Addendum to the Summary Report on the

IRON MASK PROJECT

for

Great Plains Development Company of Canada,Ltd.

G.D. Delane, B.Sc. February 15th, 1971

BACON & CROWHURST LTD.

1720-1055 West Hastings Street
Vancouver 1, B.C.

ADDENDUM

to the

SUMMARY REPORT

on the

IRON MASK PROJECT

for

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LIMITED

by

G.D. DELANE, B.Sc.

Vancouver, B.C. February 15th, 1971.

LIST OF ILLUSTRATIONS

Since August 15th, 1970, additional work in the form of percussion and diamond drilling was carried out on the mineral claims of the Iron Mask project in accordance with the recommendations of the July 25th, 1970, Summary Report of the Iron Mask Project by Bacon & Crowhurst Ltd.

Seven percussion drill holes by H. Horning Percussion Drilling Ltd. (totalling 1980') and six diamond drill holes by Inspiration Drilling Ltd. (totalling 2118') were drilled in the immediate vicinity of the ski tow on the Grandview Ski Acres Ltd. lease where previous exploration work had indicated the presence of copper mineralization. Following this, eight more percussion holes totalling 2570' were drilled by Tonto Explorations Ltd. to test some of several small geochemical anomalies which are peripheral to or at some distance from the Grandview Ski Acres lease.

The results of the drilling indicate that the main copper mineralization is apparently localized in and near the breccia zone at the top of the ski tow. In this locality, on line 12+00W, the mineral zone appears to be about 900' wide in a north-south direction and at least 300' deep with a probable trend to the west or northwest. The chalcopyrite mineralization was found to occur as blebs, patches, and steeply-dipping (about 70° S) veinlets near fault zones in micromonzonite-microdiorite and/or andesite breccia rocks.

Significant drill intersections in percussion holes PR-3A and 33 (respectively 390' of 0.105% Cu and 110' of 0.24% Cu) which are located 2000' farther to the west of the top of the ski tow, may represent an extension of the main mineral zone. If this is proven to be correct, then this zone could contain about 35 million tons of sub-marginal material.

The drilling of the peripheral anomalies encountered only sparse amounts of weak mineralization. In spite of this fact, these areas, and particularly those north and northwest of the Grandview Ski Acres lease, cannot be written off entirely for the following reasons:

1. The favourable geology - the presence of locally altered, fine grained, batholithic rocks underlying most of the area and containing some scattered mineralization near the contact with the Nicola volcanics.

2. The layer of caliche (a calcium carbonate - clayey soil capping), which presently covers much of the area, could suppress or inhibit the upward migration of metal ions through the soil and hence 'mask' or prevent the detection of geochemical anomalies on the property.

3. The distribution and relative abundance of the metal sulfides on the property could be such that they are beyond the detection limits of the geophysical equipment in current use.

4. The proximity to the mineralization (10 million tons of 0.51% Cu) on Cominco's Ajax, Wheal Tamar and Monte Carlo properties near Jacko Lake makes the Iron Mask claims of Great Plains strategically important.

In summary, the main geochemical anomalies in the vicinity of the ski tow have been sufficiently drilled for the present. The zone of mineralization here has apparently been delimited to the east but is open to the west and could be continuous for 2000 feet more towards the mineral intersections in drill holes PR-3A and 33.

The fact that copper mineralization has been found scattered over much of the length (18 miles) of the Iron Mask batholith, and particularly in the vicinity of the Grandview ski tow, suggests that the Iron Mask properties of Great Plains could contain deposits of low-grade copper mineralization.

G.D. Delane, B.Sc.,
Bacon & Crowhurst Ltd.

February 15th, 1971.

TABULATION OF FOOTAGE DRILLED ON IRON MASK PROJECT IN 1970
for GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

Percussion Drilling			
PR-1	170'	PR-24	410'
2	Cancelled	25	310'
3	160'	26	300'
3A	400'	27	320'
4	120'	28	320'
5	40'	29	270'
5A	130'	30	400'
6	120'	31	330'
7	30'	32	340'
8	80'	33	200'
9	270'	34	300'
10	390'	35	320'
11	400'	36	320'
12	310'	37	400'
13	300'	38	Cancelled
14	Cancelled	39	40'
15	210'	40	400'
16	400'	41	380'
17	300'	42	400'
18	300'	43	90'
19	300'	44	400'
20	330'	45	230'
21	310'	46	400'
22	300'	47	300'
23	230'	48	370'

Total footage
percussion drilled = 13,150'

Diamond Drilling	
D.D.H. IM-1	370'
2	468'
3	503'
4	622'
5	123'
6	296'
7	324'
8	Cancelled
9	656'
10	Cancelled
11	405'
12	314'

Total footage
diamond drilled = 4081'

January 29th, 1971.

G.D. Delane,
Bacon & Crowhurst Ltd.

TABULATION OF COMPLETED DIAMOND DRILL HOLES
BY INSPIRATION DRILLING LTD.
FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
DURING THE PERIOD APR. 28 - JUNE 8, 1970.

Hole No. & Drilling Dates	Coordinates & Approximate Elevations	Bearing	Dip	Length	Purpose & Remarks - Intersections & Average Grades in % Cu
IM #1 (June 2-8)	40+00E, 19+06N 2840' elev.		Vertical	370'	Test McPhar IP anomaly. Not sampled; deep overburden & intercalated sediments.
IM #2 (May 22-27)	20+00W, 1+25S 3455'	due S	-45°	468'	Test possible NW extension of zone through PR-11 & IM #4. 448' 0.043%
IM #3 (June 12-17)	12+00W, 5+25S	due N	-45°	503'	Test 2800 ppm Cu anomaly. 483' 0.21%
IM #4 (Apr. 28 - May 19)	14+08W, 4+04S 3470'		Vertical	621.5'	Test mineralization near trenches & 585 ppm Cu geochem anomaly. 160' 0.393% Cu, or 620' 0.103%

Total footage diamond drilled = 1963'

June 18, 1970.

G.D.Delane,
Bacon & Crowhurst Ltd.

TABULATION OF COMPLETED DIAMOND DRILL HOLES
BY INSPIRATION DRILLING LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.
DURING AUGUST-SEPTEMBER 1970

Drill Hole No. & Drilling Dates	Coordinates & Approximate Elevations	Bearing	Dip	Length	Purpose & Remarks - Intersections & Average Grades in % Cu
IM-5 (Aug.26-29)	15+90W, 6+50S 3420'	due N	-35°	123'	To test projection of geochem anomaly; terminated, poor recovery & progress.
IM-6 (Sep.22-25)	8+00W, 2+70S 3230'	due N	-45°	296'	Test 13,500 ppm geochem anomaly. 150' 0.18%, or 280' 0.142%
IM-7 (Sep.16-19)	0+80W, 0+65S 3140'	due N	-45°	324'	Test 1400 ppm geochem anomaly. 304' 0.098%
IM-9 (Aug.16-23)	12+00W, 3+00S 3310'	due N	-40°	656'	Test 1600 ppm goechem anomaly. 440' 0.156% 636' 0.131%
IM-11 (Aug.31-Sep.6)	15+90W, 6+57S 3422'	due N	-60°	405'	Replaces IM-5 - to test geochem anomaly projection. 385' 0.0975%
IM-12 (Sep.9-14)	15+85W, 5+25S 3375'	due N	-45°	314'	Test 585 ppm geochem anomaly. 110' 0.38% 288' 0.188%

Total footage diamond drilled = 2118'

October 6, 1970.

G.D. Delane,
Bacon & Crowhurst Ltd.

TABULATION OF COMPLETED PERCUSSION DRILL HOLES
BY H. MORNING PERCUSSION DRILLING LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

Hole No.	Coordinates	Bearing	Dip	Length	Remarks or Purpose
I GROUP IM #1 - ASSESSMENT WORK - JAN. 23, 24, 1970					
PR-1 (Jan. 23)	L16W, 8+52S		Vertical	170'	On basalt capping 50' thick; hit water at 140'
PR-3	L32W, 1+00N		Vertical	160'	On geochem soil anomaly of 1410 ppm; 3' overburden - no water encountered.
II GROUP IM #2 - ASSESSMENT WORK - JAN. 24, 25, 1970					
PR-4	5+00W, 27+00N		Vertical	120'	Test mineralization near trench - suspended - very damp rock.
PR-5	41+75E, 18+00N		Vertical	40'	To test IP anomaly; abandoned in clayey overburden - hit water & gravel at 30'
PR-6	6+75W, 28+00N		Vertical	120'	Collared on bedrock.
PR-7	L4W, 29+40N		Vertical	30'	Stopped in damp clayey overburden.
PR-8	L8W, 29+80N		Vertical	80'	Collared on bedrock.

Total footage drilled for assessment = 720'

April 8th, 1970.

G.D. Dalene,
BACON & CROWHURST LTD.

TABULATION OF COMPLETED PERCUSSION DRILL HOLES BY H. HORNING FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD. ON MINERAL CLAIMS OF THE IRON MASK PROJECT

Hole No.	Coordinates	Bearing	Dip	Length	Purpose & Remarks
Drilling Dates					
PR-10 (Feb. 24,25,26)	L36W, 2+00S		Vertical	390'	Test IP anomaly.
PR-3A (Feb. 27,28)	L32W, 1+00N		Vertical	400'	To deepen hole PR-3 on 1410 ppm soil anomaly.
PR-13 (Mar. 1,2,3)	8+25E, 7+50S	S08° W	-45°	300'	To test geochem anomaly, 2280 ppm, & visible sulfides in road cut.
PR-12 (Mar. 4,9)	16+50E, 11+00S	S50° E	-45°	310'	Test extension of vein in Ace #1 tunnel.
PR-5A (Mar. 10,11)	41+75E, 18+00N		Vertical	130'	Deepening of hole PR-5; abandoned again in clays. Test IP anomaly.
PR-9 (Mar. 12,13)	L40E, 23+50N		Vertical	270'	Abandoned in clayey material; test IP anomaly.
PR-15 (Mar. 14,15)	L44E, 23+00N		Vertical	210'	Test IP anomaly; Alternate hole to PR-5A, 9. Abandoned in clayey rock material.

Total footage percussion drilled (Feb. 24 - March 15) = 2010'

April 8th, 1970.

G.D. Delane,
BACON & CROMHURST LTD.

TABULATION OF COMPLETED PERCUSSION DRILL HOLES
BY H. HORNING DIAMOND DRILLING LTD.
FOR GREAT PLAINS DEVELOPMENT CO. OF CANADA LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
DURING THE PERIOD APRIL 10-23, 1970

Hole No. & Drilling Dates	Coordinates	Bearing	Dip	Length	Purpose & Results
PR-20 (Apr. 10, 11)	7+30E, 1+35S	due S.	-45°	330'	Test 1120 ppm Cu anomaly.
PR-21 (Apr. 12,13,14)	2+65N, 4+20S	"	"	310'	Test extension of Fain vein & 545 ppm Cu anomaly.
PR-11 (Apr. 19, 20)	14+00N, 4+00S		Vertical	400'	Test trench mineralization & 585 ppm Cu anomaly.
PR-16 (Apr. 21)	12+00N, 1+60S		vertical	400'	Test McThar IP anomaly.
PR-17 (Apr. 17)	10+00N, 0+60W	due S.	-45°	300'	Test 2720 ppm Cu anomaly.
PR-18 (Apr. 18,19)	11+70N, 3+60S	due S.	"	"	Test 2300 ppm Cu anomaly.
PR-19 (Apr. 15,16)	8+50N, 1+65S	"	"	"	Test 13500 ppm Cu anomaly.
PR-22 (Apr. 22,23)	64+25N, 2+10E (RCV coordinates)		vertical	"	Test RCV Cu anomaly.
PR-23 (April 22)	L12N, 6+12S	due S.	-45°	230'	Test McThar IP anomaly; abandoned - tight hole.

Total footage percussion drilled = 2370'

G.D. Delane,
Bacon & Crowhurst Ltd.,
April 30, 1970.

TABULATION OF COMPLETED PERCUSSION DRILL HOLES
BY H. HORNING PERCUSSION DRILLING LTD.
FOR GREAT PLAINS DEVELOPMENT CO. OF CANADA LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
DURING THE PERIOD MAY 9-16, 1970.

Hole No. & Drilling Dates	Coordinates & Approximate Elevations	Bearing	Dip	Length	Purpose & Remarks
PR-24 (May 9)	1+00W, 1+00N 3280' elev.	due S	-45°	410'	Test 1400 ppm geochem anomaly
PR-25 (May 9,10)	4+00W, 1+50N 3295'	due S	-45°	310'	Test 1160 ppm geochem anomaly
PR-26 (May 16)	4+00W, 3+00S 3270'	due S	-45°	300'	Test 585 ppm geochem anomaly
PR-27 (May 11)	6+00W, 1+30N 3310'	due S	-45°	320'	Test possible extension of zone from PR-17 to PR-25
PR-28 (May 13)	6+00W, 0+65S 3340'	due S	-45°	320'	Test possible extension of zone from PR-19 to PR-24
PR-29 (May 10)	8+25W, 1+00N 3250'	due S	-45°	270'	Test 2300 ppm geochem anomaly
PR-30 (May 13)	12+00W, 1+35N 3385'	due S	-45°	400'	Test 1080, 1880, & 1600 ppm geochem anomaly
PR-31 (May 11)	20+00W, 6+10N 3420'	due S	-45°	330'	Test 426 & 1000 ppm geochem anomaly
PR-32 (May 12)	23+00W, 3+00N 3450'	due S	-45°	340'	Test 220 ppm geochem anomaly as possible zone extension through PR-3A

Total footage drilled for assessment = 3000'

June 8th, 1970.

G.D. Delane,
Bacon & Crowhurst Ltd.

TABULATION OF COMPLETED PERSUSSION DRILL HOLES
BY H. HORNING PERCUSSION DRILLING LTD.
ON MINERAL CLAIMS OF THE IRON MASK PROJECT
FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.
DURING AUGUST 1970

Drill Hole No. & Drilling Dates	Coordinates & Approximate Elevations	Bearing	Dip	Length	Purpose & Remarks
PR-33 (Aug. 20)	31+00W, 0+50S 3325'	due N	-45°	200'	Test 1200 ppm geochem. anomaly; terminated hole lost H_2O circulation.
PR-34 (Aug. 21)	33+00W, 0+50S 3295'	due N	-45°	300'	Test 527 ppm geochem. anomaly.
PR-35 (Aug. 25)	4+00E, 2+65S 3045'	due N	-45°	320'	Test 3360 ppm geochem. anomaly.
PR-36 (Aug. 24)	8+00W, 8+50S 3355'	due N	-45°	320'	Test 426 ppm geochem. anomaly.
PR-37 (Aug. 26)	0+00W, 6+00S 3190'	Vertical		400'	Test 495 ppm geochem. anomaly.
PR-39 (Aug. 23)	16+30W, 2+50N 3275'	due N	-45°	40'	Test 527 ppm geochem. anomaly; abandoned hole - lost H_2O circulation.
PR-40 (Aug. 23)	31+00W, 0+00N 3320'	Vertical		400'	To replace PR-33; test 1200 ppm geochem anomaly.
Total footage percussion drilled =				1980'	

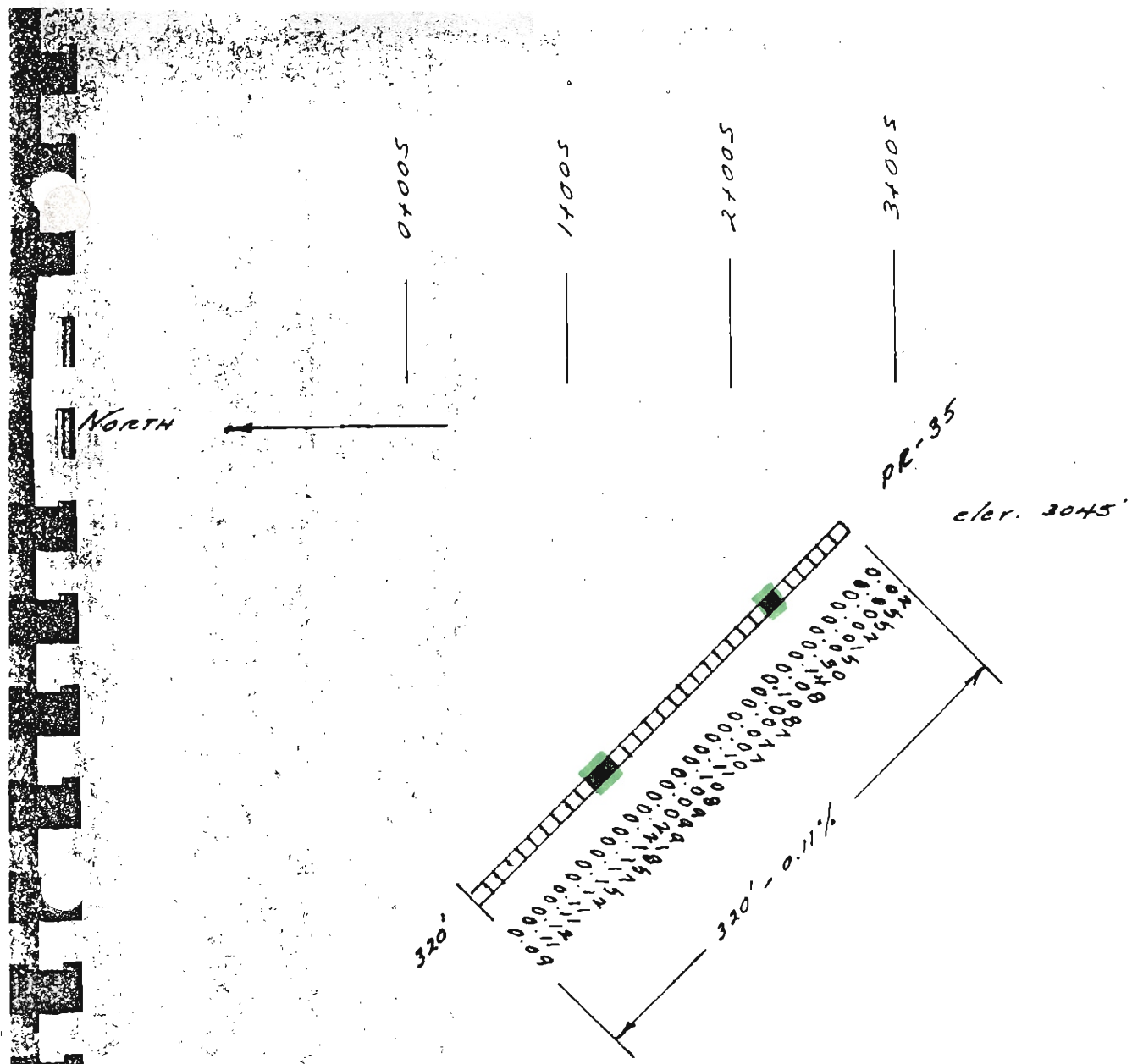
G.D. Delane,
Bacon & Crowhurst Ltd.

October 6, 1970.

TABULATION OF COMPLETED PERCUSSION DRILLING
BY TONTO EXPLORATIONS LTD.
ON CLAIMS OF THE IRON MASK PROJECT
FOR GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.
DURING OCTOBER 1970

Drill Hole No. & Drilling Dates	Coordinates & Elevations	Dip	Length	Purpose & Remarks
PR-41 (Oct. 11, 12)	12+00W, 27+94N (elev. 3060')	Vertical	380'	Test 403 ppm geochem anomaly.
PR-42 (Oct. 13)	16+00W, 15+00N (elev. 3080')	"	400'	Test 465 ppm geochem anomaly.
PR-43 (Oct. 9)	19+92W, 42+50N (elev. 3020')	"	90'	Test 4700 ppm geochem anomaly; hole abandoned - rods stuck.
PR-44 (Oct. 14, 15)	24+00W, 24+00N (elev. 3080')	"	400'	Test 900 ppm geochem anomaly.
PR-45 (Oct. 15)	24+00W, 19+90N (elev. 3130')	"	230'	Test 403 ppm geochem anomaly; tight rods - hole terminated.
PR-46 (Oct. 17)	24+08W, 8+90N (elev. 3320')	"	400'	Test 440 ppm geochem anomaly.
PR-47 (Oct. 16)	36+00W, 10+00N (3275')	"	300'	Test 370 ppm geochem anomaly.
PR-48 (Oct. 10, 11)	19+93W, 42+51N (elev. 3020')	"	370'	Drilled to replace PR-43
Total footage percussion drilled			2570'	

G.D. Delane,
Bacon & Crowhurst Ltd.
October 20, 1970.



> 0.4% Cu

0.2 - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 4+00E (LOOKING EAST)

SCALE: 1" = 100' JANUARY 1971

G.D. DELANE - BACON & CRONHURST LTD.

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 0+00N (LOOKING EAST)

SCALE: 1" = 100' JANUARY 1971

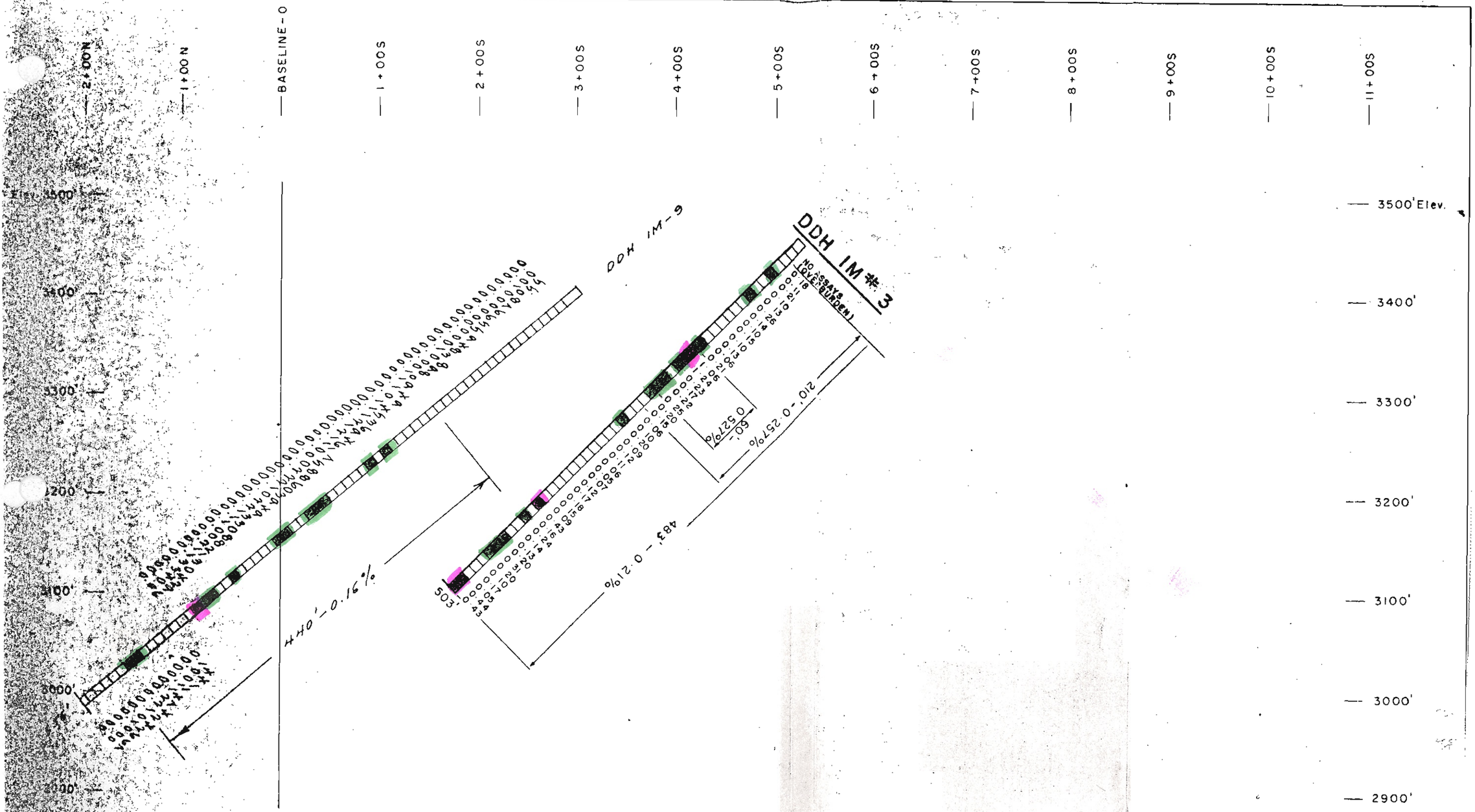
G.D. DELANE - BACON & CRONNURST LTD.

GREAT PLAINS IRON MASK PROJECT

DRILL HOLE SECTION 8+00W (LOOKING EAST)

SCALE : 1" = 100' JANUARY 1971

G.D. DELANE - BACON & CRONNURST LTD.



LEGEND

PR - PERCUSSION DRILL HOLE
DDH - DIAMOND DRILL HOLE
- BRECCIA
- ANDESITE
- MICROMONZ., MICRODIORITE
- > 0·4% Cu
- 0·2 - 0·4% Cu.

(ASSAYS SHOWN IN % Cu.)

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION NO. 12+00W

SCALE 1 INCH = 100 FEET

GERRY D. DELANE - BACON & CROWHURST LTD
JULY, 1970
(SECTION LOOKING EAST)

GREAT PLAINS - IRON MASIC PROJECT

DRILL HOLE SECTION 16+00W (LOOKING EAST)

SCALE: 1"=100' JANUARY 1971

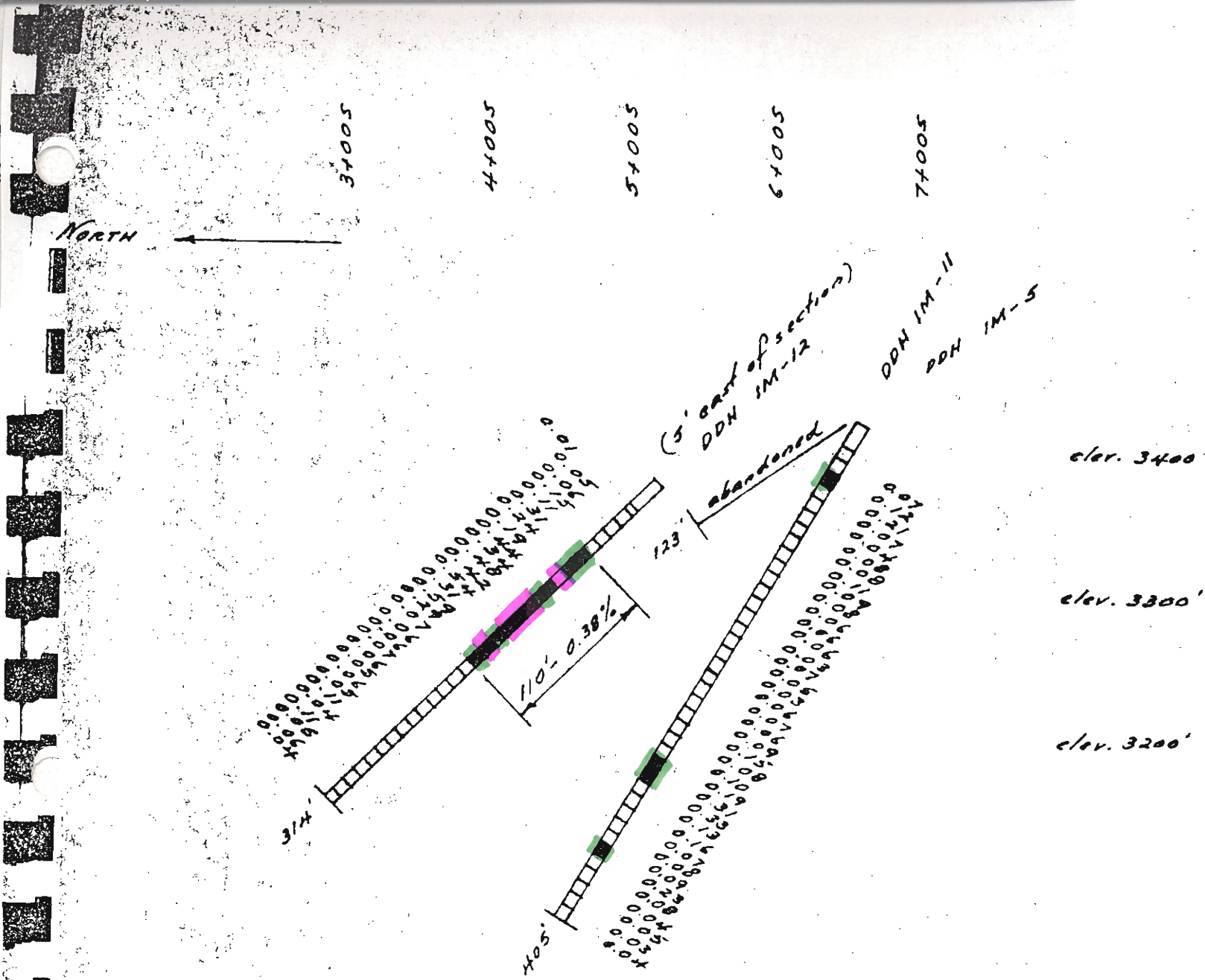
G.D. DELANE - BACON & CRANNURST LTD.

GREAT PLAINS IRON MASK PROJECT

DRILL HOLE SECTION 12+00W (LOOKING EAST)

SCALE: 1"=100' JANUARY 1971

G.D. DELANE – BACON & CRONHURST LTD.



> 0.4% Cu

0.2 - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 15+90W LOOKING EAST

SCALE : 1"=100' JANUARY 1971

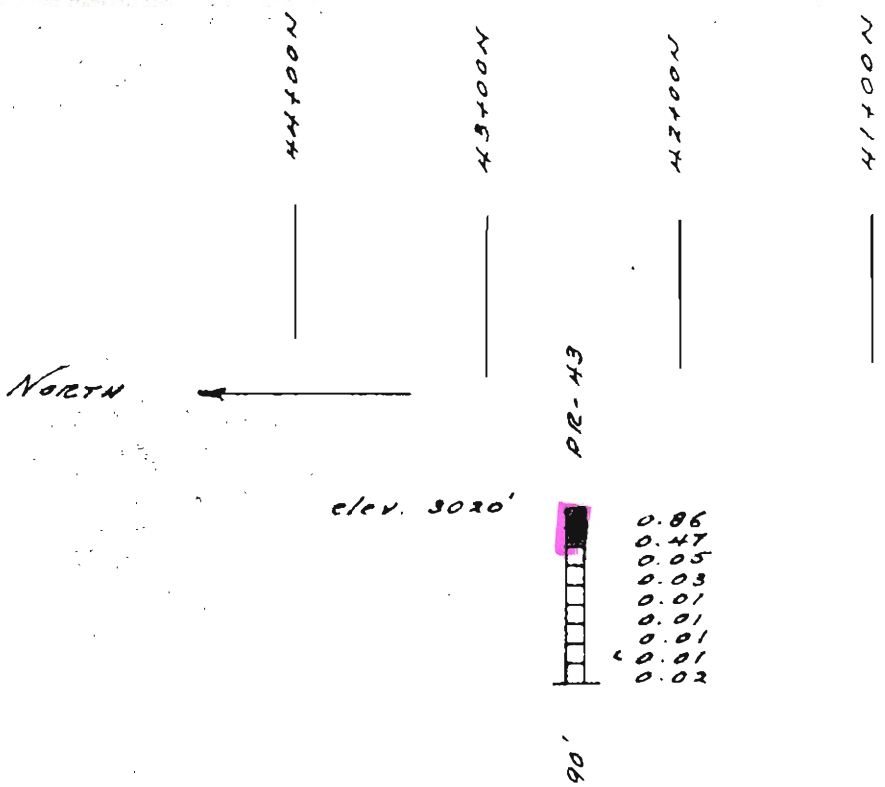
G.D. DELANE - BACON & CRONNURST LTD.

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 36+00W (LOOKING EAST)

SCALE: 1"=100' JANUARY 1971

G.D. DELANE - BACON & CRONHURST LTD.



> 0.4% Cu

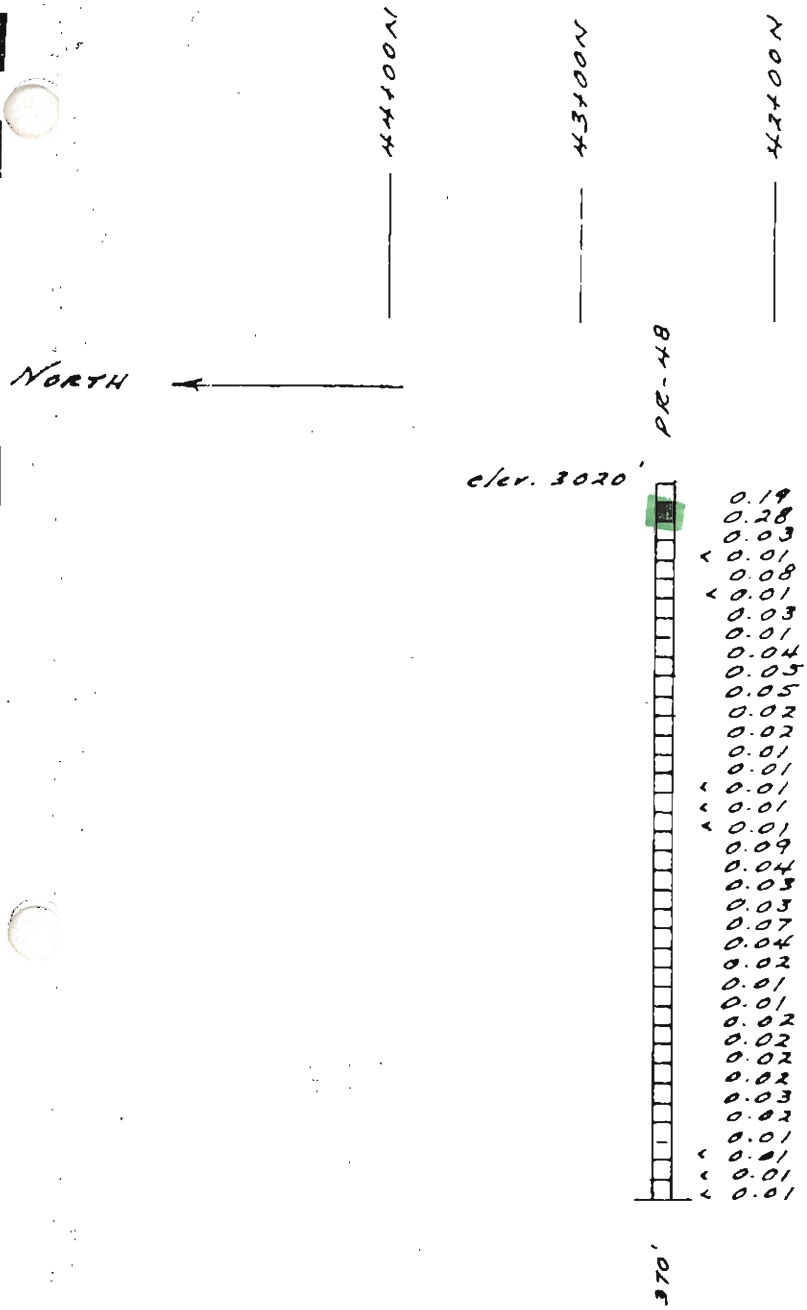
0.2% - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 19+92W (LOOKING EAST)

SCALE: 1"=100' JANUARY 1971

G.D. DELANE - BACON & CRONNURST LTD.



> 0.4% Cu

0.2% - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 19+93W (LOOKING EAST)

SCALE: 1" = 100' JANUARY 1971

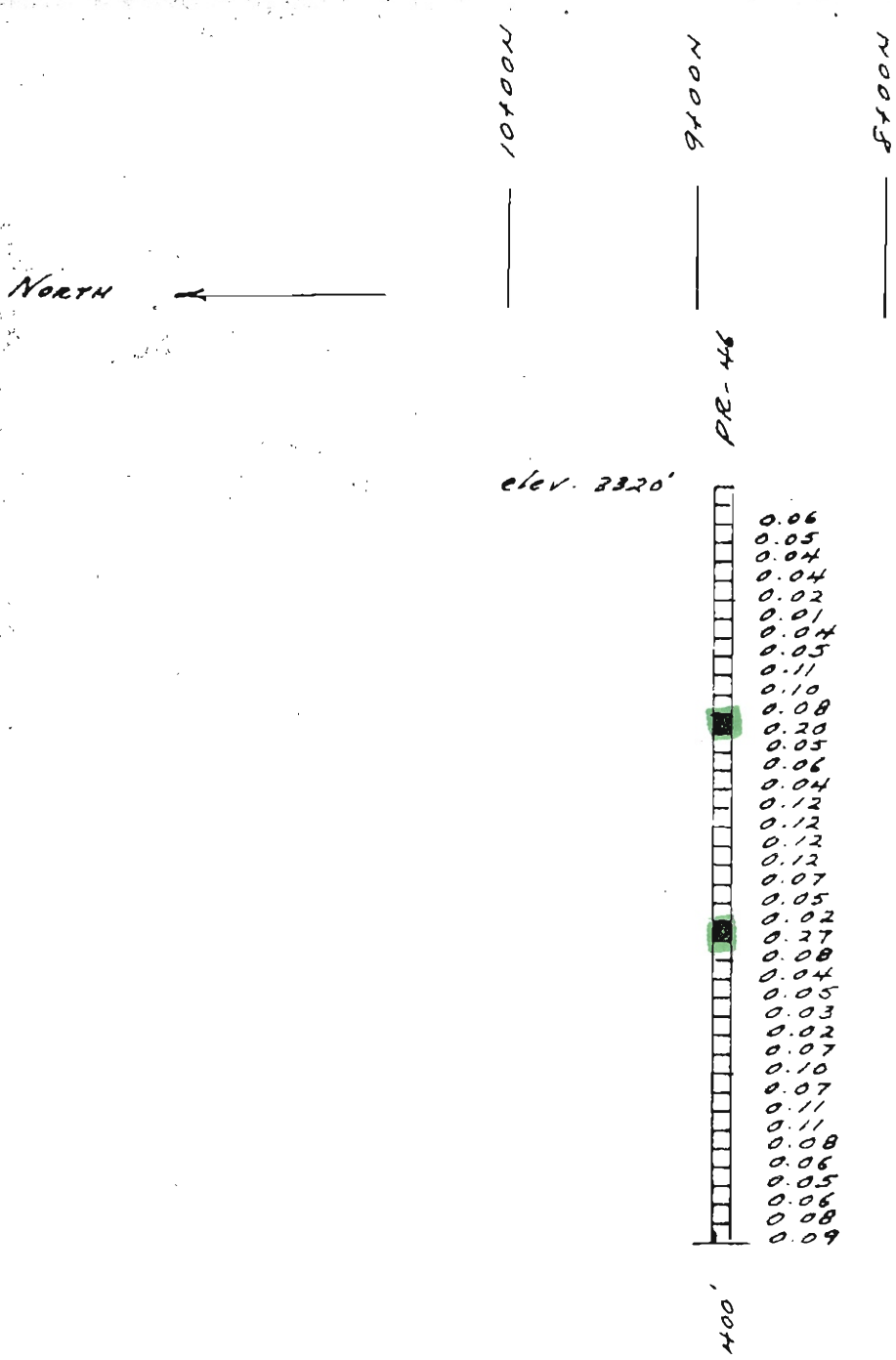
G.D. DELANE - BACON & CRONHURST LTD.

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 24+00N (LOOKING EAST)

SCALE: 1" = 100' JANUARY 1971

G.D. DELANE - BACON & CRONHURST LTD.



> 0.4% Cu

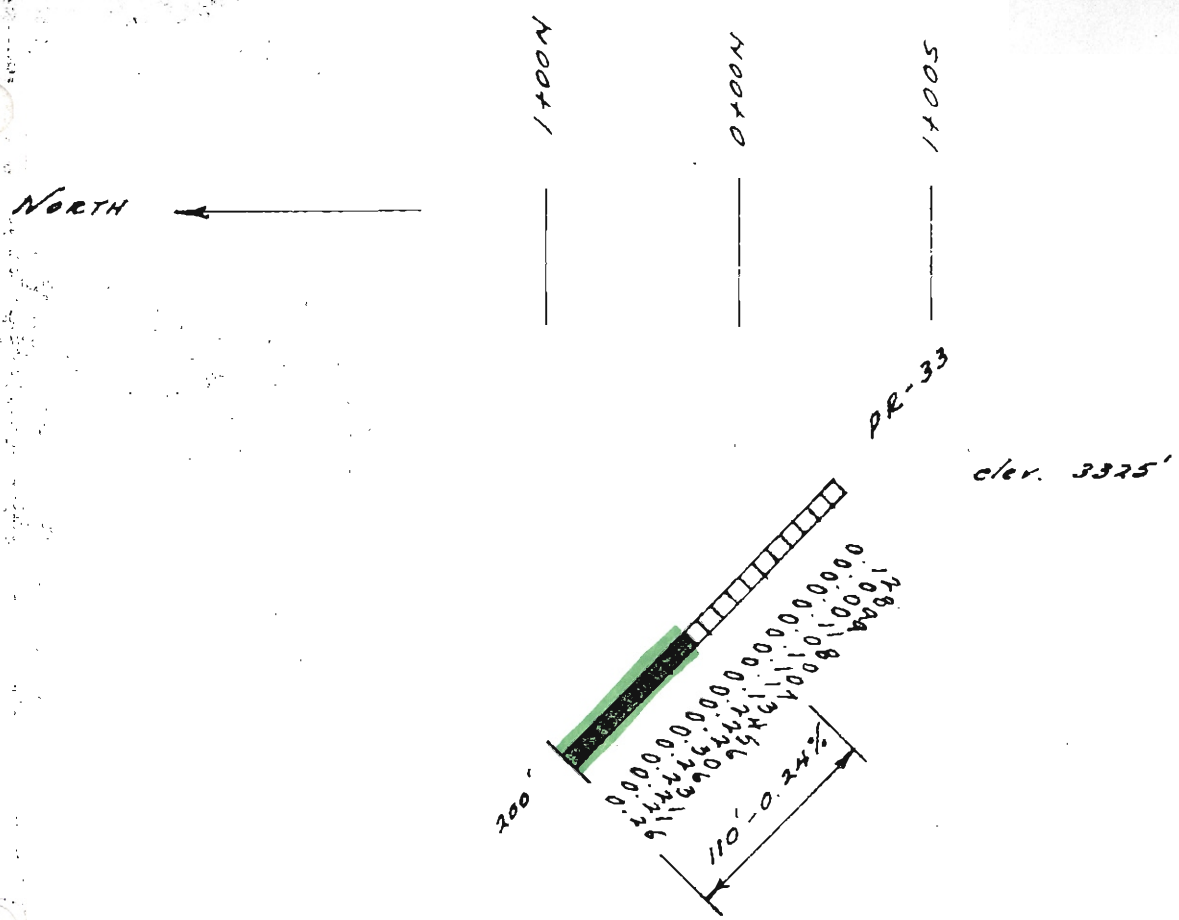
0.2% - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 24+00W (LOOKING EAST)

SCALE : 1" = 100' JANUARY 1971

G. D. DELANE - BACON & CRONHURST LTD.



> 0.4% Cu

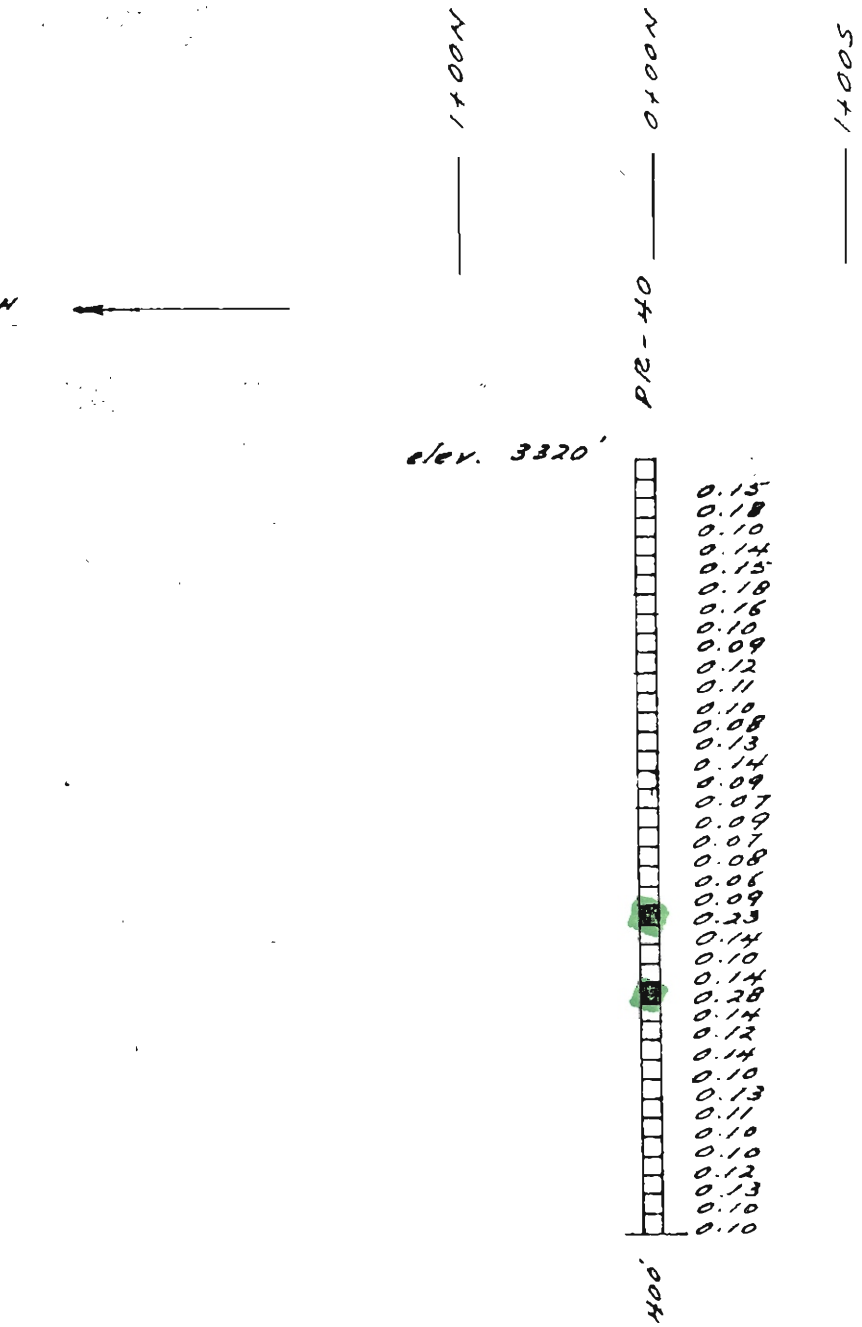
0.2 - 0.4% Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 31+00W (LOOKING EAST)

SCALE : 1" = 100' JANUARY 1971

G. D. DELANE - BACON & CROWNREST LTD.



>0.4% Cu

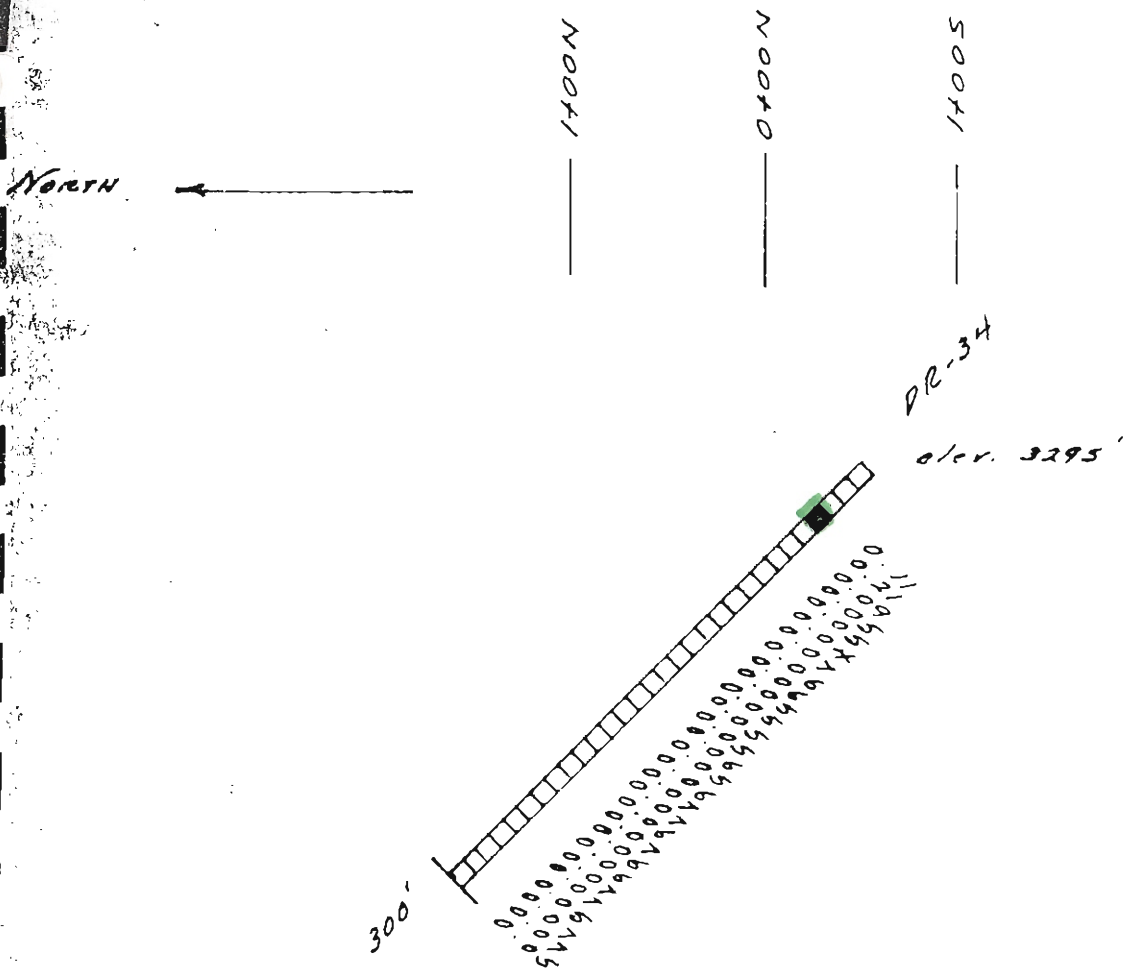
0.2 - 0.4% Cu

GREAT PLAINS - IRON MASIC PROJECT

DRILL HOLE SECTION 31400W (LOOKING EAST)

SCALE : 1"=100' JANUARY 1971

G. D. DELANE - BACON & CRONNURST LTD.



> 0.4 % Cu

0.2 - 0.4 % Cu

GREAT PLAINS - IRON MASK PROJECT

DRILL HOLE SECTION 33+00N (LOOKING EAST)

SCALE: 1"=100' JANUARY 1971

G.D. DELANE - BACON & CRONHURST LTD.

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	2840'
LATITUDE	19+06N N
DEPARTURE	40+00E E

BEARING	DIP	TYPE OF SURVEY
COLLAR	vertical	
@ 370'	- vertical	acid test

Commenced June 2/70

CORE SIZE	BQ
LENGTH	370'
COMPLETED	June 8/70
PURPOSE	
TOTAL RECOVERY	20.8%

HOLE No.	IM-1
SHEET No.	1 of 2
LOGGED BY:	D. McNaught
	June 9/70

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	281	Casing - Overburden			
281	370	Mixed Sediments (Kamloops Group) (clays, silts, argillites, coal)			
		281'-299' - argillaceous sedi, interbedded with narrow coal seams. color varies from light grey to dark grey & black, fine grained 4~3.0, locally friable, badly broken @ 282.8'; coal seam @ 285 - 285.8'; soft, plastic, carbonaceous mud 289-297.8 - interbedded grey & black grey & carbonaceous. Coal @ 298'-299. A 60° contact @ 299' between clay & darker ox.		At 282.8, a 1/4" coal seam @ 50° and a 2.5' seam of coal @ 283' no Commercialization. At 312 - 313.6 & 315.5'-317.1' inclusions present which resemble pbeaor.	
		299'-300.6' a dark shaley carbon-rich mud. At 300.6', a 'contact' with grey sandy grey-wacke @ 60° @ 303', a 1" coal seam @ 50° @ 309.5'-312 grey, plastic, f.g. mud.		At 318.6'-318.9', a 3" coal vein, black plastic & 70° to core axis. At 326' a coal seam with pyrite	
		317.1'-329 'marbled' interbedded coal & shale in thin beds @ 70° 326' - coal seam 327-328 coarse, sandy greywacke		329-331.1 coal seam	

ASSAYS										RECOVERY	
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D
					Not Analyzed.						
										casing	
										281	
										289	5.5
										298	9.2
										310	10.6
										326	15.2
										336	8.9
										340	3.4
										350	7.6
										360	8.4
										366	4.6
										370	3.8
										cad	
											77.2'

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-1
LOCATION	COLLAR	LENGTH	SHEET No. 2 of 2
ELEVATION		COMPLETED	LOGGED BY: D. McNaughton
LATITUDE N		PURPOSE	June 9/70
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
		Mixed Sediments - cont'd.			
		331'-350' interbedded coal & clay, & fg. greywacke. Badly broken up. Locally muddy plastic clay bands. Slickensiding @ 351'		no mineralization present	
		A contact @ 350' between previously partially-consolidated clay & greywacke & the following argillite.			
		350'-370' argillite, light grey-green, aphanitic, H = 4.0-4.5, Calcite veining @ random angles occur throughout interval. Chlorite veins @ 355.9', 366, 364.6			
		Calcite veins are pervasive. Probable shear zone @ 364'			
		end of hole.			

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC.

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3455'
LATITUDE	1425 S N
DEPARTURE	20+00W E

	BEARING	DIP	TYPE OF SURVEY
COLLAR	due S	-45°	Brunton
@ 468'		-47°	acid test

CORE SIZE	BQ
LENGTH	468.0'
COMPLETED	May 27-70
~~PURPOSE~~	Commenced May 22-70
TOTAL RECOVERY	94.1%

HOLE No.	IM-2
SHEET No.	1 of 4
LOGGED BY:	G.D. Delane
	D. McNaughton

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	20	casing - overburden			
0	468'				
		Andesite 0-67.5'			
		dk greyish-green, fine & med. gr., H=4.0-4.5, locally porphyritic & brecciated @ 53'-56.5' with angular frags up to 3/4" of andesitic ex. Locally bleached & softer (H=3.5-4.0) & with some qtz veining within 42'-46'. Core badly crushed from 0-25', 29-30, 40-46, 50-51.5, 55-55.5, 62-65.5'. Contains sub-rounded calcareous (fizzes) inclusions rimmed with dk. greeny-black mineral (chlorite?) @ 31, 36.5, 46.5. Core moderately magnetic		Orangey K feldsp stringers 1/16" @ 50°, 75°; @ 55': Fracturing @ various angles & generally with calcite fillings eg. 50°@27', 30°@28', 40°@30.5', 20°@37', 45°@39', 40°@44', 45°@50', 30°@67' Sulphides are very rare generally with only a few hairline pyrite stringers visible - no visible chalc. - rare epidote in fractures	tr cp, 0.5 py tr cp, 0.5 py sp. py blebby cp, 0.5 py
		67.5-113' Andesite - similar to preceding unit; core is bleached & ground up fm 72'-96.3'. Thin pink K feldsp stringers @ 66' @ 40°-50', @ 96.5', 98'. Core is locally brecciated with a few frags of andesite; also several sub-rounded inclusions of an opaque aphanitic, soft (H=2.5) greenish white clay mineral which does not effervesce. Vuggy qtz @ 74' & massive hematite blebs @ 83', 89, 113'. Occasional pyroxene xl in interval eg @ 101'. At 101', a 1/2" qtz frag, broken in		Fractures with calcite coatings from 10°-50°. Qtz veining @ 10°@67'; a 10° slip with chlorite & calcite @ 69'. Six inch greenish white gouge (?) @ 77'; a 10° slip @ 94' with finely ground greenish gouge to 96.3'	
				A few hairline py stringers @ varying Ls. Chalc is scarce	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC
										0		
53801	20	30	10	8.8	.03					21.5	1.0	
02	30	40		8.2	.03					23.	2.0	
03	40	50		9.0	.03					25	1.2	
04	50	60		10	.03					31	5.5	
05	60	70		10.5	.03					35	3.5	
06	70	80		8.5	.03					45	7.5	
07	80	90		8.3	.03					51.5	6.8	
08	90	100		9.2	.03					55.5	4.0	
09	100	110		9.6	.08					63.	7.0	
10	110	120		10.9	.04					65.5	2.0	
11	120	130		9.7	.02					70.5	5.5	
12	130	140		9.8	.04					72.5	1.7	
53826	140	150		11.	.04					78	5.7	
53827	150	160			.01					81	1.3	
28	160	170			<.01					82	0.5	
29	170	180			.03					86	3.7	
30	180	190			.05					89	0.8	
31	190	200			.03					96	6.2	
32	200	210			.06					106	9.5	
33	210	220			.04					113.5	7.9	
34	220	230			.05					124	10.4	
35	230	240			.02					134.5	10.1	
36	240	250			.03					145.5	~~7.6~~	10.1
37	250	260			.01					149.5	4.6	
38	260	270			.03					151	1.8	
39	270	280			.02					161	10.7	
40	280	290			.03					171.5	10.3	
41	290	300			.09					176	3.8	
42	300	310			.06					186	10.	
43	310	320			.07					194	8.	
44	320	330			.11					204	10.2	
45	330	340			.07					214.5	10.1	
46	340	350			.09					224	9.9	
47	350	360			.07					235	10.5	
53848	360	370	10		.06							

DRILL HOLE RECORD

LEVEL	BEARING / DIP / TYPE OF SURVEY	CORE SIZE	HOLE No. 1M-2
LOCATION	COLLAR	LENGTH	SHEET No. 2 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D.D & D.M^c
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

DESCRIPTION OF ROCK TYPES

half & displaced 1/4" by 15° slip. This interval of pyroxene andesite contains numerous sub-rounded chloritized mafic minerals & also lge xls of pyroxene. Interval weakly magnetic

113-136 Andesite –
dk greenish grey pyroxene andesite, moderately magnetic H=5.5, f.g with a general salt & peppery texture. Contains numerous lge (up to 1 1/2") mafic minerals (mainly pyroxene) plus small sub-rounded dk mafics – local pink alteration. At 123.5 – At 129.5, occasional blebs of maroon hematite eg which are rimmed with a translucent whitish calcareous mineral. A 1" pyrox xl @ 117, & much hematite @ 119'

136-251 Andesite – similar to preceding interval. Barren qtz veins @ 50° @ 137', 50° @ 156', 60° @ 147'. Abundant maroon hematite @ 153', 166', 174', 176'. Veg in 40° qtz vein @ 176'. A 3" qtz vein @ 40° @ 180'. At 201.5' a 1/2" qtz vein @ 60° with lge bleb chalco. Epidote usually assoc with some of the pyrite-filled fractures eg. @ 201'

MINERALIZATION AND STRUCTURES

but is present as blebs with pyrite @ 111', 113' & with a thin pyrite stringer @ 40°. At 77', a 2" qtz vein @ 45° containing f.g. py & an unidentified greyish mineral

3/8" qtz vein @ 20° @ 98.5'
1/4" qtz vein @ 40° @ 100.5'
– numerous calcite-filled fract. Specks py in 75° fract. @ 113.7', & @ 114.5' @ 40°. A 30° slip c̄ calcite @ 131' & 60° fract @ 132.5'. Speck chalco @ 114' & thin veinlet py @ 60 @ 114.5' chalco & py @ 35° @ 118', & py veinlet @ 60° @ 129.5'

thin py stringers @ 40°-50° @ 142.5', 144.5'. Pyr. veinlet @ 50° c̄ qtz & chlorite @ 128'. Bleb chalco c̄ patch coarse py c̄ qtz & K felds in a 30° qtz stringer @ 144'. Coarse py in 40° qtz vein @ 224'

ASSAYS

SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
	370	380	10	~~.06~~	.06				
	380	390		~~.08~~	.08				
	390	400		~~.09~~	.09				
	400	410		~~.05~~	.05				
	410	420		~~.06~~	.06				
	420	430		~~.03~~	.03				
	430	440		~~.03~~	.03				
	440	450		~~.06~~	.06				
	450	460	10	~~.05~~	.05				
	460	468	8.0	~~.03~~	.03				

Grouped average:
20 – 468 = 448' of 0.043% Cu

RECOVERY

RUN	MEASUR'D	% REC.
245	10.2	
252	6.6	
262	10.6	
272	9.7	
282	10.7	
286.5	4.4	
296.5	10.5	
304	7.4	
314	9.9	
319.5	5.5	
330	10.9	
333	2.7	
344	10.6	
352	8.2	
361	10	
362	1.2	
372.5	10.8	
376	3.8	
386	10.2	
396	10.2	
406.5	10.6	
416.5	10.7	
427.5	10.8	
436	10.3	
447.5	10.3	
458	10.1	
468	9.9	
end		
	440.6	

DRILL HOLE RECORD

LEVEL	BEARING	DIP	TYPE OF SURVEY	CORE SIZE	HOLE No. IM-2
LOCATION	COLLAR			LENGTH	SHEET No. 3 of 4
ELEVATION				COMPLETED	LOGGED BY: G.D.D & D.M°
LATITUDE N				PURPOSE	
DEPARTURE E				TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
		At 219', a 1/4" qtz vein @ 85° containing blob chalco. Core badly sheared from 176-177'. Epidote = pyrite @ 210.5'. A 40° chlorite-filled fracture @ 189' & 1" qtz vein = calcite @ 35° @ 188.5'. At 208.5' is a 3" of pyroxenite (assessed) 36'		A 45° slip = gouge @ 160'. At 180' is a 3" qtz vein @ 40° which contains 1/4" blob chalco.	
		251-~~280~~' Andesite dk green to whitish grey fine - med gr. H = 4.5-5.5' Locally bleached @ 258', 272'-282', & locally weak brecciation 272->87'		several fractures @ ds 30°-60° & usually filled with qtz/calcite @ 253' a 1/4" qtz vein @ 50° @ 290' a 1" qtz vein @ 40° = gouge & coarse pyrite @ 256', a 1/16" stringer of hematite @ 30° @ 258' a 50° slip = dk gy gouge & calcite @ 272' a 20° slip 299-302' coarse py, 308, 312 py in fract.	
		260'-262' Andesite Porphyry dense siliceous, whitish grey porphyritic, with abundant sub-rounded, ovoid white qtz(?) phenos, some 35° alignment of phenos - first contact (?) = 30° & 2nd contact (?) @ 40° - some Kspar veining - some coarse py = chlorite @ 2nd contact		@ 359.5 a 3" qtz vein = chalco @ 45° 369-373 - Kspar alter mineraliz scarce	
		299-302' considerable Kspar alteration, & some bleaching from 319.5 - 320.5' 328'-337' - core badly broken @ 324', a 30° slip = chlorite & breccia frag		very sparse py & epid. in fract.	
		334-374' Andesitic Porphyry porphyritic & similar to 260-262' weakly magnetic, numerous unoriented, sub-rounded qtz phenos		massive hematite @ 399'	

ASSAYS										RECOVERY	
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-2
LOCATION	COLLAR	LENGTH	SHEET No. 4 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D.D. & D.M.
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
		374'-447.5' Andesite. dk. grey, aphanitic, H=4.5 compact, generally brecciated, -some K spar pink alteration as stringers @ 422'-427', 445' From 404'-409' - brecciated andesite with frags ≤1" generally unoriented, locally bleached & altered to clay minerals. Intensely sheared @ 410'-411' @ 40° with 12" grey gouge - pseudo fault. - badly sheared 404'-416'. Qtz veins @ 30° @ 416', 414', 419', maroon hematite @ 408', 418', 427.		At 427', a 5" siliceous breccia zone @ 30°, containing abundant fine pyrite fracture	
		447.5-468 Andesite dk grey green, H: 5.0-5.5, fine-med gr. @ 448' a 20° slip with 1/8" gouge @ 453', thin pyrite veinlet with chalcs @ 45° epid. & py @ 455' py & 1/8" qtz @ 20° @ 453.5'. @ 466 a 1/2" calcite vein @ 60°		Fracture 40°-42° E chlorite & f.g. py @ 451.5' a 1/4" qtz vein @ 5° Feldspar alteration @ 448', 454', 455, 459' 465'-467' - brecciation @ 467'	
		end of hole			

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% RE

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3370'
LATITUDE	54255 N
DEPARTURE	12+00W E

BEARING	DIP	TYPE OF SURVEY
COLLAR	due N	45° Brunton

CORE SIZE	BQ
LENGTH	503'
COMPLETED	June 17/70
~~Started~~ PURPOSE	June 12/70
TOTAL RECOVERY	95%

HOLE No.	IM-3
SHEET No.	1 of 4
LOGGED BY:	G. D. Delan

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	20	casing			
20	42.7	Micromonzonite			
42.7	85	Mixed Micromonzonite & Trachy-Andesite. light grey-dk grey, locally bleached pink & cream coloured fine-med. grained with salt & pepper texture - locally brecciated; H=5-5+, pervasive pink alteration from 20'-53', 81'-83'. Core locally vuggy @ 37', 40'; core badly broken @ 20', 25', 34-42', 46', 52'-56', 65'-66'; slight suggestion of brecciation @ 72-80'		Fracturing variable 20°-65° but mainly @ 60°; chlorite & calcite common as fract. fillings. ½" qtz vein @ 50° @ 39', ½" qtz vein @ 70° @ 25', Sulfides randomly scattered & assoc. E epid. as blebs & veinlets. blebs chalc @ 45° @ 25', epid. & qtz @ 30', blebs chalc @ 60° @ 42.5', blebs chalc @ 44', blebs chalc 71-72', blebs chalc. 80', bleb py. @ 44'	
85	136	Andesite grey to whitish-grey, generally bleached, fine-med. grained, H=4.5-5.5, locally brecciated, whitish bleaching prominent @ 86'-112', 128'-130'; possible argillic alteration @ 128'-131', brecciation @ 108.5' (1" aroud diorite fragment), angular bx frags 108.5-109.5, 116.5, 126.5, 125', 127', 132'; core badly ground from 96.0'-106.5', 118'-		Variable fracturing from 20°-60°; possible fault zone @ 96'-106.5' with light grey fault breccia (?) @ 96'. Upper fault surface @ 50° with sericite, epid. chlorite, py & minor Kspar. Alt 101, & 20° slip & chlorite & minor pyrite	

ASSAYS										RECOVERY	
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D
										0	
37264	20	30	10		.18					20	0.2
65	30	40			.11					23	3.4
66	40	50			.21					27	2.9
67	50	60			.10					34.5	7.5
68	60	70			.13					36	1.1
69	70	80		10.3	.26					42	4.9
70	80	90			.14					46	4.1
71	90	100			.10					56	11.1
72	100	110		8.2	.15					66	10.8
73	110	120		9.6	.10					76	10.9
74	120	130			.13					86	10.3
75	130	140			.06					97	9.6
76	140	150		10	.21					102.4	5.7
77	150	160		10	1.06					117	10.
78	160	170		9.5	1.24					126	8.5
79	170	180		10.4	.23					136	10
80	180	190		10.1	.17					146	8.2
81	190	200		9.5	.22					156	10.3
82	200	210		10.5	.25					168	10.6
83	210	220		10.4	.20					178	10.3
84	220	230			.15					188	10.3
85	230	240			.06					199	10.4
86	240	250			.10					209	10.9
87	250	260			.20					220	10.8
88	260	270			.09					231	11.0
89	270	280			.12					241	10.
90	280	290			.11					251	9.9
91	290	300			.06					261.4	10.3
92	300	310			.05					265	4.8
93	310	320			.07					276.4	11.3
94	320	330			.12					285.4	9.5
95	330	340			.17					290.4	4.4
96	340	350			.18					298	7.4
37297	350	360	10		.15					309	10.7

DRILL HOLE RECORD

LEVEL		BEARING	DIP	TYPE OF SURVEY	CORE SIZE	HOLE No. IM-3
LOCATION		COLLAR			LENGTH	SHEET No. 2 of 4
ELEVATION					COMPLETED	LOGGED BY: G.D.D.
LATITUDE	N				PURPOSE	
DEPARTURE	E				TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
85	136	Andesite (cont'd) -126, 131, 134'-136'. At 118', orange Kspar with andesite breccia frags & 30° calcite veinlet	At 168', a ¼" qtz vein @ 30°. At 117' vuggy calcite with chalco & py in 60° vein. A 5° chloritic slip with epidote. At 131, a py & epid vein @ 60°. Blebs red hematite @ 123'	
	184			
136	~~147~~	Andesite & Trachy-Andesite essentially similar to unit preceding. Dk grey-grey, fine-med. gr., salt-pepper text. locally pinkish 4-4.5-2.5. very weakly magnetic. Core badly ground from 136-145 (possible fault zone), ¼" grey gouge @ 140, 5° slip @ 138' with chlorite & gouge	Considerable amts of disem & patches of sulphides in 166'-170' in which significant amts chalco visible. Also some, but less sulphides in 150'-160' cp & py @ 146.5' ½" patch coarse py & epid @ 152.5' blebs chalco & py 158.5' py rosolets & calcite @ 30° @ 163' py & chalc stringers @ 162'-174' ¼" coarse py @ 169.5' pervasive Kspar @ 145'-217'	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC
37298	360	370	10	.09	.09							
99	370	380		.43	.43							
37300	380	390		.16	.16							
23815	390	400		.24	.24							
16	400	410		.14	.14							
17	410	420		.13	.13							
18	420	430		.20	.20							
19	430	440		.31	.31							
20	440	450		.20	.20							
21	450	460		.10	.10							
22	460	470		.17	.17							
23	470	480		.05	.05							
24	480	490	10	.44	.44							
53825	490	503	13	.43	.43							

Grouped averages:

150 210 = 60' of 0.527% Cu

20 503 = 483' of 0.21% Cu

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. 1M-3
LOCATION	COLLAR	LENGTH	SHEET No. 3 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D.D.
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
184	230	Trachy-Andesite core ground from 212.5'-216.5', 220-230'. Core bleached with argillic alteration (?) from 217'-223' - very weakly magnetic, a 18" block of grey-black andesite @ 196' with pinkish trachy-andesite on either side	possible fault zone @ 226-229, upper fault surface @ 30° @ 226', with qy gouge. At 197', a 1" coarse qy vein & epidote & qtz @ 10°. Fracturing @ 30°-40° Slip & chlorite @ 218.5' @ 30°; < 25° slip @ 219'	
230	384.5	Andesite & Trachy-andesite & brecciated andesite fine-med gr. bleached creamy-white to pinkish. H variable = 4.0-5.5, compact, fx. Fracturing fairly abundant 10°-60°. Core bleached & creamy white from 229-249 in proximity to fault zone @ 222'-232'. A 20° slip with 1/16" qy gouge @ 230.8'; ruggy qtz & calcite @ 231.5'-232'. A 10° slip @ 234'. Core from 229'-235' appears brecciated (mainly andesitic frags), also brecciated @ 261.5'-276, 292-294 306-309. Qtz frags in bleached breccia @ 300'-303 with lge rugs in qtz. Core badly broken @ 262', 263-270', 272-277, 282-291, 292-294', 334-355. Andesite is locally altered by K feldspar (pink) @ 251', 298'-334, 368-377 - generally very weakly magnetic	Core cut by several qtz veins @ 20°-30° At 345', a 1½" calcite vein & vugs & containing blocks of andesite up to 1" Sulphides rare but does occur as thin hairline veinlets & specks. At 274 a 10° slip & clay @ 299'. A 10° slip @ 274.5' & chlorite. maroon hematite @ 335'	

ASSAYS SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE

RECOVERY RUN	MEASUR'D
319	10.3
329	9.6
339	10.
350	9.9
360	10
370	10.3
376.5	7.7
386	10.4
396	10.4
406	10.3
416	10.2
426	10.
436	10.4
445	8.6
455	10.2
465	10.3
475	9.9
485	9.5
495	9.9
503	7.5
end	
	47.5'

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-3
LOCATION	COLLAR	LENGTH	SHEET No. 4 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D.D.
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
384 (cont'd)	503	Andesite (+ minor trachy-andesite) same as rx in interval 230-384. Trachy-andesite from 486-503 is pervasively altered pink-orange-remainder of core typical andesite + is locally brecciated (with carbonate frags) near slips + possible fault zones. Core badly ground + broken from 491-492', 405'-406' 410'-415' 437'-438' 470', 484'-485', 495'-496', 498-500' Veggy calcite @ 469, 470', H=5.5 end of hole		Fracturing variable but generally near 40°. Possible fault zone 401-404 where upper slip @ 40° with dk gy gouge + 2nd slip @ 5° & chloritic gouge. Py as discon. + veins or patches but chalco rare. Blebchalco @ 418', 427', 431', 450' Py + epid. vealet @ 60° @ 422' + py also @ 445.2', 456, 469. A possible 50° slip @ 460'	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC

DRILL HOLE RECORD

Started April 28

~~LEVEL~~ Kamloops	BEARING / DIP / TYPE OF SURVEY	CORE SIZE BQ	HOLE No. IM #4
LOCATION Iron Mask Project	COLLAR vertical	LENGTH 621.5'	SHEET No. 1 of 5
ELEVATION 3470'	620'	COMPLETED May 19	LOGGED BY: C.D. Delane
LATITUDE 4404 S N		PURPOSE	
DEPARTURE 14+08W E		TOTAL RECOVERY 100%	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	MINERALIZATION AND STRUCTURES
0'	12'	casing; badly broken & ground pcs of ?? of diorite composit'n.	Core is cut by few green calcite-filled fractures e.g. 30° @ 55', also by numerous qtz stringers up to 1/4" which cut core between 30°-40° usually; however 1/4" qtz vein @ 35' cuts core @ ~20°. Locally most qtz veins carry no sulfides but @ 64' qtz vein contains blebs of py. & @ 19.5' also. Some K-feldspar occurs as veinlets e.g. @ 30.2', a 1/4" pink feldspar vein cuts core @ 40° & adjacent & parallel to a 3/8" wide qtz vein. Core is locally vuggy (calcite) e.g. @ 50.5', 53', 54', 72.5'. Fractures tend to favor ~30° but some @ ~50°. Sulfides occur mainly as tiny fracture fillings but also as blebs, & disseminations & also often associated with qtz stringers e.g. @ 69', @ 75' & usually favouring the more siliceous zones.
[illegible]0'	134.0'	Breccia. (diorite) breccia of mainly diorite fragments; greenish-grey, generally med. grained, hard (sl: 5554), fairly compact, consisting of angular, subang. & subrounded fragments of varying sizes up to 1½" long & generally randomly oriented; core is weakly magnetic. Most of frags appear to be composed of medium and phases (lighter grey color) of a diorite or qtz diorite rock; many frags are altered in varying degrees to pinkish-orange K-feldspar. The potash alteration very apparent from 30'-46', 47'-50.5', 52'-58', 63'-75'. In general the zones of pink (K-feldspar) alteration contain sulfides as blebs, disseminations & fracture fillings e.g. @ 72'-73'. Many frags are siliceous in composition & other mafic (mainly hornblende) minerals have been converted to green-black chlorite. At 47.5' is a relatively unaltered 1/8" plate of biotite. Some local sections resemble qtz diorite e.g. @ 19.5'. Core badly cracked & broken @ 19', 22'-23', 29'-29.5',	

ESTIMATED % OF SULPHIDES	SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	~~% ZN~~ % Cu	OZS. AU	OZS. AG	~~GROUPED AVERAGE~~ % Mo	RUN	MEASUR'D	% REC.
<1% cp + py	24201	0	12	12	2.0'	~~tr~~	0.23	<.003	<.01	<0.001	12	[illegible]	
1% cp + py	02	12	20	8	8.0	~~0.2~~	.35				[illegible]	[illegible]	
1.5% cp + py	03	20	30	10	9.0	~~0.3~~	.27				[illegible]	[illegible]	
1% cp + py	04	30	40		10	~~0.2~~	.33				[illegible]	[illegible]	
2.0% cp + py	05	40	50		10	~~0.3~~	.26				[illegible]	[illegible]	
1.0% cp + py	06	50	60		10.5	~~0.4~~	.21				[illegible]	[illegible]	
2.0% cp + py	07	60	70		10.4	~~0.3~~	.26	<.003	<.01	<0.001	[illegible]	[illegible]	
5% cp + py	08	70	80		9.2	~~1.0~~	.52				[illegible]	[illegible]	
5% cp + py	09	80	90		10	~~0.8~~	.67				[illegible]	[illegible]	
4% cp + py	10	90	100		10.5		.60				[illegible]	[illegible]	
3% cp + py	11	100	110		10.5		.50				[illegible]	[illegible]	
2% cp + py	12	110	120		10.1		.54				[illegible]	[illegible]	
2% cp + py	13	120	130		10		.54				[illegible]	[illegible]	
5% cp + py	14	130	140		10		.73				[illegible]	[illegible]	
2% cp + py	15	140	150		10.5		.16				[illegible]	[illegible]	
1.0 cp + py	16	150	160		10.2		.14	<.003	<.01	0.003	[illegible]	[illegible]	
1.0 cp + py	17	160	170		9.5		.06			<.001	[illegible]	[illegible]	
tr cp, sp py	18	170	180		10		.04			<.001	[illegible]	[illegible]	
specks py	19	180	190		9.2		.05			.002	[illegible]	[illegible]	
bleb cp, 1.0 py	20	190	200		8.0		.04			<.001	[illegible]	[illegible]	
bleb cp, 1.0 py	21	200	210		10		.12			<.001	[illegible]	[illegible]	
bleb cp, sp py	22	210	220		9.9		.07			<.001	[illegible]	[illegible]	
tr cp, sp py	23	220	230		9.6		.04			<.001	[illegible]	[illegible]	
bleb cp, 1.0 py	24	230	240		10.2		.13			.002	[illegible]	[illegible]	
1.0% py	25	240	250		10.3		.04			<.001	[illegible]	[illegible]	
tr cp, >1.0 py	26	250	260		10.2		.05				[illegible]	[illegible]	
tr cp, >1.0 py	27	260	270		9.7		.05				[illegible]	[illegible]	
	28	270	280				.05				[illegible]	[illegible]	
	29	280	290				.05				[illegible]	[illegible]	
	30	290	300				.04	<.003	<.01	<0.001	[illegible]	[illegible]	
	31	300	310				.05				[illegible]	[illegible]	
	32	310	320				.06				[illegible]	[illegible]	
	24233	320	330	10			.05				[illegible]	[illegible]	
											[illegible]	[illegible]	

DRILL HOLE RECORD

LEVEL: Kamloops	BEARING / DIP / TYPE OF SURVEY	CORE SIZE	HOLE No. IM #4
LOCATION	COLLAR	LENGTH	SHEET No. 2 of 5
ELEVATION		COMPLETED	LOGGED BY: G. D. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	134'	(continued) From 58'-65', core appears to be more breccia in composition ([illegible] partially brecciated) + also sparse in sulfides but is flanked on either side by breccia containing pinkish altered frags. From 29.5'-30', is an interval of a light grey granodiorite containing high % of qtz. which has a graphic texture emphasized [illegible] by the mafic minerals (probably a 'flooding' of qtz within the breccia zone) – contains some epidote, pyrite, chalco along hairline fractures within these. [illegible] zone which cuts core @ ~20°. At 72.5'-73.0', a section showing epidote and some [illegible] py. [illegible], also some chlorite carrying py [illegible] chlorite [illegible] containing sulfide [illegible] through a broken fragment (altered pink by K-felds) also vuggy qtz. At 73.5', a large 2" fragment of qtz micro-porphyry [illegible] of [illegible] qtz [illegible] with some [illegible] of chlorite [illegible] grey [illegible]. At 85.5' [illegible] pinkish, light grey, graphic textured [illegible] altered (K-feldsp) fragment in black (?) [illegible] greyish-green, very fine grained rock ([illegible]) which contains very fine disseminated py.	Sulfide scattered throughout most of interval but most pronounced near 65-75', 45-46'. Pyrite almost always associated with chlorite along fract. planes. At 54.5', appears a [illegible] qtz-filled [illegible] sulfides but not persistent. From 73-75', a noticeable alignment of frags (some aphanitic, some chloritic but mostly dioritic) @ 45°-50° to core with stringers of chalco with qtz along the same 45° plane.	

SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC.
24234	330	340	10		.08					156	4.9	
35	340	350			.06					158	3.0	
36	350	360			.03					167	9.4	
37	360	370			.01					173	5.7	
38	370	380			.02					174	1.0	
39	380	390			.06					175	1.0	
40	390	400			.03					177	2.2	
41	400	410			.08					184.5	7.2	
42	410	420			.03					189	5.2	
43	420	430			.04					194	3.0	
44	430	440			.07					196	2.0	
45	440	450			.06					200	4.2	
46	450	460			.06					202	2.5	
47	460	470			.07					207.5	5.5	
48	470	480			.06					210	3.2	
49	480	490			.05					212	2.0	
24250	490	500			.04					217.5	5.8	
37251	500	510			.05					222.5	4.7	
52	510	520		9.0	.04					231	9.0	
53	520	530		10.	.04					234	3.1	
54	530	540		10	.05					244	10.6	
55	540	550		10	.07					248	4.1	
56	550	560		10.	.06					255	8.4	
57	560	570		9.7	.11					265	9.5	
58	570	580		8.8	.05					271	6.5	
59	580	590		10	.03					273	2.5	
60	590	600		9.5	.07					275	1.8	
61	600	610	10	10.5	.04					285	10.2	
37262	610	621.5	11.5	12.0	.06					293	8.0	
										295	2.7	
										299	3.8	
										304.5	5.2	
										309	3.8	
										313	4.8	
										315.5	1.6	

Grouped averages:

0 – 160 = 160' of 0.393 % Cu

0 – 621.5 = 621.5' of 0.103 % Cu

DRILL HOLE RECORD

LEVEL	
LOCATION	
ELEVATION	
LATITUDE	N
DEPARTURE	E

	BEARING	DIP	TYPE OF SURVEY
COLLAR			

CORE SIZE	
LENGTH	
COMPLETED	
PURPOSE	
TOTAL RECOVERY	

HOLE No.	1M-4
SHEET No.	3 of 5
LOGGED BY:	G.D.D.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES	SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
0	134	(continued) Diorite Breccia 50.5-51.5 is a dk greyish massive porphyritic dyke rx consisting of very hard H: 5.5+ lath-like, & ~~sub~~ some sub-rounded whitish, unoriented phenos in a dk. grey matrix & this unit also contains a few specks of pyrite. First contact of this dyke is prominent (but not sharp) @ 40° whereas second contact is sharper & also @ 40°. 57.5'-63' appears to be more basic & to contain fewer fragments or inclusions & resembles a more typical diorite - faintly magnetic 75-134' Diorite Breccia (cont'd) the bx frags near 74.0'-86.0' show prominent alignment @ 50°-60° & contain some calcite veinlets. Numerous frags are altered pink & are well-mineralized with py & chalco as blebs, veinlets & dissemina-ations. Some chloritized mafic minerals are often 3/4" long. At 75', a 1/8" qtz. vein @ 60° containing blebs of chalco. At 93', a coarse py-veinlet @ 60° is rimmed with epidote. From 100'-120' core locally fractured @ 15°. From 116'-134', the	frags are less well defined in outline. In general, the matrix between frags resemb les dk grey diorite described in 57.5-63'. Locally vuggy @ 112.5' 115' 132' 134'. Chalco veinlets (1/8") cut core @ 70° @ 133' & 1/16" chalco vein cuts core @ 60° @ 133.5'. At 76'-76.5', fault breccia gouge (?) @ 40°											

RUN	MEASUR'D	% REC
317.5	2.0	
319	1.2	
321	1.5	
322.5	1.5	
325	2.8	
327	2.5	
336	9.2	
342	5.8	
345	3.3	
349	3.8	
352	2.8	
356	5.0	
362	5.5	
368	5.7	
374	6.0	
376	2.5	
378	1.7	
379.5	1.6	
384	4.0	
392	8.3	
393	1.2	
394	1.2	
397.5	3.0	
399	1.7	
401	2.0	
404	3.0	
408	4.4	
422	15.0	
424	2.2	
431.5	6.8	
434	2.0	
439	5.0	
442	3.0	
445.5	3.5	
449	3.5	

DRILL HOLE RECORD

LEVEL	
LOCATION	
ELEVATION	
LATITUDE	N
DEPARTURE	E

	BEARING	DIP	TYPE OF SURVEY
COLLAR			

CORE SIZE	
LENGTH	
COMPLETED	
PURPOSE	
TOTAL RECOVERY	

HOLE No.	1M-4
SHEET No.	4 of 5
LOGGED BY:	G.D.D.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
134	204	Pycaxene Diorite (or Andesite) greenish grey to dk bluish grey, fairly f.g. diorite rock consisting of numerous sub-rounded partially altered biotite plates up to 1/4" in a blue-grey f.g. matrix. Locally 162-166 wispy altered frags. Core badly broken @ 145'-158, 173'-174'. From 174.0'-174.7' core is bleached whitish-green but is barren of sulfides. At 175.5'-177, a diorite breccia with dio frags up to 2" & partly altered in an andesitic matrix. Core fractured from 183'-195'. Breccia mucromaz & dio frags sub-angular, & locally altered from 195.5'-203'. All core is weakly magnetic & biotite flakes are partially altered & contain minute specks pyrite	134'-184' contains minute specks sulfides, mainly pyrite, - some epidote-rimmed py. veins @ 162'. A 1/4" qtz & calcite vein @ 70° c/161'. Soft limey gouge (?) greenish-black (chlorite & graphite ?) in 15° slip @ 157.5'. A 15° slip @ 181.5' with grey qqe. At 184', a 20° slip with ~1" chloritic fault gouge. Core badly ground bleached from 193'-195' with a 20° slip with 3/4" gy gouge @ 193.5'-194'. Fine hematite & pyrite on fract. faces @ 186'-187'. At 202.5', a 1/4" qtz vein containing bleb chalco. & pyrite	
204	621.5'	Andesite same as unit 134'-204' dk greenish-grey & locally brecciated with lighter coloured dioritic fragments. Pink Kspar alteration @ 222.5', 236', 260'-285' 342.5', 506.5'-509', 515'-516'	204-314' - randomly scattered hairline stringers of py & rare bleb chalco. Fracturing generally 40°-50°. At 216', py-epid. veinlet @ 40°	

ASSAYS SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE

RECOVERY RUN	MEASUR'D	% REC
451.5	3.0	
~~455.5~~		
456.5	4.5	
457	1.7	
460	3.1	
466	5.8	
476	9.3	
486	10.6	
496	10.2	
499	2.3	
507	8.5	
517	9.5	
522	5.3	
532.5	10.4	
543	10.5	
552	9.7	
556	4.0	
566.5	10.2	
574	7.0	
578.5	4.0	
582	4.0	
587	6.2	
591.5	4.3	
602	10	
608	7.	
617	9.5	
621.5	3.2	
end		
	621.4	

DRILL HOLE RECORD

LEVEL	
LOCATION	
ELEVATION	
LATITUDE	N
DEPARTURE	E

BEARING DIP TYPE OF SURVEY

COLLAR

CORE SIZE	
LENGTH	
COMPLETED	
PURPOSE	
TOTAL RECOVERY	

HOLE No. IM-4

SHEET No. 5 of 5

LOGGED BY: G.D.D.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
220	621.5'	cont'd.			
		From 299-304' - brecciated with diorite frags v also @ 340'-344'. Numerous lge pyroxene x/l frags upto 1½" eg @ 336.5'. At 374.5, a 2¼" ovoid mass frag		Some reddish mineral (maroon hematite?) on frac. faces may be a zeolite.	
		Core weakly magnetic. Core badly broken @ 391-394', 398-399', 498'-517'		At 399.5' a 46° slip with 1/16" grey gouge	
		At 466.5', a sharp contact @ 20°:		A slip @ 400'-401' with a 1" gy gouge upper fault plane @ 10° lower " " @ 20°	
		466.5'-476' a bleached, creamy-white + altered brecciated diorite core - looks like argillic alteration. At 476', 1/8" gauge in 20° slip - looks like a vn mineralised fault zone. A 25° slickensided slip @ 475.5'. At 512', a 1" qtz vein @ 10°		Coarse py. specks @ 404.5'	
				A 25° slip @ 495'	
		Core badly ground also @ 569'-570.5', 573'-580', 581'-591.5' - a fault zone containing numerous fault bx frags in a grey gouge material with a few red-maroon zeolite or hematite smears on fractures.		Very badly ground from 500'-503' - a fault zone. At 504'-25° fractures with maroon hematite (or zeolite)	
				Sulfides scarce in interval 505'-594'	
		Core bleached from 588-590'		Py stringers @ 40°-45° @ 559'	
		Slips @ 506', 509' @ 45°, 511.5', 537',		Slickensides @ 615' & 616'	
		end of hole			

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASURED	% REC.

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3420'
LATITUDE	61505 N
DEPARTURE	15+90W E

	BEARING	DIP	TYPE OF SURVEY
COLLAR	due N	-35°	

CORE SIZE	
LENGTH	123'
COMPLETED	Aug. 29/70
~~PURPOSE~~ Started	Aug. 26/70
TOTAL RECOVERY	32.2%

HOLE No.	IM-5
SHEET No.	1
LOGGED BY:	G. D. Delane

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	40	no recovery		
41	82	Andesite ground & broken pebbles & angular pieces of limonite-stained, f.g. andesite which contains a few specks pyrite @ 64'		
82	97	bleached to light tan colored, Fe stained & altered rock (altered microdiorite?) H: 4.0, vuggy with some calcite stringers - rx is altered almost beyond recognition but some evidence of salt & peppery texture near 83', 93'. A 6" grey-white bleached, soft ~~xx~~ sub-interval near 82'	Some malachite & Fe staining along fractures of broken rx @ 83'	
97	123' end	Andesite. dk. greenish-grey, fine gr. H: 4.5-5.0, locally brecciated with andesitic frags, @ 106', 110', 113', 115'; breccia frags often 'floating' in qtz & calcite - core badly broken from 112'-115', 116'-118', 120'-123'. Some barren qtz veining near 45°-50° @ 122' & @ 30° @ 106' end of hole - terminated	Breccia fragments aligned near 50° @ 110'. Core barren of visible sulfides & sheared @ 116.5' & green-grey fault gouge in broken core @ 122.5'. Hair-line stringer of py. & speck chalco @ 108'	

ASSAYS

SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
									0'-40'
									ground, rounded andesitic pebbles

this hole terminated because of very poor recovery & progress - not assayed

RECOVERY

RUN	MEASUR'D	% REC.
no recovery		
41		
46	0.5	
52	0.5	
62	0.5	
64	0.5	
67	0.5	
75	0.5	
81	2.0	
85	3.0	
95	9.2	
105	8.0	
115	10.	
123	4.4	
end		
	39.6'	

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3140'
LATITUDE	0+65 S
DEPARTURE	0+80 W E

	BEARING	DIP	TYPE OF SURVEY
COLLAR	due N	-45°	Brunton
@ 311'		-41°	acid test

CORE SIZE	
LENGTH	324.5'
COMPLETED	Sept. 19/70
~~PURPOSE~~ started	Sept. 16/70
TOTAL RECOVERY	89.5%

HOLE No.	IM-7
SHEET No.	1 of 2
LOGGED BY:	G.D. Delane
	Sept. 20/70

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	18	casing - no recovery		
18	150	Microdiorite med. dk. grey, fine grained, salt & peppery texture, H=5.5, compact & dense, locally pink (K-felds. alteration) - abund. interstitial qtz. Core is cut by numerous hairline fractures, usually calcite-filled at 45° varying from 40°-50°. Core is weak to moderately magnetic. Core badly broken & limonite-stained from 0-27' & is platey from 102' on. Bands & veinlets of salmon-coloured K-spar @ 149' @ 50° accompanied by coarse pyrite & some epidote & calcite coating	Pyrite is pervasive & generally as very fine specks & thin stringers & 1" vuggy calcite vein @ 34' @ 20°. Pyrite stringers often accompanied by epidote alteration. At 127', a 30° slip with chloritic green-grey gouge. At veining, as a general rule, is scarce.	sp.py, tr.cp sp.py, tr.cp sp.py, cp. sp.py, tr.cp sp.py, tr.cp " " " " bleb py, cp sp.py, tr.cp " " " " st.py, sp.cp " " " " st.py, blebby cp tr.cp, py sp.py, tr.cp " " " " 0.5py sp.cp sp.py, cp " " " " 0.5py bl.cp 1.0py tr.cp st.py tr.cp " " 1.0py " st.py " " " " "
150	172'	Feldspar Porphyry Dyke med. grey, massive, compact hard, H=5.5' consisting of numerous sub-rounded, greyish white (feldspar?) phenos up to 1/2", in a f.g. med-dk grey matrix. Lower contact of porph. is fairly pronounced @ 45°	Barren of visible sulphides. Probable fault @ 150' & grey graphitic-chloritic gouge. Porph is fractured frequently @ 45° with calcite fillings. Thin hairline calcite stringers @ 5°-10° near 165.5' & are rimmed by a limonite coating	

ASSAYS											RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC
	18	20	2.0	1.0								
54681	20	30	10	7.0	0.04					18	0.5	
54682	30	40		10.0	0.06					20	0.5	
83	40	50		10	0.06					22.5	0.2	
84	50	60		10	0.04					25.0	2.2	
85	60	70		10	0.03					30	4.5	
86	70	80		10	0.05					40	10.	
87	80	90		10	0.08					46	6.0	
88	90	100		10.1	0.18					50	4.0	
89	100	110		9.8	0.09					58	8.0	
90	110	120		10	0.09					68	9.7	
91	120	130		10	0.05					75	7.5	
92	130	140		9.6	0.08					79	4.0	
93	140	150		9.0	0.17					87	7.7	
94	150	160		9.6	0.01					96	9.6	
54695	160	170		10	0.01					106	9.5	
96	170	180		10	0.48					115	8.6	
97	180	190		9.8	0.15					119	4.3	
98	190	200		9.8	0.10					129	9.8	
54699	200	210		9.6	0.08					138	9.0	
54700	210	220		10.2	0.07					148	10.	
54751	220	230		10	0.11					152	3.7	
52	230	240		7.8	0.18					159	6.6	
53	240	250		8.5	0.13					169	10.	
54	250	260		10	0.10					179	10.2	
55	260	270		10	0.05					189	10.	
57	270	280		10	0.13					199	10	
58	280	290		8.2	0.07					209	8.5	
59	290	300		9.8	0.10					219	10.4	
60	300	310		10.5	0.08					225	6.3	
61	310	320		10	0.05					228.5	3.1	
	~~320~~	~~330~~	~~10~~							235	5.2	
54762	320	324.5		5.0	0.07					240	3.5	
										245	3.2	

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-7
LOCATION	COLLAR	LENGTH	SHEET No. 2 of 2
ELEVATION		COMPLETED	LOGGED BY: G.D. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
172	324.5	end. Mineralized (mainly with pink alteration) similar to interval 0'-150' except 172-276 displays more pink K-spar alteration & some local brecciation @ 265', 190'-192' - generally fine grained with salt & peppery texture. Core badly broken @ 208', 225.5'-229.5', 239.5'-240.5', 243', 219', 282'-287' Grey gouge @ 285', 287'. Core cut by several calcite stringers.		same blebs of pyrite assoc. with epidote & with pink alter. e.g. @ 187.5', 185', 198, 226, Large patch (2") coarse pyrite & epid. @ 40° @ 275' with K-spar Specks py @ 240' Py (& some specks chalcos?) plentiful as blebs & epidote from 269'-275'	
276	280'	a sub-interval of green-black chlorite (?) & qtz imparting a mottled look		Core appears to be brecciated from 280'-283'	
		end			

ASSAYS

SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
Grouped average:									
	~~280~~ 20	~~304~~ 324	= 304' of		0.098	% Cu			

RECOVERY

RUN	MEASUR'D	% REC.
255	10	
259	4	
269	10	
279	10	
286	6	
294	5.1	
298	4	
303	5	
306	3	
309	3	
324	14.5	
324.5	0.4	
end		
	291.3'	

DRILL HOLE RECORD

LEVEL		BEARING DIP TYPE OF SURVEY	CORE SIZE BQ
LOCATION	Iron Mask	COLLAR due N -45°	LENGTH 296'
ELEVATION	3230'		COMPLETED Sept 25/70
LATITUDE	2470S N		Started PURPOSE Sept. 22/70
DEPARTURE	8400N E		TOTAL RECOVERY 84.6%

HOLE No. IM-6
SHEET No. 1 of #2
LOGGED BY: G. Delane
Sept. 27/70

FOOTAGE From	To	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	15	Casing - no core		
15	220	Micaceous arkosite (locally altered) or microdiorite. med. gray with slight pink cast, salt & peppery texture typically, fine grained, compact, H=5.5+, very weakly magnetic. Fracturing fairly abundant varying 30°-50° & mostly coated with chlorite & calcite & more rarely with maroon hematite. Core generally broken throughout. Fairly intense pinkish K-spar alteration in zone from 40'-51', & veins intense from 87.5'-92'. Core is brecciated from 55.5'-65' Intense K-spar alteration at 101-113' & badly broken & (sheared?) from 110'-115'. Zone is bleached pale gray-white from 120'-124' & @ 157'-195'. K-spar alteration @ & silicific ation from 200'-203.5' accompan. by coarse py, epid. & few blebs chalc. A ½" calcite vein @ 35° @ 245', Core badly broken & gravel from 227-228' 230-231' 232'-240'	sulfides consist mainly of thin hairline veinlets of pyrite assoc. with epidote near 40°-50° Core cut by thin (1/16" - 1/8") barren qtz veins from 40°-50° A 70° slip @ 57' & 2" gray gouge, & slips & gouge @ 59.5' (40°) & @ 64.5'. Barren of sulfides from 55' -63' & also locally vuggy 77'-79'. Slip & gouge @ 112', 133' 135.8', 146', Patch maroon hematite & epidote @ 127' Pyrite & epidote @ 130.2'. Py. stringers more abundant from 155' on. A thin pyrite hairline & rimmed & epidote @ 30° @ 187.5'. Py also @ 211', 223' 244 246.5', 248', 253' - 257.5'	

ASSAYS										
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
54763	15	20	5.0	2.1	0.06				
64	20	30	10.	2.1	0.05				
65	30	40		7.2	0.10				
66	40	50		9.4	0.15				
67	50	60		9.0	0.10				
68	60	70		9.3	0.07				
69	70	80		9.6	0.06				
70	80	90		10	0.09				
71	90	100		7.3	0.08				
72	100	110		9	0.41				
73	110	120		10	0.18				
74	120	130		10	0.14				
75	130	140		9.5	0.12				
76	140	150		4.5	0.36				
77	150	160		9.0	0.05				
78	160	170		8.9	0.09				
79	170	180		10	0.13				
80	180	190		9	0.10				
81	190	200		10	0.09				
82	200	210		9.4	0.38				
83	210	220		9.7	0.10				
84	220	230		10	0.12				
85	230	240		9.9	0.23				
86	240	250		10	0.14				
87	250	260		9.8	0.09				
88	260	270		9.9	0.09				
89	270	280		8.6	0.15				
91	280	290	10	9.6	0.12				
54791	290	296	6	6.0	0.11				
Grouped averages									
	100	250 = 150'		of	0.18 % Cu				

RECOVERY		
RUN	MEASUR'D	% REC
0		
15		
16	0.5	
17	0.7	
18	0.2	
19	0.2	
20	0.2	
21.5	0.3	
27	0.7	
28	0.4	
29	0.4	
30	0.3	
31	0.5	
33	1.0	
37	2.9	
38	0.5	
46	8.1	
48.5	2.2	
53	4.5	
60	6.5	
65	5.0	
70	5.0	
70.5	0.5	
74.5	4.1	
79	4.5	
81	2.0	
85	4.0	
95	10	
97	1.5	
101	1.5	
109	7.5	
113	3.8	
116	3.4	
120	4.5	
130	10.	

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-6
LOCATION	COLLAR	LENGTH	SHEET No. 2 of #2
ELEVATION		COMPLETED	LOGGED BY: G. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
240	296	Metamorphosed - cont'd			
		Core generally slightly darker grey from 240' - end.		A 50° slip @ 280.7' w a 10° slip @ 282.5' with graphite - chlorite dk grey coating of gouge.	
		Core bleached & silicified from 273' - 275'.		A 1" slip @ 40° with gouge @ 285.2' & @ 287'	
		Core bleached & altered softer (kaolin) H = 3.0 - 3.5 from 288' - 295' but slightly pink from 286 - 296'		Patch coarse pyrite & epid. @ 295	
		Calcite - filled fracture @ 295' - 296'		At 267', a thin pyrite stringer @ 35° - 40° crumbled & epidote.	
				Patch pyrite @ 270', 273' & epid.	

ASSAYS										
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE

RECOVERY		
RUN	MEASUR'D	% REC
135	5.0	
138	2.7	
140	1.0	
142	0.7	
147	1.5	
149	1.0	
155	4.6	
159	4.0	
160	1.0	
169	8.0	
179	10.2	
181	2.0	
186	4.5	
189.5	3.5	
193	4.0	
197	3.6	
205	9.0	
207	2.0	
211	3.8	
215	4.0	
224	9.0	
228	3.5	
232	4.1	
237	5.0	
247	9.7	
253	6.0	
256	3.0	
259	2.5	
269	10	
277	7.0	
283	5.8	
287	3.5	
294	7.0	
296	1.8	
	251.7'	

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3310'
LATITUDE	34005 N
DEPARTURE	12400W E

	BEARING	DIP	TYPE OF SURVEY
COLLAR	due N	-45°	Brunton
	@ 400'	-41°	acid test
	@ 650'	-42°	acid test

CORE SIZE	BQ
LENGTH	656'
COMPLETED	Aug. 23/70
~~Started~~ ~~PURPOSE~~	Aug. 16/70
TOTAL RECOVERY	95.2%

HOLE No.	IM-9
SHEET No.	1 of 4
LOGGED BY:	G.D. Delane
	Bacon & Crowhurst Ltd.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	227'	Andesite (Hornblende Andesite)			
		dk greenish-grey, med gr, H=2.5, fairly dense & compact - contains abundant small hornblende xls, some up to 1/2". Core often contains rounded or oval phenocrysts of a milky-green, porcelaneous -looking mineral (clay mineral?) eg @ 38', Some pink K'spar alteration @ 49' with epidote & few specks of pyrite, and an intense K'spar vein @ 20° @ 71-72', which is cut by calcite vein @ 30°. A 1/4" calcite vein @ 40° @ 188.6' -local pinkish veinlets @ 194' Core broken & brecciated from 125.5'-127' & from 153'-138', (with abundant calcite), & from Possible fault zone from 125.5' -140'. Calcite, maroon hematite & specks pyrite @ 207'. Also some scattered randomly-oriented thin hairline fractures filled with py At 222', a 3/4" gtz vein with py & some chalc @ 60°. At 222.6', a 1/8" calcite-filled fract @ 40° affects a 1/4" 40° gtz vein by 1/2"		Core cut by several hairline fractures, hairline pyrite-filled @ random & dk. Dark maroon hematite (or zeolite) occasionally present as patches eg @ 46, 63'. A 20° slip @ 123' & @ 40° with grey gouge @ 177'. Hairline pyrite veinlets common from 93'-113', no visible chalc. At 197.2' a 25-30° possible fault plane with ruggy calcite & dk maroon hematite developed along plane. Fault zone (?) from 197.2' -200' with some gouge. Fault breccia along 50° foot surface. Slicken-sided 50° chloritic fault plane adjacent to gouge @ 224'. A strong fault structure from 224-231 with grey-green fault gouge from 224'-225'	
227'	656'	Andesite (Hornblende Andesite)			
		dk greenish-grey, med gr, H=2.5, fairly dense & compact - contains abundant small hornblende xls, some up to 1/2". Core often contains rounded or oval phenocrysts of a milky-green, porcelaneous -looking mineral (clay mineral?) eg @ 38', Some pink K'spar alteration @ 49' with epidote & few specks of pyrite, and an intense K'spar vein @ 20° @ 71-72', which is cut by calcite vein @ 30°. A 1/4" calcite vein @ 40° @ 188.6' -local pinkish veinlets @ 194' Core broken & brecciated from 125.5'-127' & from 153'-138', (with abundant calcite), & from Possible fault zone from 125.5' -140'. Calcite, maroon hematite & specks pyrite @ 207'. Also some scattered randomly-oriented thin hairline fractures filled with py At 222', a 3/4" gtz vein with py & some chalc @ 60°. At 222.6', a 1/8" calcite-filled fract @ 40° affects a 1/4" 40° gtz vein by 1/2"		Core cut by several hairline fractures, hairline pyrite-filled @ random & dk. Dark maroon hematite (or zeolite) occasionally present as patches eg @ 46, 63'. A 20° slip @ 123' & @ 40° with grey gouge @ 177'. Hairline pyrite veinlets common from 93'-113', no visible chalc. At 197.2' a 25-30° possible fault plane with ruggy calcite & dk maroon hematite developed along plane. Fault zone (?) from 197.2' -200' with some gouge. Fault breccia along 50° foot surface. Slicken-sided 50° chloritic fault plane adjacent to gouge @ 224'. A strong fault structure from 224-231 with grey-green fault gouge from 224'-225'	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASURED	% RE
										0		
S3851	20	30	10		0.05					27	2.0	
52	30	40			.05					36	7.5	
53	40	50			0.10					44	7.8	
54	50	60			.08					54	10.	
55	60	70			.07					64	10.2	
56	70	80			.06					74	10.2	
57	80	90	10		.06					82	7.9	
58	90	110	20		.05					88	6.0	
										94	6.0	
core barrel didn't lock properly, ground the core										*		
										104	0.4	
59	110	120	10		.09					113	9.2	
61	120	130			.04					119.5	6.5	
62	130	140			.08					125	4.6	
63	140	150			.13					132	7.0	
64	150	160			.08					142	10.4	
65	160	170			.09					143	1.4	
66	170	180			.08					153	9.8	
67	180	190			.10					163	10	
68	190	200		10.	.19					169	6.3	
69	200	210		11.0	.14					177	7.4	
70	210	220		10	.09					187	10.5	
71	220	230		10	.14					197	9.9	
72	230	240		10.5	.15					207	10.1	
73	240	250		10.5	.13					217	10.	
74	250	260		10.	.26					227	10.9	
75	260	270		10.	.19					234	8.6	
76	270	280		10.4	.24					244	10.8	
77	280	290		9.9	.16					254	9.3	
78	290	300		9.0	.11					264	9.9	
79	300	310		10.2	.07					274	9.2	
80	310	320		10.	.05					284	10.	
81	320	330			.08					294	10.5	
S3882	330	340	10		.28					304	10.2	

DRILL HOLE RECORD

LEVEL	BEARING	DIP	TYPE OF SURVEY	CORE SIZE	HOLE No. IM-9
LOCATION	COLLAR			LENGTH	SHEET No. 2 of 4
ELEVATION				COMPLETED	LOGGED BY: G. D. Delane
LATITUDE N				PURPOSE	
DEPARTURE E				TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
227.5	546				
		Altered Microdiorite			
		- fine grained, salmon-pink color, salt & peppery appearance - calcite - filled fractures. Grey green gouge @ 231' - core badly broken @ 233'		contains some hairline pyrite fract. & blebs of chalco with epidote	
		from 233 - 274' - weakly magnetic		At 235', a patch of py & py. stringers & a qtz vein (1/4") @ 60°	
		259.5' - 262' - a sub-interval of dk grey porphyry with small whitish qtz phenos in dk grey f.g. andesitic matrix - top & upper contact @ 65°, lower contact fuzzy & indefinite @ 35°		andesite porphyry contains abundant minute specks of f.g. chalco	
		Pink K spar veining randomly scattered throughout interval		A 1/4" qtz vein @ 35° @ 266'; @ 274.2, 1/2" dk grey fault gouge @ 60° with development of maroon hematite & vuggy calcite. Rock beyond this is fairly competent. Some scattered patches blebs stringers of pyrite with main chalco & epidote thro' interval	
		Abundant K spar alteration from 283' - 298'. Core near 318', is salt & peppery textured, but locally brecciated from 316 - 318.			
		456			
		At 395' - 395.2 slip & gouge			
		394.4' - 398.4' - K spar prominent			
		At 407.4', a chloritic fracture (shear) @ 15°. Calcite vein @ 55° @ 410.9', @ 411.4, @ 30° @ 412' @ 60° @ 414'. Hematite blebs @ 423.7', & lge. b.b. phenos @ 423.7'		At 285.5' is a 1/4" qtz vein @ 30° with bleb chalco & f.g. specks py. A 30° slip @ 288.5' with calcite & gy gouge. Fault zones @ 329 - 342.3', 376.3' - 378.9', 381.6 - 382.4'	
		Rx tends to get more andesitic @ 435' & speckled with white phenos. Faulty @ 419.8' - 420.0' gouge @ 423.7', 432.8'; & 1/4" qtz vein @ 90° @ 438.3'.		Chalco @ 369.4', 375', 376', 370', 355', 396', 399.3', 401.3'	
		435 - 437.8' - more andesitic			
		427.8 - 432.7 - microdiorite			

ASSAYS											RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC
53883	340	350	10		.26							
84	350	360			.20					314	10.5	
85	360	370			.13					324	10.5	
86	370	380			.09					334	10.4	
87	380	390			.24					345	10.4	
88	390	400			.29					355	10	
89	400	410			.13					365	10.6	
90	410	420			.13					375	10.5	
91	420	430			.10					385	10.	
92	430	440			.08					395	10.	
93	440	450			.08					405	9.8	
94	450	460			.22					415	10	
95	460	470		12	.11					425	10.1	
96	470	480		10.4	.13					435	10.2	
97	480	490		11.2	.30					445	9.8	
98	490	500		8.8	.34					455	10.4	
99	500	510		12	.42					466	10.4	
53900	510	520		11.6	.09					472.5	7.7	
01	520	530		11.2	.06					482	9.1	
02	520	540		11.5	.14					489	6.2	
03	540	550			.04					499	10.5	
04	550	560		10.4	4.01					507	7.8	
05	560	570		10.7	.11					516	9.4	
06	570	580		12.	.14					526	10	
07	580	590		11.2	.27					536	10.3	
08	590	600		10.4	.24					546	9.9	
09	600	610		8.4	.12					556	9.5	
11	620	630	11.6	~~15~~	.12					562.5	5.9	
12	620	640			.06					572	10.	
13	640	650	10.		.06					582	9.8	
53914	650	656	6.0		.07					592	10	
53910	610	620	10	8.5	.04					597	4.5	
										605	7.1	
										615	10.1	
										625	11.1	

DRILL HOLE RECORD

LEVEL	
LOCATION	
ELEVATION	
LATITUDE	N
DEPARTURE	E

	BEARING	DIP	TYPE OF SURVEY
COLLAR			

CORE SIZE	
LENGTH	
COMPLETED	
PURPOSE	
TOTAL RECOVERY	

HOLE No.	1M-9
SHEET No.	4 of 4
LOGGED BY:	G. D. Delane

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES	ASSAYS SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RECOVERY RUN	MEASUR'D	% REC
541	565	Andesite Porphyry equidimensional white feldspar phenos ~10% of rock. Aphanitic groundmass is grey green. Feldspars partially altered to clay minerals		Chalco @ 585.2', 588' in a qtz vein @ 78°, & @ 586', 587, as small blebs														
565	656																	
565	590	3) Altered Microdiorite pink, altered with K-spar, locally bleached		mineralization assoc. with qtz veins														
		590.3 - 597' - some unaltered h.b. rich microdiorite with abundant h.b xls.		Chalco in blebs @ 597, 600, 603.4'. Calcite vein @ 603'. Fault @ 608.3' - 608.7' with grey gouge														
		597 - 611.8' pink, altered, brecciated, microdio, much K-spar,		Fault @ 621.7, 622.6 pyrite replac. @ 623.5'														
		611.8 - 615' - h.b rich micro diorite, dk grey grn with h.b. needles																
		615' - 656. dk grey green breccia, andesitic frags, zones of pink alter-ation. Brecciation prominent @ 633', 638, 646. Strongly bleached whitish from 639-641. Core badly broken from 636.5 - 637, 640-643. Pink Kspar @ 639', 647.5, 653-655		Core badly broken & ground @ 654' - 655.5. Andesitic from 648-650'. Slip with green-gy gouge 1" @ 654'. Sulfides are rare from 615' - 656'														
End																		

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. 1M-9
LOCATION	COLLAR	LENGTH	SHEET No. 3 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
227.5'	544	cont'd Altered Microdiorite (mostly) Prominent K spar zones @ 441.6', 446.6', 451-f.	Chalco @ 442', 451.5' Blebs of maroon hematite with aligned (~70°) fault breccia fragments in a soft chloritic matrix containing abundant specks pyrite Patch f.g. py + chalco @ 468'; specks chalco @ 491.5', 496, 501 Intense K spar alteration @ 501-503'	
451	504'	- altered microdiorite essentially same as preceding interval, pinkish, salt + peppery texture - very badly shattered. Abundant shattered qtz, calcite, + vuggy calcite from 457-460, green chlorite on fracture surfaces Possible chloritic slip @ 10° @ 466.5' + @ 469'. Dk grey gouge material @ 491.5'; core intensely shattered from 491 - 469. At 498, a 1/2" grey gouge on 10° slip		
504'	546	a sub-interval of more or less unaltered (by K spar), hornblende rich diorite or microdiorite, bluish-grey, fine-med gr, H = 5.5, compact. Small hornblende 'needles' compose matrix - probably gradational into pink altered microdio. 517, 524-527 pink alteration 532 - 538 bleached zone 538 - 546 clay alteration lower contact @ 35°	calcite veg @ 514' fault gouge 1" @ 25° @ 535'. Fault zone @ 546-546 - chlorite + slickensides @ 547'. 551-552 = gouge zone in andesite porphy. 559-580 same.	

ASSAYS										RECOVERY	
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D
										621.5	7.3
										637	6.0
										646	9.0
										656	9.5
										end	
Grouped average:											
	20	656 + 636' of 0.131% Cu									
											624.7'

DRILL HOLE RECORD

LEVEL	
LOCATION	Iron Mask
ELEVATION	3422'
LATITUDE	6+57 S N
DEPARTURE	15+90 W E

BEARING	DIP	TYPE OF SURVEY
COLLAR due N	-60°	

CORE SIZE	BQ
LENGTH	405'
COMPLETED	Sept. 6/70
~~PURPOSE~~ Started	Aug. 31/70
TOTAL RECOVERY	87.6%

HOLE No.	IM-11
SHEET No.	1 of 3
LOGGED BY:	G.D. Delane
	Sept. 16/70

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	30	Core broken & pebbly & limonite stained.			
30	37	Andesite dark grey, f.g., dense compact, H = 5.5, cut by a few calcite veinlets & 1/4" qtz veinlet @ 30° @ 35', 37'		A few fine pyrite fracture fillings @ 37'	
37	47.5'	Breccia (Andesite fragments) Large (up to 3") Andesite angular fragments in dk. grey andesitic matrix, randomly oriented & generally altered pink - salt & peppery textured frags - some frags are sub-rounded		A 1½" barren qtz vein @ 50° @ 40 Core fractured near 45° & with calcite coatings - scarce sulfides	
47.5	65.5	Bleached Andesite(?) Breccia greyish white, bleached, locally brecciated andesite (?) soft H = 4.0-4.5, & locally ruggy with calcite limonite - stained & very ruggy from 56.5'-59'.		A few blebs of coarse pyrite in 1/2" qtz vein @ 40-45° @ 52' - badly broken & shattered from 62'-63'	
65.5	191	Andesite & Andesitic Breccia dk grey, f.g, compact andesite with abundant hornblende as sub-rounded xls. Core locally brecciated with andesitic fragments generally @ 83°, 95-97' & locally with diorite frags			

ASSAYS

SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
54701 &	20	30		3.5	0.07				
02	30	40	10	6.0	0.12				
03	40	50		9.8	0.21				
04	50	60		10	0.07				
05	60	70		9.6	0.04				
06	70	80		9.2	0.08				
07	80	90		10.5	0.08				
08	90	100		10.1	0.11				
09	100	110		9.9	0.09				
10	110	120		9.3	0.08				
11	120	130		9.9	0.06				
12	130	140		10	0.06				
13	140	150		10	0.06				
14	150	160		10	0.03				
15	160	170		10.5	0.07				
16	170	180		9.5	0.05				
17	180	190		9.8	0.03				
18	190	200		10	0.06				
19	200	210		10.3	0.07				
20	210	220		9.6	0.06				
21	220	230		10	0.09				
22	230	240		9.7	0.15				
23	240	250		10	0.08				
24	250	260		8.5	0.10				
25	260	270		9.0	0.19				
26	270	280		10	0.31				
27	280	290		10	0.33				
28	290	300		8.8	0.13				
29	300	310		8.5	0.16				
30	310	320		9.0	0.07				
31	320	330		10	0.08				
32	330	340		9.7	0.09				
33	340	350		10	0.23				
54734	350	360	10	10	0.08				

RECOVERY

RUN	MEASUR'D	% REC
27	3.0	
31	0.5	
32.5	0.8	
35.5	1.1	
42	3.9	
48	5.5	
56	8.3	
66	9.8	
72	5.8	
82	9.2	
86	3.5	
96	10	
106	10	
116	10.4	
123	5.0	
133	10	
143	10.2	
151	7.9	
161	10	
167	6.3	
177	10	
187	9.9	
197	9.9	
207	9.9	
216	9.0	
226	10	
236	9.7	
246	10	
256	10	
261	3.8	
269	7.5	
277	8.0	
287	10	

DRILL HOLE RECORD

LEVEL	BEARING	DIP	TYPE OF SURVEY	CORE SIZE	HOLE No. IM-11
LOCATION	COLLAR			LENGTH	SHEET No. 2 of 3
ELEVATION				COMPLETED	LOGGED BY: G. Delane
LATITUDE N				PURPOSE	
DEPARTURE E				TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
65.5	191	contd (usually altered pink) @ 69.5', 75, 76-77, 92') Fracturing @ several angles but 45°-45° most common & usually with calcite. Core badly broken from 120'-123' & chloritic gouge present in slip @ 121.5'; core chloritized @ 71'-72' & locally brecciated from 130'-191' with 30° fracturing common. Diorite breccia frags becoming more prominent from 166'-172'		Cut by 3" of porphyry dyke (whitish phenos in black f.g. matrix) @ 45° @ 104.5' Calcite veining @ 45° @ 68'. Several barren stringers of pyrite @ 40°-50°, near 85-89', 93, 98', 101, 103' - this interval generally scarce of sulphides Core cut by 1/8" qtz veins @ 50° near 162' & 167', & by a 1/4" qtz vein @ 25° @ 165'	
191	254	Hornblende Diorite med. grained, greyish cx with abundant sub-rounded xls hornblende in a fairly f.g. light grey hard matrix H=5.5+ - resembles andesite but coarser grained, dense with 45°-50° fractures coated with coarse pyrite Contacts are gradational		Cut by very few pyrite & qtz stringers - few blebs chalco with pyrite in qtz vein @ 90° @ 208' - a few narrow 1/4" qtz veins near 40° @ 206.5' & by thin calcite-filled fract's @ 205', 206.3'	
254	284	Andesite & Brecciated Andesite dk grey, fine-med gr., H=5.5 brecciated from 254'-256', & bleached from 258'-270' - with rusty calcite, badly broken from 270'-280'		1" chloritic fault gouge @ 30° @ 239.5' - sheared from 251'-260' - sulphides rare.	

ASSAYS											RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC.
										297	9.5	
54735	360	370	10	10.3	0.04					307	6.0	
36	370	380	10	9.5	0.05					315	6.5	
37	380	390	10	10.1	0.03					325	10.4	
38	390	400	10	9.9	0.04					335	10	
54739	400	405	5.	5.0	0.06					345	9.2	
										355	10.2	
										365	10	
										375	10	
										385	10	
										395	10.1	
										405	10	
										cont		
Grouped average:												
	20	405 = 385' at			0.098%	Cu						
											354.8	

DRILL HOLE RECORD

LEVEL	
LOCATION	
ELEVATION	
LATITUDE	N
DEPARTURE	E

BEARING DIP TYPE OF SURVEY

COLLAR

CORE SIZE	HOLE No. IM-11
LENGTH	SHEET No. 3 of 3
COMPLETED	LOGGED BY: G. Delane
PURPOSE	
TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
284	341.5'	Breccia (clastic fragments mainly) - lighter grey with some pink altered dacitic frags which appear to predominate over andesitic frags. Andesitic frags tend to be larger than dacitic frags. At 320' orientation of frags is 40°-45°. This interval generally more siliceous (H > 5.0) & is cut by numerous calcite filled fracts. @ variable ∠s & also qtz stringers @ ∠s 30°-50°. Core tends to be more andesitic from 302'-311' & generally scarce in sulfides. Core badly broken & shattered @ 306'-307', 309'-310'		This breccia contains scattered patches, blebs, stringers of sulfides (mainly pyrite & few blebs chalco) generally associated with qtz matrix between dacitic frags. At 341.5' is a 1/8" qtz vein @ 55	
341.5 (end)	405	Andesite & Andesite Breccia dk grey, fine gr. compact, H=5.5, locally brecciated with mainly andesitic frags (but few dacitic frags @ 349'-392') Considerable green-blk chlorite on (fract) fract. planes. Core broken 374'-375', 380, 384-385' - locally pink alteration & assoc. with 50° qtz vein & py. veinlets @ 403' - numerous cubedral hornblende xls & phenocrysts end of hole		Sulfides scarce & consist mainly of pyrite & rare chalco & as specks & 50° stringers. Cut by 1/4" calcite vein @ ~50° @ 376.5', & @ 404' by 1" vuggy calcite vein @ 30. About 1 1/2" green chloritic fault gouge in 40° slip @ 384'	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASURED	% REC.

DRILL HOLE RECORD

LEVEL	
LOCATION	Grandview Ski
ELEVATION	3375'
LATITUDE	5+25S N
DEPARTURE	15+85W E

BEARING	DIP	TYPE OF SURVEY
COLLAR		
North	-45°	Brunton
@ 304'	-51°	acid test

CORE SIZE	BQ
LENGTH	314'
COMPLETED	Sept. 14/70
~~Started~~ PURPOSE	Sept. 9/70
TOTAL RECOVERY	83.8%

HOLE No.	IM-12
SHEET No.	1 of 4
LOGGED BY:	G.D. Delane
	Sept. 12/70
	Bacon & Crowhurst Ltd.

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
0	25	casing - no recovery		
26	57	Andesite dark bluish-grey, dense, fine to med. grained, H = 5.0-5.5, contains numerous tiny sub-rounded hornblende xls. Core badly broken from 25'-37' with limonite on fractures. @ 2" diorite sub-rounded frag. @ down @ 47'. -some calcite on fracture planes @ 49.5' - fracturing @ several Ft. Contacts, if any, are obscure Weakly magnetic	Andesite contains same sulphides, mainly pyrite as finer stringers often with epidote (@ 47') Andesite locally brecciated @ 44', 49.5', 55.5'. A thin 1/32" veinlet of py + cp @ 30°	tr. cp. tr cp, sp.py bleb. cp 0.3% py. bl. cp bl. py, bl. cp .2py, .2cp st. py, bl. cp tr. py, tr. cp bl. py. bl. cp .3py, .3cp .3py .2cp. .2py .4cp .4py .4cp .3py, .2cp .4py .5cp .3py, .3cp sp. py, bl. cp sp. py, tr. cp st. py, bl. cp sp. py. tr. cp sp. py, tr. cp sp py tr. cp " tr. cp " tr. cp " tr. cp " tr. cp " tr. cp " tr. cp " tr cp
57	73.5	Andesite (weak-mod. brecciated) dark grey, fine to med. grained, locally brecciated (mainly rounded frags but some are diorite) in an andesitic frag matrix. Some local bleaching and pink K spar alteration @ 57'-61'; core is dense & compact - some calcite & chlorite on fracture surfaces which vary from 40°-50° - no sharp contacts	some veinlets & blebs of coarse pyrite, some chalco & epidote @ 58', 59' (@ 40°), 62' & scattered weakly throughout most of interval 57'-73.5'.	
73.5	88	Breccia (mainly diorite frags) dk grey, med grained, locally weakly porphyritic, compact H = 5.5, - numerous frags (sub-rounded & angular) of white qtz, diorite (pale white), some altered pink frags, & often whitish phenos of feldspar @ 82' in an andesitic dk. grey matrix. Core cut by calcite stringers @ 45° 10°-30°	Core generally weakly mineralized with thin pyrite stringers with some epidote & possibly some scarce chalco - very weakly magnetic	

ASSAYS SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE
	0	26	Casing						
54651	26	30	10.		0.01				
	30	40			0.05				
	40	50			0.06				
	50	60			0.15				
	60	70			0.11				
	70	80			0.31				
	80	90			0.24				
	90	100			0.19				
54660	100	110			0.44				
	110	120			0.34				
	120	130			0.48				
	130	140			0.42				
	140	150			0.54				
	150	160			0.31				
	160	170			0.59				
	170	180			0.29				
	180	190			0.07				
	190	200			0.06				
	200	210			0.06				
54670	210	220			0.07				
	220	230			0.06				
	230	240			0.05				
	240	250			0.06				
	250	260			0.05				
	260	270			0.11				
	270	280			0.04				
	280	290			0.11				
	290	300			0.05				
	300	310			0.06				
	~~310~~	~~330~~	10.						
54680	310	314	4.0		0.04				

RECOVERY RUN	MEASUR'D	% REC
0		
26	0.4	
28	1.0	
33	0.3	
35	0.2	
37	2.0	
42	5.0	
48	6.4	
49	1.1	
55	6.2	
65	10.2	
75	10.1	
85	10.1	
95	10.2	
103	6.5	
108	5.0	
112	4.0	
122	10.4	
128	5.5	
148	9.8	
158	9.7	
160	2.2	
168	7.2	
178	9.9	
188	8.5	
198	10.0	
208	1.0	
208	7.1	
218	9.7	
228	10.0	
229	1.0	
232	1.2	
234	2.0	
244	9.3	

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM-#12
LOCATION	COLLAR	LENGTH	SHEET No. 2 of 4
ELEVATION		COMPLETED	LOGGED BY: G. D. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
55'	92'	Andesite Dk. grey, fine to med. gr., H=4.5, with a few whitish phenocrysts. Core is bleached to greyish-white from 92.5'-94. -non-magnetic	Core cut by calcite-filled fracture @ 20° @ 90', 91' -barren of sulfides	
92	109	Breccia Med. grey, moderately brecciated, H=5.0-5.5, most fragments of acid (diorite?) ex in an andesitic matrix & generally randomly oriented but some suggestion of a 30° orientation. Core badly crushed & broken from 98'-103'. Some pink altered frags near 109	Possible 40° slip @ 104' contains only few specks sulfides (mainly pyrite) & scarce chalco @ 103', & some epidote.	
109	110.5	Micromonzonite small interval which is part of previous breccia. Pinkish grey, fairly fine gr., uniform salt & peppery texture, H=5.0-5.5, dense & compact & barren of sulfides - no visible contacts.		
110.5	112'	Feldspar Porphyry Dyke dense, compact, spotted appearance, whitish, sub-rounded phenos, all closely packed, very hard, H=5.5? -some pink alteration near 111.5' - unit probably phase of breccia unit	unmineralized	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC.
										254	10.0	
										264	10.0	
										274	10.0	
										284	10.0	
										294	10.0	
										304	10.0	
										314	10.0	
										end		
Grouped averages:												
	70	180 = 110'			of 0.38% Cu							
	26	314 = 288'			of 0.188% Cu							
											263.2'	

DRILL HOLE RECORD

LEVEL	BEARING	DIP	TYPE OF SURVEY	CORE SIZE	HOLE No. IM 4/12
LOCATION	COLLAR			LENGTH	SHEET No. 3 of 4
ELEVATION				COMPLETED	LOGGED BY: G. D. Delane
LATITUDE N				PURPOSE	
DEPARTURE E				TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
112'	181.5'	Breccia (mainly dioritic fragments)			
		grey to dark grey, generally coarsely brecciated rock, H=5.0+ -most breccia frags are dioritic, but many are syenitic or altered pink, however, many frags are also dk. grey andesite. Some diorite frags are sub-rounded & are floating in dk grey f.g. andesitic matrix, other frags are silica-healed, ie near 128'-132'. Some large 2" frags of porphyry (whitish pheno's, elliptical in f.g. dk. grey matrix) @ 133" Core is bleached @ 150' & also 155'-157'. A 3/4" barren qtz vein @ 35° @ 153.5' with pink altered zone from 153'-155'. Core tends to become more andesitic from 172'-225' but breccia is locally altered pink from 175'-181'. Breccia frags tend to become more andesitic from 181.5'-224' & also less abrasive & distinct - rock is probably grading into an andesite - transitional ex. Porphyry breccia frag. 2" & aligned @ 40° @ 135'		Core cut randomly by thin calcite-filled fractures, near 35°-45° Blebs & rivulets & patches of chalco usually with qtz. between bx. frags. Elongate patch of chalco 1/4" x 1 1/2" near 35° between bx frags @ 130.5" -mineralization often assoc. with epidote Several thin qtz veinlets 1/8" @ 40°-45° near 185', 179.5' Core badly broken, crushed zone slickensiding (slip?) near 200' Core also broken from 216'-223'. Some evidence of 30° shearing in core @ 221' with 1/2" green gouge near 222' near 90° to core	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC

DRILL HOLE RECORD

LEVEL	BEARING DIP TYPE OF SURVEY	CORE SIZE	HOLE No. IM #12
LOCATION	COLLAR	LENGTH	SHEET No. 4 of 4
ELEVATION		COMPLETED	LOGGED BY: G.D. Delane
LATITUDE N		PURPOSE	
DEPARTURE E		TOTAL RECOVERY	

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION OF ROCK TYPES	DRILL HOLE	MINERALIZATION AND STRUCTURES	ESTIMATED % OF SULPHIDES
191.3	268	Breccia (mainly andesitic fragments)			
		dk. grey, fine to med. grained andesitic rock - composed mainly of andesitic fragments which are locally oriented near 40° (@ 244.3 & 236'). Core is intensely altered patchy from 224'-228' with veggy calcite veinlets (at several %) & whitish-grey to greenish-white bleaching from 232-234.5' Breccia frags of andesite prominent @ 244'-245'. Pink alteration of brecciated andesite @ 236', 239', 242' 250', 260'. Core badly crushed & broken from 228' -235', 239'		Scarce sulfides in this interval. Fracturing prominent near 232'-234 @ 30° in bleached zone. Couple 1/4" qtz veins near 45° @ 250.2' (rimmed with pink K spar) - also a rimmed 3/4" barren qtz vein @ 40°-45° @ 254'. A 1/8" pyrite vein @ 45° with epidote rims @ 260.2'	
268	314 (end)	Andesite			
		dk grey, fine-med. grained andesite compact, H=5.5, randomly fractured @ many %, Core cut by 3 narrow qtz veins (up to 3/8" wide), barren & @ % varying from 50°-80° @ 293', & @ 30° @ 312'. Core broken from 313'-314'. There is no distinct separation between this interval & the previous one - contacts, if any, are gradational		cut by several veinlets of calcite @ several % varying from 30° (1" @ 269') to 50° @ 278'. Core unmineralized except for few specks & barren veinlets of pyrite	

ASSAYS										RECOVERY		
SAMPLE NO.	FROM	TO	WIDTH	REC.	% CU	% ZN	OZS. AU	OZS. AG	GROUPED AVERAGE	RUN	MEASUR'D	% REC.