



## CLEVELAND TIN N.L.

CATEGORY

HOLE No.: C.98

## GENERAL DATA

Objective: .....

Area of Operation: Cleveland Mine, Tasmania. Location: Surface, cross-section "AD"

Collar R.L.: 1108' Co-ordinates: 680 N, 2741 E.

Bearing of Hole: 290° Angle of Hole: Minus 60° Final Depth: 799' 2"

Drilling Commenced: 20/1/66 Completed: 26/3/66 Logged by: R. Cox.

## DRILLING DATA

Drilled by: A.D.D. Non Coring: .....

Drilling Rig: .....

Driller(s): .....

Core Recovery: .....

## HOLE SURVEYS

(Footage / Etch Dip / Corrected Dip.)

0' / - / -60°	500' / 60½° / -53½°
100' / 61° / -54°	600' / 59° / -52°
200' / 60° / -53°	700' / 58½° / -51½°
300' / 58½° / -51½°	
400' / 60½° / -53½°	

HOLE NO: C98

SHEET NO: 1

# DRILL HOLE DATA

DATE: 20/12/72

LOGGED: SP4

COLLAR LOCATION: SECTION Ad, SURFACE

OBJECTIVE:

FINAL DEPTH: 243.56

CORE SIZE: BX/AV/AMS

BEARING: 290

DIP: 60

R.L.: 337.72

COLLAR CO-ORDINATES:

15207.26 N;

10835.46 E;

SURVEY DATA			INTERPOLATED DATA			CALCULATED POSITION										
INSTR. TYPE	DEPTH	DIP	AZI.	DEPTH	DIP	AZI	N	E	RL.	DIST FROM HRP ORIG.	DIST. FROM HALLS	DIST. PERP. TO HRP.	DIST FROM BRP ORIG.	DIST. FROM BATT.	SECT.	DIST. PERP. TO BRP.
SURVEY Type of Acid tube	0	60	290.0	0	60	290							Ad sect 5			
	30.78	57.0		12.5	57.0											
	60.96	53.5		25.0	53.5											
	91.44	53.5		37.5	53.5											
	121.92	53.5		50.0	53.5											
	152.40	52.5		62.5	52.5											
	182.88	52.0		75.0	52.0											
	213.36	51.5		87.5	51.5											
				100.0	51.5											
				112.5	51.5											
				125.0	51.5											
				137.5	51.5											
				150.0	51.5											
				162.5	51.5											
				175.0	51.5											
				187.5	51.5											
				200.0	51.5											
				212.5	51.5											
				225.0	51.5											
				237.5	51.5											
				250.0	51.5											

COLLAR PICK UP ONLY

ABMINCO N.L. - Cleveland Mine

Hole No.

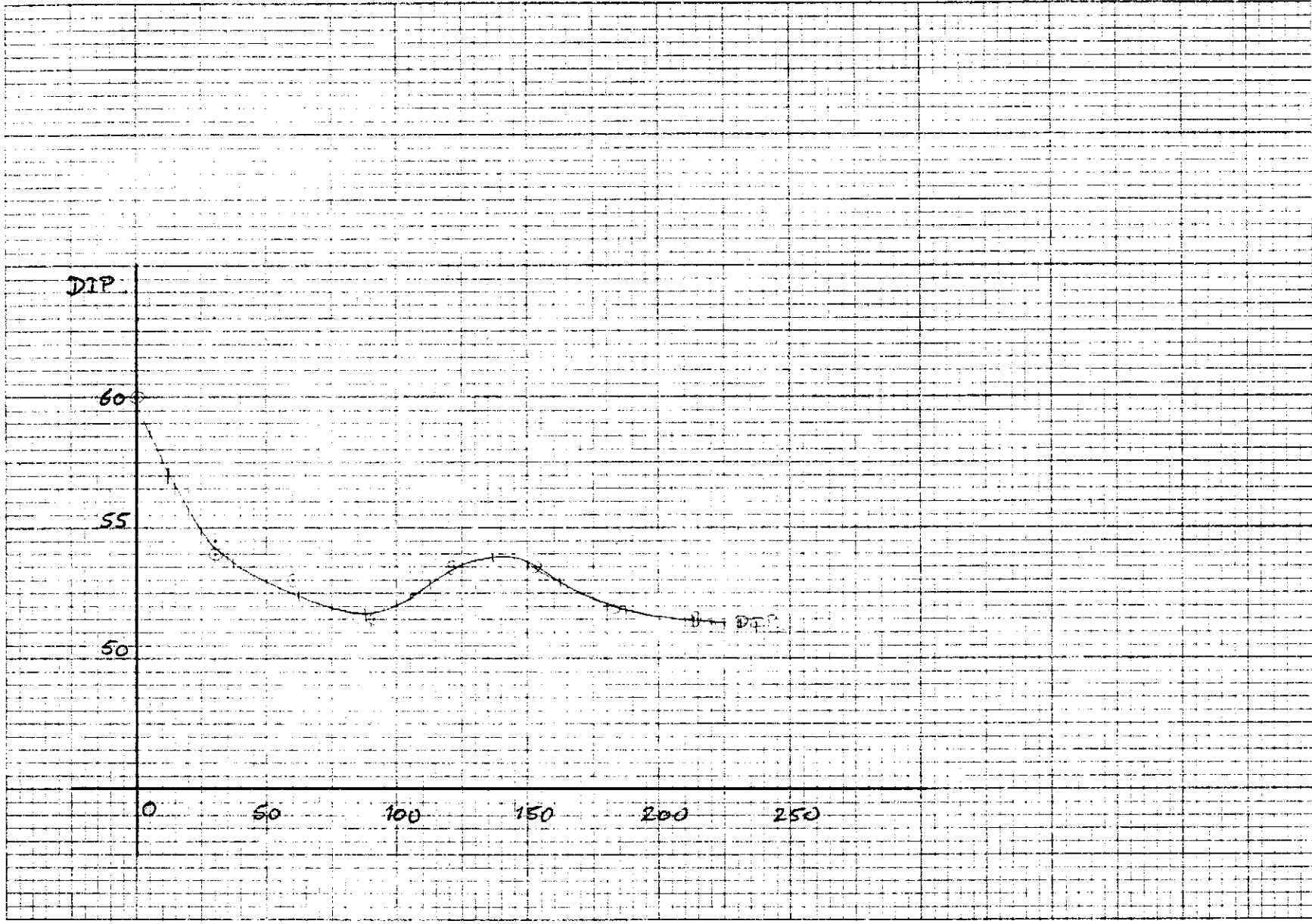
Sheet No.

DIAMOND DRILL HOLE DATA

PROGRAM DATA				SURVEY DATA				INTERPOLATED DATA		
				Instrument Type	Depth	Dip	Azimuth	Depth	Dip	Azimuth
1	Attitude	—	(+) (-)					12.5	57	245
2	Hole No.	42						37.5	53.5	
3	Down Hole Interval	25						62.5	52.5	
4	Collar	15207.20	N					87.5	52	
5	Co-ords.	15208.90	E					112.5	53.0	
6	Collar R.L.	15207.0						137.5	54.0	
7	Halls Sect.	15046.35	N					162.5	53.0	
8	Intersect Point	10770.60	E					187.5	52.0	
9	Battery Sect.	15201.09	N					212.5	51.5	
10	Intersect. Point	10770.18	E					237.5	51.5	
11	Start Plot (Depth)	0	φ = Collar							



COMPACT GRAPH PAPER - CHRISTIANBURGH N.J. R1014 10005 11 8 1 inch



HOLE No.: C 98

**SAMPLE DATA**

SHEET No. : .....

FOOTAGE : From ..... To .....

LENS	SAMPLE No.	LITHOLOGY	Σ	INTERVAL (ft)		Length (L)	Assays (A)				Product (A x L)		
				From	To		% Snt	% Sns	% Cu	% Zn	P. Snt	P. Sns	P. Cu
	1511	Loose		<sup>45.1</sup> 148'0"	149'5"	17' 17"	0.33		Tr	4.86	45.1 to 402		
	1512	Loose		153'6"	154'11"	7' 5" <sup>17</sup>	0.03		Tr	1.64	3.1m to 0.15% Zn, 0.05% Cu		
	1513	Loose		154'11"	157'0"	25' 25"	0.16		0.13	3.49			
	1514	Loose		157'0"	158'1" <sup>48.2</sup>	1' 13" <sup>72</sup>	0.39		0.37	4.72			
	1515	Loose		<sup>60.8</sup> 199'7"	201'6"		Nil		<0.01	2.64			
	1516	Loose		204'4"	206'6"		Nil		0.01	1.68			
	1517	Loose		206'6"	208'11"		Nil		0.01	2.00			
	1518	Loose		208'11"	211'10"		Nil		0.01	4.24			
	1519	Loose		211'10"	215'7"	45"	0.25		0.02	2.84	2.1m to 0.02%		
	1520	Loose		215'7"	218'9"	38"	0.40		0.01	1.52	4.6m to 0.25% Zn, 0.02% Cu		
	1521	Loose		218'9"	220'11"	26"	0.30		0.09	9.04			
	1522	Loose		220'11"	225'2"	51"	0.20		0.01	3.28			
	1523	Loose		225'2"	227'2" <sup>51.2</sup>	24" <sup>331</sup>	0.27		Nil	3.08			
	1524	Loose		<sup>84.0</sup> 275'6"	277'3"	21"	0.43		1.16	0.33	84.0 to 0.02%		
	1525	Loose		277'3"	279'7"	28"	0.54		0.14	0.10			
	1526	Loose		284'2"	286'3" <sup>87.2</sup>	25" <sup>129</sup>	0.10		0.01	0.02			

N.W.P.S.

HOLE No.: C 95

**SAMPLE DATA**

SHEET No. : .....

FOOTAGE: From ..... To .....

LENS	SAMPLE No.	LITHOLOGY	Σ	INTERVAL (ft)		Length (L)	Assays (A)			Product (A x L)			
				From	To		% Snt	% Sns	% Cu	P. Snt	P. Sns	P. Cu	
	1527	Loche		116.46 382'1"	384'2"	2' 1"	0.27		0.02	0.04			
	1528	Loche		384'2"	388'7"	4' 5"	0.79		0.14	0.04			
	1529	Loche		388'7"	391'10"	3' 3"	0.83		0.08	0.05			
	1530	Loche		391'10"	395'1"	3' 3"	0.39		0.12	0.04			
	1531	Loche		395'1"	398'7"	3' 6"	0.48		0.26	0.02			
	1532	Loche <sup>32.9'</sup>		398'7"	401'5"	2' 10"	0.63		0.09	0.04			
	1533	Loche	Σ 207	401'5"	402'6"	1' 1"	0.20		0.01	0.10			
	1534	Loche		402'6"	405'6"	3' 0"	0.33		0.06	4.44			
	1535	Loche		405'6"	408'7"	3' 1"	0.33		0.07	4.20			
	1536	Loche		408'7"	411'10"	3' 3"	0.65		0.03	0.86			
	1537	Loche		411'10"	414'0"	2' 2"	0.48		0.11	0.06			
	1538	Loche		414'0"	415'0" <sup>126.49</sup>	1' 0" 395"	Tr		0.16	0.02			
	1539	Loche x		195.00 630'0"	632'2"	2' 2"	Nil		0.35				
	1540	Loche		632'2"	634'8"	2' 6"	Nil		0.23				
	1541	Loche	15' 61"	634'8"	638'3"	3' 7"	Nil		0.73				
	1542	Loche		638'3"	639'0"	0' 9"	0.15		1.08				
	1543	Loche		639'0"	641'0"	2' 0"	Nil		0.09				
	1544	Loche		641'0"	644'0"	3' 0"	Nil		1.13				

HOLE No.: C 98

**SAMPLE DATA**

SHEET No. : .....

FOOTAGE : From ..... To .....

LENS	SAMPLE No.	LITHOLOGY	Σ	INTERVAL (ft)		Length (L)	Assays (A)			Product (A x L)		
				From	To		% Snt	% Sns	% Cu	P. Snt	P. Sns	P. Cu
k	1545	rock		644'0"	<sup>196.80</sup> 645'8"	1'8"	Nil		0.05			
	1546	rock	7.49	<sup>196.8</sup> 645'8"	646'2"	6"	1.00		0.27			
	1547	rock		646'2"	646'9"	7"	Nil		0.06			
	1548	rock		646'9"	650'1"	3'4"	1.30		0.30			
	1549	rock		650'1"	<sup>199.09</sup> 653'2"	3'1"	0.67		0.64			
	1550	rock		<sup>199.64</sup> 655'0"	<sup>199.92</sup> 655'11"	11"	1.10		0.35			
	1551	Shale	123	<sup>200.46</sup> 657'8"	<sup>200.7</sup> 659'1"	1'5"	0.30		0.02			
	1552	rock	12.42	659'1"	663'4"	4'3"	Nil		0.02			
	1553	rock		663'4"	667'6"	4'2"	Nil		0.06			
	1554	rock		667'6"	<sup>204.24</sup> 670'1"	2'7"	Nil		0.01			
				192.0m	204.2m	12.2m	0.21	0.02?	0.30			

N.W.P.S.

HOLE No. : C.98

## GEOLOGICAL LOG

FOOTAGE : From 0' 0" To 101' 0"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
0' 0"	6' 0"					1' 6"	6' 0"		Soil and broken rock (sub soil)			
6' 0"	22' 0"					3' 6"	16' 0"	Volcanics	basic, dark greenish-grey, fine to medium grained, massive, with purplish tuff shale (broken and rounded pebbles.)			
22' 0"	26' 0"					1' 3"	4' 0"	Volcanics	basic, dark greenish-grey, fine to medium grained, massive.			
26' 0"	38' 0"					0' 0"	12' 0"					
38' 0"	54' 2"					3' 4"	16' 2"	Shale	medium grey and purplish - chocolate brown, banded tuffaceous.			
54' 2"	56' 9"				15°	2' 3"	2' 7"	Shale	as above.			
56' 9"	60' 0"					1' 5"	3' 3"	Shale	as above.			
60' 0"	64' 2"				25-30°	2' 7"	4' 2"	Shale	as above.			
64' 2"	78' 0"					2' 0"	13' 10"	Shale	as above.			
78' 0"	83' 9"					0' 0"	5' 9"		No core ( 4 runs)			
83' 9"	88' 0"				0-5°	1' 0"	4' 3"	Shale	medium grey, banded, tuffaceous.			
88' 0"	91' 0"					2' 1"	3' 0"	Shale	as above.			
91' 0"	96' 0"				20°	4' 7"	5' 0"	Shale	medium grey - purplish banded, tuffaceous.			
96' 0"	101' 0"					2' 10"	5' 0"	Shale	as above.			

HOLE No. : C.98

## GEOLOGICAL LOG

SHEET No. : Two.

FOOTAGE: From 101' 0" To 167' 3"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
101' 0"	102' 4"					0' 0"	1' 4"		No core (1 run).			
102' 4"	132' 6"					9' 10"	30' 2"	Shale	medium to light grey, banded.			
132' 6"	136' 0"					0' 0"	3' 6"		No core (1 run.)			
136' 0"	141' 2"					0' 10"	5' 2"	Shale	medium to light grey, banded.			
141' 2"	141' 8"					0' 0"	0' 6"		No core (1 run.)			
141' 8"	143' 0"					0' 8"	1' 4"	Shale	medium grey - light grey, banded shale and chert.			
143' 0"	148' 0"					0' 4"	5' 0"	Shale	medium to light grey, banded.			
148' 0"	149' 5"					1' 1"	1' 5"	LODE	Sphalerite with minor Pyrite in a Carbonate - Quartz gangue.			
149' 5"	153' 6"					0' 0"	4' 1"		No core (2 runs.)			
153' 6"	154' 11"					0' 4"	1' 5"	LODE	Sphalerite with minor Pyrite in a Quartz - Carbonate gangue.			
154' 11"	157' 0"					2' 1"	2' 1"	LODE	Sphalerite with minor Pyrite and Chalcopryrite in a Quartz - Carbonate gangue.			
157' 0"	158' 1"					1' 1"	1' 1"	LODE	as above.			
158' 1"	158' 9"					0' 8"	0' 8"	Chert	medium to light grey, banded.			
158' 9"	167' 3"					4' 8"	8' 6"	Chert	medium to light grey, banded.			

HOLE No. : C.98

## GEOLOGICAL LOG

FOOTAGE: From 167' 3" To 220' 11"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
167' 3"	169' 11"				80°	2' 1"	2' 8"	Chert	medium to light grey, banded.	95		
169' 11"	194' 3"					16' 7"	24' 4"	Shale	medium to light grey, banded with minor chert.			
194' 3"	197' 0"					2' 9"	2' 9"	Shale	medium to light grey, banded with Pyrite veins.			
197' 0"	198' 0"					0' 6"	1' 0"	Shale	medium to light grey, banded.			
198' 0"	199' 7"					0' 10"	1' 7"	Chert	medium to light grey, banded.			
199' 7"	201' 6"					1' 4"	1' 11"	LODE	Sphalerite, Pyrite in a Quartz - Carbonate gangue.	35		
201' 6"	204' 4"					0' 4"	2' 10"	Chert	medium to light grey, banded.			
204' 4"	206' 6"					0' 6"	2' 2"	LODE	Sphalerite and Pyrite in a Quartz - Carbonate gangue.	25		
206' 6"	208' 11"					2' 5"	2' 5"	LODE	as above.	30		
208' 11"	211' 10"				10°	2' 11"	2' 11"	LODE	as above.	30		
211' 10"	215' 7"				5-45°	3' 9"	3' 9"	LODE	as above.	15		
215' 7"	218' 9"					3' 2"	3' 2"	LODE	as above.	10		
218' 9"	220' 11"					2' 2"	2' 2"	LODE	Sphalerite, Pyrite and minor Chalcopyrite in a Quartz - Carbonate gangue.	40		

HOLE No. : C.98

## GEOLOGICAL LOG

SHEET No. Four.

FOOTAGE: From 220' 11" To 284' 2"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
220' 11"	225' 2"					4' 3"	4' 3"	LODE	Quartz - Carbonate with very fine grained Sphalerite and Pyrite.	10		
225' 2"	227' 2"				10-30°	2' 0"	2' 0"	LODE	as above.	10		
227' 2"	227' 6"					0' 4"	0' 4"	Shale	medium to light grey, banded.			
227' 6"	229' 6"					2' 0"	2' 0"	Shale	as above.			
229' 6"	235' 6"				20-25°	6' 0"	6' 0"	Chert	medium to light grey, banded, with minor shale.			
235' 6"	244' 1"				20-25°	8' 3"	8' 7"	Chert	medium to light grey, banded.			
244' 1"	248' 6"					3' 2"	4' 5"	Chert	as above with Pyrite veins.			
248' 6"	258' 7"				15-25°	5' 11"	10' 1"	Chert	medium to light grey, banded.			
258' 7"	261' 2"				0-10°	2' 6"	2' 7"	Chert	as above with minor Pyrite veins.			
261' 2"	272' 6"					7' 0"	11' 4"	Chert	medium to light grey, banded.			
272' 6"	275' 6"					1' 8"	3' 0"	Chert	as above with minor sulphides.			
275' 6"	277' 3"					1' 3"	1' 9"	LODE	massive Chalcopyrite with minor Pyrite and Pyrrhotite in a Quartz gangue.	10		
277' 3"	279' 7"					0' 9"	2' 4"	LODE	Quartz with green fluorite and Carbonate with minor Arsenopyrite and Chalcopyrite.	5		
279' 7"	284' 2"					0' 0"	4' 7"		No core (2 runs.)			

HOLE No.: C.98

## GEOLOGICAL LOG

FOOTAGE: From 284' 2" To 388' 7"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
284' 2"	286' 3"					0' 2"	2' 1"	LODE	Pyrite in Quartz gangue. 10% sulphides			
286' 3"	286' 10"					0' 0"	0' 7"					
286' 10"	292' 0"					4' 3"	5' 2"	Chert	medium to light grey, banded.			
292' 0"	293' 5"				0-5°	1' 2"	1' 5"	Chert	as above.			
293' 5"	296' 6"					1' 9"	3' 1"	Chert	as above.			
297' 6"	318' 6"					19' 1"	21' 0"	Shale	medium to light grey, banded.			
318' 6"	324' 9"				0-5°	6' 3"	6' 3"	Shale	as above.			
324' 9"	338' 2"					11' 4"	13' 5"	Shale	as above.			
338' 2"	341' 10"				10-20°	3' 8"	3' 8"	Shale	as above.			
		340' 0"	1/2"	48°				Vein:	Quartz - Carbonate = fault.			
341' 10"	378' 6"				15-30°	26' 0"	36' 8"	Shale	medium to light grey, banded.			
378' 6"	382' 1"					3' 7"	3' 7"	Shale	medium grey - medium brown, banded shale and chert.			
382' 1"	384' 2"					2' 1"	2' 1"	Chert	medium to light grey, banded chert with minor disseminated Pyrrhotite. Trace sulphides			
384' 2"	388' 7"				35°	4' 5"	4' 5"	LODE	Pyrite with minor Chalcopyrite and Pyrrhotite in a Quartz - Carbonate gangue. 10% sulphides			

HOLE No.: C.98

## GEOLOGICAL LOG

FOOTAGE: From 388' 7" To 408' 7"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
388' 7"	391' 10"				20-25°	3' 3"	3' 3"	LODE	Pyrrhotite with minor Pyrite and Chalcopyrite in a Quartz - Carbonate gangue.	20		
391' 10"	395' 1"				25-30°	3' 3"	3' 3"	LODE	as above.	25		
395' 1"	398' 7"				25°	3' 6"	3' 6"	LODE	Pyrrhotite and Pyrite with minor Chalcopyrite in a Quartz - Carbonate - Chlorite gangue.	25		
		388' 7"	1/4"	30°				Vein:	Carbonate - Quartz = fault.			
398' 7"	401' 5"				55-60°	2' 10"	2' 10"	LODE	Pyrite and Pyrrhotite with minor Chalcopyrite in a Quartz - Carbonate and minor Chlorite gangue.	15		
401' 5"	402' 6"					1' 1"	1' 1"	LODE	Quartz and Tourmaline and Carbonate with disseminated sulphides.	Trace		
402' 6"	405' 6"				20-25°	3' 0"	3' 0"	LODE	Sphalerite with minor Pyrite and Pyrrhotite and Chalcopryrite in a Quartz - Carbonate - Tourmaline gangue.	35		
405' 6"	408' 7"				20-30°	3' 1"	3' 1"	LODE	as above.	25		
		399' 1"	1/2"	30°				Vein:	Carbonate - Quartz = fault.			

HOLE No. : C.98

## GEOLOGICAL LOG

SHEET No. : Seven

FOOTAGE: From 408' 7" To 495' 0"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
408' 7"	411' 10"					3' 0"	3' 3"	LODE	Sphalerite with minor Pyrite and Chalcopyrite in a Quartz - Carbonate gangue.	0		
411' 10"	414' 0"					2' 0"	2' 2"	LODE	minor disseminated Pyrite in a Carbonate - Quartz gangue.	5		
414' 0"	415' 0"				35°	0' 8"	1' 0"	LODE	massive Pyrite in a Carbonate - Quartz gangue.	5		
415' 0"	420' 5"				20-25°	1' 4"	5' 5"	Chert	medium to light grey, banded with minor Pyrite veins.	60		
420' 5"	424' 10"					1' 9"	4' 5"	Chert	as above.			
424' 10"	450' 2"					21' 3"	25' 4"	Chert	medium to light grey, banded.			
450' 2"	454' 9"				20°	3' 5"	4' 7"	Chert	as above.			
454' 9"	457' 11"				35-40°	2' 7"	3' 2"	Chert	as above.			
457' 11"	474' 0"				45-60°	14' 5"	16' 1"	Chert	as above.			
474' 0"	480' 9"	470' 5"	1"	53°				Vein:	Quartz - Carbonate = fault.			
480' 9"	490' 1"				55-70°	4' 8"	6' 9"	Chert	medium grey - medium brown (purplish) banded, tuffaceous - finely banded.			
480' 9"	490' 1"				30-45°	6' 4"	9' 4"	Chert	as above.			
490' 1"	495' 0"					4' 2"	4' 11"	Shale	medium to light grey, banded.			

HOLE No. : C.98

## GEOLOGICAL LOG

FOOTAGE: From 495' 0" To 548' 0"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING		FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length	% Snt			% Sns	% Cu	
		492' 2"	1/4"	36°					Vein:	Quartz - Carbonate - white mica = fault.			
495' 0"	496' 9"					1' 9"	1' 9"	Sandstone	medium grey, felspathic.				
496' 9"	498' 2"					1' 4"	1' 5"	Shale	medium to light grey, banded.				
498' 2"	501' 8"				35-40°	3' 5"	3' 6"	Shale	as above.				
		498' 4"	1/4"	38°					Vein:	Quartz - Pyrite = fault.			
501' 8"	502' 8"					0' 11"	1' 0"	Sandstone	medium grey, felspathic.				
502' 8"	503' 2"					0' 6"	0' 6"	Shale	medium to light grey, banded.				
503' 2"	518' 6"					15' 4"	15' 4"	Shale	as above.				
518' 6"	522' 3"					3' 9"	3' 9"	Chert	medium grey - dark grey banded, with minor shale.				
522' 3"	524' 0"					1' 9"	1' 9"	Shale	medium to light grey, banded.				
524' 0"	527' 3"					3' 3"	3' 3"	Shale	as above.				
527' 3"	529' 0"					1' 9"	1' 9"	Sandstone	medium grey, felspathic.				
		528' 0"	1/4"	50°					Vein:	Quartz - Pyrite - Chalcopyrite = fault.			
529' 0"	530' 11"					1' 11"	1' 11"	Sandstone	medium grey, felspathic.				
530' 11"	534' 1"					3' 2"	3' 2"	Shale	medium to light grey, banded.				
		531' 3"	1/4"	58°					Vein:	Quartz - Carbonate = fault.			
534' 1"	548' 0"					13' 11"	13' 11"	Shale	medium to light grey, banded.				

HOLE No.: C.98

## GEOLOGICAL LOG

SHEET No.: Nine

FOOTAGE: From 548' 0" To 632' 2"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
		540' 0"	1/4"	47°				Vein:	Quartz - Carbonate = fault.			
548' 0"	550' 8"					2' 8"	2' 8"	Shale	medium to light grey, banded.			
550' 8"	553' 0"					2' 4"	2' 4"	Sandstone	medium grey, felspathic.			
553' 0"	582' 1"					29' 0"	29' 1"	Sandstone	as above.			
		560' 8"	1/4"	58°				Vein:	Quartz - Carbonate = fault.			
		567' 7"	3/4"	40°				Vein:	Quartz - Sphalerite - Carbonate = fault.			
		575' 0"	2 1/2"	50°				Vein:	Quartz - Pyrite - Chalcopyrite with minor Sphalerite = fault.			
582' 1"	585' 1"					3' 0"	3' 0"	Sandstone	medium grey, felspathic.			
585' 1"	586' 7"				35-40°	1' 6"	1' 6"	Shale	medium to light grey, banded.			
586' 7"	596' 7"					10' 0"	10' 0"	Shale	as above.			
596' 7"	607' 9"				25-30°	11' 2"	11' 2"	Chert	medium grey - chocolate brown, banded.			
607' 9"	629' 2"				20-25°	20' 9"	21' 5"	Chert	medium to light grey, banded.			
		623' 6"	1/4"	30°				Vein:	Quartz - Carbonate = fault.			
		627' 7"	1/4"	52°				Vein:	Quartz - Carbonate = fault.			
629' 2"	630' 0"				30°	0' 10"	0' 10"	Chert	medium to light grey, banded.			
630' 0"	632' 2"					2' 2"	2' 2"	LODE	Pyrrhotite with minor Pyrite and Chalco- pyrite in a Quartz - Carbonate and minor Chlorite and Tourmaline gangue. 30% sulphides			

HOLE No. : C.98

# GEOLOGICAL LOG

FOOTAGE: From 632' 2" To 646' 9"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
632' 2"	633' 3"					1' 1"	1' 1"	Chert	dark grey - medium grey, banded, with minor lode bands.	9		
633' 3"	634' 8"					1' 5"	1' 5"	Chert	as above.	10		
634' 8"	638' 3"				10°	3' 7"	3' 7"	LODE	Pyrrhotite with minor Chalcopyrite and Pyrite in a Quartz - Carbonate - Tourmaline and Chlorite gangue.	25		
638' 3"	639' 0"				35°	0' 9"	0' 9"	LODE	Pyrrhotite and Chalcopyrite in a Quartz - Carbonate gangue.	15		
639' 0"	641' 0"					1' 11"	2' 0"	Chert	medium to light grey, banded, with minor sulphides.	Trace		
641' 0"	644' 0"					3' 0"	3' 0"	LODE	Pyrrhotite with minor Chalcopyrite and Pyrite in a Quartz - Carbonate - Tourmaline gangue.	20		
644' 0"	645' 8"				40-45°	1' 8"	1' 8"	Chert	dark grey - medium grey, banded chert with minor sulphides.	Trace		
645' 8"	646' 2"				30-40°	0' 6"	0' 6"	LODE	Pyrrhotite with minor Chalcopyrite in a Quartz - Carbonate gangue.	25		
646' 2"	646' 9"					0' 7"	0' 7"	Chert	medium to light grey, banded, with disseminated Pyrrhotite.	Trace		

N.W.P.S.

HOLE No. : C.98

## GEOLOGICAL LOG

FOOTAGE: From 646' 9" To 667' 6"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
646' 9"	648' 1"					1' 4"	1' 4"	LODE	Pyrrhotite with minor Chalcopyrite in a Quartz - Carbonate gangue.	90 sulphides		
648' 1"	650' 1"					2' 0"	2' 0"	LODE	as above - trace sulphides only.	20		
650' 1"	653' 2"					3' 1"	3' 1"	LODE	Chalcopyrite and Pyrrhotite in a Quartz- Carbonate - Chlorite gangue.	10		
653' 2"	655' 0"					1' 10"	1' 10"	Chert	medium to light grey, banded.			
655' 0"	655' 11"				40-50°	0' 11"	0' 11"	LODE	Pyrrhotite and Chalcopyrite in a Quartz- Carbonate gangue.	5		
655' 11"	657' 8"				35-40°	1' 9"	1' 9"	Chert	medium to light grey, banded.			
		657' 3"	1 1/2"	48°				Vein:	Quartz = fault.			
657' 8"	658' 9"				20-30°	1' 1"	1' 1"	Chert	dark grey - medium grey, banded, with disseminated sulphides.	Trace		
658' 9"	659' 1"				15-20°	0' 4"	0' 4"	Chert	medium to light grey, banded.			
659' 1"	663' 4"				40°	4' 3"	4' 3"	LODE	minor Chalcopyrite in a Quartz - Carbonate - Fluorite gangue.	Trace		
663' 4"	666' 3"					2' 11"	2' 11"	Chert	medium to light grey, banded.			
666' 3"	667' 6"					1' 3"	1' 3"	LODE	minor Chalcopyrite in a Quartz - Carbon- ate - Fluorite and Tourmaline gangue.	Trace		

HOLE No.: C.98

## GEOLOGICAL LOG

FOOTAGE: From 667' 6" To 739' 4"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
667' 6"	670' 1"				30-45°	2' 7"	2' 7"	LODE	minor Chalcopyrite in a Quartz - Carbonate - Fluorite gangue. Trace sulphide			
670' 1"	677' 6"				45°	7' 5"	7' 5"	Chert	medium to light grey, banded, with minor shale.			
677' 6"	692' 6"					14' 6"	15' 0"	Sandstone	medium grey, micaceous.			
		691' 11"	1/4"	55°				Vein:	Quartz.			
692' 6"	693' 6"					1' 0"	1' 0"	Sandstone	medium grey, micaceous.			
693' 6"	696' 4"					2' 10"	2' 10"	Shale	medium to light grey, banded.			
696' 4"	697' 11"					1' 7"	1' 7"	Sandstone	medium grey, micaceous.			
697' 11"	703' 0"					5' 1"	5' 1"	Shale	medium to light grey, banded.			
703' 0"	705' 7"					2' 7"	2' 7"	Sandstone	medium grey, micaceous.			
705' 7"	719' 5"					13' 8"	13' 10"	Sandstone	medium grey, micaceous, with minor shale bands.			
		713' 4"	1/2"	50°				Vein:	Quartz - Carbonate = fault.			
		715' 0"	1/2"	25°				Vein:	Quartz - Carbonate = fault.			
719' 5"	726' 3"				30-35°	6' 8"	6' 10"	Shale	medium to light grey, banded.			
726' 3"	739' 4"				60-65°	12' 8"	13' 1"	Shale	medium to light grey, banded, with medium grey - white chert bands.			

HOLE No.: C.98

# GEOLOGICAL LOG

FOOTAGE: From 739' 4" To 799' 2"

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING	FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis	Recovery	Length			% Snt	% Sns	% Cu
739' 4"	740' 6"					1' 2"	1' 2"	Shale	medium to light grey, banded.			
740' 6"	741' 11"					1' 5"	1' 5"	Sandstone	medium grey, micaceous.			
741' 11"	744' 3"					2' 4"	2' 4"	Shale	medium to light grey, banded.			
744' 3"	745' 6"					1' 3"	1' 3"	Shale	as above.			
745' 6"	747' 4"					1' 9"	1' 10"	Shale	as above.			
747' 4"	748' 9"					1' 4"	1' 5"	Sandstone	medium grey, micaceous.			
748' 9"	750' 7"					1' 9"	1' 10"	Shale	medium to light grey, banded.			
750' 7"	758' 10"					8' 3"	8' 3"	Shale	as above.			
758' 10"	760' 1"					1' 3"	1' 3"	Sandstone	medium grey, micaceous.			
760' 1"	762' 5"					2' 4"	2' 4"	Sandstone	as above.			
762' 5"	769' 9"					7' 4"	7' 4"	Shale	medium to light grey, banded.			
769' 9"	789' 3"					19' 6"	19' 6"	Shale	as above.			
789' 3"	795' 7"					6' 4"	6' 4"	Shale	as above.			
795' 7"	799' 2"					3' 7"	3' 7"	Sandstone	medium grey, micaceous.			
	799' 2"	End of D.D.H. No. C98, R. Cox.										

N.W.P.S.

# GEOLOGICAL LOG

HOLE No.: C.98

FOOTAGE: From.....To.....

DRILL FOOTAGE		VEIN OR OTHER INTERSECTIONS			BEDDING		FOOTAGE		LITHOLOGY	DESCRIPTION	ASSAYS		
							Recovery	Length			% Snt	% Sns	% Cu
From	To	Depth	True Width	Angle to Core Axis	Angle to Core Axis								
0' 0"	10' 0"	NX Casing Core size.											
10' 0"	153' 6"	BX	"	"	"								
153' 6"	184' 0"	BMS Core size.											
184' 0"	262' 10"	AMS	"	"									
262' 10"	284' 2"	AXT	"	"									
284' 2"	311' 8"	AMS	"	"									
311' 8"	424' 10"	AXT	"	"									
424' 10"	450' 2"	AMS	"	"									
450' 2"	457' 11"	AXT	"	"									
457' 11"	466' 3"	AMS	"	"									
466' 3"	481' 3"	AXT	"	"									
481' 3"	572' 10"	AMS	"	"									
572' 10"	586' 7"	AXT	"	"									
586' 7"	638' 9"	AMS	"	"									
638' 9"	721' 3"	AXT	"	"									
721' 3"	726' 3"	AMS	"	"									
726' 3"	739' 4"	AXT	"	"									
739' 4"	744' 3"	AMS	"	"									

N.W.P.S.

