ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 94.12.06

ASSESSMENT REPORT 23239

MINING DIVISION: Greenwood

PROPERTY:

Bear-Cub

LOCATION:

49 10 00 LAT

118 33 00 LONG

UTM 11

387006 5446921

NTS

082E02E

CAMP:

800 Greenwood Camp

CLAIM(S): OPERATOR(S): AUTHOR(S):

Bear, Cub 1-4 Teck Corp. Thomson, G.R. 1994, 38 Pages

REPORT YEAR: COMMODITIES

SEARCHED FOR: Copper, Silver, Gold

KEYWORDS:

Tertiary, Knob Hill Group, Greenstones, Pillow lavas, Syenites, Pyrite

Pyrrhotite

WORK

DONE:

Geological, Drilling, Geochemical 607.2 m DIAD 6 hole(s);NQ

GEOL 400.0 ha

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

19 sample(s);ME SAMP

RELATED

REPORTS: 21509,22348

LOG NO:	JAN 3 1 1994	RD.	
ACTION.			,
			;
FILE NO:			

DIAMOND DRILLING ASSESSMENT REPORT

ON THE

BEAR, CUB PROPERTY

SUB-RECORDER

JAN 1 9 1074

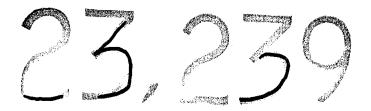
M.R. # \$...

VANCOUVER, B.C.Greenwood Mining Division, British Columbia

NTS 82 E / 2E

Latitude 49° 10' Longitude 118° 33'

GEOLOGICAL BRANCH ASSESSMENT REPORT





Owner:

Teck Corporation

G.R. Thomson, P.Geo.

January 15, 1994

FILMED

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INTRODUCTION

Teck Corporation optioned the Bear - Cub property, a potential copper - gold skarn prospect in the northern periphery of the Greenwood mining camp, which hosts the historically important Phoenix mine.

The claim area was geologically mapped with examination of all known mineralized showings and sampling of three showings.

A diamond drill program was carried out under the premise of locating favourable host stratigraphy, in particular, limy beds as part of the Triassic Age Brooklyn Formation, which is known to occur adjacent and south of the property.

LOCATION, ACCESS

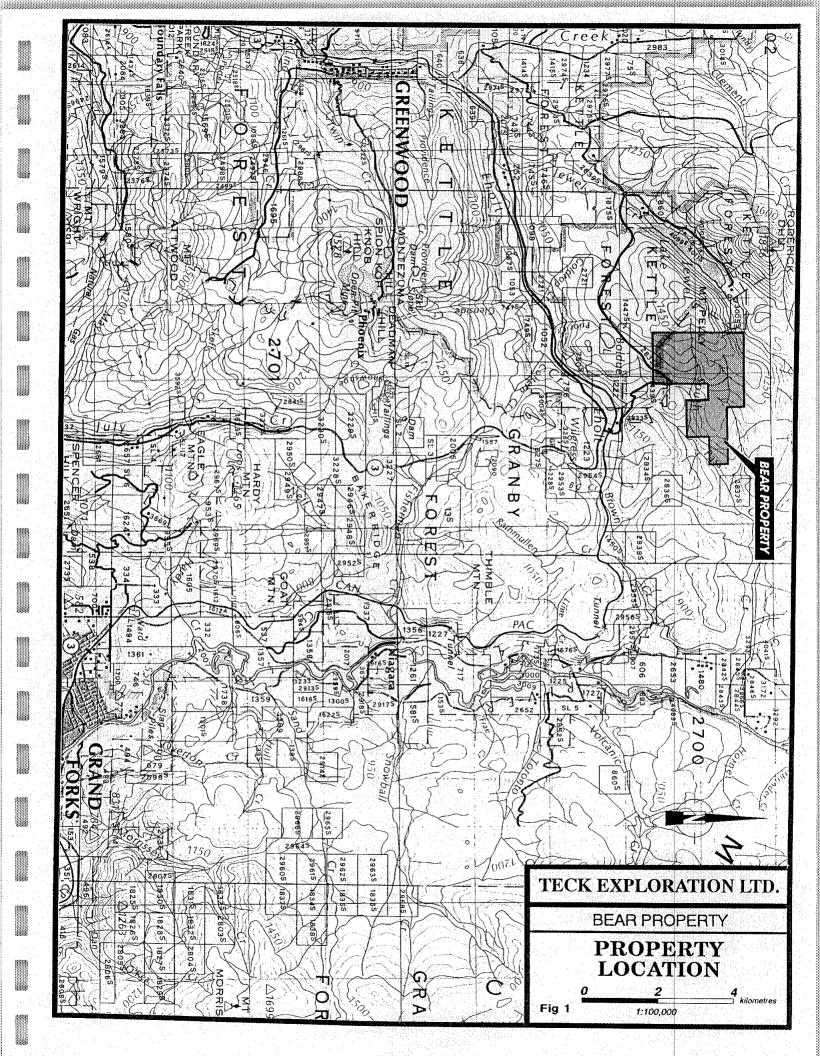
The property is accessed from Highway #3, which connects the towns of Greenwood and Grand Forks. A secondary logging road leaves Highway #3 at the small settlement of Eholt and runs approximately 3 km. north to reach the South Pass Creek area of the property. The main access throughout the property is provided by roads that follow the north bank of South Pass Creek.

CLAIMS

The Bear - Cub property consists of the following claims as staked under the Modified grid system as well as 2 - post claim system.

All claims are currently owned by Teck Corporation. Assessment work as described in this report will be used to apply maximum credit for the claims listed above.

Please note that the Bear claim has been reduced in size as a result of a ruling that gave the pre-existing Eholt (215004) claim precedence over the Bear claim.



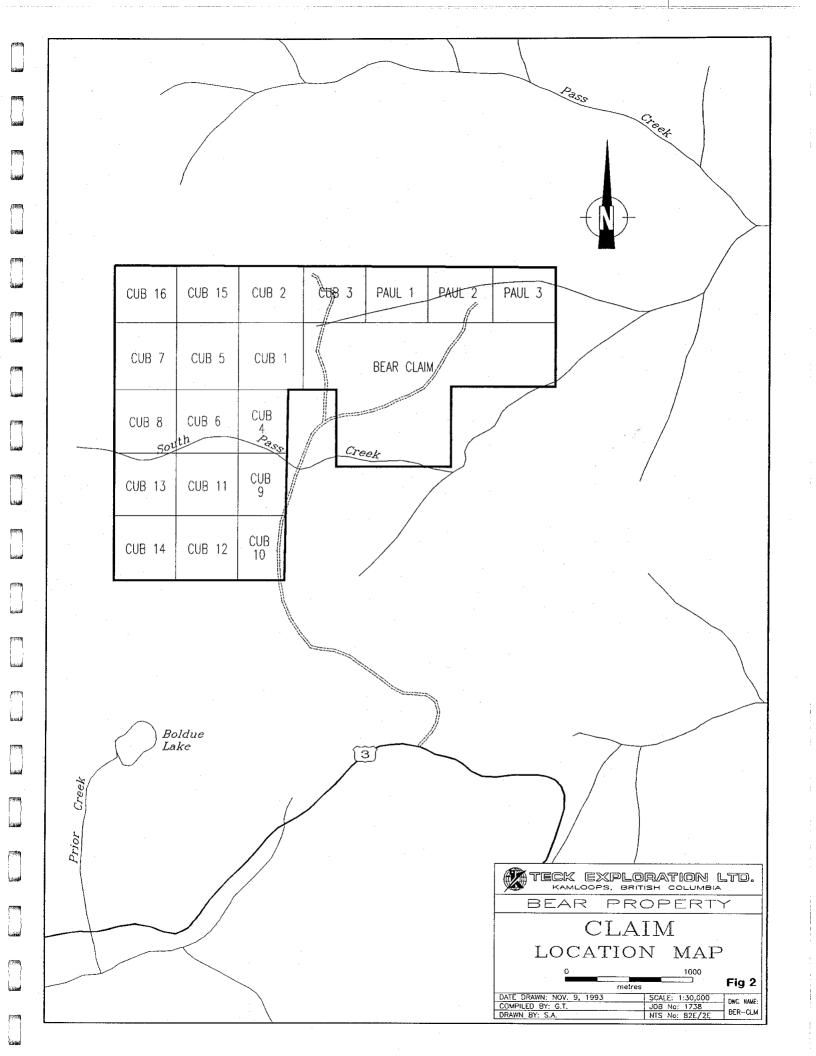
<u>Name</u>	Record No.	No. of Units	Record Date	Expiry Date
Bear	215844	16		July 8/94
Cub 1	318096	1		June 11/94
Cub 2	318097	1		June 11/94
Cub 3	318098	1		June 11/94
Cub 4	317691	1		M ay 20/94
Cub 5	317692	1		May 20/94
Cub 6	317693	1		May 20/94
Cub 7	317694	. 1		May 20/94
Cub 8	317695	1		May 20/94
Cub 9	318105	1		June 8/94
Cub 10	318106	1		II
Cub 11	318107	1		11
Cub 12	318108	1		II
Cub 13	318109	1		11
Cub 14	318110	1		If
Cub 15	318099	1		June 11/94
Cub 16	318101	1		June 11/94
Paul 1	320531	1		Aug.23/94
Paul 2	320532	1		ii
Paul 3	320533	1		п
		35 units		

HISTORY

Lode mineralization was first recorded in the Greenwood area near Boundary Falls in 1884 and by 1900 most of the important deposits had been found. Development was stimulated by the completion of a railway and construction of a major smelter at Grand Forks in 1900. Production from the mines at Phoenix reached a peak delivery in 1913 of more than a million tons of ore. Labour disputes indirectly caused closure of the Grand Forks smelter and many of the mines in 1919.

Large scale open-pit production from the Motherlode and Phoenix orebodies was carried out from the late 1950,s until the exhaustion of the Phoenix orebody in 1976.

Published information relative to the immediate claim area is generally lacking. There are a number of old shallow pits, shafts and small trenches with most occurring in hornfelsed to weakly skarned greenstones (metavolcanics). No recent assessment work has been carried out over the immediate claim area.



GEOLOGY AND MINERALIZATION

There is generally poor outcrop exposure over the claim area, except as exposed along roadcuts or previous mineral exploration activity (shafts, trenches).

Geologic mapping by Fyles (BCMEMPR: O.F. 1990-25) shows the claims to be underlain by a central area of Knob Hill Group, consisting of greenstone, pillow lava and breccia, amphibolite and minor limestone. The Knob Hill Group is dated at Carboniferous or Permian Age. All non intrusive rocks examined on the claim area fall mainly in the greenstone category. The west side of the claim area is underlain by Jurassic and Cretaceous Nelson Plutonic rocks, primarily quartz diorite and granodiorite. The eastern portion of the claims is underlain by Eocene Age Penticton Group, consisting of dikes, sills and intrusions of syenite, pulaskite, monzonite and diorite. (Coryell Intrusions)

All sulphide mineralization seen on the claim was found to occur in hornfelsed to weakly skarned greenstones. Sulphides consist of disseminations and pods of pyrrhotite, pyrite and chalcopyrite. Concentrations of sulphides appear greatest in narrow shear zones near contacts with Nelson Intrusive rocks.

Geologic mapping, rock sampling and diamond drill sites are represented on Figure #3 at the back of this report.

DIAMOND DRILL PROGRAM

Diamond drilling was carried out over the Bear and Cub claims from August 30 to September 4, 1993. All drilling was of NQ size and totalled 607.2 m in six holes from five separate set-ups. The drilling was carried out by L.D.S. Diamond Drilling Ltd. of Kamloops, B.C. Drill core is stored with one of the original claim owners in Grand Forks, B.C.

Particulars of the drill program are given as follows:

HOLE NO.	DIP	AZIMUTH	<u>LENGTH</u>
93-BC-01	90°	77000	142.3m
93-BC - 02	-70°	0 °	41.8
93-BC-03	-45°	66°	111.2
93-BC-04	90°		66.1
93-BC-05	90°		140.5
93-BC-06	-60°	320°	105.2

Drill collars were located using a hip chain, in conjunction with known road locations. Elevations were interpreted from existing topographic base maps.

DRILL PROGRAM RESULTS

The drilling program at the Bear property was carried out primarily as an attempt to locate possible large-scale skarn style mineralization at depth. Such a prospective zone does not appear likely to occur on the Bear property.

The majority of drill holes intersected an extensive series of fresh to altered quartz diorites, intrusive feldspar porphyries and pink porphyritic syenite dykes/sills.

Drill holes #1, 5 and 6 contained narrow zones of fresh to skarned (epidote-garnet) andesitic greenstone.

The only drill hole that intersected mineralization of economic significance was hole #6. In hole #6, a zone of 10-20% semi-massive pyrite + chalcopyrite occurs from 16.5 to 19.3 m as irregular masses and fracture filings within a chloritic, sheared greenstone. Significant assay values for this interval are as follows:

Sample No.	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)
121810	16.52-17.82(1.3)	2.4	48.0	2.26
121811	17.82-19.28(1.5)	2.0	33.6	2.10

A similar but less strongly mineralized pyrite zone occurs from 32.4 to 34.9 m. This zone appears to be closely associated with the first mineralized zone (16.5-19.3 m) and has a similar geochemical signature. Geochemical values for the second zone are as follows:

Sample No.	Interval	Au (ppb)	Ag (ppm)	Cu(ppm)
121814	32.45-33.93(1.5)	890	3.5	1223
121815	33.93-34.87(0.9)	280	0.5	538

Possibly of greater importance than the actual assay value of these samples is their geochemical signature and their similarity to other skarn deposits in the Greenwood camp. All four samples listed above are anomalous in such elements as Mo, Cu, Zn, Co, As, Sb, Bi, Ag and Au.

Drill holes #3 and #6 were drilled to intersect known surface mineralization in greenstones. Hole #3 did not intersect mineralization as occurs in a small surface pit containing sulphides in hornfelsed greenstones. Hole #6 was drilled to intersect shear related pyrite-chalcopyrite mineralization as exposed in a small pit and adjacent trench.

Drill holes #1, 2, 4 and 5 were drilled primarily to test for the presence of calcareous skarn hosting sediments as could be trending northward from the southerly Eholt showings currently being explored by Placer Dome Inc. under an option agreement with Orvana Minerals Corp.

Drill hole data is summarized on drill sections and drill logs at the end of this report.

SUMMARY AND RECOMMENDATIONS

There may yet be potential for skarn hosted mineralization on the Bear property, but this was not substantiated by the Teck 1993 drill program.

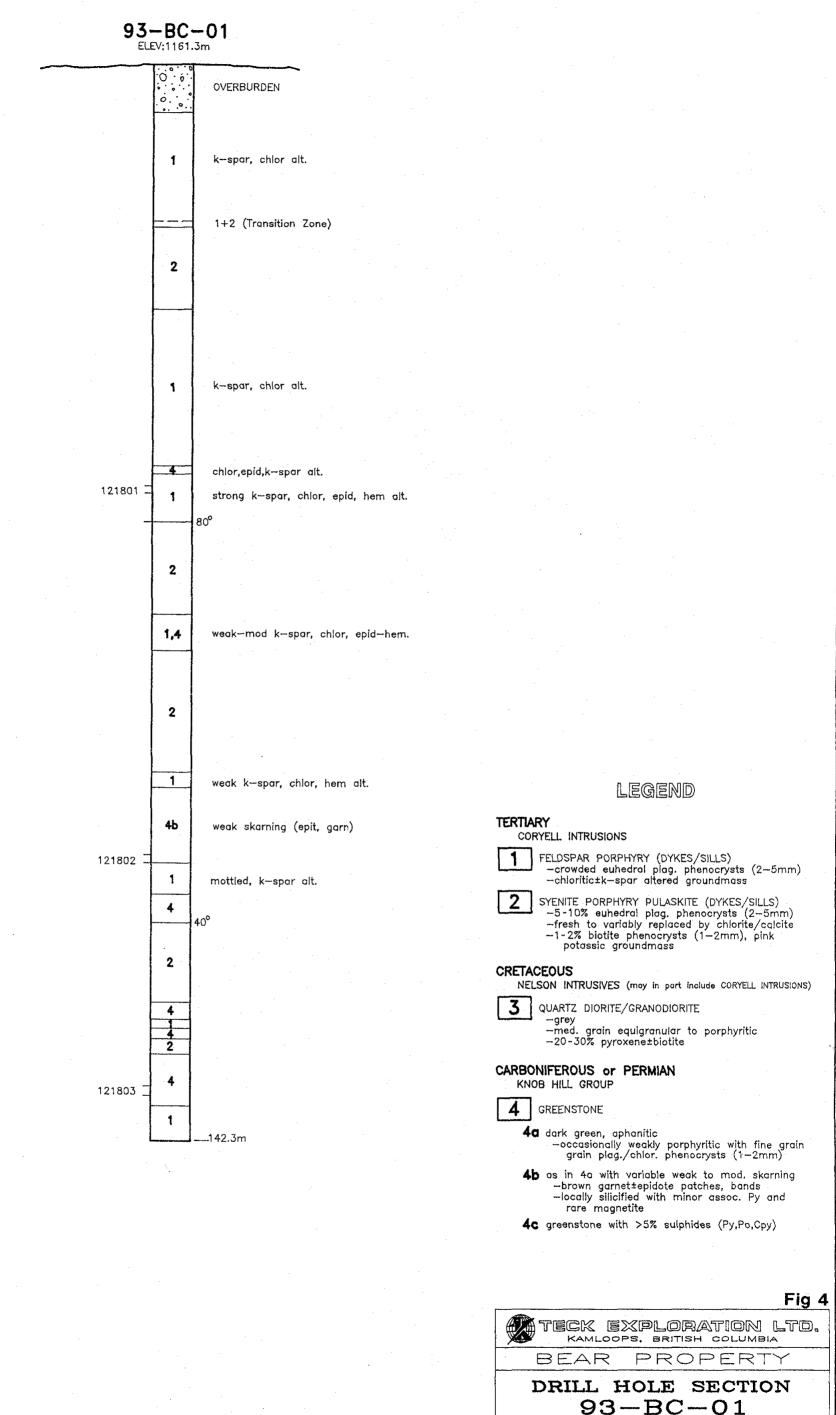
A more feasible approach may be to combine exploration efforts with Orvana Minerals Corp. to try and locate common mineral potential on both the Bear and Eholt properties.

As for specific mineral targets, the copper-gold-silver zone as located in drill hole 93-BC-06 should be followed out by short drill holes, both along strike and down dip to determine its extent and mineralization style. There is a reasonable possibility that the mineralized zone as found in hole #6 may connect with the mineral showing that drill hole #3 attempted to intersect. This would give the zone a strike length of at least 750 m.

The "Rambler" showing area should receive future consideration. It contains disseminated to massive concentrations of pyrite, pyrrhotite and chalcopyrite as shear hosted mineralization within hornfelsed greenstones. A previous grab sample from the dump gave assays of 1.9 % Cu, 65.3 ppm Ag and 3.68 g/t Au. Note that these are very similar values to the higher assay values returned in drill hole 93-BC-06.

Specific areas of the property may be considered for geochemical or geophysical surveys to better define mineralized structures.





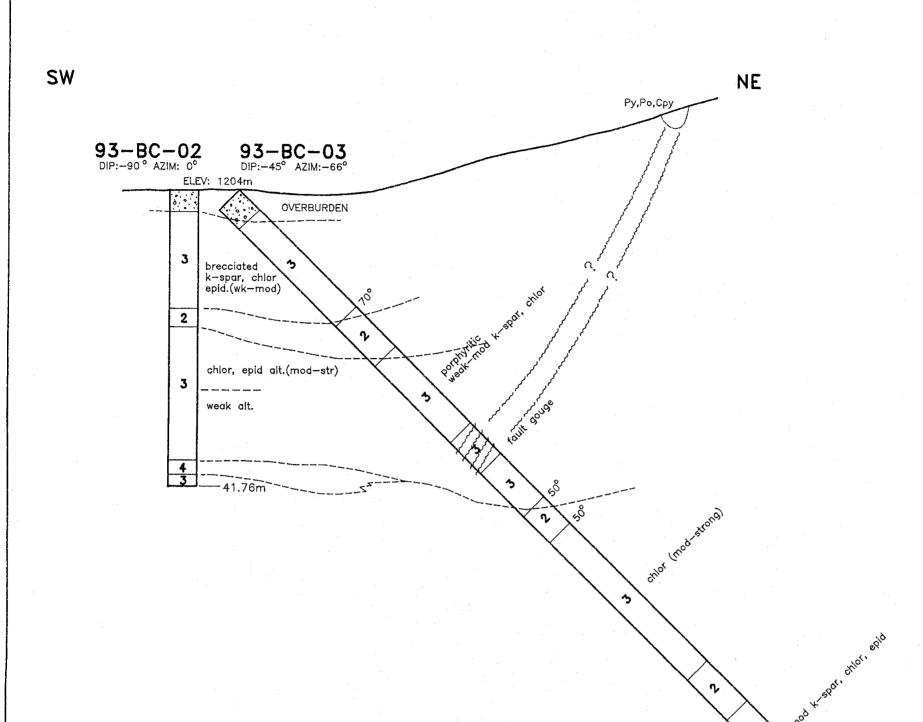
DIP: -90 LENGTH: 142.3

0 5 10 15 20 25

metres

DATE DRAWN: NOV. 16, 1993 SCALE: 1:500
COMPILED BY: G.T. JOB No: 1738
DRAWN BY: S.A. NTS No: 82E/2E

DEFINITION OF THE PROPERTY OF THE PROPER



SECTION IN PLANE of DRILL HOLE #3 (66° Azimuth)

LEGEND

TERTIARY

CORYELL INTRUSIONS

FELDSPAR PORPHYRY (DYKES/SILLS) -crowded euhedral plag. phenocrysts (2-5mm) -chloritic±k-spar altered groundmoss

SYENITE PORPHYRY PULASKITE (DYKES/SILLS)
-5-10% euhedral plag. phenocrysts (2-5mm)
-fresh to variably replaced by chlorite/calcite
-1-2% biotite phenocrysts (1-2mm), pink
potassic groundmass

CRETACEOUS

NELSON INTRUSIVES (may in part include CORYELL INTRUSIONS)

QUARTZ DIORITE/GRANODIORITE -grey -grain equigranular to porphyritic -20-30% pyroxene±biotite

CARBONIFEROUS or PERMIAN

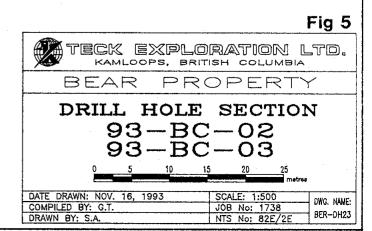
KNOB HILL GROUP

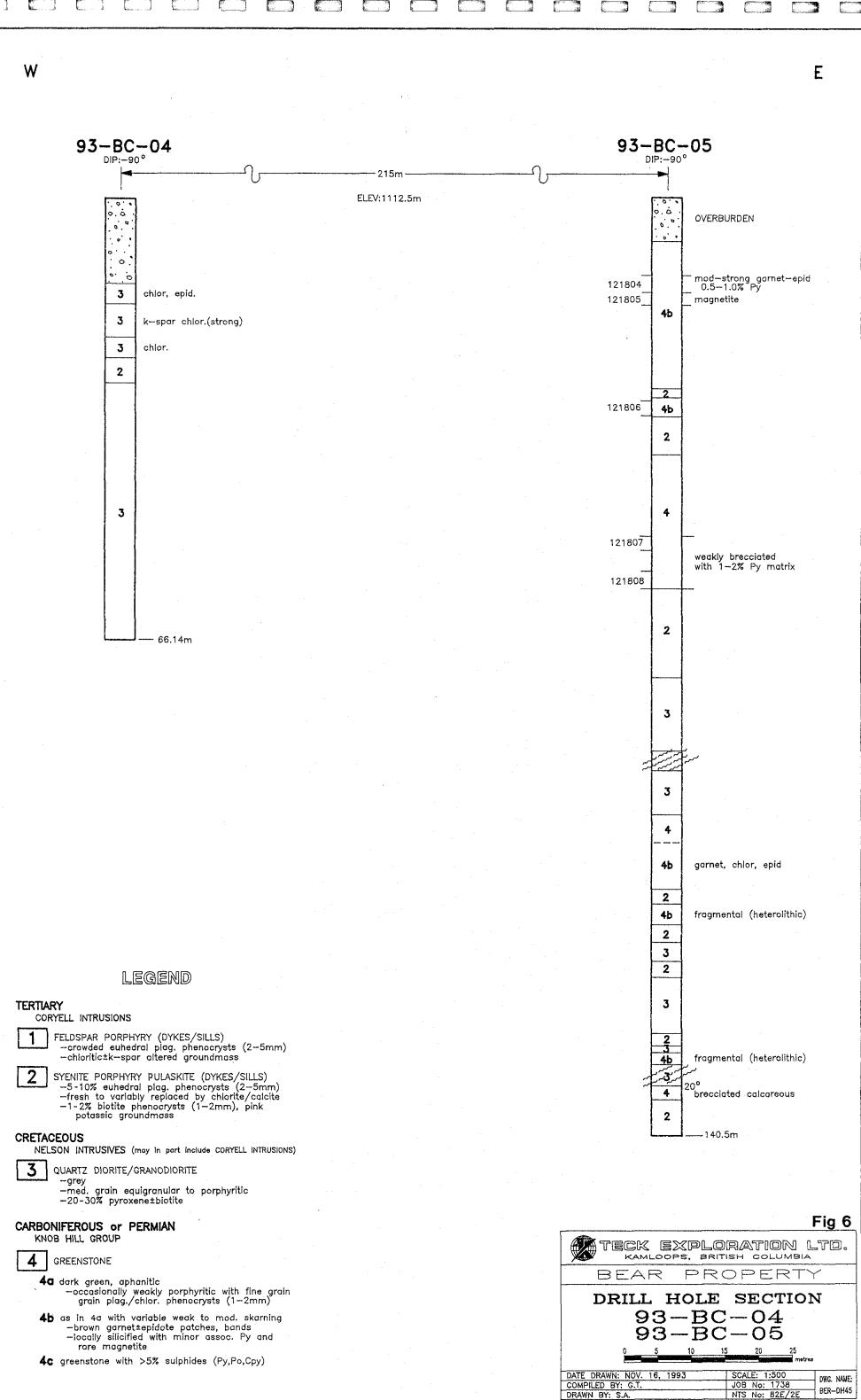
GREENSTONE

4a dark green, aphanitic -occasionally weakly porphyritic with fine grain grain plag./chlor. phenocrysts (1-2mm)

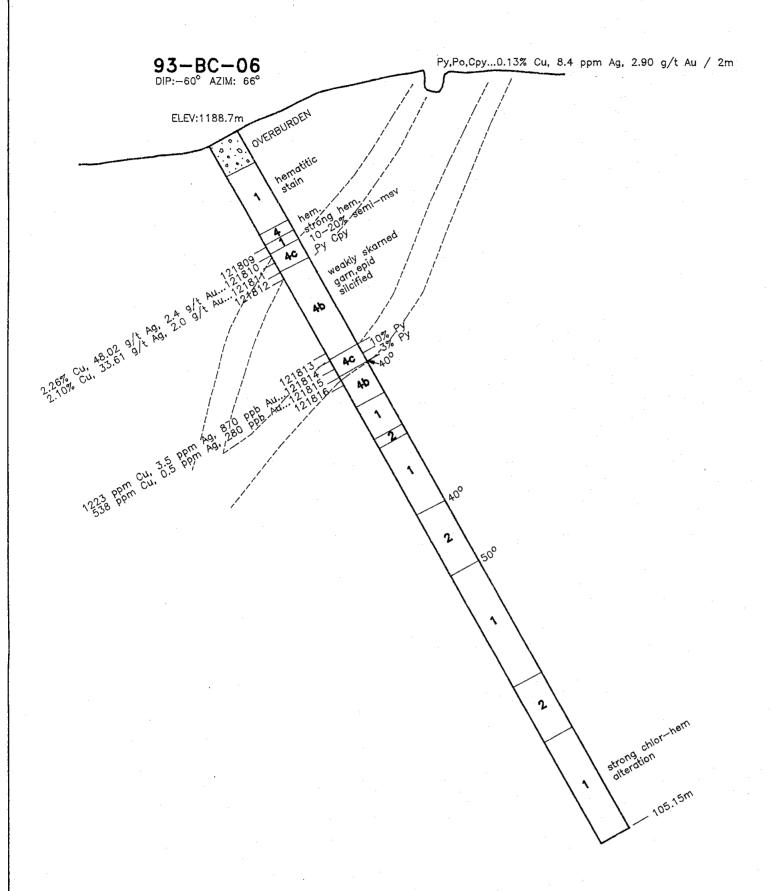
4b as in 4a with variable weak to mod. skarning -brown garnet±epidote patches, bands -locally silicified with minor assoc. Py and rare magnetite

4c greenstone with >5% sulphides (Py,Po,Cpy)





DATE DRAWN: NOV. 16, 1993 COMPILED BY: G.T. DRAWN BY: S.A. NTS No: B2E/2E



LEGEND

TERTIARY

CORYELL INTRUSIONS

- FELDSPAR PORPHYRY (DYKES/SILLS) -chloritic±k-spar altered groundmass
- 2 SYENITE PORPHYRY PULASKITE (DYKES/SILLS) -5-10% euhedral plag. phenocrysts (2-5mm)
 -fresh to variably replaced by chlorite/calcite
 -1-2% biotite phenocrysts (1-2mm), pink
 potassic groundmass

CRETACEOUS

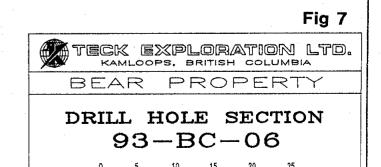
NELSON INTRUSIVES (may in part include CORYELL INTRUSIONS)

QUARTZ DIORITE/GRANODIORITE -med. grain equigranular to porphyritic -20-30% pyroxene±biotite

CARBONIFEROUS or PERMIAN

KNOB HILL GROUP

- 4 GREENSTONE
 - 40 dark green, aphanitic
 —occasionally weakly porphyritic with fine grain
 grain plag./chlor. phenocrysts (1—2mm)
 - 4b as in 4a with variable weak to mod. skarning
 -brown garnet±epidote patches, bands
 -locally silicified with minor assoc. Py and rare magnetite
 - 4c greenstone with >5% sulphides (Py,Po,Cpy)



DATE DRAWN: NOV. 16, 1993 DWG. NAME: COMPILED BY: G.T. JOB No: 1738 BER-DH6 DRAWN BY: S.A. NTS No: 82E/2E

COST STATEMENT

A. SALARIES:		
G. Thomson (Geologist) P. Donkersloot (Geologist)	10 days @ \$271.87/day 13 days @ \$251.18/day	\$2718.70 <u>3265.40</u>
		5984.10
B. LIVING COSTS: (Motel, Meals	s)	1122.70
C. TRANSPORTATION: (Truck R	tental, gas)	1898.65
D. DRILLING: (L.D.S. Diamond D 1992' NQ core @ \$10.00/foot	rilling Ltd.)	23055.20
	ock samples for Au Delement ICP analysis; g assay, 2 Cu assay	295.85
F. REPORT PREPARATION: 7 of	days @ \$271.87/day	1903.09
G. DRAFTING: 3 days @ \$217.5	0/day	652.50
H. TELEPHONE:		<u>143.16</u>
	Total:	\$35055.25

REFERENCES Church, B.N. (1986): Geology and Mineralization in the Mount Atwood - Phoenix Area, Greenwood B.C.; B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1986-2 Fyles, J.T. (1990): Geology of the Greenwood - Grand Forks Area, British Columbia, NTS 82E/1,2; B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1990-25 Kemp, J., Hairsine D. (1992): Statement of Work (Magnetometer Survey) for Bear Mineral Claim Group LeRoy, O.E. (1912): The Geology and Ore Deposits of Phoenix, Boundary District, Boundary District, British Columbia; Geological Survey of Canada, Memoir 21 Little, H.W. (1983): Geology of the Greenwood Map area, British Columbia; Geological Survey of Canada, Paper 79-29 Monger, J.W.H. (1968): Early Tertiary Stratified Rocks, Greenwood Map Area, (82E/2) British Columbia Geological Survey of Canada, Paper 67-42

CERTIFICATE OF QUALIFICATIONS

Gregory R. Thomson, P. Geo.

I hereby certify that:

- 1. I graduated from the University of British Columbia in 1970 with a B.Sc. degree in geology.
- 2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 3. I have worked since graduation as an exploration geologist, mostly in the province of British Columbia.
- 4. The work described herein was carried out under my direct supervision.

& KMrown

ESSIO

G. R. THOMSON

G. R. Thomson, P.Geo.

ECO-TECH LABORATORIES LTD.

10041 BAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3

PHONE - 604-573-5700

FAX - 604-573-4557

LY 30, 1993

LUES IN PPM UNLESS OTHERWISE REPORTED

TECK EXPLORATION ETK 93-206 \$ 350, 272 Victoria Street KAMLOOPS, B.C. V2C 2A2

ATTENTION: GREG THOMPSON

3 ROCK SAMPLES RECEIVED JULY 20, 1993 PROJECT #: 41

# DESCRIPTION	AU(ppb)	AG	AL(%)	AS	В	BA	ві	CA(%)	CD	со	CR	ເນ	FE(%)	K(*)	LA	MG(%)	MN	мо	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	υ	ν	W	¥	ZN
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- 120956	35	. 2	1.23	70	4	30	5	9.49	1	19	46	131	7.37	.01	10	.48	1197	3	.01	24	380	6	5	20	85	.06	10	91	10	9	29
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TE: < = LESS THAN
> = GREATER THAN

93/TECK

PECO FECH LABORATORIES LTD.
FRANK J. PEZEOTTI, A.Sc.T.
B.C. Certified Assayer

ROSSBACHER LABORATORY LTD. 2225 Springer Ave., Burnaby,

CERTIFICATE OF ANALYSIS

To:

TECK EXPLORATIONS LTD. # 350 272 VICTORIA STREET

KAMLOOPS, B.C.

Project:

1738

Type of Analysis:

ICP

2225 Springer Ave., Burnaby, British Columbia, Can. V5B 3N1 Ph:(604)299-6910 Fax:299-6252

Certificate:

93168

invoice:

40218

Date Entered:

93-09-11

File Name: Page No.:

TEK93168.I

RE.		PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	%	%	PPM	PPM	* %	PPM	%	%	%	%	%	PPM	PPM	PPB								
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	12181			37	155	0.5	23	46	1112	7.06	98	5	ND	ND	193	1.	15	32	183	2.46	0.13	5	61		***********			0.73	0.90	0.10	17		280
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CERTIFIED BY:

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

TECK EXPLORATIONS LTD.

350 272 VICTORIA STREET

KAMLOOPS, B.C.

1738 Project:

Time of Analysis: Assay

2225 Springer Ave., Burnaby, British Columbia, Can. V5B 3N1 Ph:(604)299-6910 Fax:299-6252

Certificate: 93168

40244 Invoice: **Date Entered:** 93-10-01

File Name: TEK93168.A

Page No.:

فيفتة	Type of Analysis	: Assay			Page No.:	1	
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P	121810 121811	2.401 2.024	48.02 33.61	2.26 2.10			
73124							
- Carlo							
334							
		-				1	7

CERTIFIED BY

APPENDIX 4 GEOCHEMICAL ANALYSES

DRILL LOGS

TECK EXPLORATION LTD.

BEAR PROPERTY

PROJECT #1738

HOLE NO. 93-BC-01

PAGE: 1 of 3

NTS: CLAIM: 82E/2E CUB 3 DATE COLLARED: 30/08/93 DATE COMPLETED:31/08/93

<u>DIP</u> -90° AZ

LENGTH: DEPTH OF OVB: 142.34m 6,1m

ELEVATION:

1161m

DATE LOGGED:

CASING REMAINING: WATERLINE LENGTH:

GRID COORD:

LOGGED BY:

G.T.

CORE SIZE: NQ

PROBLEMS:

	LUGGED B1: G.I.						<u> </u>							
DÉPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Cu (ppm)	Au (ppb)	Ag (g/t)	Fe (%)	Other
0 -8.1	Overburden													
6.1 -20,77	Feldsper porphyry: grey green to pinkish,compatent, eqigranular, orowded plag, phenos.,1-3mm (60-70%vol) chlor-Ksper groundmass; localized preferential replacement of plag, phenos.; phenos. sub to euhedral, chlor, fract. srfcs, minor red hem., < 1% calc. fract. fills, weakly magnetic.			wk-mod, chlor, potessic										
20.77-21.37	Transitional contect: green to pinkish brown groundmass w. approx. 5% subhodral plag. phenos., 1-7 mm.											`		
21.37-32.53	Syenite plag, porph: 5-10% scattered subhedral-ouhedral plag, phenos, 2-10 mm, white-cream, pink potassic groundmass w. 1-2% blotite laths 2mm, pervasive chlor, as weak fract. coatings/file, wk-mod. fractd, sharp lower contact.													
32.63-53.39	Feldspar porphyry;(similar to above@ 6.1-20.77m) greenish grey, equigranular, 50-60% white, crowded,subhedral-cuhedral plag, phenos,1-3mm, green to pinkish groundmass, localized potassic atl. In narrow zones surrounding halfilms -5mm fract. (Illis of calcite, ohlor, hem; gradational chili zone @ 51.0-53.4 with gradual decrease in plag, phenos.	L.Cont 60°		Local potassic,chlorcar b+\-hem										
63.39-64.46	Andesitic greenstone: med green, aphanitic, mottled, weakly breco'd, numerous hairline - 2mm calcite vnits, variable patches of diffuse chlor-epid-potassic alt.; sharp lower contact.	70°		wk chlor -e pid- potassic										

DDH NO. 93-BC-01

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DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Cu (ppm)	Au (ppb)	Ag (g/t)	Fe (%)	Other
64.46-60.89	Feldspar porphyry: mottled, strongly sit. w. mixed potass-chlor- epid-hem patches,spots, subhedral-euhedral plag phenos,2-10 mm, 50-60%, dk green chlor groundmass, strgly microfract, f.g. diss. py assoc. w. narrow chlor/epid vnite, 3-5% cale vnits to 3 mm, strgly fract; aphanitic greenstone bands @ 59.82-59.26, 59.59- 59.96 m, sharp lower contact,	80°		potassic,chlor,epl d,hem pervasive mod- intense	0.5 % ру	121801	56.0	67.0	1.0 .	43	6	-		
60.89-72.8	Syenite plag, porph; similar to 21.37-32.63, plag phenos exhibit rims to total replacement by bluish-green chlorite.													
72.8-77.7	Zone of mixed greenatone , feidapar porphyry; fine grain, dk greeniah grey g.a. with with intermixed mottled, alt. plagporph; porph zones exhibit wk-mod potassic-chlor-epid-hem, wkly magnetic.			sporadic potass,chlor, epid, hem	tro diss py									
77.7-93.82	Syenite plag. porph: as above ⊕ 60.89-72.8 m; wht, cream, pale green plag, phenos (aubh-auhodrall), 2-10mm, wk. potass/chlor pheno. replacement, potass, gradmass w. ~ 2-6% chlor,blo,pxn, v. wk calc. microvnits.												:	
93.82-95,95	Feldspar porphyry: grey plag, phenos, 2-5 mm (50%), dk, f.g. chlor, groundmass, mod-strong magnetic			potassic,chlor,he m {localized}	tro, diss py									
95.95-105.8	Andesitic Greenstone: med-drk green, aphanitic w. approx. 10% diffuse epid, patches occas. w. amorphous brown garnet, hem. occurs as minor fract. fills, v. minor caloite hairline fracts., brecc, w. strong hem.matrik @ 105.08-105.8 m.					121802	104,75	105,75	1.0	25	5			
105.8- 109.85	Feldspar porphyry: mottled, approx. 60% plag. phenos, 2-10 mmm, subh-ochedral; dk green chlor groundmass, plag. phenos pervasiv. wk potassic alt, mod. fract @ 108.8-109.85, strong hem. stell @ 105.83-105.88 m.			potassic,chlor, epid.	local, diss. py., < 1%									
109.85- 114.16	Andesitic greenstone: weakly porphyritic w. 5% plag. laths, 1-2 mm, 5% chlor. spots, 1-3 mm, sporadic oval calcite amygdules, 2-5 mm, increased carb. alt. @approx. 112.5-114.18, grey-brownish grey groundmass, sharp lower contact.	40°		wk. potassic, carbonate										

DDH NO. 93-BC-01

DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
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	ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Cu (ppm)	Au (ppb)	Ag (g/t)	Fe (%)	Other
Syenite plag. porph.: ae above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact.			wkmod, pervasive potassic/chior plag pheno, replacements										
Andesitic greenstone: pale green, aphanitic.			wk. epidote	trc. diss. py.									
Feldapar porphyry: mottled, chlor, groundmass, mod, microfractd w, chloritic healings, 70% plag, phenos, sub-euhedral, 2-5 mm.			mod. chlor wk. epid.,hem.										
Andesitic greeenstone: pale green, aphanitic, wkly fract, w. calcite fillings.													
Syenite plag, porph.; as above @ 114.16 - 124.43 m.													
Andesitic greenstone: med. green, aphanitic, pervas, microfract's, several brecciated zones, 10-30 cm w, calcite matrix filling, 2-5 % calcite veinlets, 1-3 mm.			wk chlor., epid.		121803	135.24	136.24	1,0	253	60			
Feldspar porphyry: mottled, drk. green chlor, groundmass, indistinct plag, phenos, 60-60%, 4 cm calcite brecola matrix zone @ 140.0 m.			mod, chlor.	diss py, 0.5%									
E.O.H.				: '									ļ
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	Syerite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact. Andesitic greenstone: pale green, aphanitic. Feldapar porphyry: mottled, chior, groundmass, mod. microfractd w. chloritic healings, 70% plag. phenos., sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract, w. calcite fillings. Syerite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, pervas. microfract's, several brecciated zones, 10-30 cm w. calcite matrix filling, 2-5% calcite veinlets, 1-3 mm. Feldapar porphyry: mottled, drk. green chior, groundmass, indistinct plag. phenos, 50-60%, 4 cm calcite breccia matrix zone @ 140.0 m.	ANGLES Syenite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower ontact. Andesitic greenstone: pale green, aphanitic. Feldapar porphyry: mottled, chlor. groundmass, mod. microfractd w. chloritic healings, 70% plag. phenos., sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract. w. calcite fillings. Syenite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, pervas. microfract's, several brecciated zones, 10-30 cm v. calcite matrix filling, 2-5% calcite verinets, 1-3 mm. Feldapar porphyry: mottled, drk. green chlor. groundmass, indistinct plag. phenos, 60-60%, 4 cm calcite breccia matrix zone @ 140.0 m.	Syenite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact. Andesitic greenstone: pale green, aphanitic. Feldapar porphyry: mottled, chlor. groundmass, mod. microfractd w. chloritic healings, 70% plag. phenos.,sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract. w. calcite fillings. Syenite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, pervas. microfract's, several brecoitated zones, 10-30 cm v. calcite matrix filling, 2-5% calcite veinlets, 1-3 mm. Feldapar porphyry: mottled, drk. green chlor. groundmass, indistinct plag. phenos, 60-60%, 4 cm. calcite brecola matrix zone @ 140.0 m.	Angles Veins Alteration Syenite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact. Andesitic greenstone: pale green, aphanitic. Feldapar porphyry: mottled, chlor. groundmass, mod. microfractd w. chloritic healings, 70% plag. phenos., sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract. w. calcite fillings. Syenite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, pervas. microfract's, several brecoitated zones, 10-30 cm v. calcite matrix filling, 2-5% calcite veinlets, 1-3 mm. Feldapar porphyry: mottled, drk. green chlor. groundmass, indistinct plag. phenos, 60-60%, 4 cm calcite brecola matrix zone @ 140.0 m.	Angles Veins Alteration Metallic Minerals (%) Syenite plag. porph.: as above @ 77.7-93.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact. Andesitic greenstone: pale green, aphanitic. Feldapar porphyry: mottled, chlor, groundmass, mod. microfractd w. chloritic healings, 70% plag. phenos., sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract, w. calcite fillings. Syenite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, pervas, microfract's, several brecolated zones, 10-30 cm w. calcite matrix filling, 2-5% calcite veinlets, 1-3 mm. Feldapar porphyry: mottled, drk. green chlor, groundmass , indistinct plag. phenos, 60-60%, 4 cm calcite brecola matrix zone @ 140.0 m.	ANGLES VEINS ALTERATION METALLIC SAMPLE NO. Syenite plag. porph.: as above @ 77.7-93.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg, lower contact. Andesitic greenstone: pale green, aphanitic. Wk. epidote tro. diss. py. Feldaper porphyry: mottled, chior, groundmass, mod. microfractd w, chloritic healings, 70% plag. phenos, sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, wkly fract. w. calcite fillings. Syenite plag. porph.: as above @ 114.16 - 124.43 m. Andesitic greenstone: med. green, aphanitic, wkly fract. w. calcite fillings. Wk chlor., epid. **Wk chlor., epid.** **Wk chlor., epid.** **Indistinct plag. phenos, 60-60 %, 4 cm calcite precipations for party ry: mottled, drk. green chlor. groundmass , indistinct plag. phenos, 60-60 %, 4 cm calcite brecola matrix zone @ 140.0 m.	Angles Veins Alteration Minerals (%) Sample FROM Syenite plag, porph.: as above © 77.7-93.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contect. Andesitic greenstone: pale green, aphanitic. Andesitic greenstone: pale green, aphanitic, with groundmass, mod. microfractd w. chloritic healings, 70% plag, phenos, sub-euhedral, 2-5 mm. Andesitic greenstone: pale green, aphanitic, with fract. w. calcite fillings. Syenite plag, porph:: as above © 114.16 - 124.43 m. Andesitic greenstone: med, green, aphanitic, pervas, microfract's, several brocciated zones, 10-30 cm w. calcite mitings. Andesitic greenstone: med, green, aphanitic, pervas, microfract's, several brocciated zones, 10-30 cm w. calcite mitings. Peldapar porphyry: mottled, drk, green chior, groundmass, incidistinct plag, phenos, 65-60%, 4 cm calcite broccia matrix zone © 140.0 m.	Andesitic greenatone: pale green, aphanitic, willy fract, w. celicito fillings. Syenite plag, porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreg. lower contact. Andesitic greenatone: pale green, aphanitic. Andesitic greenatone: pale green, aphanitic. Wk. epidote tro. diss. py. Feldapar porphyry: mottled, other, groundmass, mod. micrefractd w. chloritic healings, 70% plag, phenos., seb-underfal, 2-6 mm. Andesitic greenatone: pale green, aphanitic, willy fract, w. celicito fillings. Syenite plag, porph.: as above @ 114.16 - 124.43 m. Andesitic greenatone: med, green, aphanitic, pervas, microfract's, excernal precionated zones, 10-30 cm w. celicite mithings, 73 mm. Feldapar porphyry: mottled, drk. green chior, groundmass , indistinct plag, phenos, 65-65%, 4 cm galotic breocla matrix zone @ 140.0 m.	Andesitic greenatone: pale green, aphanitic, pervas. microfract's, several brecoits matrix filling, 2-5% calcite velidate, 1-3 mm, calcite piege, perph.; as above @ 114.16 - 124.43 m. Andesitic greenatone: med. green, aphanitic, pervas. microfract's, calcite velidate, 1-3 mm, calcite piege, perphy; mottled, drik, green chior, groundmess, mod. microfract's, calcite velidate, 1-3 mm, calcite matrix filling, 2-5% calcite velidate, 1-3 mm, calcite matrix groundmess, mod. microfract's, calcite velidate, 1-3 mm, calcite matrix groundmess, mod. green, aphanitic, pervas. microfract's, calcite velidate, 1-3 mm, calcite matrix filling, 2-5% calcite velidate, 1-3 mm, calcite matrix groundmess, mod. green, aphanitic, pervas. microfract's, calcite velidate, 1-3 mm, calcite matrix filling, 2-5% calcite velidate, 1-3 mm, calcite matrix filling, 2-5% calcite velidate, 1-3 mm, and chior. diss py, 0.5% mod. chior. diss py, 0.5% mod. chior.	ANGLES VEINS ALTERATION MINERALS (%) SAMPLE NO. Syenite plag, perph.: as above @ 77.7-93.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, treg, lower sontaet. Andesitis greenatone: pale green, aphanitic. Wk. mod. perviselve potassis/chiror plag pheno, replacements Andesitis greenatone: pale green, aphanitic, with finding pheno, sub-euhedral, 2-6 mm. Andesitis greenatone: pale green, sub-authedral, 2-6 mm. Syenite plag, porph.: as above @ 114.16 - 124.43 m. Andesitis greenatone: med. green, sub-authedral, 2-6 mm. Wk. chior., spid. Wk. chior., spid. 121803 136.24 138.24 1.0 253 collaboration for the collaboration for t	ANGLES VEINS ALTERATION MINERALS (%) SAMPLE NO. Syenite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irrog. lower contact. Andesitio greenstone: pale green, aphanitic. Wk. epidote tro. diss. py. Fédapar porphyry: mettled, chlor, groundmass, med. microfredd w. chlorito healings, 70% plag. phenos., sub-sub-sedral, 2-6 mm. Andesitio greenstone: pale green, sphanitic, wkly fract. w. calcite fillings. Syenite plag. porph:: as above @ 114.18 - 124.43 m. Andesitio greenstone: med, green, aphanitic, wkly fract. w. calcite fillings. Syenite plag. porph:: as above @ 114.18 - 124.43 m. Andesitio greenstone: med, green, aphanitic, pervas. microfract's, several brocciotact zones, 10-30 cm w. calcite matrix filling, 2-6% calcite veinitets, 1-3 mm. Fedapar porphyry: mottled, drk, green chlor, groundmass , inclusions in the process of	Angles Vens Alteration Minerals (%) Sample NO. Syenite plag. porph.: as above @ 77.7-83.82, brownish pink groundmass at approx. 123.7-124.43 m, sharp, irreq. lower potassic/chier plag pieros. replacementar pla	ANGLES VEINS ALTERATION MINERALS (%) SAMPLE NO. LENGTH (meterel (ppm) (p

TECK EXPLORATION LTD.

BEAR PROPERTY

DATE LOGGED:

PROJECT #1738 DEPTH

HOLE NO. 93-BC-02

PAGE: 1 of 1

NTS: CLAIM: 82E/2E CUB 4

DATE COLLARED: 31/8/93 DATE COMPLETED: 31/8/93 DIP -70

AZ

LENGTH: DEPTH OF OVB: 41.76m 3.05m

ELEVATION:

1204m

360°

CASING REMAINING: WATERLINE LENGTH:

PROBLEMS:

LOGGED BY:

G.T.

CORE SIZE: NO

DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Cu (ppm)	Au (ppb)	Ag (g/t)	Fe (%)	Other
03.05	Overburden													
3.05-16.67	Quartz diorite: intrusive breccia, mottled, ~90% ang. intrus. frags, 1-5 cm, occas, w. mafic frags to 5.0 cm, dk green chlor groundmass, mainity composed of sodic feldspar, locally porphyritic with pervasive sporedic zones of potassic alt, plag, phenos., grey green to drk pinkish green, brkn w. limon. stain on fract. sfcs; mafic breccia zone ❷ 8.78-9.33 m.			wk-mod potasic,chlor, epidote										
16.67-19.8	Syenite plag, porph.: brown-brownish pink, 10% sub-euhedral plag, phenos, 2-7 mm w, wk pervasive chlor, replacement, 3% 1-2 mm blot, phenos (1-2%), dies, chlor, spots, 1-2 mm, hern, replacemt of chlor, spots @ 18.4-18.8 m, aphanitic potassic groundmass.	U. cont 70°		wk. carbonate						. :				
19,8-26.2	Quartz diorite: grey green-drk green, crowded, equigranular, 70% pieg, phenos, subhedral, 2-5 mm, 20% K-spar phenos., 10% chlor, groundmass, localized K-spar bands (0,6 cm).				chlor-epid (mod-strg) carbnte-mod hem-wk									
26.2-37.97	Quartz diorite: as above , but with very weak to nli alteration, med. grey to greenish grey, edigranular plag phenos, 1-3 mm , 80% plag + qtz, 40% pyroxene+/- blotite, sporedic mafic xenoliths (2-13 cm).			v. wk. potassic,chlor										
37.97-40.27	Andesitic greenstone; med grey green, minor chlor/hem healed microfracts, sporadic narrow zones of q.dior, intrusion/mixing.			wk. chlor- ep id										
40.27-41.76	Quartz diorite: as above ; greenstone band, locally magnetic ⊚ 41.12-41.52 m.			wk. ahlor -ap id						٠.				
41.76	E.O.H.													

TECK EXPLORATION LTD.

BEAR PROPERTY

PROJECT #1738

HOLE NO. 93-BC-03

PAGE: 1 of 2

NTS: CLAIM: 82E/2E CUB 4

1204m

DATE COLLARED: DATE COMPLETED:

DATE LOGGED:

DEPTH

<u>DIP</u> -45° LENGTH: 111.25m

DEPTH OF OVB: 3.66m

CASING REMAINING:

WATERLINE LENGTH:

ELEVATION: GRID COORD:

CORE SIZE: NO

PROBLEMS:

<u>AZ</u>

66°

LOGGED BY: G.T.

D BY: G.T. PI

31//08/93

01/09/93

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DEPTH (maters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Zn (%)	Pb (%)	Ag (g/t)	Fe (%)	Other
0-3.68	Overburden													
3.66-21.86	Quartz diorite-intrusive : porphyritic, broken w. limon. coatings, strongly brecciated @ 3.68-11.0 w. pink angular piag. frags and 5% crushed matrix; @ 11.0-21.96 grey, equigran, mottled; 15 cm sphanitic syenite band @ 20.3; 25 cm brown mafic band @ 16.87-17.12m.	-												
21.96-29.2	Syenite plag, porph. (as previously described)	U. Contact 70°												
29.2-67.0	Quartz diorite porphyry: equigranular, plag phenos 2-6 mm (30%), grey quartz-feldspar groundmass, 10% green pxn-chlor xis 1-3 mm; 20.2-—36.0 wk. potasalc ait. of plag, phenos w. ebundant chlor, microfracts; 36.0-43.2 smiller to above with fear potasalc ait. 13 cm ash tuff layer at 40.5 m.; 43.2-48.6 fault zone , broken q.d. w. ebundant calcite fract. fills, local breociation, fault gouge @ 48.4-48.6 m; 48.6-57.0 grey, equigranular q.d.with minor matic inclusions (2-10 cm)													
57.0-62.06	Syenite plag, porph; as previously described	U.& L Contacts 50°									-			
62.06-87.96														
62.06-87.96	Quartz diorite porph: mottled, broken, microfract, pink potassic sit. plag. phenos, 2-5 mm, green chlor. groundmass.			chier-(mod to strg), wk potessic										
87.96-95.24	Syenite plag, porph: pinkish brown, 5% whit to pale green sub- cuhedral plag phenos 2.5 mm w. 1 % diss blot., 1-2 mm , numerous 1-2 mm pink potassic veinlets @ 20° to core axis.						:							

DDH NO. 93-BC-03

DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Zn (%)	Рь (%)	Ag (g/t)	Fe {%}	Other
95.24- 111.25	Quertz diorite porphyry: mottled, pink to drk green, growdod pleg. phenos, 2-5 mm, 60%, drk green chlor-epid groundmess; chlor-epidote occurs as irreg. clusters, spots and bands.			pervasive mod. potassic, chior, epid; potassic plag. pheno replacmot										
111.25	E.O.H.													
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TECK EXPLORATION LTD.

NTS:

82E/2E

CLAIM: ELEVATION: BEAR 3650'

GRID COORD: LOGGED BY: G.T. BEAR PROPERTY

DATE COLLARED: 01/09/93 DATE COMPLETED: 02/09/93

DATE LOGGED:

PROJECT #1738

DEPTH

HOLE NO.

DIP

-90°

AZ

93-BC-04

PAGE: 1 of 1

LENGTH: 66.14 m

DEPTH OF OVB: 12.8 m

CASING REMAINING:

WATERLINE LENGTH:

PROBLEMS:

CORE SIZE: N

	CONE SIZE.	nu											
DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
	ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Zn (%)	Pb (%)	Ag (g/t)	Fe (%)	Other
Overburden													
Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50%, 1-3 mm pxn, bio phenos, pervasive chlor, bands, texture locally masked by ohlor, alt.			chior,epid (wk-mod)										
Quartz diorite: pink, drk green, strongly broken, locally friable, sheared, intense potassio, chlor elt; plag phenos entirely potassio altered; fault gouge @ 19.1-19.5, 20.9-21.1 w. grey, wint banded limeatone frage, and pink K-spar frage; angular mafic inclusions (10%) @ 16.1-19.1 m.			strong potassic, chior, strong carbonate in gouge zones	tro. py								-	
Quartz diorite: less altered zone than above, mottled, med-drk green chlor groundmass, mafics pervesively chloritized, plag phenos wkly potassic alt.			chlor (mod- strong) wk potass, c pid	py-tro-0.5 %									
Syenite plag. porph: 5-10% white piag phenos, 2-5 mm , 1-2% biot. laths, 1-2 mm , pink potassic groundmass, sharp irregular contacts.													
Quartz diorite: fresh, grey, eqigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare mafic xenoliths, 41.2-46.5 red hem, fract, coatings.			·										
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	Overburden Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50%, 1-3 mm pxn. bio phenos, pervasive chlor. bands, texture locally masked by ohlor. sit. Quartz diorite: pink, drk green, strongly broken, locally frisble, sheared, intense potassic, chlor att; plag phenos entirely potassic altered; fault gouge @ 19.1-19.5, 20,9-21.1 w. grey, with banded limestone frage, and pink K-spar frage; anguler maffic inclusions (10%) @ 16.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chlor groundmass, maffics pervasively chloritized, plag phenos wkly potassic alt. Syenite plag. porph: 6-10% white plag phenos, 2-5 mm, 1-2% biot. laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, grey, eqigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare maffic xenoliths, 41.2-46.5 red hem. fract. coatings.	DESCRIPTION STRUCTURE ANGLES Overburden Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50 %, 1-3 mm pxn, bio phenos, pervasive chior, bands, texture locally masked by chlor, bt. Quartz diorite: pink, drik green, strongly broken, locally friable, shesred, intense potassic, chlor alt; plag phenos entirely potassic altered; fault gouge @ 19.1-19.5, 20.9-21.1 w, grey, with banded limestone frags, and pink K-spar frage; angular mafic inclusions (10%) @ 19.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chlor groundmass, mafics pervasively chloritized, plag phenos wkly potassic alt. Syenite plag, porph: 6-10% white plag phenos, 2-5 mm, 1-2% biot. laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, grey, ecigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare mafic xenoliths, 41,2-46.5 red hem, fract. coatings.	Overburden Overburden Quartz diorite: greenish grey te green, equigranular, felsic groundmass w. 50 %, 1-3 mm pxn, bio phenos, pervasive chlor, bands, texture locally masked by chlor, etc. Quartz diorite: pink, drik green, strongly boken, locally friable, sheared, intense potassic, chlor alt; plag phenos entirely potassic altered; fault gouge @ 19.1-19.5, 20.9-21.1 w. grey, witt banded limestone frags, and pink K-spar frage; angular mafic Inclusions (10%) @ 19.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chlor groundmass, mafics pervasively chloritized, plag phenos wkly potassic alt. Syenite plag, porph: 6-10% white plag phenos, 2-5 mm, 1-2% biot. laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, grey, ecigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare mafic xenoliths, 41,2-46.5 red hem, fract. coatings.	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION Overburden Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50 %, 1-3 mm pxn, bio phenos, pervasive chlor, bands, texture locally masked by politor; and phenos entirely potessic eltered; fault gouge © 18.1-19.5, 20.9-21.1 w. grey, with banded limestone frags, and plnk K-spar frage; angular mafic inclusions (10%) © 16.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chlor groundmass, mafics pervasively chloritized, plag phenos wkly potassic ait. Syenite plag, porph: 5-10% white plag phenos, 2-5 mm, 1-2% blot. laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, grey, eqigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare mafic xenoliths, 41,2-46,5 red hem, frect. coatings.	ANGLES VEINS ALTERATION METALLIC MINERALS (%) Overburden Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50 %, 1-3 mm pxn, bio phenos, pervasive chior, bands, texture locally masked by chior, att. Quartz diorite: pink, drk green, strongly broken, locally friable, sheared, interase potassic, chior sit; plag phenos entirely potassic altered; fault gouge © 18.1-19.5, 20.9-21.1 w. grey, with banded limestone frags, and pink K-spar frage; angular mafic inclusions (10%) © 16.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chior groundmass, mafics pervasively chioritized, plag phenos wkiy potassic alt. Syenite plag, porph: 5-10% white plag phenos, 2-5 mm, 1-2% biot, laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, grey, edigranular, 30-40% pxn phenos, 1-3 mm, grey felsic groundmass, wkly magnetic, rare mafic xenoliths, 41.2-46.5 red hem. frect. coatings.	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) NO. Overburden Quartz diorite: greenish grey to green, equigranular, felaic groundmass w. 50 %, 1-3 mm pxn, bio phenos, pervasive chior, bards, texture locally masked by oblor, att. Quartz diorite: pink, drk green, strongly broken, locally friable, sheared, intense potassic, chlor att; plag phenos entirely potasic allered; fault gouge © 19.1-19.5, 20.9-21.1 w. grey, whit banded filmestone frage, and pink K-spar frage; angular mafic inclusions (10%) © 16.1-19.1 m. Quartz diorite: less altered zone than above, mottled, med-drk green chior groundmass, mafics pervasively chioritized, plag phenos wity potassic att. Syenite plag, porph: 5-10% white plag phenos, 2-5 mm, 1-2% biot. Laths, 1-2 mm, pink potassic groundmass, sharp irregular contacts. Quartz diorite: fresh, gray, edigranular, 30-40% pxn phenos, 1-3 mm, gray felsic groundmass, wkly magnetic, rare mafic xenolitits, 41.2-46.5 red hem. frect. coatings.	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE NO. Overburden Quartz diorite: greenish grey to green, equigranular, felsic groundmass w. 50 %, 1-3 mm pxn, 1-3 mm	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC METALLIC SAMPLE FROM TO Overburden Quartz diorite: greenish grey to green, equigranular, felalic groundiness w. 60%, 1-3 mm pxx, blo phenos, pervestive chior, bands, texture locally masked by chior, att. Quartz diorite: price, drik green, strongly broken, locally frisble, sheared, intense potessile, chior att; plag phenos entirely potessile altered; fault gouge © 18,1-18,5, 20,9-21,1 w. grey, with banded ilmestore frage, and pink K-aps, equider martic inclusions (10%) 0 16,1-18,1 m. Quartz diorite: less altered zone than above, mottled, med-drik green chlor groundenss, mafice pervesively chloritized, plag phenos wity potessile ait. Syenite plag, porph: 6-10% white piag phenos, 2-5 mm, 1-2% blot, laths, 1-2 mm, pink potessile groundmass, sharp irregular contects. Quartz diorite: freeh, grey, edigranular, 30-40% pxn phenos, 1-3 mm, grey feliag groundmass, wity magnetic, rare mafic xenoliths, 41,2-46,6 red hem, freet, coatings.	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE FROM TO LENGTH (meters) Overburden Quartz diorite; greenish grey to green, equigranular, felaic groundmass w. 50%, 13-3 mm pxn, bip phenos, pervasive chlor, bards, texture closuly masked by othor, att. Quartz diorite; pink, drk green, strongly broken, locally friable, sheared, intense potassic, chlor sit; ping phenos, pervasive chlor, strong potassic, chlor, strong graphonete in gouge 20 91-11-18, 2.09-2.11, new, with banded filmstore frage, and pink K-spair frage; angular matic inclusions (IOS) 91 61-1-19.1 m. Quartz diorite; less alteed zone than above, mottled, med-dirk green potassic ait. Syenite plag, porch: 5-105 white plag phenos, 2-5 mm, 1-2% bloic, Latha, 1-2 mm, pink potassic groundmass, sharp irregular Contacts. Quartz diorite; freah, grey, edigranular, 30-40% pxn phenos, 1-3 mm, grey fedioruodmass, wkly magnetic, rare matic xenolitius, 41,2-46.6 red hem, frect, coatings.	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE FROM TO LENGTH Zo (%) Overburden Quartz diorite; greenish grey to green, equigranular, felsic groundrases w. 60 %, 13 mm pxn, bio phenos, pervasive chior, bards, tecture placelly masked by other, etc. Quartz diorite; greenish grey to green, equigranular, felsic groundrases w. 60 %, 13 mm pxn, bio phenos, pervasive chior, bards, tecture placelly masked by other, etc. Quartz diorite; grixk, drk green, strongly broken, locally friable, sheared, fittenes potassic, chior etc. pink, drk green, strongly broken, locally friable, sheared, fittenes potassic, chior etc. pink, drk green, strongly broken, locally friable, sheared, fittenes potassic, chior etc. pink, drk green, strongly and previous descriptions graphorate in goluge zones Chior (mod- etcrong potassic, chior etc. pot. chior (mod- etcrong potassic, chior etc. pot. chior (mod- etcrong potassic) chior (mod- etcro	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE FROM TO LENGTH TO LENGTH (%) (%) (%) (%) (%) (%) (%) (%	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE FROM TO LENGTH TO LENGTH TO LENGTH TO (%) (%) (%) (%) (%) (%) (%) (%	DESCRIPTION STRUCTURE ANGLES VEINS ALTERATION METALLIC MINERALS (%) SAMPLE FROM TO LENGTH (merexy) (%) (%) (%) (%) (%) (%) (%) (

TECK EXPLORATION LTD.

NTS:82E/2E CLAIM: BEAR ELEVATION: 3650' DATE LOGGED:

GRID COORD: LOGGED BY: G.T. BEAR PROPERTY

DATE COLLARED: 02/09/93

DATE COMPLETED: 03/09/93

PROJECT #1738

<u>DIP</u>

.90°

HOLE NO.

AZ

93-BC-05

PAGE: 1 of 3

LENGTH:

140.5 m

DEPTH OF OVB:

6.7 m

CASING REMAINING: WATERLINE LENGTH:

PROBLEMS:

CORE SIZE: NO

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DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Au (ppb)	Cu (ppm)	Ag (g/t)	Fe (%)	Other
0-6,7	Overburden													
6.7-28.65	Mafic volcanics: light to med. green, aphanitic, mottled, weak pervasive autobreccietion, med-strong skarnification w. pervasive patches/bands of brown garnet, epidote (> 50%); < 5% calcite vnits; greetest skarn intensity @ 11.6-16.25 m; semi-mav magnetite,py. @ 14.3-14.77 m			mod-strg skerning, gernet, epid, chior, local silicif.	0.5-1.0% disa py, locally>, minor local po. conc's	121804 121805	11.63 14.33	14.33 16.25	2.7 1.92	10 6	760 266			
28.65-29,76	Syenite plag. porph.: 5% plag phenos(partly Chlor), 2-6 mm, plnk potassic groundmass, 1% blot. laths , 1-2 mm													
29.76-33,05	Mafic volcanics: sa at 8.7-28,65 m; skarned w, localized patches garnet, epidote; prominent alteration band ⊕ 31,95-32,25 (70 % epid, 20 % garn, 5 % carbonate, 5 % chlorite)				1-3% diss py	121806	30.36	32.61	2.25	5	193			
33,05-38.7	Syenite plag, porph.: 6-10% chior, plag phenos, brownish chiil margin w. wht plag, phenos @ 37.4-38.7	U. Cont. 60°												
38.7-58.3	Mafic volcanics: pale to drk green, aphanitic, mottled, weakly skarned, autobrecciated from approx. 50.9-59.3 w. 1-2 % py.as portion of pale green matrix			chlor-epid (mod)		121807 121808	50.7 66.9	52,8 58,3	2.1 2.4	6 6	234 318			
58.3-72.0	Syenite plag, porph.: as previous units, sherp irreg, contacts												1	

DDH-No: 93-BC-05

			-											
DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA		:		RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Au (ppb)	Cu (ppm)	Aq (g/t)	Fe (%)	Other
72.0-92.4	Quartz diorite: equigranular, mod. grain, greenish grey, hematite on frect's @ 82.88-92.4 m,			wk. chlor,epid										,
	fract, zone @ 82.88-86.04, broken, fractured, sheared w. red hem. on fract, sfcs; localized brecclation, increased calcite vnits			carbonate, chlor, hem (mod)	ļ		-							
92.4-103.75	Mafic volcanics: aphanitic, grey green, broken, mod. calcareous: © 96.82-103.75 mod-strong skarning w. conspicuous bands and patches brown garnet, chior, epid.			chlor,epid,hem . (mod)	py tro,									
	99.25-~101.8 , zone of very strong garnet bands w. assoc. autobrecciation, 5-10% calcite+ hem as matrix filling; mottled quartz diorite band (22 cm) @ 102.16-102.38 m													
103.75- 105.76	Syenite pieg, porph,; brownish pink, 5% whit pieg phenos, 2-5 mm , 1-2 % blotite													
105.76- 109.07	Mafic volcanics: fregmental, heterolithic, angular green mafic/cream felsic frags, 1-2 cm, conspicuous 10-20 cm brown garnet patches +/- pild, minor calcite hairline fract's often v, red hem. (garnets occass, exhibit vague crystalline shape)			Garnet, epid, chior	py as sporadic patches									
109.07- 111.61	Syenite pieg. porph: pinkish brown, 3-5%, scattered pieg. phenos, weakly autobrecolated @ 108.87-111.61 w. pale green chlor. matrix		-					-						
111.61- 114.85	Quartz diorite: weakly mottled, med grain; quartz flooding @ 113.7- 114.12 (~80% qtz bands)			chlor-wk										
114.85- 116.91	Syenite pieg. porph: brownish pink groundmass w. 5% chloritized pieg phenos, 2-7 mm													
116.91- 126.11	Quartz digrite: eqigranular, green grey, weakly mottled, red hem. on fract's			wk. chlor,epid										
125,11- 127.1	Syenite plag, porph: as at 114.85-116.91 m													
127.1- 128.13	Quartz diorite: broken			chlor, clay carbonate (mod)										

PAGE: 3

DDH-No: 93-BC-05

														
DEPTH (meters)	DESCRIPTION	STRUCTURE					SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Au (ppb)	Cu (ppm)	Ag (g/t)	Fe (%)	Other
128,13- 130.1	Mafio volcanics: similar to 105.78-109.07, fragmental, heterolithic, angular green mafic volc. frags, av minor cream felsic frags, also 1-5 mm garnet frags , 1-2 cm garnet band, pervasive mod. calcareous													
130.1- 130.76	Mafle veleanies: very dark, strongly calcareous, magnetic			intense carbonate, chlor, hem, locally silic.										
130.75- 133.05	Quartz diorite (Fault Zone): fragmental qtz diorite, 50% angular frags w. Interatital chioritic gouge { frags. 2 mm- 4.0 cm.}; sharp lower contact	30° fault contact 20°									-			
133.05- 134.9	Andesite breccia: angular greenatone, calcite frags, 1-4 cm, abundant calcite matrix			carbonate - (strong)	tro disa py									
134.9- 140.61	Syenite plag. porph.													
140.61	E.O.H.													
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TECK EXPLORATION LTD.

NTS: CLAIM: 82E/2E BEAR

ELEVATION:

3900'

GRID COORD:

BEAR PROPERTY

DATE COLLARED: 03/09/93

DATE COMPLETED: 04/09/93

PROJECT #1738

HOLE NO.

93-BC-06

PAGE: 1 of 2

DEPTH DIP -60°

AZ 140°

DEPTH OF OVB: 4.57 m CASING REMAINING:

LENGTH: 105.16 m

WATERLINE LENGTH:

PROBLEMS:

LOGGED BY: G.T. CORE SIZE: NO

DATE LOGGED:

		CURE SIZ												
DEPTH (meters)	Description	STRUCTURE					SAMPLE	DATA		}		RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Au (ppb)	Cu (ppm)	Aa (ppm)	Fe (%)	Other
0-4.67	Overburden			<u> </u>							· .			
4.57-13.75	Feldspar porphyry: pale green w. red hem. stain on fract's, pervasive mod-strong hem. stain, > 60% plag, phenos are mod. chloritized, 60% plag phenos, 2-7 mm, subhedral-euhedral, partially hem. stained, broken to ~ 10.0 m , 18 cm voic, frag @ 13.29 m , L. cont>	. 60°		chlor,hem (mod- strong)										·
13.76-15.32	Andesitic greenstone: fine grain, green to red, irreg, red hem, bands, patches, wk epid, skarn bands @ 14.95-15.12 m, minor py, in drk f.g. volc. @ 14.6-14.88 m.			chlor, hem, epid	py tro									
15.32-16.52	Feldspar porphyry: as above @ 4,67-13.75 m, strong hem. alt. @15.76-16.37 m.			chlor (mod) hem (mod-strg)		121809	15.32	16,62	1.2	50	184	0.9		
16.52-19.28	Greenstone (Mineralized Zone): grey to greenish grey, sphanitic greenstone, pervasive wkmod silicification, 10-20% semimav py, po, cpy as Irreg. masses, fract. fille, grad. lower contact.		·	chlor, silic	10-20% py,pa,cpy	121810 121811	16.52 17.82	17.82 19.28	1.3 1.46	2,4 g/t 2,02 g/t	2.26% 2.10%	48.02 g/t 33.61 g/t		
19.26-32.45	Andesitic greenstone: pale green, aphanitic, mottled, pevasive silicification w. conspicuous skarning of irreg, patches of pinkish garnet often w. epidote fims, epidote also as segregations, py. as f.g. dieseminations, also se minor localized clusters to 10 cm.			skarn- garn,epidote, silicification	f.g. diss py 0.5%	121812	19.28	20.42	1,14	110	1078	3.5		
			<u> </u>	 	<u> </u>	121813	31,1	32.45	1.35	150	626	0,9		
32.45-34.87	Greenstone [Mineralized Zone]: similar to mineralized zone at 16.52- 19.28 m, dark, f.g. alt. greenstone, w. diss to semimsy py as fracture fills and irregular masses or disseminations.		20-30°to C,A,	chlor (mod)	10-20% ру 3-5% ру	121814 121816	32.45 33.93	33.93 34.87	1.48 0.94	890 280	1223 538	3.6 0.5		

DDH NO. 93-BC-06

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DEPTH (meters)	DESCRIPTION	STRUCTURE				4	SAMPLE	DATA				RESULTS		
FROM/TO		ANGLES	VEINS	ALTERATION	METALLIC MINERALS (%)	SAMPLE NO.	FROM	то	LENGTH (meters)	Au (ppb)	Cu (ppm)	Ag (ppm)	Fe (%)	Other
34,87-39.23	Andesite greenstone: continuation of zone @ 19.28-32.45, conspicuous garnet-epidote alt.; sharp contact qtz diorite band @ 38.48-38.67 m.	U.Cont. @ 40°		Skarning w. garn. epid, silicification	diss py, <0.5%	121816	34.87	36.87	1.0	70	432	0.9		
39.23-44.08	Feldspar porphyry: crowded, light grey plag phenos, 1-3 mm, >50%, euhedral w. darker grey felsic groundmass, equigranular.			wk. chior.										
44,08-45.4	Syenite plag, porph; as previously described.													
45.4-65.66	Feldspar porphyry; crowded plag, phenos, equigranular (as at 39.23-44.08 m).													
66,56-64,81	Syenite plag, porph: 10 % plag phenos., wk. to mod. chior replaced, euhedral, 2-10 mm, brownish green chill margins 20-40 cm, whiteram plag phenos, pink potassic groundmass, sharp U.& Lower contacts.	U Cont 40°	·											
64.81-81.66	Feldspar porphyry: as previous unit @ 45.4-55.55, crowded plag, phenos, 1-3 mm, pink, green (potassic, chlor) groundmass, 1-2 % biotite, 1-2 mm , 1 % calc, vnits 1-3 mm.			wk potassic,chlor										
81.56- -90.0	Syenite plag, porph; strongly broken at approx, 83.8-90.0 m.													
90.0-105.16	Feldspar porphyry: as previous units with Intense chlor-hem sit, porph. texture pervasively masked by alteration, strongly fractured with approx. 3% calcite breccis matrix fillings.			strong chlor,hem local K-spar										
106.16	Е.О.Н.													
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APPENDIX 6 GEOCHEMICAL METHODS

GEOCHEMICAL ANALYTICAL METHODS CURRENTLY IN USE AT ROSSBACHER LABORATORY LTD.

A. SAMPLE PREPARATION

1. Geochem. Soil and Silt:

Samples are dried and sifted to minus 80 Mesh, through stainless steel or nylon screens.

2. Geochem. Rock:

Samples are dried, crushed to minus 1/4 inch, split, and pulverized to minus 100 mesh.

B. METHODS OF ANALYSIS

- 1. Multi element: (Mo, Cu, Ni, Co, Mn, Fe, Ag, Zn, Pb, Cd, As):

 0.50 Gram sample is digested for four hours with
 a 15:85 mixture of Nitric-Perchloric acid. The
 resulting extract is analyzed by Atomic Absorbtion
 spectroscopy, using Background Correction where
 appropriate.
- 2. Antimony:

0.50 Gram sample is fused with Ammonium Iodide and dissolved. The resulting solution is extracted into TOPO/MIBK and analyzed by Atomic Absorbtion spectroscopy.

3. Arsenic: (Generation Method)

0.25 Gram sample is digested with Nitric-Perchloric acid. Arsenic from the solution is converted to arsine, which in turn reacts with silver D.D.C. The resulting solution is analyzed by colorimetry.

4. Barium:

0.20 Gram sample is repeatedly digested with HClO₄- HNO₃ and HF. The solution is analyzed by atomic absorbtion spectroscopy.

5. Biogeochemical:

Samples are dried and ashed at 550°C. The resulting ash analyzed as in *1, Multielement Analysis.

6. Bismuth:

0.50 Gram sample is digested with Nitric acid. The The solution is analysed by Atomic absorbtion spectroscopy.

METHODS OF ANALYSIS (CONT'D)

7. Chromium:

0.25 Gram sample is fused with Sodium Peroxide. The solution is analyzed by atomic absorbtion spectroscopy.

8. Fluorine:

0.50 Gram sample is fused with Carbonate Flux, and dissolved. The solution is analysed for Fluorine by use of an Ion Selective Electrode.

9. Gold AR/AAS:

10.0 Gram sample is roasted at 550°C and dissolved in Aqua Regia. The resulting solution is subjected to a MIBK extraction, and the extract is analzed for Gold using Atomic Absorbtion spectroscopy.

9A Gold FA:

10.0 Gram sample is fused with appropriate fluxes, and the resulting lead button is cupelled to produce a gold/silver bead. The bead is dissolved in Aqua Regia and analyzed for gold by AAS.

10. Mercury:

1.00 Gram sample is digested with Nitric and Sulfuric acids. The solution if analyzed by Atomic Absorbtion spectroscopy, using a cold vapor generation technique.

11. Partial Extraction and Fe/Mn oxides:

0.50 Gram sample is extracted using one of the following: hot or cold 0.5 N. HCl, 2.5% E.D.T.A., Ammonium citrate, or other selected organic acids. The solution is analyzed by use of Atomic Absorbtion spectroscopy.

12. pH:

An aqueous suspension of soil, or silt is prepared, and its pH is measured by use of a pH meter.

13. Rapid Silicate Analysis:

0.10 Gram sample is fused with Lithium Metaborate, and dissolved in HNO_{5} . The solution is analyzed by Atomic Absorbtion for SiO_{2} , $Al_{2}O_{5}$, $Fe_{2}O_{5}$, MgO, CaO, Na₂O, $K_{2}O$, TiO₂, TiO₂, $P_{2}O_{5}$, and MnO.

14. Tin:

0.50 Gram sample is sublimated by fusion with Ammonium Iodide, and dissolved. The resulting solution is extracted into TQPO/MIBK and analysed by atomic absorbtion spectroscopy.

15. Tungsten:

1.00 Gram sample is sintered with a carbonate flux, and dissolved. The resulting extract is analyzed color-metrically, after reduction with Stannous Chloride, by use of Potassium Thiocyanate.

16. ICP:

0.5 Gram sample is digested with Aqua Regia, and analyzed using a JOBIN YVON MODEL JY 32 1987 ICP Emission Spectrophotometer for Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, La, Mg, Mo, Mn, Ni, P, Pb, Sb, Si, Sr, Ti, U, V, W, Zn.

