m section 0°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No. CK 79-4	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
85.7	87.6	Amphibolite - Very coarse dark green hornblende xyls scattered through a fine-grained white matrix of quartz and plagioclase. First half has a fair amount of diopside, and is actually more of a silicified calc-silicate and is foliated at 10-15°. Second half shows no development of foliation. The two units are separated by 30 cm of pegmatite.			
87.6	89.2	Pegmatite - Fine-grained, with suggestion of foliation to resemble somewhat the orthogneiss.			
89.2	90.6	Coarse biotite gneiss - Dark grey to black, medium to coarse-grained. Hornblende present as thin bands throughout. Faint banding on foliation at 55°. Contains minor pegmatite.			
90.6	91.9	Amphibolite - Dark green, coarse-grained, with 10% grey interstitial quartz and plagioclase. Very weak foliation at 60-65°. Pegmatite over the last 0.3 m.			
91.9	99.8	Silicified biotite gneiss- Medium-grained, dark grey to black. Biotite locally coppery coloured. No sulphide development. Massive. Foliation only weakly developed locally - appears to be at low angles (0°-15°). Has two short pegmatite sections. One is orthogneiss with foliations at 60°.			
99.8	103.7	Siliceous Calc-Silicate- Medium-grained light green diopside predominates over coarser dark green hornblende in a massive to semi-banded pattern. Biotite gradually increases at the expense of the diopside and hornblende so that the last two metres are actually silicified			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
		calc-silicate. Foliation varies from parallel at the start to about 45° in the biotite gneiss portion.			
103.7	105.0	Orthogneiss - Typical dirty white with small biotite specks forming streaky foliation at 75°-80° to core axis.			
105.0	107.8	Very coarse garnet-muscovite-biotite gneiss. Segregation banding black and white throughout and contains minor pegmatite locally. Rolled or ill-formed pink garnets are locally common. Foliation overall is 65°, but contortions and crenulations are common.			
107.8	109.5	Marble and mottled limy calc-silicate. White massive marble is silicified and occurs as two 50 cm bands before and after the limy calc-silicate. The limy calc-silicate is mottled light and dark green with a few orange garnet patches and minor cream coloured spicules. A few short sections are silicified. Foliation not apparent except for a central portion at 20°.			
109.5	113.5	Coarse muscovite-biotite gneiss much as previous. Few small scattered garnets. Undulatory to crenulated folding. Contains a 30 cm wide light green silicified calc-silicate band central to a fold at 113.0-113.3. Foliation 70° at start, parallel to 20° at end.			
113.5	119.3	Pegmatite and Orthogneiss - 113.5 - 115.5 Typical coarse grey and cream pegmatite with patchy coarse biotite development.			

Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District	Hole No.	CK 79-4	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 5

METRES From	To	Description	Sample No.	Length	Analysis
		115.5 - 117.9 Typical fine-grained orthogneiss. Biotite content higher than usual and foliation more subtle, but is present at 70°.			
		117.9 - 119.3 Coarse pegmatite as previous.			
119.3 - 129.7		Silicified calc-silicate - Basically light green diopside sugary texture, with a sprinkling of coarser-grained dark green hornblende and minor copper coloured biotite. Foliation is at very low angles - parallel to core at the start, gradually increasing to 35° by 122.0, then stays fairly constant at 25° to 0° to the end of the section. No biotite after 122.3.			
129.7 - 133.7		Coarse biotite gneiss with minor short sections of light green silicified calc-silicate. Biotite gneiss is medium-grained, and although segregation banding is present, it is not nearly pronounced as previous, or as in the next section. Broad undulatory folding shown by almost parallel folding at the start to 30-35° at the end.			
133.7 - 140.5		Coarse garnet-muscovite-biotite gneiss. Much as before. Very coarse streaky black and white due to segregation banding. Overall foliation at 50° although is crenulated throughout. Garnets are ill defined, but can get up to 1 cm in size. 139.2 - 139.5 is only coarse biotite.			
140.5 - 146.8		Limy Calc-Silicate and Marble - Marble is dirty white with green speckles and is slightly silicified. Limy calc-silicate is poorly to moderately banded with medium-grained white-grey calcite, and			

Drill Hole Record

Scale

Colour Plot & Dips

0

Property CK	District	Hole No. CK 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 6

METRES From	To	Description	Sample No.	Length m	Analysis Zn	Pb
140.5	146.8	Continued				
		light green diopside. Portions of the calc-silicate are silicified and have disseminated pyrite-pyrrhotite in trace amounts.				
		Foliation now fairly constant at 70°.				
		140.5 - 141.2 Limy calc-silicate				
		141.2 - 141.8 Marble				
		141.8 - 142.6 Limy calc-silicate with 20 cm of coarse biotite gneiss.				
		142.6 - 144.7 Mixed marble and very limy calc-silicate.				
		144.7 - 145.7 Slightly siliceous limy calc-silicate. Spotted and blotchy pyrrhotite.				
		145.7 - 146.8 Marble gradational to very limy calc-silicate, with a 2 cm wide band of fine-grained brown sphalerite, minor galena. Changes thickness even through the width of the core.				
		Sample 145.7 - 146.8.	86780	1.1		
146.8	149.0	Silicified biotite gneiss and minor pegmatite. Medium-grained, grey and black. Minor segregation banding. Foliation at 50. Last 40 cm is coarse pegmatite.				
		Sample 146.8 - 149.0	86781	2.2		
149.0	151.0	Mineralized Zone: Contains several typical high grade bands of brown ZnS, separated by silicified pegmatized sulphide with calc-silicate, with disseminated and interstitial pyrrhotite, sphalerite and minor galena.				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-4	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 7

Footage METRES From	To	Description	Sample No.	Length m	Analysis Zn	Pb
149.0 - 151.0		Continued				
		149.0 - 149.4 3 cm of typical high grade, then 20 cm of banded sil. calc-silicate with a band of contorted marble, and banded ZnS, finally a 17 cm wide band of typical dark brown fine-grained sphlaerite. Foliation 80°.				
		Sample 149.0 - 149.4	86782	0.4	2.1	0.1
		149.4 - 150.2 Silicified and pegmatized calc-silicate. Banded and disseminated pyrrhotite to 10%. Interstitial fine-grained sphalerite and galena. Foliation at 80°				
		Sample 149.4 - 150.2	86783	0.8	1.31	0.16
		150.2 - 150.4 A 10 cm and a 4 cm wide band of high grade separated by white marble. Upper band has disseminated calcite and pyrrhotite as well as quartz eyes for gangue. Lower band is more typical.				
		Sample 150.2 - 150.4	86784	0.2	2.91	1.53
		150.4 - 151.0 White marble-massive. Few blades of graphite.				
		Sample 150.4 - 151.0	86785	0.6	0.03	0.01
151.0 - 157.3		Coarse muscovite-biotite gneiss with a few zones of pegmatite. Typical very coarse-grained with segregation banding. Garnet plentiful over the first metre and sporadic thereafter. Pegmatite occurs as two distinct bands at 154.4 - 155.6, and 156.6 - 157.3. Foliation overall is 50°, but contortions are common.				

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-4	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-4 Sheet 8

METRES From	To	Description	Sample No.	Length	Analysis
157.3	162.7	Silicified biotite gneiss. Silica content is very high. Overall fine-grained grey with local coppery coloured biotite. Undulatory folding throughout with foliations varying from 20^{o} to parallel, ending at 45^{o}. Contains a 0.4 m section of slightly limy calc-silicates.			
162.7	163.4	Coarse biotite gneiss, much as previous. Coarse, segregation banding and black, local disseminated red garnets. Separted from the previous rock type by 20 cm of light green diopside sil. calc-silicate.			
		END OF HOLE - 163.4			
		Mineralized zone is 149.0-151.4 m. - 1.4 m @ 1.76% Pb, 8.2% Zn.			

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Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-5		
Commenced	June 30, 1979	Location	New Showing Area	Tests at	102.5 m (-65°)	Hor. Comp.	46 m
Completed	July 2, 1979	Core Size	BQ	Corr. Dip	-63° overall	Vert. Comp.	92 m
Co-ordinates	11578.66N, 9967.07E			True Brg.	239°	Logged by	MRM
Objective	To test downdip extension of mineralization found in Hole CK 78-7			% Recov.		Date	July 3, 1979

Claim: CK 48 | T Brg.: 239° | Collar Dip: -62° | Elev.: 1138.11 m | Length: 102.5 m | Hole No.: CK79-5 | Sheet 1

Meters From	Meters To	Description	Sample No.	Length	Analysis
0	20.4	Casing - Overburden			
20.4	32.7	Siliceous calc-silicate. Medium and coarse grained light green and dark green, with many sections having white plag. and quartz mixed in. Well silicified throughout, and contains a few short sections of typical pegmatite (10-30 cm wide). Foliation only moderately developed, and in places difficult to decipher. 20.4 - 28.0 - Most foliation is at 70° 28.0 - 32.7 - Some mottled, but visible foliation rolls around and is often parallel to core axis, at low angles. Few specks of pyrrhotite present in more silicified portions.			
32.7	36.0	Garnetiferous silicified biotite gneiss and minor silicified calc-silicate. Garnets only really well developed over the central 40 cm. Contains a short section of pegmatized biotite gneiss. Foliation overall is 55° but varies down to 25° centrally. A 20 cm pegmatite band at 35.0-35.2 has patchy pyrrhotite.			
36.0	44.0	Siliceous calc-silicate. Mainly light green (diopside rich), silicified opaque appearance. Hornblende as greenish grains only locally abundant. Sometimes takes on a yellow-green colouration. Pyrrhotite can become abundant (2-3%) where grain size is less and core is more silicified - occurs as disseminated grains. Foliation is 50° but can vary locally to 30°.			

211-0437

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-5
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-5 Sheet 2

Meters From	To	Description	Sample No.	Length	Analysis
44.0	49.3	Garnet amphibolite - Dark green to black. Coarse grained, with short sections medium grained. Few narrow (1-2 cm) bands of diopside with quartz. Garnet is very abundant to massive at the start, then dies out in intensity so that by 97.5 they are almost absent. Pegmatite (typical, course) at 44.2 to 46.2. Foliation moderately displayed at 35°.			
49.3	57.0	Pegmatite - coarse grained cream and white but has a few scattered grains of biotite randomly distributed throughout. Trace amounts of fuzzy pink garnets and minor flakes of muscovite also present.			
57.0	67.4	Very coarse biotite gneiss, with a few minor sections of green biotitic calc-silicate. Segregation banding black and white very pronounced. White portions usually have a distinct pegmatite appearance. Garnet common over the first portion, then sporadically thereafter. Foliations are quite variable as is common in this rock type, but would average 55° at the start, 15° around 57.2, then about 45° for the rest.			
67.4	71.8	Interbanded semi-silicified biotite gneiss and mottled limy calc-silicate that contains minor marble units. The amount of limy calc-silicate increases with depth at the expense of the biotite gneiss. Bands are 0.5-1 m wide. Marble occurs in two bands within the calc-silicate as dirty white with dark green specks; and quartz grains. Biotite gneiss is variable from fine grained siliceous to coarse grained, muscovite rich. Foliation at 45-65°, and variable throughout.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-5	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-5 Sheet 3

Footage Meters From	To	Description	Sample No.	Length	Analysis Pb	Zn
71.8	81.4	Marble with, and gradational to limy calc-silicate and the mineralized zone. Sugary texture overall and appears to be more marble than limy calc-silicate although short sections are diopside rich enough to be called a calc-silicate. Fairly hard and siliceous throughout local sections (i.e. 78-78.5) are obviously calc-silicates, with garnet. Foliations constant at 70°.				
		* Mineralized zone at 80.2-80.7: 80.2-80.3; 1 cm fine brown-pyrrhotite sphalerite with a few small specks of galena, and rounded quartz grains.				
		80.3-80.45; dirty marble with a few hairline fractures with pyrrhotite. Sample 80.2-80.45	86786	.25	0.22	1.28
		80.45-80.65; High grade zone-consisting of 5 cm of coarse grained black sphalerite and galena mixed, then 15 cm of the more typical brown-purple fine grained pyrrhotite-sphalerite mixture with up to 10% small quartz-eyes and a few larger quartz grains Sample 80.45-80.65	86787	0.2	4.71	3.16
		80.65-81.4; Pegmatized biotite gneiss (40 cm), white marble (25 cm), then silicified calc-silicate (10 cm) Sample 80.65-81.4	86788	.75	0.15	0.41
81.4	93.3	Coarse biotite gneiss, often banded and pegmatized, but variable from medium coarse to medium grained. Degree of segregation varies from good at the start to moderate towards the end, but foliation is always well developed at 60° at the start, through 45° further on, and even locally semi-parallel to the core over short sections as at 88.0. More major pegmatite sections: 82.3-83.2; 90.6-91.4 (with biotite). Becomes pyrrhotite rich (2-3%) from 90.2-90.6. Minor fault at 89.5 (10° to core axis).				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-5
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.

Vert. Comp.

Logged by

Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-5 Sheet 4

~~Surface~~ Meters From	To	Description	Sample No.	Length	Analysis
93.3	101.2	Mixed silicified biotite gneiss and silicified calc-silicate in bands 1-2 m wide. Biotite gneiss is typical black, dark grey fine grained massive to semi-banded. Calc-silicate is irregular banded to somewhat mottled light green and dark green often with small cream coloured spicules. One finer grained section is dark green coloured and contains abundant (5-10%) pyrrhotite and fine garnet. Pyrrhotite is disseminated throughout, and as a few small patches. This section resembles a few sections seen in holes CK 79-1, 2 and 3, which were found above(?) the "mineralized zone", but below the graphite zone. Foliation overall is 35-45°, locally less. The quantity of hornblende increases over the last 2 metres, so it should properly be called a mixture of amphibolite and siliceous calc-silicate.			
101.2	102.5	Marble and limy calc-silicate, some epidote development. Typical mixture. Includes an odd 4 cm wide band of large "eyes" of diopside and quartz at 101.6 m. Marble at the end. Foliation moderately developed at 60°, increasing to 80° at the end. End of hole is at 102.5 m			
		Mineralized zone is two high grade bands at 80.2-80.7, one is 2 cm wide, the other is 20 cm wide.			
		80.2 - 80.65 - 0.45 m @ 2.22% Pb, 11.6% Zn.			

211-9437

1 : M-13

Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-6		
Commenced	July 3, 1979	Location	New showing	Tests at	44.5m(-60°) 97m(-66°)	Hor. Comp.	44.5 m
Completed	July 5, 1979	Core Size	BQ	Corr. Dip	-62° Overall	Vert. Comp.	86 m
Co-ordinates	11350.72N, 10118.34E			True Brg.	239°	Logged by	MRM
Objective	To test the downdip extension of Zn/Pb mineralization seen on surface and in two on-section drill holes.			% Recov.		Date	July 6, 1979

Claim CK 84 | T Brg. 239° | Collar Dip -64° | Elev. 1118.78 m | Length 97.0 m | Hole No. CK 79-6 | Sheet 1

Footage Meters From	To	Description	Sample No.	Length	Analysis
0	- 16.7	Casing - overburden			
16.7	- 29.1	Spotted dyke - light tan-green fine grained with slightly darker green ill-defined spots at 10% scattered evenly throughout. Cut by numerous hairline calcite filled fractures which increase with intensity toward the bottom. First few metres is mainly broken material with mud which may be either fault gouge or surface weathering material.			
29.1	- 67.3	Pegmatite - typical very coarse grained, cream and grey coloured, with local pink garnet clusters. Broken and shattered throughout, with a few sections of obvious fault gouge i.e.: 29.1-29.5, 50.8-59.8 (intense) and probably several sections to the end of this unit. Takes on an overall grey colour and is finer grained over the last four metres of the unit.			
67.3	- 70.2	Siliceous calc-silicate. Overall light green diopside colouration, with only minor coarser grained amphibolite. Soaked in grey quartz throughout. Somewhat massive, but foliation weakly developed locally at 65°.			
70.2	- 71.4	Garnet Hornblend Amphibolite. Dark green, coarse grained, with garnet disseminated as small rounded grains. Central 50 cm section of coarse pegmatite. Foliation at 70° throughout.			
71.4	- 73.9	Very coarse biotite gneiss. Black and white banded (segregation banding), with local large irregularly formed garnets. Wavy folding throughout (as is usual in this rock type, but overall foliation is at 65°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-6
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-6 | Sheet 2

Meters From	Meters To	Description	Sample No.	Length	Analysis					
73.9	75.5	Pegmatized siliceous biotite gneiss. Hard and competent grey with small biotite flakes scattered throughout. Resembles loosely the orthogneiss of other holes. Foliation at 55°.								
75.5	78.7	Limy calc-silicate - fine grained tan-green with irregular orange garnet massively throughout. Few short sections are coarser grained white and green. Lime content varies throughout, and locally the core is almost silicified. Foliation shown in a variety of ways from fine grained laminated material (diopside, quartz, garnet) to coarser banding, but is usually about 65°. Has several thin (4 cm) bands of dark green talc, randomly scattered. At 77.8, one contains patchy garnet and a two cm wide band of fine grained brown sphalerite and pyrrhotite with a few specks of galena, cutting the core at 65°. This may be equivalent to the small band seen in other holes above the main mineralized horizon, and seen in Hole CK 79-1 on the Main Boulder Area??? Sample 77.79 - 77.83	19355	0.4	0.48	3.31				
78.7	80.1	Coarse biotite gneiss and pegmatite. Typical biotite gneiss to slightly silicified. No segregation banding. Occurs actually as two biotite gneiss bands separated by 50 cm coarse pegmatite. Last 25 cm is intermixed altered calc-silicate, biotite gneiss and pyrrhotite-patched pegmatite. Sample 78.7-80.1	86789	1.4	0.01	0.05				
80.1	81.6	Mineralized Zone - typical coarse-grained black with fine-grained brown, with minor grey galena scattered throughout. Pyrrhotite more abundant than usual as granular occurrances and small patches. Weak foliation in portions at 50-60°. Few hairline pyrite filled fractures at low angles (20-35°). Sample 80.1 - 81.6	86790	1.5	3.71	20.1				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-6
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.
Vert. Comp.
Logged by
Date

Claim | Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-6 Sheet 3

Footage Meters From	To	Description	Sample No.	Length	Analysis Au	Ag
81.6	83.2	White marble, then limy calc-silicate. Marble is white and coarse grained, with a few scattered grains of light green diopside and grey graphite. Marble section lasts to 82.5.				
		Sample 81.6 - 82.5	86791	0.9	t 04	.22
		Limy calc-silicate - light green, granular. Mottled to semi-banded, at 45°. Has a 10 cm pegmatic portion that contains a few patches of pyrrhotite and minor contorted green talc.				
83.2	91.8	Typical pegmatite and with coarse biotite gneiss, in bands ranging from 1 m to 20 cm. Pegmatite is coarse mottled, with minor small flakes of muscovite with garnets, and a trace amount of small graphite grains (minor). The biotite gneiss is semi-silicified, and usually muscovite rich. Banding is moderately developed at 55°. Often the pegmatite and biotite gneiss is infolded. Some greenish alteration (chloritization?) at 88.7-89.2. Much of the core beyond this is fine grained, massive quartz rich with only minor biotite.				
91.8	92.7	Spotted dyke - very fine grained, medium green, with darker green spots. Broken throughout, with a possible fault at 92.5. No foliation.				
92.7	97.0	Pegmatite - typical coarse textured cream and white, mottled, Minor chlorite in thin bands locally only. Last 20 cm is the spotted dyke material as above. Sheared and possibly faulted. End of hole - 97.0 m				
		Mineralized zone - 80.1 - 81.6 - typical high grade section. 1.5 m @ 3.71% Pb, 20.1% Zn.				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-7		
Commenced	July 6, 1979	Location	New Showing	Tests at	29.4(-62°),94.6(-59°)	Hor. Comp.	72 m
Completed	July 10, 1979	Core Size	BQ	Corr. Dip	Overall -60°	Vert. Comp.	138 m
Co-ordinates	11363.89N, 10125.55E			True Brg.	239°	Logged by	MRM
Objective	To test for downdip Zn, Pb mineralization as seen on surface and three other on-section holes.			% Recov.		Date	July 9, 1979

Claim CK 84 | T Brg. 239° | Collar Dip -62° | Elev. 1126.71 m | Length 158.0 m | Hole No. CK 79-7 | Sheet 1

Meters From	Meters To	Description	Sample No.	Length	Analysis
0	7.7	Casing - overburden			
7.7	22.8	Pegmatite-typical coarse grained, white and cream. Varies from very coarse to medium. Garnets sometimes present as ill-formed patches or clusters, to 1 cm wide. 10.0-5 cm greyish quartz, minor biotite on edges. 21.3 - Contains very coarse muscovite for 10 cm.			
22.8	26.3	Coarse biotite gneiss - segregation banding partially developed black and white. First 40 cm an altered green-grey (due to proximity of peg) and may be fault gouge as well. Foliation at 35-45°.			
26.3	45.3	Pegmatite - typical coarse grained, white and cream. Contains no evidence of faulting. 31.0-31.2 - short section of silicified biotite gneiss.			
45.3	48.6	Dark green dyke - fine grained, dark and aphanitic. Contains a short (30 cm) section of light green with darker green spots. Has a central 1 m wide pegmatite section. Scattered hairline fractures of light green epidote(?). Upper and lower contacts at 25° and 45°.			
48.6	99.7	Pegmatite - typical coarse grained cream and white with minor grey. Garnet almost absent. No foliation, no broken fault zones. Excellent recovery.			
99.7	103.0	Spotted dyke, dark green grading to medium olive green. Aphanitic throughout except for 5% darker green spots disseminated throughout. Four hairline fractures with calcite. Lower contact follows the core for about 1.5 m.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-7	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-7 | Sheet 2

Meters From	Meters To	Description	Sample No.	Length	Analysis
103.0	105.4	Pegmatite and pegmatized biotite gneiss. Central portion is finer grained and streaked out with small augen development. Foliation weak at 75° but has small bleached cross-fractures at 45°. In pegmatite, few pyrite films have developed on low angle fractures.			
105.4	108.8	Very coarse muscovite-biotite gneiss. Segregation banding moderately to well developed, black and white. Contorted and crenulated, but overall foliation averages 70° at the ends, and 50° centrally. * Looks much like the unit not far above the mineralized horizon in CK 78-6!			
108.8	111.5	Mixed rock unit - mainly coarse biotite gneiss and pegmatite, with minor limy calc-silicate with marble. 108.8 - 109.3 10 cm white marble, 10 cm mottled orange and green and white calc-silicate, then, 25 cm coarse pegmatite, 5 cm calc-silicate with cream spicules. 109.3 - 111.5 Coarse muscovite-biotite gneiss (locally bleached) and pegmatite in bands 10-20 cm wide. Foliation at 65°.			
111.5	116.1	Pegmatite - typical white and grey - coarse grained. Few greenish (diopside?) specks. No foliation.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District	Hole No. CK 79-7	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-7 | Sheet 3

~~Footage~~ Meters From	To	Description	Sample No.	Length m	Analysis Pb	Zn
116.1	121.0	Mottled limy calc-silicate with minor bands of white marble and pegmatite, and a 3 cm ZnS band.				
		116.1-116.7 - Mixed bands of silicified calc-silicate and silicified banded biotite gneiss. Foliation at 70°. Bands about 10 cm wide.				
		116.7-117.1 - Very limy calc-silicate (almost marble). Medium green, orange, white with overall granular texture.				
		117.1-117.4 - Diopside - garnet silicified calc-silicate - massive.				
		117.4-117.8 - White granular marble with patchy garnet and disseminated diopside.				
		117.8-118.5 - Mixed banded limy calc-silicate and marble. Overall orange and green, with foliation at 65°.				
		118.5-119.7 - Pegmatite - coarse, with fault gouge at 119.3.				
		119.7-121.0 - Limy calc-silicate and marble in patches 10-20 cm wide. Includes patches of almost solid orange garnets.				
		* A 3 cm wide irregular patch of medium grained sulphides is present at 120.3 - consists of coarse black ZnS, fine grained purplish-brown sphalerite and pyrrhotite, and coarser pyrite. All sandwiched between an upper 20 cm garnet unit and a lower 20 cm garnet-diopside marble unit. Sample 120.3 - 120.35	19356	0.05	0.02	8.94
		Foliation at 75-80° throughout.				
		Note - this thin sulphide unit is likely equivalent to the 2 cm band found above the main mineralized band in hole CK 79-6.				

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Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District		Hole No.	CK 79-7
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-7 Sheet 4

Meters From	To	Description	Sample No.	Length	Analysis
121.0	139.1	Mixed sections of pegmatite and siliceous to coarse biotite gneiss all broken and contained within a major fault zone.			
		121.0-121.5 - Silicified but bleached biotite gneiss. Foliation at 75°.			
		121.5-122.5 - Broken coarse pegmatite			
		122.5-123.8 - Coarse biotite gneiss, minor fault gouge			
		123.8-124.4 - Pegmatite - broken			
		124.4-124.9 - Coarse biotite gneiss - Foliation at 75°.			
		124.9-126.0 - Fault gouge, with minor coarse pegmatite.			
		126.0-129.0 - Mainly pegmatite, with a few thin minor sections of siliceous biotite-gneiss.			
		129.0-136.4 - Completely broken-usually coarse biotite gneiss, but a few sections have greenish diopside, garnet with minor pyrite, therefore are calc-silicate.			
		136.4-139.1 - Broken, faulted pegmatite.			
139.1	140.2	Broken garnet - diopside calc-silicate, with minor specks of pyrite. Medium grained, soft and faulted. Foliation at 70°.			
140.2	140.9	Fault gouge and coarse while pegmatite. Soft, broken, shattered.			
140.9	150.3	Spotted dyke. Light green f.g. with dark green spots. Completely broken and shattered, with zones of fault gouge at 144.8-145.1; 146.6-147.0; 149.0-150.3			

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Scale

Colour Plot & Clips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-7	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-7 | Sheet 5

Footage Meters From	To	Description	Sample No.	Length	Analysis
150.3	158.0	Pegmatite - typical coarse grained, but broken and shattered throughout into small chunks.			
		Few areas well ground up due to fault action. Short runs and difficult drilling.			
		End of hole - 158.0 - Stopped because of squeezing mud zones causing the rods to bind.			
		Mineralized zone: Correlation with hole CK 79-6 is excellent, but it is obvious the fault zone commenced exactly where the mineralized zone would have been. Only the thin sulphide zone (as seen in other holes) that lies above the main zone was present.			
		120.3 - 120.35 - 5 cm @ 0.02% Pb, 8.94% Zn.			

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Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK79-8		
Commenced	July 10, 1979	Location	New Showing Area	Tests at	59.8(-47°)119.7(-50°) 150.9(-49°)	Hor. Comp.	163.5 m
Completed	July 16, 1979	Core Size	B.Q.	Corr. Dip	-49° overall	Vert. Comp.	184 m
Co-ordinates	11,085.91N, 10323.12E			True Brg.	239°	Logged by	MRM
Objective	To test for down-dip extension of excellent Zn, Pb encountered in hole CK 78-6.			% Recov.		Date	July 14,16/79

Claim CK 78-4 | T Brg. 239° | Collar Dip -48° | Elev. 1121.62 m | Length 245.8 m | Hole No. CK79-8 | Sheet 1

Footage From	Footage To	Description	Sample No.	Length	Analysis
0	27.2	Casing - overburden.			
27.2	111.6	Siliceous calc-silicate. Light green granular diopside with coarser dark green amphiboles scattered throughout, all in a matrix of grey quartz. Ratio between the constituents varies in an undulatory fashion throughout the section. Contains a few very minor short sections (20-30 cm) of coarse biotite gneiss and pegmatite. Minor sections build-up the hornblende at the expense of diopside to make these sections gradational from calc-silicate to amphibotite. Foliation changes from around 45° at the start and to about 42 m, slowly changing to lesser angles:			
		0 - 42 - 45°			
		42- 47 - 25-30°			
		47- 85.0- 45-50° 76.5 - minor fault zone			
		75 -79.9- Pegmatite, then orthogneiss or pegmatized biotite gneiss.			
		85.0-99.0- Foliation abruptly changes low angles, much of which is actually parallel to core, other is at up to 15°; Most is parallel from 85-99.			
		99.0-100.5 Changes to 50-60°, with short section (10 cm) at 90° within a pegmatized biotite gneiss.			
		100.5-107.5 Mainly parallel to low angles (15°)			
		107.5-111.5 Angles of 45° common.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-8	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-8 Sheet 2

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
111.6	119.0	Mixed pegmatite and siliceous calc-silicate in bands about 1 metre wide. Pegmatite is typical very coarse crystalline. Calc-silicate is banded light and dark green, foliations running parallel to the core axis.			
119.0	137.5	Silicified calc-silicate, with minor local bands of coarse biotite gneiss and a few short (< 1 m) segments of coarse typical pegmatite. Section is essentially the same as previous to the pegmatite. Patchy pyrrhotite seen on a few occasions. Biotite gneiss sections: 130.5 - 130.9. Foliations: all essentially low to very low angles, much is parallel to core and only at 129.0 it approaches 35^{0} over perhaps 30 cm. Last mere is typical pegmatite.			
137.5	142.0	Mixed Zone - Interbanded and interlayered silicified coppery coloured biotite gneiss and typical silicified calc-silicate. Mixing ranges from apparently interlaminated to bands 0.5 m wide. Much of the plain siliciate calc-silicate is light green and grey with no dark green hornblende. Foliations start off at low angles, but increase to 60^{0} around 141, decreasing to 35^{0} by 142.0			
142.0	142.8	Hornblende garnet amphibolite - dark green medium-grained and moderately foliated (50^{0}) peppered throughout with small rounded - ill formed pink garnet grains, averaging perhaps 3 mm in diameter.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-8
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-8 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
142.8	152.7	Mixed Zone - Dominantly very coarse biotite gneiss, black and grey, with well developed segregation banding, and scattered garnets. Contains one metre of typical pegmatite, and 0.7 m of light green fine-grained slightly limy calc-silicate (146.2-146.9). Foliations are quite variable, from maximum 45° to minimum parallel to core. Crenulations common. Possibly two minor fault zones at 145.7, 150.0.			
152.7	159.0	Mixed Carbonate Unit - Consists of short bands of coarse biotite gneiss, limy calc-silicate and white marble.			
		152.7 - 153.1 - Marble - coarse white, silicic. Contacts at 30°.			
		153.1 - 153.7 - Coarse biotite-gneiss as previous. Foliations parallel to core.			
		153.7 - 154.0 - Marble as previous.			
		154.0 - 154.9 - Coarse biotite gneiss with 20 cm light green granular silicic calc-silicate with a thin wisp of marble, and disseminated pyrrhotite. Foliation 10°.			
		154.9 - 155.3 - Marble as previous.			
		155.3 - 155.5 - Siliceous calc-silicate.			
		155.5 - 155.7 - Siliceous fine-grained biotite-gneiss - 30°.			
		155.7 - 156.2 - Mottled siliceous calc-silicate with pyrrhotite and a central 10 cm wide band of yellowish marble and diopside.			
		156.2 - 157.5 - Silicified biotite gneiss with 10 cm pegmatite adjacent to 10 cm of pyrrhotite green calc-silicate. Foliations at low angles.			
		157.5 - 158.1 - Slightly limy calc-silicate, finished by 15 cm marble.			
		158.1 - 159.0 - Coarse segregated biotite gneiss (balck & white) foliations at 50°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-8	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-8 Sheet 4

Footage From	To	Description	Sample No.	Length metres	Analysis Pb%		Zn%			
159.0	175.6	Orthogneiss. White to light dirty grey, speckled throughout with minute flakes of black biotite (5%) that lend the core a weak foliation throughout at about 40°								
175.6	180.2	Pegmatized Marble - Creamy yellow-white granular colour, but non-calcareous. Looks much like the orthogneiss except there is absolutely no biotite in this section.								
		* Mineralized Zone - 175.8 - 176.1 - Includes a 5 cm wide zone of fine-grained pyrite preceding a 20 cm wide zone of wispy to stringly fine-grained brown sphalerite cross cut by hair-line fractures of pyrite.								
		Foliation is suggested at 60-70°.								
		Sample 175.8 - 176.1	86792	0.3	0.04		1.22			
180.2	195.1	Orthogneiss - Fine-grained light grey to white with up to 5% small biotite flakes giving foliations of 50°.								
195.1	197.2	Pegmatite - Typical cream and grey. Very coarsely crystalline. No biotite, muscovite or garnet.								
197.2	199.3	Coarse biotite-gneiss, pegmatite, and minor silicified biotitic calc-silicate, in that order, equal amounts. Foliations in the biotite gneiss are quite variable, whereas they average about 45-50° in the calc-silicate.								

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-8
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-8 Sheet 5

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
199.3	224.5	Pegmatite - Typical very coarse crystalline grey and white. Few broken zones, but not likely fault zones.			
		213 - 213.5 - Pegmatized biotite-gneiss. Silicified. Dark grey. Foliation at 70° not well developed.			
224.5	228.5	Orthogneiss - Typical grey and black, fine-grained, with foliations at 60° common. Contains two short (30-40 cm) zones with no biotite, and are creamy-brown in colour - possibly representing original marble zones(?).			
228.5	245.8	Pegmatite - Typical and containing two short sections of biotite gneiss and siliceous calc-silicate.			
		228.5 - 238.7 Typical pegmatite- very coarse-grained with black to grey quartz and cream to white feldspars.			
		238.7 - 239.1 Coarse biotite gneiss. No segregation - massive black and grey texture, with foliation only moderately seen at 30-40°.			
		239.1 - 241.2 Pegmatite as previous. Few minor biotite gneiss inclusions.			
		241.2 - 242.1 Biotite gneiss as previous with a 30 cm wide central section of light and dark green silicified calc-silicate. May be central to a small fold.			
		242.1 - 245.8 Pegmatite - as previous.			
		End of hole 245.8.			
		Mineralized intersection in wispy ZnS over 30 cm at 175.8 - 176.1.			

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Colour Plot & Dips

Drill Hole Record

Comaco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-9		
Commenced	July 16, 1979	Location	New Showing	Tests at	23.2m(-46°) 148.2m(-41°)	Hor. Comp.	107.5 m
Completed	July 19, 1979	Core Size	BQ	Corr. Dip	-44° overall	Vert. Comp.	81.3 m
Co-ordinates	10745.39N, 10437.63E			True Brg.	38°	Logged by	MRM
Objective	To test down-dip extensions of mineralization seen in hole CK 78-11.			% Recov.		Date	July 19/79

Claim	CK 84
T Brg.	38°
Collar Dip	-46°
Elev.	1049.95 m
Length	148.2 m
Hole No.	CK79-9 Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0	4.3	Overburden			
4.3	5.5	Limy calc-silicate with minor marble, patched with typical pegmatite. Light green diopside and minor coarser hornblende. Marble is coarse granular, speckled with greenish diopside and white quartz grains. Weak suggestion of foliation at 45°.			
5.5	11.4	Pegmatite and orthogneiss. Pegmatite is biotite rich and very coarse-grained to crystalline. Orthogneiss is relatively coarse-grained, with a variable biotite content to 5-8%. Foliation weakly suggested at 45°.			
11.4	12.1	Limy calc-silicate. Dark and light green medium granular. Marble appears as thin bands in an almost laminar fashion at the start. Is more siliceous at the bottom. Foliations at 50°.			
12.1	14.0	Silicified biotite gneiss cut by several bands of coarse pegmatite. Gneiss is dark grey to black, granular, with foliation and segregation only moderately developed at 45°.			
14.0	18.3	Very coarse biotite gneiss, with local muscovite development. Coarse-grained, with moderate to good segregation banding. Foliations quite variable (as usual for this rock type) would range between 0 and 90, averaging 40°.			

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Scale -

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-9
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-9 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
18.3	20.8	Pegmatite - coarse, biotite - much as previous.			
20.8	23.0	Coarse biotite gneiss. Black and white. Medium to coarse-grained but intensely segregated. Locally it appears almost pegmatized. Harder, more competent rock than previous, and not nearly as deformed. Foliation somewhat variable, but averages 60^{0}.			
23.0	30.1	Limy calc-silicate locally grading to marble, with minor short interbands of silicified (but coarse) biotite gneiss, and silicified pyrrhotitic calc-silicate. Different units might average 10-20 cm wide. Silicified calc-silicate is usually mottled, with patchy orange garnet and disseminated to patchy pyrrhotite. Local hornblende build-up so that a few bands of semi-amphibolite are present. Foliation is surprisingly variable, from locally parallel and contorted to 75^{0} over short distances.			
30.1	33.4	Marble - White, fairly coarse-grained, massive. Has rounded grains of quartz disseminated heavily throughout. Sprinkling of green diopside. Minor local foliation at $45\text{-}50^{0}$.			
33.4	35.9	Coarse biotite gneiss (segregated) with two thin zones of silicified calc-silicate, one of which has a thin central limy unit. Foliation constant at 75^{0}.			
35.9	38.6	Limy calc-silicate. Light yellow green (epidote?) granular, with minor darker green hornblende, granular quartz and calcite. Semi-banded at $70\text{-}80^{0}$.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-9	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-9 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
38.6	43.5	Siliceous calc-silicate. Varies from green and orange mottled to well banded. Semi-amphibolite. (Minor local biotite to give a biotite gneiss appearance). Most is hard and soaked in quartz. Short mylonitized and pegmatized section at 39.9. Foliation averages 70°.			
43.5	48.5	Silicified biotite gneiss. Much has been altered and bleached by the adjacent underlying pegmatite. Softish, medium granular. Weak segregation with foliation at 70-80°, but locally quite variable.			
48.5	73.6	Pegmatite - typical very coarse crystalline, but not significant biotite. Fairly massive but locally broken. Several short patches of biotitic material - likely pegmatized biotite gneiss. One section of altered biotite gneiss at 48.2 to 59.9. Foliation at 45°, but alteration (bleached) bands cut at 90°.			
73.6	75.0	Marble - coarse granular white and speckled with coarse dark green diopside. Local patchy diopside and garnet build-up.			
75.0	89.7	Mixed siliceous biotite gneiss, siliceous calc-silicate and minor coarse segretated biotite gneiss. Much of the more silicic portions are dark coloured pyrrhotitic (and garntiferous calc-silicate that greatly resemble similar sections in other holes (i.e. in the Main Boulder Area - possible marker units??) Some biotite gneiss is moderately graphitic (again possibly resembling the Main Boulder Area). i.e. 83.6 - 89.0. Alternating bands are 30-40 cm wide. Basic dyke at 82.6 - 83.0			

Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property	CK	District	Hole No.	CK 79-9
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-9 Sheet 4

METRES From	To	Description	Sample No.	Length m	Analysis %	%
75.0	89.7	Continued				
		Possible fault at 83.3				
		Foliation - overall is 45°, but some sections are parallel, some at 90°.				
89.7	90.9	Coarse muscovite biotite gneiss. Medium-grained. Local moderate segregation banding. Foliation starts at 70°, changes to parallel, then back to 45° by 90.9.				
90.9	92.6	Pegmatite - typical coarse-grained. Gradational, altered contact with the underlying biotite gneiss. No foliations.				
92.6	97.4	Very coarse garnet muscovite-biotite gneiss. Good segregation banding throughout - locally the white bands look like pegmatite.				
		93.4 - 93.5 Hornblende garnet amphibolite.				
		Foliation - bent and contorted throughout, but would average 65°.				
97.4	98.9	Mineralized Zone within a marble unit				
		97.4 - 97.6 15 cm of green limy calc-silicate, with granular texture, disseminated pyrrhotite then 10 cm of creamy-yellow marble with greenish diopside specks.				
		Sample 97.4 - 97.6	86793	0.2		
		97.6 - 97.9 Mineralized Zone - typical fine-grained brownish purple high grade sphalerite, with a fair amount of larger rounded quartz grains (some to 2 cm long) and patchy grains of pyrrhotite. First 1 cm is the coarse black sphalerite as seen en masse at other				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-9
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-9 Sheet 5

METRES From	To	Description	Sample No.	Length m	Analysis
97.4	98.9	Continued			
		locations (remobilized?).			
		Sample 97.6 - 97.9 (est. 15%)	86794	0.3	
		97.9 - 98.7 Very coarse muscovite biotite gneiss. Intermixed with pegmatite, 5 cm marble adjacent the high grade mineralization. Foliations at 50°.			
		Sample 97.9 - 98.7	86795	0.8	
		98.7 - 98.9 2 cm high grade mineralization in a contact situation between marble and underlying biotite gneiss. This possibly represents the blip of mineralization found before the main zone in other holes, (remember - this hole is drilled from SW to the NE so the stratigraphic order would appear reversed compared to all previous holes.) Foliations 70°.			
		Sample 98.7 - 98.9	86796	0.2	
98.9	102.8	Very coarse muscovite biotite gneiss. Local garnet development. Minor greenish alteration. Some contorting, but overall foliation is at 45°, last metre is parallel to core axis. Central metre is very coarse pegmatite.			
102.8	108.9	Pegmatite - very coarse-grained to crystalline. No mafics, no foliation.			
108.9	110.8	Marble gradational to very limy calc-silicate. Overall granular structure. White with green diopside that build-up in quantity and, combined with local patchy orange garnet changes the rock to a calc-silicate. Overall moderate to poor banding at 75-80°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District		Hole No.	CK 79-9
Commenced		Location		Tests at	
Completed		Core Size		Corr. Dip	
Co-ordinates				True Brg.	
Objective				% Recov.	

Hor. Comp.
Vert. Comp.
Logged by
Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-9 Sheet 6

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
110.8	115.6	Slightly mixed unit - mainly very coarse black and white segregated biotite gneiss.			
		110.8 - 111.0 Biotite gneiss			
		111.0 - 112.7 Interbanded coarse biotite gneiss and limy (to marble) calc-silicate.			
		112.7 - 113.0 Marble			
		113.0 - 115.1 Silicified biotite gneiss, fine-grained, black.			
		115.1 - 115.6 Dark green, spotted dyke.			
115.6	120.2	Very coarse gneiss. White and black banded very coarse. Local garnet development, and numerous bleached zones. Foliation variable - averages 55^{0}. Only in one instance (over 10 cm) is it parallel to core (folded over). This unit may be correlatable with many of the other biotite gneiss units seen above the mineralized zone in other holes.			
120.2	121.1	Dark green spotted dyke.			
121.1	122.7	Silicified calc-silicate. Dark green, massive, hard - clear quartz throughout. Foliation at 70^{0} and constant.			
		122.7 - probable small fault zone.			
122.7	135.0	Intermixed very siliceous calc-silicate, and very siliceous biotite gneiss. Glassy. No segregation banding. Local patches of red-orange garnet in the calc-silicate. Minor hornblende development throws some of this section toward semi-amphibolite. Foliations fairly constant at 75^{0}. Few thin (5 cm) limy sections in the calc-silicate. Becomes softer as the fault zone is approached.			

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Scale

Colour Plot & Dips

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Drill Hole Record

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Property	CK	District	Hole No.	CK 79-9
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-9 | Sheet 7

METRES From	To	Description	Sample No.	Length	Analysis
135.0	137.3	Fault Zone. Most is soft grey to light mud, with ground up rock fragments but intervening rock is much like previous - i.e. biotite gneiss, with limy calc-silicate.			
137.3	140.3	Pegmatite. Typical coarse-grained. Has several areas of inclusions, including a small amount of biotite gneiss at 138-138.3 and a large section of mixed limy and silicified calc-silicate with pegmatite at 140.3 - 141.5. Minor disseminated pyrite. Foliations generally 75°.			
		142.2 - 143.1 30 cm silicified biotite gneiss followed by very siliceous calc-silicate with a disseminated (2 cm) patchy pyrrhotite band. Foliation 80°.			
		143.1 - 148.2 Pegmatite.			
		END OF HOLE - 148.2			
		Mineralized section is 97.6 - 97.9 (0.3 m) of typical high grade.			
		0.3 m @ 3.86% Pb, 17.9% Zn			
	or	1.3 m @ 0.97% Pb, 4.7% Zn.			

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Drill Hole Record

Cominco

Scale

Colour Plot & Dips

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-10		
Commenced	19 July 1979	Location	Line 1N, 9 + 46E	Tests at	114m = 86° 154m = 77°	Hor. Comp.	19 m
Completed	24 July 1979	Core Size	BQ	Corr. Dip	194m = 79°	Vert. Comp.	198.5 m
Co-ordinates	12050.46N, 9627.67E			True Brg.	--	Logged by	F.D. Gill
Objective	To test 2 IP anomalies on LIN between the New showing and the East side anomaly.			% Recov.	95%	Date	24 July 1979

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
CK 4	--	90°	1147.98 m	200m	CK79-10	1

Footage From	To	Description	Sample No.	Length	Analysis
0	3.2	Overburden.			
3.2	13.9	Biotite gneiss. Weakly magnetic throughout particularly in coarse biotite rich sections. Foliations vary rapidly from 70° to zero indicating intense minor folding. Pyrrhotite not obvious.			
13.9	15.8	Pegmatite with minor biotite gneiss inclusions.			
15.8	38.0	Biotite Gneiss; somewhat more siliceous than previous section. Foliations show intense contortions over very short section. Pink garnets sparsely disseminated throughout. Very sparse pyrite. 25.8 - 27.8 Badly broken and bleached section.			
38.0	45.5	Biotite schist - very dark, non siliceous. Non magnetic. Local narrow pegmatite sections. Some diopsidic sections. Foliations generally consistent @ 40-45° some contortions.			
45.5	50.0	Biotite gneiss with a number of very limy diopside garnet limy calc silicate sections. Foliations mainly 65-70°, some flat foliations. Non magnetic.			
50.0	52.8	Biotite gneiss, somewhat contorted with foliations mainly 45-70°. Minor pink garnets.			
52.8	55.0	Marble and limy calc silicate with diopside and orange garnets interlayered. Very minor pegmatite and biotite gneiss sections. Folations vary from flat to 70°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-10 Page 2	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

Footage From	Footage To	Description	Sample No.	Length	Analysis
55.0	63.8	Biotite gneiss with pink garnets. Contorted with no consistent foliation direction.			
63.8	66.1	Limy calc - silicate with very minor lenses marble. Diopside rich. Scant pyrrhotite. Foliations vary from flat to 45°.			
66.1	82.0	Highly altered and interlayered biotite gneiss and diopsidic siliceous calc silicate. Calc-silicate includes sections rich in chloritized amphibolite. 74.0-80.0 Quantity veining with associated bleaching. Foliation mainly 40-55° - Variations from this are only local. Pyrite or pyrrhotite throughout-less than 1%.			
82.0	91.5	Siliceous diopside chlorite (after hornblende?) calc silicate. Minor biotite gneiss sections. Very narrow (5 cm) marble bands at end. Trace pyrrhotite. No distinct foliation until biotite gneiss appear at 88.0 m - 70-80° occasionally 45°.			
91.5	93.0	Marble coarsely crystalline. About 1% diss po throughout. Foliation not developed.			
93.0	95.3	Biotite gneiss with muscovite. Foliations at 70°.			
95.3	100.3	Marble bands, interlayered with siliceous (diopside-rich) calc-silicate gneiss, and occasional biotite gneiss sections. Foliation 40-60, occasionally close to parallel. <1% fine diss pyrrhotite.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-10 Page 3	
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

Footage From	To	Description	Sample No.	Length M	Analysis Pb	Zn
100.3	108.8	Marble, some limy calc silicate material + mica, some siliceous streaks. Foliation consistent 55-65°. 1% diss pyrrhotite increasing to 3% on last 2 m of section.				
		Sample 108.0 - 108.8	86797	0.8	[illegible]	[illegible]
108.8	109.2	Mineralized horizon . Massive fg red brown ZnS and fine grained non-magnetic pyrrhotite and very minor galena (60%) in irregular siliceous gangue . No foliation. Est 20% ZnS.	86798	0.4	[illegible]	[illegible]
109.2	113.1	Marble white coarse grained. Weak foliation @ 50°. <1% pyrrhotite. Specks of ZnS over 2 cm @ 111 m.				
		Sample 109.2 - 110.0	86799	0.8	[illegible]	[illegible]
113.1	114.0	Pegmatite, mixed with biotite gneiss, minor marble and calc silicate.				
114.0	124.5	Biotite Gneiss with pink garnets. Consistent foliations 55-65°. From 119 m, badly broken with about 60% recovery. From 114-116.5 only 25% recovered. Trace pyrite pyrrhotite.				
124.5	128.0	Pegmatite - typical coarse grained.				
128.0	128.9	Biotite gneiss bleached through partial pegmatization and with 2-5% disseminated pyrrhotite. Foliations 35,45°.				

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No. CK 79-10 Page 4	
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. | Sheet

Footage From	Footage To	Description	Sample No.	Length	Analysis
128.9	134.9	Pegmatite. Typical coarse grained.			
134.9	140.4	Siliceous calc silicate gneiss with foliations consistent @ 55°. Diopside chlorite after amphibolite and minor garnet. Occasional pegmatite streaks and quartz veins. Heavily fractured healed by five quartz veins. Up to 5% pyrrhotite locally averaging 1-2% over whole sections.			
140.4	144.8	Pegmatite.			
144.8	148.2	Siliceous calc-silicate with diopside, appears partially pegmatized and inlcudes occasional short sections of pegmatite. Foliations indistinct.			
148.2	173.0	Pegmatite, coarse grained. Contains inclusions of biotite gneiss and calc silicate gneiss locally as follows: 152.4-152.6 Partially pegmatized by gneiss. Foliation @ 60°. 158.1-158.9 Limy calc silicate and marble. Also occasional wispy inclusions of biotite with pyrrhotite. Minor po sparsely disseminated throughout. 162.3-163.2 Marble and limy calc silicate 55-60°. 169.3-169.5 as above. 170.1-170.6 as above.			
173.0	173.7	Marble. Tr pyrrhotite very minor limy calc silicate. 55-60°.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Hole No.	CK 79-10 Page 5	
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Claim | T Brg. | Collar Dip | Elev. | Length | Sheet / Hole No.

Footage From	Footage To	Description	Sample No.	Length	Analysis
173.7	175.6	Limy calc-silicate, diopside rich, orange garnets, minor interbands biotite amphibolite. Foliation @ 55-48°.			
175.2	188.5	Biotite gneiss, black, intense biotite only minor quartz feldspar. Scant po. Foliations 50-55° mostly. Occasional 10 cm interband of siliceous calc-silicate gneiss.			
188.5	191.7	Pegmatite. Typical coarse grained.			
191.7	194.2	Mainly marble and limy calc-silicate grades to biotite gneiss over last 30 cm. Foliations appear mainly steep but turn over in the core - unreliable.			
194.2	200.0	Pegmatite, typical coarse grained variety.			
		END OF HOLE.			
		Mineralized Intersection: 108.8 - 109.2 0.4 m @ 5.63% Pb, 25.3% Zn.			

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82 M-13

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-11 (sheet 1)		
Commenced	24 July 1979	Location	L2N 8+80E	Tests at	25m=vertical 85.4m=86°	Hor. Comp.	7.0m
Completed	26 July 1979	Core Size	BQ	Corr. Dip	111.6m=80°	Vert. Comp.	101m
Co-ordinates	12,139N, 9,568E			True Brg.	--	Logged by	F.D. Gill
Objective	To test an IP anomaly along trend of the New Showing and East Side Areas.			% Recov.	88%	Date	27 July 1979

Claim CK 4 | T Brg. -- | Collar Dip -90 | Elev. 1,122m | Length 111.6 m | Hole No. 79-11 Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0	3.5	Casing.			
3.5	23.6	Siliceous calc silicate, limy very locally. Much fine grained diopside, no garnets. Some chlorite (after amphibole) spots. Minor biotite rich sections. Foliations variable from 65°-flat, but mostly 45° or greater.			
23.6	30.1	Garnetiferous plagioclase hornblende gneiss. Minor siliceous calc silicate sections. Very minor biotite. Foliations: 75-90° @ 24m; 50° @ 25.5m; 30° @ 27.0m and becoming parallel by 30m. Scant pyrrhotite. Weakly magnetic locally.			
30.1	38.0	Siliceous calc silicate. Mainly siliceous diopside rich, local sections with orange garnet. Matted texture in places due to chlorite spots (a few hornblende) and remobilized quartz. Foliations fairly consistent @ 30-40°. Unit ends in 40cm pegmatite with minor po.			
38.0	44.0	Garnetiferous amphibolite as from 23.6-30.1m. Foliations less than 20° to flat to 40.7m. After 40.7 fairly consistent @ 45°.			
44.0	45.5	Biotite gneiss, some garnets (pink). Foliations 45-50° to 20° locally.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-11
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-11 Sheet 2

Footage METRES From	To	Description	Sample No.	Length m	Analysis Pb	Analysis Zn
45.5	46.5	Pegmatite badly broken - fault zone.				
46.5	47.6	Biotite gneiss is from 44.0-45.5. Foliations, irregular and contorted.				
47.6	49.0	Pegmatite, f gd variety. Good fault gauge at end. Faulting and brecciation 44-49m.				
49.0	53.5	Limy calc silicate, with some 10cm biotite gneiss sections. Some very disseminated po locally. Foliations 40° at start, steepening to a consistent 70° towards end.				
53.5	57.3	Marble light grey, minor diopside. Very minor very f gd disseminated po.				
57.3	58.9	Calcareous gneiss minor biotite. Up to 5% very fine grained disseminated po. Foliation varies 45-70°. Trace ZnS PbS.	86800	1.6	0.06	0.10
58.9	59.3	Mineralized zone. Mixed white marble and previous calcareous gneiss unit. Massive sulphide bands up to 2.5cm consisting mainly of very f gd py po and fg ZnS = PbS. Weakly magnetic. Banding @ 60-70°. Est 8% Zn Pb. Sample 58.9 - 59.3	65106	0.4	0.9	5.8%
59.3	64.5	Biotite gneiss, with coarse biotite. Interlayered quartz-feldspathic band weakly foliated gneiss @ 60.8-61.8°. Foliations @ 60°. Sample 59.3-59.8	65107	0.5	0.06	0.3%

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-11
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-11 Sheet 3

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
64.5	74.6	Biotite gneiss. Grey quartz-feldspathic well banded to laminated gneiss with very fine grained biotite. Consistent foliation @ 65°. Magnetic due to 5% disseminated po throughout with local bands of po (1-2cm) @ 65° and minor calcsilicate at end.			
74.6	75.5	Pegmatite - very coarse texture.			
75.5	75.9	Silica rock dense very fine grained with some streaks of feldspar phenocrysts - "Mylonite".			
75.9	77.1	Siliceous calc-silicate diopside rich. Indistinct foliation.			
77.1	78.0	Pegmatite. "Mottled texture".			
78.0	83.5	Siliceous calc-silicate, abundant fine grained diopside. Minor pegmatite. Foliations 55°. Locally chloritic streaks after amphibole?			
83.5	88.5	Amphibolite gneiss, fine grained dark green to black, with minor interbands of calc-silicate gneiss early in section. Scant pyrrhotite. Some pink garnets. Foliations 65-80°.			
88.5	92.9	Limy calc silicate gneiss with interbands of hornblende-plagioclase gneiss. Quartz veining and local fairly intense brecciation. Mottled white and green in places. Foliation 55-60°.			
92.9	93.3	Marble, white, some calc-silicate minerals. Fine grained sparse disseminated pyrrhotite. Foliation: 50°			

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Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-11
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-11 Sheet 4

Footage METRES From	To	Description	Sample No.	Length	Analysis
93.3	98.3	Limy calc-silicate with short section hornblende-plagioclase amphibolite. Some short pegmatite sections. Foliations 50-65°.			
98.3	99.1	Marble. Foliation 55°.			
99.1	101.7	Garnetiferous biotite gneiss, partially pegmatized. 25cm pegmatite at end. Foliation 50-60°.			
101.7	103.8	Siliceous calc silicate, abundant fine grained diopside minor pegmatite veining. Foliation 60°.			
103.8	104.8	Marble. Well foliated @ 60°. Sparse fine grained po. Very minor calc-silicate minerals.			
104.8	106.1	Calc silicate gneiss - weakly limy. Diopside and dark chlorite, somewhat mottled texture. Foliation 55°.			
106.1	107.8	Pegmatite coarse grained.			
107.8	111.6	Biotite gneiss with siliceous calc-silicate interbands. Sparse fine grained disseminated pyrite and pyrrhotite. Foliations @ 70-75°.			
		END OF HOLE - 111.6 m			
		MINERALIZED ZONE 58.9-59.3 0.4m @ 0.9% Pb, 5.83% Zn.			

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Scale

Colour Plot & Dips

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Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-12		
Commenced	July 27, 1979	Location	New Showing Area	Tests at	20m=52°, 58m=52.5°	Hor. Comp.	146 m
Completed	August 6, 1979	Core Size	BQ	Corr. Dip	67m -50°, 142.1 -53°, 239.6 -53° -52° overall	Vert. Comp.	191 m
Co-ordinates	11,056N, 10,076E			True Brg.	47°	Logged by	FDG/MRM
Objective	Deeper test of the New Showing below CK 79-4.			% Recov.		Date	July 30, Aug. 1,7, 1979

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.
CK 84	047°	-54°	1089.81m	239.6 m	79-12 Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0	9.5	Casing - overburden.			
9.5	12.5	Limy calc-silicate, diopside rich. Minor pegmatite. Distinct foliation @ 60°.			
12.5	18.6	Pegmatite, minor short sections biotite gneiss and in last 30 cm pegmatized marble with diopside. Foliation in biotite gneiss indistinct @ 60°.			
18.6	20.5	Mixed interlayered biotite gneiss and limy calc-silicate, minor pegmatite. Foliation 70-80°.			
20.5	25.0	Fault zone. Much gouge, some biotite gneiss, limy material and pegmatite.			
25.0	30.5	Interlayered limy calc-silicate gneiss and biotite gneiss. Narrow sections of fault gouge paralleling foliation @ 28.0 m. Foliation = 60°.			
30.5	32.5	Pegmatite, coarse-grained, badly fractured and broken.			
32.5	37.9	Biotite Gneiss. Biotite rich gneiss with pink garnets. Foliation approximately 60° to 34 m thereafter at low angle and parallel to core.			
37.9	44.1	Pegmatite, minor ragged inclusions biotite gneiss - fault box material.			
44.1	45.5	Biotite gneiss with minor sheared orthogneiss section. Foliation 55°. Trace fine-grained pyrrhotite.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-12	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 | Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
45.5	46.0	Pegmatite, coarse-grained.			
46.0	65.6	Orthogneiss. Well foliated fine to medium-grained quartzo-feldspathic gneiss with 5-10% biotite. Foliation @ 40-45°. Thin fractures either parallel or cross cutting foliation show narrow cream orange alteration. Minor pyrite film on fracture surface at 64.5.			
65.6	75.9	Pegmatite - Typical very coarse-grained grey and white. Trace pink garnets. Mica as biotite present as coarse patches only in a few places. Massive overall, but quite broken 70.2 - 70.8. 74.3 - 74.6 - 10 cm sil. biotite-gneiss, 10 cm limy calc-silicate with marble, 10 cm silicate biotite gneiss. Foliation at 70°.			
75.9	78.2	Siliceous biotite gneiss. Dark grey to black, fine-grained few scattered small garnets. Minor dark greenish colouration (hornblende). Massive overall, but foliation weakly developed at 70°.			
78.2	80.9	Limy calc-silicate and coarse biotite gneiss in 0.5 m sections. Calc-silicate is vaguely banded green and white, with foliations at 80-90°. Some patchy diopside. Biotite gneiss is transitional between the silicified variety and the coarser banded material. Fault gouge - 78.8, 79.8, 80.1, 80.8. Each about 10 cm wide.			
80.9	87.3	Marble - typical sugary textured white to grey, with green speckles throughout. Few minor short sections of diopside rich limy calc-silicate with garnet patches. Foliation poor, but constant at 65°. Fault zones: 82.8 - 83.3, 85.5 - 85.8.			

211-8437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-12
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 Sheet 3

METRES From	To	Description	Sample No.	Length m	Analysis Pb	Zn
87.3	93.2	Limy calc-silicate with minor thin interbed of white marble. Fine-grained, light green overall, with minor darker green fine-grained bands locally only. Overall is slowly gradational to a silicified calc-silicate. Foliation at 60-70° overall, but rolls over abruptly at 89.4.				
		*89.9 - 90.2 Marble with ZnS mineralization. Massive white marble with a thin stringer zone of speckled brown and black sphalerite in clear quartz at the contact between the overlying limy calc-silicate and the marble. Actually about 6 thin stringers over a 25 cm section. Looks much like the stringer section seen in hole CK 79-3 (Main Boulder area), but no real grade development. 89.75 - 90.16	19357	0.41	0.02	0.67
		*91.6 Several grains ZnS present in a cross cutting (?) marble "vein" within silicified calc-silicate. Minor specks pyrrhotite. 90.16 - 91.64	19358	1.48	0.01	0.09
		91.64 - 91.70	19359	0.06	0.01	0.43
93.2	96.8	Very coarse biotite gneiss. Black and white and garnetiferous throughout. Segregation banding moderately developed throughout. Overall foliation at 60-70°, but local contortions and crenulations are common.				
96.8	100.9	Silicified biotite gneiss interlayered with minor silicified calc-silicate. Garnetiferous. Massive. Dark grey-green, but local segregation banding. Foliation at 70° but locally varies to 45°. Last 0.5 m is limy calc-silicate and a 10 cm band of typical marble.				
100.9	103.5	Orthogneiss - typical fine-grained grey with 5-10% fine biotite disseminated evenly throughout at a foliation of 30° (?).				

211-9437

Drill Hole Record

Scale

Colour Plot & Dips

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-12	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 | Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
103.5	110.7	Silicified calc-silicate - mainly fine-grained, hard and massive. Quite biotitic. Light green f.g. diopside and local coarser dark green hornblende in a matrix of clear to grey quartz. Foliation constant at 75°. Contains a few narrow (20 cm) pegmatite sections that have trace graphite.			
110.7	111.9	Fault Zone - mainly silicified pyritic calc-silicate, changing to pegmatites. Amount of gouge is relatively small.			
111.9	112.5	Pegmatite - typical coarse-grained cream-yellow and white. Has minor interstitial wispy pyrite.			
112.5	131.1	Very silicified garnetiferous pyrrhotitic calc-silicate, with local sections of silicified biotite gneiss and coarse pegmatite.			
		112.5 - 112.8 Soaked with quartz, disseminated pyrrhotite at 3%. Foliation at 80-85°.			
		112.8 - 113.0 "Laminated quartz" - white and grey brown - not truly laminated, but resembles that in outcrop south of the showing in the Main Boulder Area.			
		113.0 - 115.7 Very pyrrhotitic-garnetiferous rich. Central section is almost massive pyrrhotite. Again resembles sections seen in the Main Boulder Area drilling. Foliation constant at 85-90°. Trace disseminated fine-grained graphite, with local 10 cm section to 5%.			
		115.7 - 115.9 Biotitic pegmatite - medium-grained. Resembles orthogneiss.			
		115.9 - 116.8 Biotitic and locally graphitic garnet calc-silicate, with variable amounts of pyrrhotite. Foliation 65°.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-12
Commenced	-	Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 | Sheet 5

Footage METRES From	To	Description	Sample No.	Length	Analysis
		116.8 - 119.1 Pegmatite and pegmatized biotite gneiss. Local coarse biotite. Mixing.			
		119.1 - 121.4 Very garnetiferous, dark coloured, pink and grey, medium-grained. Some interlayered biotite. Foliation changes from 75^0 to 30^0, back to 75^0.			
		121.4 - 122.7 Silicified biotite gneiss. Dark grey, slightly pegmatized, trace wispy to disseminated pyrite in more pegmatic sections (minor).			
		122.7 - 123.6 Pegmatite, with scattered patchy biotite.			
		123.6 - 125.0 Slightly banded, garnetiferous silicified calc-silicate. Graphite over short sections to 5%. Foliation starts parallel, then 45^0.			
		125.0 - 127.4 Fine-grained, semi-banded hornblende, non-garnetiferous. Grades to coarse biotitic. Foliation at low angles turns over 20^0-45^0.			
		127.4 - 128.0 Pyrrhotitic, garnetiferous sil. calc-silicate. Pyrrhotite is disseminated to semi-massive (10%). Garnet is white pink to 25% as medium grains.			
		128.0 - 128.4 Graphitic sil. biotite gneiss. Graphite to 3%. Foliation 40^0.			
		128.4 - 131.1 Pyrrhotite calc-silicate, dark grey-green. Almost no garnet. Foliation at 70-80^0.			
131.1	170.3	Silicified biotite gneiss with numerous short sections of pegmatite. First few metres have some garnet, diopside, and other elements that suggest calc-silicate, but this is likely a transitional zone, for below 140 it becomes all biotite gneiss. Some are coarse, suggesting partial segregation banding and some show well developed segregation banding. Local sections massive, black, with larger garnets. Variation in foliation, and amount of pegmatization is the big factor in this section.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-12
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
		Foliations: 130 -140 45°, locally parallel or contorted			
		142 -143 Parallel			
		143 -145 85°			
		145 -146.7 Biotitic pegmatite			
		146.7-153.1 Parallel, to low angles (10-15°)			
		153.1-170.3 Variable, but much is 40°. Short sections are parallel, or "roll-over" from 40° to parallel to 45° over spaces less than 1 metre.			
170.3	174.5	Pegmatite - typical coarse-grained cream white and grey. Massive and unfractured.			
174.5	176.6	Siliceous biotite gneiss. Fine-grained,grey, massive. Locally pegmatized. Short greenish altered sections. Foliation poorly displayed at 80°.			
176.6	185.5	Pegmatite - typical very coarse-grained grey and white. Minor local coarse biotite. No faulting.			
185.5	187.0	Siliceous calc-silicate. Light green, fine grains (diopside) with coarser green hornblende and white to grey interstitial quartz. Hard and massive. Foliation at 50-55°.			
187.0	200.1	Pegmatite, much like previous. Few scattered pink garnets. Nonfoliated.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-12	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 Sheet 7

METRES From	To	Description	Sample No.	Length	Analysis
200.1	210.1	Coarse biotite gneiss, black and white. Segregation banding not well developed. Quite contorted as usual for this type of rock. All angles from 90° to 45°. Minor interlayed fine-grained pegmatite. Grades to pegmatized and silicic by 207.0; appearing to slightly resemble orthogneiss then foliation holds fairly constant at 30°.			
210.1	213.3	Pegmatite, with a few inclusions of pegmatized biotite that run parallel to the core. Pegmatite is typical coarse cream and grey with minor biotite flakes.			
213.3	214.8	Orthogneiss - fine-grained grey, with fine biotite evenly distributed throughout. Foliation at start is parallel to core, then ends the section at 60°.			
214.8	232.8	Pegmatite - typical very coarse-grained white and grey. Contains a few short sections of orthogneiss (foliation 15°) and minor scattered coarse biotite flakes. Trace small pink garnets.			
232.8	236.2	Coarse biotite gneiss with intergrown section of pegmatite. Gneiss is medium-grained grey-black with some coppery coloured biotite flakes. No segregation banding. Foliation is not pronounced, but runs parallel to core at start, changing to 60° at the end. Has 10 cm of silicified calc-silicate at the start of this section.			
236.2	239.0	Pegmatite. Much like the previous, but no orthogneiss.			

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Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-12
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. 79-12 Sheet 8

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
239.0	139.6	Coarse biotite gneiss. Slightly silicified look. Medium-grained. Foliation moderate to well developed at 45°.			
		139.6 - END OF HOLE			
		Mineralized Zone - - May be explained by two possiblities: The wispy mineralization seen at 89.9 - 90.2 may actually be the zone - displaced westerly by the fault at 78 - 80. 89.75 - 90.16 0.41 m @ 0.02% Pb, 0.67% Zn.			

211-9437

Drill Hole Record

Scale

Colour Plot & Dips

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13		
Commenced	August 8, 1979	Location	Main Boulder Area	Tests at	68.9m(-44°), 133.0(-43°), 197(-44°), 223.8(-45°)	Hor. Comp.	168.5 m
Completed	August 11, 1979	Core Size	B.Q.	Corr. Dip	-44° overall	Vert. Comp.	162 m
Co-ordinates	12093.9IN, 9186.70E			True Brg.	224°	Logged by	MRM
Objective	To test for extension of Zn/Pb mineralization seen in surface showing.			% Recov.		Date	Aug. 10,11, 1979

Claim CK 3 | T Brg. 224° | Collar Dip -45° | Elev. 1037.85 m | Length 223.8 m | Hole No. 79-13 | Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis
0 -	19.5	Casing - overburden			
19.5 -	23.1	Limy calc-silicate - mottled to patchy dark green and white. Weak segregation of foliation at 45°. Cross-cut by a few limy stringers. Much is oxidized.			
23.1 -	25.8	Altered biotite gneiss - fine-grained speckled purple-grey and white, with no apparent foliation. Contains several chloritic fractures, and numerous cross-cutting white quartz wisps. Must have originally been a siliceous biotite gneiss.			
25.8 -	27.0	Limy calc-silicate - grade to altered siliceous biotite gneiss. Overall is dark green and white, mottled and patchy, with numerous chloritic breaks. First 20 cm is actually a diopside marble, with minor pink garnets. Foliation in the marble portion well displayed at 30°.			
27.0 -	31.2	Altered muscovite - biotite gneiss. Appears this was fine to medium-grained siliceous biotite gneiss that has been bleached to a tan-brown colour, and locally is coarser. Some broken zones, but no gouge (minor faulting?)			
31.2 -	32.3	Intrusive diorite (?) - white, grey and dark green speckled intrusive appearance. Fine to medium-grained, massive, no foliation. Has more conventional pegmatite over the central 20 cm.			
32.3 -	34.6	Mixed rock types - starts off as the altered biotite gneiss, then has 40 cm of typical pegmatite, followed by slightly limy calc-silicate that is coarse-grained white and dark green; foliation			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-13 | Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
32.3	34.6	Continued slight, suggested to be locally parallel to the core axis.			
34.6	37.3	Pegmatite and diorite(?), with a central 30 cm section of chloritic calc-silicates. Broken into short sections, but not a fault. No foliation.			
37.3	43.1	Mixed limy calc-silicate and altered biotite gneiss. Limy calc-silicate is white blobs with interstitial green chlorite-diopside. "Mixed up" appearance. Numerous cross-cutting stringers of calcite. Siliceous altered biotite gneiss is much as previous. Foliation is contorted. Nothing definite. 42.1 - 43.1 Mottled limy calc-silicate. Light green, white and minor orange garnet. Weak suggestion of foliation at 35^{0}.			
43.1	49.0	Pegmatite - typical coarse-grained, white-cream and light grey. Massive. Few patches of small disseminated pink garnet. Trace of pyrrhotite blebs.			
49.0	50.3	Altered siliceous biotite gneiss and limy calc-silicate. Much the same as previous. No distinct foliation can be seen, but locally a suggestion of 45^{0} is present.			
50.3	54.3	Pegmatite. Much like previous, but a short section contains coarse biotite and spotted intrusive.			

Drill Hole Record

Scale

Colour Plot & Dips

Property CK | District KAMLOOPS M.D. | Hole No. CK 79-13

Commenced | Location | Tests at | Hor. Comp.

Completed | Core Size | Corr. Dip | Vert. Comp.

Co-ordinates | | True Brg. | Logged by

Objective | | % Recov. | Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-13 | Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
54.3	64.1	Mainly slightly limy calc-silicate with local biotitic sections and minor amounts of altered siliceous biotite gneiss. Gradational and interbanded. Foliation moderately developed in the limy calc-silicate at 50°.			
64.1	77.1	Pegmatite. Much is medium to coarse-grained granular, with scattered mafics, but changes to the typical very coarse material at 72.0. Minor pink garnets scattered throughout.			
77.1	79.1	Altered silicified biotite gneiss, with a 30 cm pegmatite band. As previous, but a few short sections show actual black, unaltered biotite flakes. Overall "intensity" of alteration now seems to be dropping off. Foliation weakly developed at 35 to 55°.			
79.1	81.8	Pegmatite - typical coarse-grained. Massive. Few scattered garnets.			
81.8	86.4	Mixed limy calc-silicate, coarse muscovite - biotite gneiss, and minor marble, pegmatite. Thickness of each section varies from thin to thick. Alteration of bio-gneiss is only partially developed. Marble (82.2-82.6) is silica granular and rich in diopside, garnets. Gneiss has some segregation banding, becomes slightly crenulated toward the end. Foliation moderate to well developed at 40° overall, but slightly variable.			
86.4	87.7	Pegmatite - typical coarse-grained. Few scattered pink garnets.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-13 Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
87.7	93.7	Siliceous calc-silicate and coarse crenulated sligthly segregated biotite gneiss. Minor marble and limy calc-silicate. Thickness of beds varies, but the coarse muscovite biotite gneiss dominate over the last few metres. Foliation starts at 65°, ends at 40° and is fairly consistent in its changing.			
93.7	96.3	Pegmatite - typical coarse-grained grey and white.			
96.3	97.4	Variety of rock types - goes from altered biotite-muscovite gneiss through greenish microcline pegmatite, to siliceous calc-silicate. Foliation at 40°.			
97.4	103.4	Pegmatite - two variations. First is the finer grained speckled greyish variety to 99.0, then is the typical very coarse till 101.5, then speckled to the end.			
103.4	113.5	Limy calc-silicate, with minor marble, minor pegmatite and minor amounts of altered silicified biotite gneiss. Dominated by the limy calc-silicate which is usually fine-grained light green with variable amounts of coarser grained dark green hornblende and occasional patches of orange garnet. Often intergrown with the thin marble bands. Foliation best displayed in the calc-silicate at 30° to 35°. Has minor disseminated pyrrhotite in short silicified sections. Contains a few broken sections(111.6 - 112.0)			
113.5	120.3	Pegmatite - coarse-grained yellow-cream and white with an overall slight greenish tinge			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-13 | Sheet 5

METRES From	To	Description	Sample No.	Length	Analysis
113.5	120.3	Continued (microcline?) over the latter half. First half is quite broken and there is a possible fault at 115.0 - 115.5. Few garnets. Tr. disseminated pyrrhotite.			
120.3	123.6	Calc-silicate- grades from limy, through an "amphibolite" variety, through siliceous back into limy. All is medium green with local dark green hornblende coarser grains. Foliation slightly variable and undulatory, but would average 45°. Few short sections are parallel, possible minor overturning.			
123.6	129.9	Marble - most is white-grey with minor diopside grains, but it contains one section at 124.0 - 124.9 of limy calc-silicate. Foliation weak to moderate at 40°, with one short section at 25°. Has a 50 cm of speckled pegmatite toward the end.			
129.9	134.8	Pegmatite with a minor marble band. Pegmatite is usually the typical variety, but does contain a few short sections of the speckled variety. 133.3 - 133.8 Marble - typical white granular, with light green diopside. Foliation at 40° (?).			
134.8	139.4	Marble - most is typical white with minor semi-aligned diopside grains giving a weak foliation of 35-40°. 136.5 - 136.8 Hornblende rich - actually an amphibolite. Foliation only faint.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-13	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-13 | Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
139.4	151.3	Pegmatite - typical coarse variety. Locally broken. Contains a short section of marble and limy calc-silicate at 141.8 - 142.3 (foliation at 65°).			
151.3	154.3	Limy calc-silicate. Overall fine-grained white and light green, with local areas with coarser dark green hornblende, and locally gradational to marble. Foliation good at 45°.			
154.3	157.9	Pegmatite, with a 30 cm wide limy calc-silicate unit at 156.6 - 156.9. Pegmatite is typical.			
157.9	164.2	Limy calc-silicate with minor marble. Several variaties ranging from unstructured dark green and white to semi-mottled to banded dark green and light green (siliceous). Limy content quite variable. Foliation somewhat variable, but would average 40°.			
164.2	167.4	Marble - fine-grained white with minor diopside giving foliations at 45°, locally variable to 35°. Some patchy diopside as well.			
167.4	170.0	Mixed marble, pegmatite, limy calc-silicate, in sections 10-20 cm wide. Some streaky garnet in the calc-silicate. Foliation fairly constant at 50°. Trace pyrrhotite as irregular patches in pegmatite.			
170.0	171.3	Altered biotite gneiss - broken throughout. Grey brown-grungy looking. Likely was sil. biotite gneiss. Fault gouge at 169.6. No foliation.			

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-13	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-13 | Sheet 7

METRES From	To	Description	Sample No.	Length	Analysis
171.3	172.6	Limy calc-silicate, with a central section of silicified calc-silicate. Overall fine-grained and light green. Last ½ cm is white-marble-like. Foliation at 25-30°.			
172.6	174.2	Pegmatite - coarse, rounded grains with altered biotite interstitially surrounding the gneiss. Biotite contains minor flecks of pyrrhotite.			
174.2	180.0	Altered muscovite biotite gneiss with short sections of pegmatite and occasional minor short calc-silicate band. Fault contact with the overlying pegmatite. Much of this section is unstructured, bleached and broken. Towards the end, some segregation banding is present suggesting first a 45° foliation, then about 8 m parallel to core foliation.			
180.0	181.5	Limy calc-silicate changing to altered biotite gneiss. Calc-silicate is white, broken, fractured and unstructured. The altered siliceous biotite gneiss is also fractured, but shows no foliation.			
181.5	182.2	Altered pegmatite and white marble. First half is yellowish green soft pegmatite. The white marble is massive, containing very little green diopside. Foliation at 50°.			
182.2	183.0	Amphibolite - dark green to black with interstitial grey plag. Very fine-grained. Cut by numerous white calcite stringers. Foliation not pronounced, but present at 25°.			
183.0	184.5	White marble - very white massive marble. Few (very few) minute specks pyrrhotite. A few grains			

Drill Hole Record

Scale

Colour Plot & Dips

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-13 Sheet 8

METRES From	To	Description	Sample No.	Length	Analysis
183.0	184.5	Continued of diopside suggest foliation at 35°.			
184.5	185.7	Limy calc-silicate. Looks almost like a mafic rich pegmatite. White-grey granular with interstitial diopside and chlorite. No foliation visible.			
185.7	187.2	Amphibolite - identical to 182.2 - 183.0. Foliation at 50°.			
187.2	191.3	Limy calc-silicate and marble - calc-silicate is banded white and grey-green, fine-grained. Minor local silicification, minor hornblende, marble (187.8 - 188.5) typical. Foliation varies from 40-50°.			
191.3	192.3	Fault Zone - limy calc-silicate or marble completely smashed and mudded to fault gouge.			
192.3	193.1	Pegmatite - typical coarse-grained white and grey. Trace pyrrhotite.			
193.1	196.9	Limy calc-silicate with minor, marble, amphibolite, pegmatite and a short section of biotite gneiss. Limy calc-silicate dominates. Foliation at 45°.			
196.9	199.9	Marble - typical granular, white with minor diopside. Not as clean looking as previous. Has trace amounts of minute graphite, flecks disseminated. Foliation weak at 35°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-13
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK 79-13 | Sheet 9

METRES From	To	Description	Sample No.	Length	Analysis
199.9	210.5	Marble - typical, but completely broken and shattered. No intense fault gouge evident, but broken zones suggest faulting in several locations throughout this section.			
210.5	223.8	"Brown dyke" - a biotite-hornblende (diopside) brown-black type. Does not resemble anything seen higher in section. This is fine-grained, variable in colour from brown to black (usually brown). Massive, hard, resistent. Looks identical to the last rock encountered in CK 78-16 (East Side Anomaly). No foliation pronounced but some suggested at 45°.			
		END OF HOLE - 223.8 - No mineralized intersection.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-14		
Commenced	August 12, 1979	Location	New Showing - North	Tests at	142m(-59°), 169.6m(-55°)	Hor. Comp.	84.0 m
Completed	August 20, 1979	Core Size	B.Q.	Corr. Dip		Vert. Comp.	148.0 m
Co-ordinates	11723.39N, 9974.85E			True Brg.	236°	Logged by	MRM
Objective	To attempt a deep intersection of the mineralized zone beneath a relatively poor intersection (CK 78-8)			% Recov.		Date	Aug. 18,21, 1979

Claim CK 48 | T Brg. 236° | Collar Dip -62° | Elev. 9974.85 m | Length 169.6 m | Hole No. CK79-14 | Sheet 1

Footage METRES From	To	Description	Sample No.	Length	Analysis
0 -	29.6	Casing - overburden			
29.6 -	41.0	Coarse biotite gneiss and minor typical pegmatite. Overall coarse to very coarse-grained, with local finer-grained sections. Segregation banding moderately to well developed. Has short sections with very coarse contorted muscovite with coarse pink garnet. Foliation overall at 45°, but contortions and crenulations common in coarser material. Note - trouble with core tube - didn't lock at 34.8 - lost 1 m of core.			
41.0 -	43.8	Graphitic altered siliceous biotite gneiss. Muddy green-grey and tan, variable grain size - some fine-grained, some coarse muscovite. Graphite 1-2% & disseminated in finer grained material. Foliation weakly developed at 50-60°.			
43.8 -	49.3	Muscovite pegmatite with local orthogneiss overtones. Slight greenish colour. Fractured and oxidized (surface work). Around 48.5 is actually a medium-grained pegmatized green biotite gneiss for 0.5 m.			
49.3 -	50.7	Mixed coarse biotite gneiss and silicified biotite gneiss with very minor pegmatite. Overall fresh looking, but locally greenish colouration. Muscovite pronounced. Foliation at 60°, but somewhat variable.			
50.7 -	55.8	Pegmatite - muscovite and garnet with a coarse-grained grey, white, light green, with silver white muscovite throughout.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-14
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-14 | Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
55.8	72.8	Coarse biotite gneiss, with a few short silicified biotite gneiss sections. Muscovite and garnet scattered irregularly through the coarse material. Local narrow (10-30 cm) greenish altered sections randomly distributed. Graphite (2-3%) as fine disseminated grains in the fine-grained siliceous biotite gneiss. Foliation averages 55°, but is as low as 45°. Contortions in the coarse material.			
72.8	93.3	Altered and sheared biotite gneiss. Was mainly coarse-grained biotite gneiss with short siliceous sections, but now is completely broken, altered and sheared. Now is mainly a greenish-tan colour, broken and often healed by pyrite - calcite stringers over the first few metres. Contains a few sections of massive graphite with rolled pebbles. Likely fault-slip surfaces - brecciated zones (i.e. 72.9, 74.8). Also has a few coarse pegmatite sections. Few thin sections have coarse garnet. Crenulation folding is common. All foliations.			
93.3	96.3	Pegmatite - typical coarse-grained, white, grey, cream. Poor recovery - only 1.5 metres of core. Still in fault zone.			
96.3	99.4	Altered siliceous biotite gneiss. Only 0.5 m of core recovered. Tube did not lock and/or in fault blocky material. Gneiss is grey-brown and white. Speckled, with no distinct foliation. Broken.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-14	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-14 Sheet 3

METRES From	To	Description	Sample No.	Length m	Analysis Pb		Zn			
99.4	133.5	Pegmatite - typical, coarse-grained white and grey, with a yellowish tinge. Broken until 115, but fault likely ends at about 102. Until then is broken, poor recovery, shattered, small chunks. After 115 is excellent recovery - long massive pieces of typical pegmatite.								
133.5	134.5	Limy calc-silicate, with thin sections grading to marble. Very garnetiferous as large irregular patches of orange (to brownish) mixed with light green granular diopside. Foliation suggested at 50^{0}.								
134.5	135.6	Siliceous biotite gneiss locally gradational to segregated coarse biotite gneiss. Overall is dark grey to speckled black and white. Massive. Foliation well displayed at 60^{0}.								
135.6	137.7	Pegmatite. Typical medium to coarse-grained. Local "lithographic" textures. Trace pyrite on a few fracture surfaces.								
137.7	138.3	Pyrrhotitic siliceous (partially pegmatized?) biotite gneiss. Overall grey quartz with altered grey-brown to red biotite flakes. Pyrrhotite evenly disseminated (2-3%) throughout as minute grains.								
		Sample 137.7 - 138.3	65108	0.6	<.001		0.02			
138.3	142.8	Mineralized Zone - a few bands of high grade in pegmatite, and a narrow zone of disseminated PbZn with flourite.								

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Drill Hole Record

Scale

Colour Plot & Dips

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-14	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-14 | Sheet 4

METRES From	To	Description	Sample No.	Length m	Analysis Pb	Zn
138.3	142.8	Continued				
		138.3 - 138.8 Two 15 and 10 cm wide bands of coarse black sphalerite mixed with pyrrhotite and greenish quartz-plagioclase. Foliation (contacts) at 55°.				
		Sample 138.3 - 138.8 original rock type?-possibly siliceous-biotite-gneiss	65109	0.5	2.45	11.2
		138.8 - 139.6 Siliceous calc-silicate. Locally more like fine-grained pegmatite. Has disseminated pyrrhotite throughout (3-4%) and a few 5 cm wide bands of disseminated galena with minor sphalerite and trace fluorite. Last 20 cm is pegmatite.				
		Sample 138.8 - 139.6	65110	0.8	1.33	0.38
		139.6 - 139.9 Massive h.g. coarse black ZnS with pyrrhotite and quartz much as previous. Trace of a few specks of chalcopyrite near the contacts. Contacts (= foliation?) at 50°				
		Sample 139.6 - 139.9	65111	0.3	4.22	22.7
		139.9 - 141.2 Pegmatite - grades from fine-grained white to coarse-grained biotitic.				
		Sample 139.9 - 141.2	65112	1.3	0.01	0.01
		141.2 - 142.1 Pegmatized biotite gneiss. Basically a white siliceous rock peppered throughout with reddish fine-grained biotite (phlogopite) and may be the "laminated quartz" unit seen in the Main Boulder area, and in some drill holes. Trace disseminated pyrrhotite.				
		Sample 141.2 - 142.1	65113	0.9	0.02	0.12
		142.1 - 142.8 Siliceous calc-silicate with three = 10 cm wide zones of disseminated galena and reddish-black sphalerite with clear fluorite. Much like that seen in CK 79-3. Country rock is mottled white and light green, with minor light orange garnet.				
		Sample 142.1 - 142.8	65114	0.7	3.40	1.04

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-14
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-14 Sheet 5

~~Footage~~ METRES From	To	Description	Sample No.	Length m	Analysis Pb		Zn			
142.8	144.3	White marble - granular, white with only a few streaks and specks of greenish diopside and several flakes of phlogopite. Minor disseminated specks of black sphalerite over 10 cm centrally.								
		Sample 142.8 -144.3	65115	1.5	0.06		0.22			
144.3	146.1	Mottled siliceous calc-silicate - mainly light green granular diopside, soaked in clear grey quartz and containing patchy orange garnet. The garnet has a weird development of white spicules throughout, up to 1 cm long and forming up to 50% of the garnet mass. This type of "weird rock" was seen on occasion in the 1978 drilling.								
146.1	147.8	White marble - coarse-grained granular to crystalline. Transluscent. Diopside not present except for a few 2 cm wide patches. Foliation almost non-existent, but suggested at 70^{0}.								
147.8	149.0	Mixed rock types - 25 cm pegmatized siliceous biotite gneiss, 50 cm greenish granular marble, 40 cm mottled green and orange very siliceous calc-silicate. Foliation at 60^{0}.								
149.0	163.5	Coarse biotite gneiss and minor pegmatite. Black and white. Moderate to good segregation banding. Pegmatite is typical and occurs either as thin bands within the gneiss or occasionally as short runs. (i.e. 158.7 - 160.0, 152.5 - 152.7). Often the core becomes fine-grained, silicified to be a siliceous biotite gneiss with garnets, but the coarse-grained predominates.								

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-14	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-14 | Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
149.0	163.5	Continued			
		Few short patches are green and show calc-silicate tendencies. Coarse hornblende-biotite-garnet amphibolite(?) at 156.6.			
		Foliation variable at first in the coarse biotite gneiss; then constant at 70° through the rest of the section.			
163.5	164.4	Pyrrhotitic-garnetiferous-siliceous calc-silicate to siliceous biotite gneiss. First 30 cm is the black - garnetiferous material seen in many other drill holes; the pyrrhotite is disseminated and semi-massive. Rest of the core is transitional - mainly dark grey quartz with green and black "bands".			
		Foliation good at 65°.			
164.4	168.8	Very siliceous biotite gneiss. Very similar to previous, but calc-silicate elements are only shown in a few 5-10 cm wide bands. The rest is almost a laminated looking fine-grained grey mass, with fine biotite flakes. Pyrrhotite is disseminated at 1% throughout, and built up to 15% over the last 20 cm.			
		Foliation well developed and consistent at 55°.			
168.8	169.6	Amphibolite - dark green and minor white medium-grained amphibolite. Well foliated to almost laminated look. Foliation well developed at 50°.			
		End of Hole - 169.6 Note: Fault Zone encompasses several rock sections from 72.0-106.0.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-14	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-14 | Sheet 7

Footage From	Footage To	Description	Sample No.	Length	Analysis
		Mineralized Zone: Actually two - (a) a "high grade" zone of a few intersections from 138.3 to 139.9.			
		(b) a disseminated zone from 142.1 to 142.8.			
		138.3 - 142.8 1.5m @ 2.37% Pb, 8.48% Zn			

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Scale -

Colour Plot & Dips

Drill Hole Record

Comaco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-15		
Commenced	August 22, 1979	Location	Mist Showing	Tests at	99.4 m (-57°)	Hor. Comp.	51.5 m
Completed	August 25, 1979	Core Size	B.Q.	Corr. Dip	-58.5°	Vert. Comp.	85.0 m
Co-ordinates	21+69N, 19+68E in relation to line 22+00N.			True Brg.	290°	Logged by	MRM
Objective	To test for possible down-dip and northerly extensions of the Mist Showing, as outlined by I.P.			% Recov.		Date	August 25, 1979

Claim	T Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
ULO 4	290°	-60°	1521 m	99.4 m	CK79-15	1

METRES From	To	Description	Sample No.	Length	Analysis
0	3.4	Casing - overburden.			
3.4	6.4	Siliceous biotite gneiss with local minor coarse segregated biotite gneiss. Typical dark grey to black, fine-grained. Trace graphite over the first few cm. Trace pyrite in a few hairline fractures. Fairly massive, best foliation present in coarser material at 60°.			
6.4	11.7	Pegmatite - gradational contact with overlying unit. Coarse-grained. Has the odd patch of coarser muscovite, few scattered garnets.			
11.7	12.2	Coarse biotite gneiss. Very coarse, contorted foliation. Contains silvery muscovite as well.			
12.2	13.5	Marble - transitional from limy calc-silicate. Contains scattered diopside and coarse orange garnet. Short sections of true limy calc-silicate and a 10 cm band of pegmatite start this section. Foliation 50-55°.			
13.5	16.8	Pegmatite - no mafics, typical coarse grained. Has a central 20 cm section of mottled siliceous calc-silicate.			
16.8	19.4	Mixed siliceous calc-silicate and coarse biotite gneiss. Biotite gneiss at start, changing to the calc-silicates. Minor chloritization of the biotite locally. Foliation variable to low angles at the biotite-gneiss, at 60° in the banded green and white calc-silicate.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District Kamloops M.D.	Hole No. CK 79-15	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-15 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
19.4	21.3	Pegmatite. Greenish overall cast. Many of the grains are rounded giving the core a mylonitic appearance.			
21.3	23.2	Amphibolite, with coarse sericite-muscovite sections at the start and end. Amphibolite is dark green to black and shot through with muscovite flakes. Overall mottled appearance. Contains a few short "altered feldspar" sections (massive, overall green) within the intensely sheared sericite sections. Sericite sections are 21.3-22, and 23.0-23.2. Foliation possibly at 65°.			
23.2	25.6	Pegmatite - medium-grained cream and grey with a light green overall washed out tinge throughout. Locally has the mylonitic textures.			
25.6	26.1	Altered coarse biotite gneiss. Grey-brown bleached colour. Some original segregation banding. Foliation at 75°.			
261.	30.1	Pegmatite - typical coarse grey and white, with ill-defined crystal boundries.			
30.1	34.6	Mixed siliceous biotite gneiss and siliceous calc-silicate. Variable thicknesses. Biotite gneiss is typical grey with black biotite, medium-grained, with local segregation banding. Calc-silicate is slightly limy and has calcite filled hairline fractures. Foliation at 65° overall.			
34.6	35.3	Pegmatite. Broken and ground-up (not by fault, but by drill). Ends in 5 cm of garnet and diopside.			

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Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District Kamloops M.D.	Hole No. CK 79-15	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-15 | Sheet 3

METRES From	To	Description	Sample No.	Length m	Analysis Pb		Zn			
35.3	36.0	Dirty white marble, siliceous, with scattering of light green diopside grains. Central 5 cm of siliceous calc-silicate. Foliation moderately developed at 65°.								
36.0	41.8	Mixed. Mainly altered biotite gneiss interbanded with siliceous calc-silicate. Minor pegmatite, and a 10 cm band of marble. Gradational in and out of the various rock types, and is often difficult to tag an exact name on any given section. Foliation fairly constant at 70°. Has a long, parallel to core calcite-pyrite filled fracture at 41.5-41.8.								
41.8	42.9	Pegmatite. Typical coarse. Speckled by disseminated minute garnet at 42.2								
42.9	45.7	A mixture of coarse biotite gneiss and siliceous biotite gneiss, very locally grading to siliceous calc-silicate. Entire section looks altered - dark, soft. Poorly developed segregation banding-locally looks like an augen texture. * Mineralized Zone: 43.9 - 44.05 Three thin bands of fine-grained brown ZnS in a light green and grey siliceous calc-silicate. Bands are irregular and not sharp. Each is only about 1-2 cm wide. Sample 43.9 - 44.05	65116	0.15	0.23		3.93			
45.7	53.3	Mixed siliceous calc-silicate, pegmatite, with minor siliceous biotite gneiss. Calc-silicate is light green, diopside . White quartz with minor garnet, and a few grains of dark green hornblende. Pyrrhotite present in trace amounts as small blebs. The siliceous biotite gneiss								

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District Kamloops M.D.	Hole No. CK 79-15	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-15 Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
45.7	53.3	Continued sections contain 2-3% graphite, but this forms only a short part of this section (50 cm). 50.7-52.2 - pegmatite. Foliation at 70°.			
53.3	54.6	Garnet hornblende amphibolite - could be classified as a hornblende rich siliceous calc-silicate. Garnet as patches and smears. Medium-grained, dark green, light green, etc. Pyrrhotite as streaks, smears and blebs throughout, especially with the more garnetiferous central section. Foliation varies from 60° at the start, through 25° to 45°.			
54.6	60.3	Graphitic siliceous biotite gneiss. Core is massive, grey and dark grey; well foliated but not broken. Fine-grained, with evenly distributed minute flakes of graphite throughout at 5-10%(?) perhaps less. This may explain the I.P. anomaly. Contains a 20 cm wide section composed only of very coarse biotite. Foliation at constant 65°.			
60.3	66.1	Pegmatite - medium to coarse-grained, ill-defined, fuzzy boundaries. Minor blebs of green chlorite, often with specks of pyrrhotite.			
66.1	69.9	Siliceous calc-silicate and pegmatite with local massive pyrrhotite. Overall light green, fine-grained, but has disseminated, patchy to massive coarse dark green hornblende so often it is gradational to amphibolite.			

211-9437

Drill Hole Record

Scale

Colour Plot & Dips

Property CK	District Kamloops M.D.	Hole No. CK 79-15	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-15 Sheet 5

METRES From	To	Description	Sample No.	Length	Analysis
66.1	69.9	Continued			
		Healed fault zone from 67.1 - 68.2. Brecciated and healed with calcite, quartz and pyrrhotite.			
		Angle of fault? - could be 25-30°.			
		Foliation - fairly constant at 80-85°.			
69.9	72.0	Pegmatized siliceous calc-silicate changing to white pegmatite. Calc-silicate is grey green			
		and has scattered rounded white fd. grains throughout, sometimes has grey quartz streaks and			
		occasional pyrrhotite blebs.			
		Foliation at 60°.			
72.0	76.8	Siliceous calc-silicate with hornblende rich siliceous calc-silicate and minor sections of			
		siliceous biotite gneiss. Much like the previous (66.1-69.9) section. Rock types are inter-			
		gradational, vary in length from a few cm to tens of cm. Foliation averages 70°, but varies			
		from 60 to 80°.			
76.8	82.2	Pegmatite - typical coarse cream-white to light grey. Fairly massive and unbroken.			
82.2	99.4	Siliceous calc-silicate gradational locally to hornblende rich siliceous calc-silicate, with			
		minor short sections of siliceous biotite gneiss. Looks much like rocks higher in the hole,			
		but bleaching alteration of the biotite is quite prevalent throughout, but no faults are			
		present. Pegmatite often fades in and out, especially in the biotite gneiss giving a			
		pegmatized appearance. Some parallel, calcite filled fractures at 95.0-96.0, and 99.0.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-15
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-15 | Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
82.2	99.4	Continued			
		Foliation slightly variable, but much at 70-75°.			
		End of hole - 99.4 m.			
		Mineralized Zone - represented by a few narrow bands of fine-grained ZnS over 15 cm			
		at 43.9 - 44.05.			
		0.15 m @ 0.23% Pb, 3.93% Zn.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 79-16
Commenced	August 25, 1979	Location	Mist Showing	Tests at	52.7m(-60°), 96.3m(-60°), 117.1m(-69°)
Completed	August 28, 1979	Core Size	B.Q.	Corr. Dip	-60°
Co-ordinates	20+15N, 19+92E in relation to line 20+00N			True Brg.	260°
Objective	To test for down-dip ZnS, PbS mineralization near a surface showing, and beneath an I.P. anomaly.			% Recov.	

Hor. Comp. 58.6 m

Vert. Comp. 101.4 m

Logged by MRM

Date August 28, 1979

Claim ULO 4 | T Brg. 260° | Collar Dip -60° | Elev. 1523.5 m | Length 117.1 m | Hole No. CK79-16 | Sheet 1

Footage METRES From	To	Description	Sample No.	Length	Analysis
0 -	15.4	Casing - overburden.			
15.4 -	18.9	Dark biotite dyke. Dark grey to black, fine-grained to medium-grained. Massive and structureless. Resembles exactly that found at the bottom of holes CK 78-16, CK 79-13. Cut by a few random white calcite stringers. Small fault at 17.1.			
18.9 -	22.4	Siliceous calc-silicate, with short sections slightly limy. First 50 cm actually a coarse-grained, segregated black and white biotite gneiss. Most of the calc-silicate is mottled light green, grey, orange, with local coarser green and, where limy, white. 21.2 - 21.9 Broken fault zone with good chlorite development, pink and orange garnet, some hornblende, etc. Limy section after the fault is contorted. Foliation at 55-60°.			
22.4 -	48.0	Coarse muscovite - biotite gneiss with short sections of muscovite with pegmatite. Most of the gneiss is very coarse-grained and often the muscovite content matches the biotite. Grades in and out of pegmatite, which often has a greenish colouration due to muscovite-sericite, or plagioclase alteration. Garnets in local disseminated patches in the gneiss. No great contortions - foliation at a fairly constant 60°. Cut by numerous fault zones throughout, spaced at 2 m to 10 m intervals. Alteration of biotite to chloritic material becomes common after 36.5 to give an overall grey-green colour locally. Some of the more intense faults are at the start of this section, and at 44.5, 46.0, 47.5.			

211-9437

Drill Hole Record

Scale

Colour Plot & Dips

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-16	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-16 | Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
48.0	50.4	Pegmatite - most is broken and fractured. Locally muscovite rich. Rounded, fuzzy grains. Thin, scattered sections of coarse biotite gneiss. Minor scattered pink garnets.			
50.4	53.7	Altered siliceous biotite gneiss. Fine-grained, dark grey to black. Relatively massive, but foliation suggested at 65-70°. Sericitic on fracture surfaces. Minor pegmatite in more intensely altered zones.			
53.7	55.8	Pegmatite - altered muscovite rich, soft. Much of the plagioclase has been kaolinized(?) to creamy-white spots. Otherwise core has a light green-grey colouration. Contains a few faults i.e. 54, 55.3, 55.7.			
55.8	69.7	Mixed altered and non-altered coarse biotite gneiss, with a few 1 m sections of muscovite - pegmatite. Colour overall is black and white with silver. Odd greenish section, and a few white-spotted sections (kaolinization of fd.). No pronounced segregated sections, but foliation is well developed 85° overall.			
69.7	74.4	Pegmatite - cream-green and grey with blurred contacts between the medium-grained grains. Contains a few mafic grains - chloritized biotite, and minor pink garnet. No muscovite apparently present.			
74.4	77.8	Limy calc-silicate and minor fine-grained siliceous biotite gneiss, with relatively minor siliceous calc-silicates. First metre is mainly medium-grained black and white silicate.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-16	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-16 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
74.4	77.8	Continued Biotite gneiss, changes abruptly to a green and white semi-banded slightly limy calc-silicate then to a limy white, light green, with orange garnet streaks (almost marble), then to a fine-grained light and dark green silicate calc-silicate. Foliation: ends of section - 60°, centrally - 45°.			
77.8	79.0	Amphibolite - dark green, medium-fine-grained. Massive, speckled. Cut by a few parallel to foliation quartz bands and cross-cut by a few wispy white calcite wisps. Foliation - 65°.			
79.0	80.8	Very coarse muscovite - biotite gneiss. Black-white, silver-green. Locally altered - sericite. Likely was well segregation - banded, but now has kaolinization of the plagioclase to give small white cream soft spots throughout. Foliation fairly constant at 65°.			
80.8	85.4	Mixed siliceous calc-silicate, siliceous biotite gneiss with thin bands of marble, with occasional pegmatite. Calc-silicate is actually transitional to altered siliceous biotite gneiss, and somewhat interbanded with each other. Pegmatite seems to be melting its way through in several locations. Marble appears as a few thin bands (5 cm wide) with diopside and (at 84.4) with coarse green hornblende. Foliations are at 60° overall.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-16
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-16 Sheet 4

METRES From	To	Description	Sample No.	Length	Analysis
85.4	97.3	Fault zone overall. Quite broken and sheared with much alteration (kaolinization and sericitization) Much soft fault gouge is wasted away. In addition, the core tube did not lock twice, so 7 metres of core is lost. Consists of several rock units.			
		85.4 - 91.6 Altered biotite gneiss, with muscovite - greenish colour. Represented by only 2.5 metres of core - all broken and ground up.			
		91.6 - 91.7 Dark green amphibolite			
		91.7 - 91.9 Coarse muscovite - biotite gneiss.			
		91.9 - 97.3 Completely altered soft kaolinized rock. Difficult to ascertain original rock type but many have been either the orthogneiss or a siliceous biotite gneiss. Now is a white and grey speckled rock that is very soft; few gouge zones. Foliation moderate at end of section at 65°.			
97.3	99.7	Pegmatite - medium to coarse-grained. Soft cream-white and grey. Minor muscovite and trace chloritic grains.			
99.7	100.1	Limy calc-silicate, very limy, mottled light green, dark green and white with orange smears. Semi-banded, but no foliation.			
100.1	101.8	Altered biotite gneiss. Greyish-brown, black and white, with minor pegmatite. Broken into "silver dollars" along foliation planes at 75°.			

211-8437

Scale

Colour Plot & Dip

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-16	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-16 | Sheet 5

METRES From	To	Description	Sample No.	Length m	Analysis Pb	Zn
101.8	104.7	Altered limy calc-silicate. Light green, fine-grained throughout, but locally modified by build-ups of coarser dark green hornblende and minor calcite-filled fractures.				
		101.8 - 102.4 Fault zone partially healed by calcite and chlorite. Has contorted muscovite flakes.				
		*103.9 - 104.3 Minor stock work of thin calcite stringers (wispy) many of which show hairline outer edges of brownish fine-grained sphalerite, or is possibly hematite. Not significant enough to assay.				
		Foliation - suggested at 75^{0}.				
104.7	105.9	Pegmatite - both coarse and fine-grained. Scattered chlorite (altered biotite).				
105.9	110.5	Slightly limy calc-silicate with minor pegmatite and several thin fault zones. Contains the mineralized horizon.				
		Most is light green, fine-grained with local spotted disseminated dark green hornblende. Local micaceous zones (gneiss) are altered to silvery muscovite. Contains a few narrow zones that are "almost" marble.				
		Mineralized Zone - 110.2 - 110.5 Several thin and disseminated bands of brownish fine-grained sphalerite with a scattering of coarser black grains in a matrix of first a siliceous (altered) biotite gneiss, then a limy garnetiferous calc-silicate. The first few cm has disseminated galena with ZnS in a white quartz rock. Has a light yellow mineral locally as stringers.				
		Sample 110.2 - 110.5.	65118	0.3	0.27	8.96

211-9437

Scale

Colour Plot & Dips

0

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-16	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-16 Sheet 6

METRES From	To	Description	Sample No.	Length	Analysis
110.5	112.9	Pegmatite - white, grey, fine-grained, with small pink garnets disseminated evenly throughout.			
112.9	114.8	Marble - light green, fine, slightly diopside coloured till 113.9, then is the pure, white, clean, fine-grained marble until 114.8.			
114.8	117.1	Mixed Zone - goes from pegmatite (40 cm) to marble (20 cm) to limy calc-silicate (30 cm) to pegmatite (50 cm) to coarse biotite gneiss (60 cm) to pegmatite (30 cm).			
		End of Hole - 117.1			
		Mineralized Zone 110.2 - 110.5 several thin irregular bands over 30 cm.			
		@ 0.27% Pb, 8.96% Zn.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK79-17		
Commenced	August 28, 1979	Location	Mist Showing	Tests at	-	Hor. Comp.	19.2 m
Completed	August 29, 1979	Core Size	B.Q.	Corr. Dip	-60°	Vert. Comp.	33.3 m
Co-ordinates	22+64N, 19+82E in relation to line 23+00N.			True Brg.	292°	Logged by	MRM
Objective	To test for northerly extension of the Mist Showing beneath an I.P. anomaly			% Recov.		Date	August 29, 1979

Claim NORTH 46 | T Brg. 292° | Collar Dip -60° | Elev. 1522.3 m | Length 38.4 m | Hole No CK79-17 | Sheet 1

METRES From	To	Description	Sample No.	Length	Analysis					
0	4.1	Casing - overburden								
4.1	4.8	Pegmatized siliceous calc-silicate or siliceous biotite gneiss. Fine to medium-grained grey-brown and grey. Spotted to slightly foliated appearance (60°). Central section is brecciated and healed, with greenish stringers and wisps of calcite and some of galena - mainly as stringers along the foliation, but has right angle cross fractures of galena as well. Sample 4.3 - 4.6	65119	0.3	1.68		0.15			
4.8	5.3	Mixed limy calc-silicate and diopside marble. Overall mottled to blocky texture. Possibility of a small fault at 4.9. No sulphides present.								
5.3	5.9	Hornblende - biotite dyke, black, fine-grained, massive - as seen in the bottom of CK 78-16, CK 79-13, and the top of CK 79-16. Broken into small pieces. Some green talc(?) on a few fracture surfaces.								
5.9	9.1	Silicified biotite gneiss with pegmatite and containing two short zones of limy calc-silicates. * Mineralized Zone (4 cm ZnS) enclosed in the first calc-silicate. 5.9 - 6.9 Fine-grained silicified biotite gneiss. 6.9 - 7.5 Coarse pegmatite 7.5 - 8.1 Mottled to slightly banded limy calc-silicate. Splotchy green, light green and orange with sugary white portions.								

211-8437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-17	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-17 | Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
5.9	9.1	Continued			
		*8.0 - 8.1 Mineralized Zone - thin band and disseminations of fine-grained brown sphalerite with fine disseminated pyrrhotite at the top of a biotite gneiss.			
		Sample 8.0 - 8.1 Foliation at 60°.	65120	0.1	0.32 2.82
		8.1 - 8.9 Medium-grained siliceous biotite gneiss with minor pegmatite.			
		8.9 - 8.1 Mottled limy calc-silicate.			
9.1	16.0	White marble - massive, has siliceous portions. Medium granular. Has a few portions with brownish mica, and a few green diopside grains, but most is very clean, white, medium-grained. Foliation suggested at 65°.			
16.0	29.0	Coarse-grained muscovite biotite gneiss. Black and white with silver. Medium to coarse-grained. Segregation banding moderate throughout. Pegmatite present only as a very few 10 cm wide bands within the gneiss. Locally quite contacted, but overall foliation would average 55°.			
29.0	29.5	Marble - white, medium-grained, but speckled with large diopside grains. No foliation.			
29.5	31.1	Pegmatite - typical coarse-grained white and cream, but much is ground-up. Core recovery is very poor.			
31.1	33.1	Limy calc-silicate. Massive, fine-grained, light green diopside rich grading to dark green hornblende rich calc-silicate. Massive - no foliation.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-17	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-17 | Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
33.1	37.0	Pegmatite - massive coarse-grained white and grey with an overall light yellowish tinge. Minute pink garnets scattered randomly throughout. No mafics.			
37.0	38.4	Altered siliceous biotite gneiss. Light grey throughout, with a few black unaltered biotite grains. Fairly massive, but foliation is suggested at 55^{0}. Has trace (to 1%) very fine pyrrhotite over the first ½ m. Second half is spotted and greenish resembling a pegmatized calc-silicate. No faulting apparent.			
		End of hole - 38.4 m			
		Mineralized section - at start of hole			
		4.3 - 4.6 vein-like galena 0.3 m @ 1.68% Pb, 0.15% Zn.			
		8.0 - 8.1 narrow sphalerite band, with disseminations 0.1 m @ 0.32% Pb, 2.82% Zn.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	Kamloops M.D.	Hole No.	CK 78-18 24.7m(-58°), 72.9m(-56°)		
Commenced	August 29, 1979	Location	Mist Showing	Tests at	97.9m (-58°)	Hor. Comp.	53 m
Completed	August 31, 1979	Core Size	B.Q.	Corr. Dip	-57.5° overall	Vert. Comp.	83 m
Co-ordinates	22+32N, 20+52E in relation to line 23+00N			True Brg.	290°	Logged by	MRM
Objective	To test for down-dip Zn, Pb mineralization north of the Mist Showing.			% Recov.		Date	September 1, 1979

Claim	North 46
T Brg.	290°
Collar Dip	-60°
Elev.	1531.7
Length	97.9 m
Hole No.	CK79-18
Sheet	1

METRES From	To	Description	Sample No.	Length	Analysis
0	4.6	Casing - overburden			
4.6	5.4	Altered siliceous biotite gneiss. Now is a tan green and grey colour, soft. Last 15 cm is a coarse hornblende diopside quartz rock (siliceous calc-silicate?). Rusty on fracture surfaces.			
5.4	25.3	Pegmatite. Somewhat variable in colour and texture from coarse greyish typical to finer-grained somewhat greenish colour. Scattered inclusions of altered biotite gneiss. Minor scattered fine pink garnets. Local rusty zones (surface leaching). Locally quite broken - possibly a few fault zones (i.e. 24.0).			
25.3	34.0	Mixed altered biotite gneisses and chert sections of muscovite pegmatite.			
		25.3 - 27.4 Graphitic fine-grained, dark grey biotite gneiss with a short sheared zone containing almost massive graphite over a few cm (26.0).			
		27.4 - 27.5 Marble - white with large patches diopside and hornblende			
		27.5 - 29.6 Pegmatite, with chloritic gneiss, but 1.2 m core missing between 27.5 and 29.0.			
		29.6 - 30.5 Altered coarse (?) biotite gneiss with garnets.			
		30.5 - 31.2 Non -altered coarse garnet biotite gneiss.			
		31.2 - 32.5 Grey garnet-muscovite pegmatite			
		32.5 - 34.0 Very coarse-grained altered garnetiferous biotite gneiss.			
		Foliation at 60°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-18	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-18 Sheet 2

METRES From	To	Description	Sample No.	Length	Analysis
34.0	39.0	Faulted Pegmatite - White to light chalky white, locally greenish. Very broken and partially kaolinized over the first half. Trace pyrite, no garnets.			
39.0	43.3	Very altered coarse biotite gneiss - karki green and grey. Local muscovite development. Surprisingly competent. Contains a central band of coarse dark green amphibolite about 15 cm wide. Foliation well preserved at 80^0.			
43.3	45.1	Pegmatite - dirty grey-green to cream colour, with abundant kaolinization of plagioclase. Broken in several locations but does not look like a fault zone.			
45.1	48.8	Altered and sheared chloritic siliceous biotite gneiss. Fault zone at 45.6. Rest is yellow-cream to ochre coloured, mixed with pegmatite; locally broken and healed. Minor muscovite development. Foliation, where apparent, is at 80^0.			
48.8	50.3	No core - tube did not lock.			
50.3	51.3	Limy calc-silicate - broken and shattered. Starts off quite limy, with semi-banded garnet and visible white calcite, then goes through a dark pyritic phase, then into a limy chloritic pegmatite.			

211-9437

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property	CK	District	KAMLOOPS M.D.	Hole No.	CK 79-18
Commenced		Location		Tests at	Hor. Comp.
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No CK79-18 Sheet 3

METRES From	To	Description	Sample No.	Length	Analysis
51.3	61.2	Fault Zone - pegmatite - broken and shattered throughout, with a few zones of fault gouge. Rock is typical coarse-grained, greenish tinged, locally chloritic and may enclose short zones of biotite gneiss (now altered and sheared). Some sections kaolinized. Trace pyrite. Foliation is possibly 75-80°.			
61.2	63.1	Fault Zone - altered siliceous biotite gneiss. Much is nothing more than sandy fault gouge. All is broken. Grey, light grey and fine-grained. Some mixing with pegmatite over the last 0.3 m. Graphitic and pyritic in trace amounts only. Foliation at 75°.			
63.1	67.0	Altered graphitic siliceous biotite gneiss. Fine-grained grey and dark grey, but locally altered to tan-brown colours. Graphite occurs as very minute grains disseminated throughout in trace amounts to perhaps 2%. It also occurs in massive variety in a shear zone at 61.8, cutting the core at 30°. Foliation at 75°.			
67.0	69.4	Hornblende - diopside siliceous calc-silicate. Light green, fine-grained overall but has disseminations, streaks and patches of dark green coarser-grained hornblende so it may be more of an amphibolite than a calc-silicate. 67.0 - 67.4 Brown-tan fault gouge zone. 68.4 - 68.5 25% pyrite in hornblende rich zone. Foliation at 80°.			

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-18	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-18 | Sheet 4

METRES From	To	Description	Sample No.	Length m	Analysis Pb	Analysis Zn
69.4	70.2	Massive pyrite and pyrrhotite. Actually four bands separated by white coarse-grained diopside - hornblende marble. Starts off in hornblende rich siliceous calc-silicate and ends in a fault zone against an amphibolite. The sulphide is massive, forming the matrix to several semi-rounded hornblende, plagioclase laths, and rounded quartz grains. Resembles, in a vague way, the usual mineral horizon and may actually be the horizon although no ZnS or PbS is visible. Foliation (contacts only) at 45-65°.				
		Sample 69.4-70.2	65121	0.8	0.01	0.04
70.2	72.0	Amphibolite - dark green to black, medium-grained, massive with no development of foliation. Contains a short section of pegmatite with patchy pyrite on chloritic fractures. Narrow fault zones at 70.2, 71.3. Disseminated pyrite at 10-15% from 71.4 to 71.6.				
72.0	74.9	Garnet hornblende diopside siliceous calc-silicate. Mainly dark green with light green and local patchy orange garnet. Last half has larger disseminated garnet throughout. Again the hornblende content is quite high, so rock type could be called an amphibolite over short sections. Foliation at 35° at start, parallel centrally, then reverts to 60-70° by the end.				
74.9	79.3	Pegmatite - most is fine-grained white to light yellow and grey. Central 30 cm is typical coarse-grained. Contains a few cross-cutting bands of calcite at 76.2, and is limy over the last 30 cm. Could this be a pegmatized marble, equivalent to the thick marble underlying the mineralization in hole CK 79-17?				

Scale

Colour Plot & Dips

Drill Hole Record

Cominco

Property CK	District KAMLOOPS M.D.	Hole No. CK 79-18	
Commenced	Location	Tests at	Hor. Comp.
Completed	Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by
Objective		% Recov.	Date

Claim | T Brg. | Collar Dip | Elev. | Length | Hole No. CK79-18 | Sheet 5

~~Footage~~ METRES From	To	Description	Sample No.	Length	Analysis
79.3	87.7	Altered siliceous biotite gneiss, some unaltered siliceous biotite gneiss, and minor altered coarse biotite gneiss. Ochre-green to silvery green where altered. Typical fine-grained black and grey where unaltered. Central portion is coarser and contains the silvery white muscovite. Becomes semi-banded towards the end of the section, with foliation well displayed at 85°. Few broken zones - possibly small faults.			
		87.2 - 93.5 Numerous black wispy veinlettes (parallel to foliation) of graphite. Probably related to a shear - fault zone at 93.5.			
87.7	91.0	Limy calc-silicate. Splotchy to granular yellow-green and white. Starts of streaky (40°) then becomes granular-mottled with wispy stringers of calcite. By 90.5 it becomes pegmatite rich and diopside poor - a dark green fine-grained hornblende colour and not limy - actually a siliceous calc-silicate.			
91.0	97.9	Pegmatite - fine to medium-grained. Creamy greenish-yellow colour throughout, with occasional area of minute biotite flakes. Very few scattered garnets. Possible fault zone at 96.0. Moderately broken, but not altered.			
		End of Hole - 97.9			
		0.8 m @ <0.01% Pb, 0.04% Zn			
		Mineralized Zone? - possibly represented by the massive pyrite-pyrrhotite at 69.4-70.2. However the pure white marble zone that often underlies the mineralization in the Mist area is missing. Possibly the great amount of faulting evident in the core has brought about structural complications.			

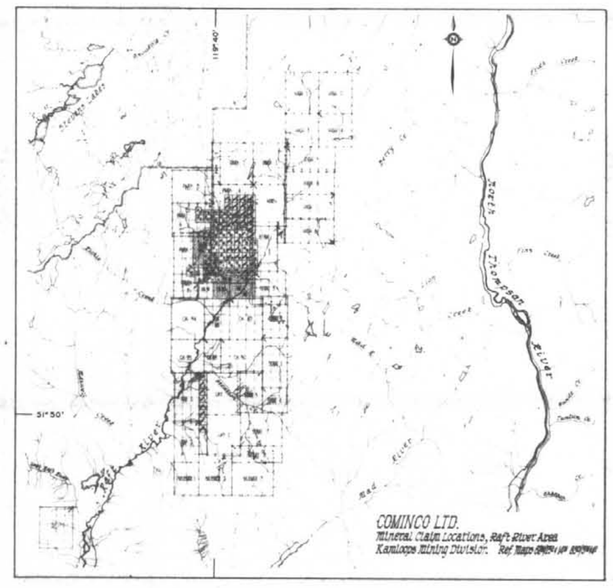
CK 7
CK 8
CK 5
CK 6
CK 11
CK 3
CK 4
CK 83
CK 13
CK 15
CK 1
CK 2
CK 47
CK 48
RAFT 29
RAFT 30
CK 16
CK 93 Fr.
CK 92 Fr.
CK 17
CK 84
CK 85
CK 91
CK 81
CK 86
CK 88
CK 87

CK79-3 (-45°, 172.6m)
CK78-12
CK78-14, 15, 16
CK79-11 (-80°, 111.6m)
CK79-2 (-87°, 173.8m)
CK79-1 (-63°, 209.8m)
CK79-13 (-44°, 223.8m)
CK79-10 (-79°, 200m)
CK78-9
CK79-14 (-62°, 169.6m)
CK78-8
CK79-5 (-63°, 102.5m)
CK78-7
CK78-2
CK79-7 (-60°, 158.0m)
CK79-6 (-62°, 97.0m)
CK78-1
CK78-3
CK-1
CK78-4
CK79-4 (-52°, 163.4m)
CK78-5
CK79-8 (-48°, 245.8m)
CK78-6
CK79-12 (-52°, 239.6m)
CK78-10
CK78-13
CK78-11
CK78-18
CK78-20
CK79-9 (-44°, 148.2m)
CK78-19

KOWALSKI CK
RAFT RIVER
CORE STORAGE AND CAMP

12,000 N
11,000 N
10,000 N
9,000E
10,000E
11,000E

0 100 200 300 metres



CK PROPERTY — Cominco — 82 M/13 E

Drawn by: FJF		Traced by:	
Revised by	Date	Revised by	Date

DRILL HOLE LOCATION

Scale: 1:5,000 | Date: Nov. 21, 1979 | Plate: 4

FORM 210 0660