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ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

West Coast Mines

STERLING VALLEY EXPLORATION LICENCE NO. 4/73

Progress Report on Activity

1st July, 1981 - 15th December, 1981

**OPEN FILE**

Geology Department

Report No. 146 MD

R.A. Sainty

I.R. McDonald

January, 1982.

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## 1. INTRODUCTION

This report covers work on Exploration Licence No. 4/73 by Electrolytic Zinc Company of Australasia Limited between 1st July, to 15th December, 1981.

The work was carried out on behalf of a Joint Venture between Aberfoyle Exploration Pty. Ltd., the holders of E.L. 4/73, E.Z., the operators, and Getty Oil Development Co. Ltd., which was initiated in May, 1979.

## 2. PREVIOUS EXPLORATION

E.Z. Report No. 133 - "E.L. 4/73 Progress Report on Activity, July, 1979 to June, 1980" - in addition to detailing all work carried out during 1979-80, also contains references to all previous exploration in the Licence area. E.Z. Report No. 143 covers exploration activity from July, 1980 to June, 1981.

## 3. ABBREVIATIONS

Standard symbols and terminology used on geological plans and sections are detailed on Plate 1 of E.Z. Report No. 143 - "E.L. 4/73 Progress Report on Activity July, 1980 to June, 1981."

## 4. EXPLORATION UNDERTAKEN 1.7.'81 - 15.12.'81

### 4.1. Work Completed (refer to Plan No. A4-526-0003)

#### 4.1.1. Drilling

DDH STP 232 was collared at 4,640N, 4,640E Sterling Valley Grid, on a grid east azimuth and  $-60^{\circ}$  dip. The hole advanced to 14m in glacial overburden. Excessive cave in and ingress of large loose boulders into the hole caused the hole to be abandoned. The rig was moved 3m east along the line and a second hole DDH STP 232A collared on the same dip and azimuth. This hole was abandoned when the drill string broke at 45m in glacial

sand and could not be recovered. DDH STP 232A-1 was drilled from the base of the HQ casing at 36m and was completed at 198.2m.

DDH STP 234 was collared on 4,340N 4,477E Sterling Valley Grid on a grid east azimuth and -70° dip and was completed at 342.5m.

All core from the above drill holes was geologically logged in detail. The core was grind sampled and mineralised core was split sampled. All samples were analysed for Pb, Zn, Cu, Ag, Mn, Fe, As and Sn by A.A.S. at Analabs Pty. Ltd. Split samples were also analysed for Au by A.A.S.

Magnetic susceptibility measurements were made on the core from STP 232A-1 and STP 234.

Downhole I.P. was run on DDH STP 232A-1 and readings were obtained on electrode spacings of 5m and 20m from the bottom of the hole at 198m up to the base of the casing at 64m.

Downhole I.P. on DDH STP 234 was run on a spacing of 5m and 20m from the hole bottom at 342m up to the base of the casing at 63m.

4.1.2. Gridding

Extensions to old grid lines and 60m spaced infill lines were cut and pegged at 20m slope corrected intervals. A total of 16.5km on 19 lines was cut, and where necessary old lines were recut.

4.1.3. Geology

Geological mapping of the grid lines commenced at the end of the reporting period. To date 3 lines totalling 2.44km have been covered.

4.2. Results Received4.2.1. DDH STP 232A (refer to Plan A1-526-0020 & Appendix I)

## Lithologies:

0	-	55.5	Glacial cover.
55.5	-	92.8	Ferrell Group volcanoclastic greywacke and intercalated black shale.
NOTE:		71.5-74.2	Fault breccia with intense black chlorite veining.

## Mineralisation:

66.7	-	68.1	5-10% stringers of po + asp + minor py.
74.5	-	77.0	2-3% stringers of po + py.
77.0	-	77.4	15% stringers of po, minor py, trace ccp within q-c veining.
77.4	-	77.9	2-3% wisps and blebs po, minor py, trace ccp.
77.9	-	78.25	2% wisps + specks po + py + 2-3% disseminated sp.
80.9	-	81.0	5% stringers of Po + py.
84.8	-	85.1	10% blebs and patches po + py within q-c veining.
87.5	-	88.2	2-3% po + py within q veining.
89.1	-	89.2	Quartz vein with 10% po + py.

## Geochemistry:

No really significant values were obtained. The highest intersections are:-

66.7 - 67.7m; 1.0m at 0.36% Sn. This is associated with 5-10% stringers of po and py.

77.9 - 78.25m; 0.35m at 0.78% Zn. This is associated with 2-3% disseminated po + py + 2-3% disseminated sp.

## Geophysics:

Geophysical measurements were not made on STP 232A as they would only have duplicated measurements on STP 232A-1 which is directly adjacent.

4.2.2. DDH STP 232A-1 (refer to Plan A1-526-0030 & Appendix I)

## Lithologies:

0	- 63.0	Glacial cover.
63.0	- 198.2	Farrell Group Volcaniclastic greywacke and intercalated black shale, as follows:-
	63.0-101.6	Gwk + shale
	101.6-139.5	Gwk + very minor shale
	139.5-157.6	Gwk + shale
	157.6-198.2	Gwk + very minor shale

NOTE: 72.0-73.4 Fault breccia with intense black chlorite veining and very minor py.

151.0-160.7 Q-carbonate veining to 4cm width, 100% core average 30%.

## Mineralisation:

66.9	- 68.0	2-3% stringers of po + lesser py, trace bleb sp.
74.7	- 78.9	Patchy 2-5% stringers of po + lesser py within quartz-carbonate veining.
85.2	- 85.4	Qtz vein with 10-15% patches/stringers of py + po.
85.45	- 88.0	Qtz veins with 10% po + py + trace ccp.
104.6	- 104.9	50% stringers of po (50%), asp (35%), py (15%).
104.9	- 110.9	2% stringers of py + minor po in q veining.
112.0	- 113.25	1-2% blebs + stringers py + minor po + py crystal clumps.
115.65	- 115.9	1-2% blebs + stringers py + minor po + py crystal clumps.
119.5	- 119.9	1% wisps + stringers (<1-5mm) sp + lesser py.
129.1	- 129.45	0.5% wisps (<1-5mm) + specks sp + py.
181.1		Qtz vein (20mm) with 20% sp + py.

## Geochemistry:

No really significant values were obtained. The highest values returned are:-

67.0-68.0m; 1.0m at 0.31% Sn. This is associated with 2-3% stringer po + py in a zone of quartz-carbonate veins.

104.6-104.9m; 0.3m at 4.5% As; 14.5 ppm Ag. This comes from a zone of 50% stringers of pc, asp and py.

Two weak Zn assays were reported from grind samples:-

115-120m; 5.0m at 0.23% Zn

125-130m; 5.0m at 0.20% Zn.

#### Geophysics:

Magnetic susceptibility and downhole I.P. results are presented graphically on the drill hole summary sheet. Magnetic susceptibility readings on the core show narrow bands of high susceptibility, up to  $5.4 \times 10^{-3}$  cgs units, between 98m and 105m, which may correspond to the ground magnetic anomaly. The downhole I.P. readings show some corresponding anomalism but over a greater thickness. A resistivity low of about 50 $\Omega$ m occurs between 70m and 120m. A chargeability high of about 90 mv/v (20 mv/v above background) occurs between 100 and 120m. The effectiveness of the I.P. was reduced due to the necessity to leave casing in the hole down to 68m to prevent cave-in of the sandy glacial sediments. The I.P. defines a low resistivity zone extending through the top 50m of Farrell Group with a chargeability high peaking in the bottom 20m of this zone. The magnetic susceptibility has a 'noisy' but generally low profile between 67m and 114m with a high of  $2.4 \times 10^{-3}$  cgs units associated with the top of the sediments, which must lie very close to the inferred contact zone, and two narrow high zones of 2.6 and  $5.4 \times 10^{-3}$  cgs units between 98m and 105m. Below 120m the magnetic susceptibility is uniformly low, and the I.P., on both 5m and 20m electrode spacings, gives a fairly flat response. In summary, the downhole and core geophysics define an anomalous zone extending from the contact for about 50m down the hole which may correspond to the ground magnetic anomaly. If this is so there would appear to be some question as to the location of the ground anomaly as it has shifted some 30m up-hole from the anticipated target. Furthermore the magnetic susceptibilities do not appear to contain sufficient high values to explain the magnitude of the ground anomaly. However as this is a pattern

which has occurred consistently throughout the drilling programme it need not mean that the anomaly has not been effectively tested.

4.2.3. DDM STP 234 (refer to Plan No. A1-526-0030 & Appendix I)

Lithologies:

0	-	20.0	Glacial cover.
20.0	-	267.9	Mt. Black Volcanics ("Western Volcanics")
		20.0 - 126.5	Agglomerate, with several interbeds of fine grained ashfall tuff, 2-11m thick. Some units graded.
		126.65- 166.9	Crystal lithic and lithic tuff.
		166.9 - 180.2	Agglomerate.
		180.2 - 267.9	Lithic vitric tuff.
267.9	-	342.5	Farrell Group volcanoclastic greywacke and intercalated black shale.

NOTE: 251.0-273.3 Fault breccia zone.

Mineralisation:

155.5	-	155.65	2cm veinlet of po + sp + 5cm wide area of stringers of sp + minor py + ccp in qc veining.
185.2	-	185.5	80% massive sp; vein; + po stringers as edging to sp vein. Associated with 15-20mm carbonate vein.
185.75	-	185.9	2% wisps of po + sp associated with quartz-carbonate veining.
187.1	-	187.2	30% stringer po + py.
188.3	-	189.3	5% stringer + patchy po + py. Py crystalline.
189.3	-	189.6	50% stringer + veinlet po + crystalline asp + trace ccp.
189.6	-	190.1	5% wisps + blebs of po + ccp.
190.1	-	191.4	50% average (10-80%) stringer + veinlet po (70%) + py + asp + minor ccp.
193.1	-	194.4	1-5% stringer + bleb py + po + trace asp + sp associated with carbonate veining.
196.5	-	198.5	<1-2% patchy specks + stringer py + po associated with carbonate veining.

205.3 - 209.0	2% blebs + stringer py + minor po associated quartz-carbonate veining.
251.8 - 254.0	Weak stringer py + asp + trace ccp associated with carbonate veining.
260.1 - 264	2% bleb + stringer (asp + py) + (po + py).
264 - 268.5	Fault zone: 1% max stringer py + asp + trace ccp.
309.3 - 311.3	1-2% patchy stringer po + asp + trace py.
312.3 - 312.8	1-2% patchy stringer po + asp + trace py.
313.25 - 313.85	10-80% asp + po + trace ccp.
318.4 - 321.1	Several 1.5-5cm qc veins with asp + po bleb + patches.

#### Geochemistry:

The strongly mineralised interval within the Mt. Black Volcanics, 185.2-191.5m, which contained massive vein sp. + stringer/veinlet po + asp + py + minor cpy returned a split core assay intersections of:-

185.2-185.5m 0.3m at 32.5% Zn 525 ppm Cu 920 ppm As.

188.3-191.5m 3.2m at 536 ppm Zn 0.45% Cu 3.09% As 18 ppm Ag  
11 ppm Sn.

A lesser mineralised interval within the volcanics close to the faulted contact with Farrell Group Sediments gave split core assay intersections of:-

252.0-254.1m 2.1m at 0.36% Sn, 0.18% As.

261.0-263.0m 2.0m at 4.35% As, 0.23% Cu, 675 ppm Sn.

The only significant assay from the sediments was

313.25-313.85; 0.60m at 1.15% Cu, 9.0% As, 29.5 ppm Ag.

Which is associated with veinlets of asp + po + cpy.

#### Geophysics:

Magnetic susceptibility and down hole I.P. values are presented graphically on the drill hole summary sheet. The most significant feature of the downhole I.P. results is the failure to obtain readings over the areas of observed mineralisation. The

trends of the readings suggest that the sulphides occupy areas of high chargeability and low resistivity and may therefore be a significantly sized body of sulphides. The main zone of mineralisation between 185.2 and 191.5m lies in the zone of highest magnetic susceptibility. The contact between the Farrell Group and the Volcanics is marked by only a weak susceptibility rise. High susceptibilities within the Farrell Group between 310 and 320m correspond to a zone of weak As-Cu mineralisation. In general the susceptibility values indicate that the drill hole intersected the magnetic anomaly.

APPENDIX I

Diamond Drill Hole Logs      STP 232A  
   STP 232A-1  
   STP 234

LOCATION	STERLING VALLEY	Footage	Direction	Dip.	Footage	Direction	Dip.	COLLAR DIP.	-50°	TOTAL DEPTH	92.8m
OBJECTIVE	To intersect mineralisation associated with the Henty Fault Zone and a ground magnetic anomaly.				NO SURVEYS TAKEN			DIRECTION	108° AMG	HOLE SIZE HW	8.5 HQ 15 NQ 92.8
RESULT	The hole intersected weak stringer sulphide mineralisation adjacent to the Henty Fault Zone within Farrell Group O.36% Sn 66.7-67.7m							R.L.	174.0	COMMENCED	21.7.81
								COORDINATES	4640N 4643E grid	COMPLETED	1.8.81
									5,374,728.5N 384,395.8E AMG	LOGGED BY	R.A. Sainty

METRES		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D		
FROM	TO							Pb	Zn	Cu	Ag	Mn	Fe%	As	Sn	RUN	SHORT
0	55.5	Glacial cover															
55.5	92.8	Argillaceous sandstone and lesser intercalated black shale. Sandstone is pale grey, mg and massive to weakly foliated with pervasive wisps and mottlings of black chlorite sericite partly defining the weak foliation. Black shale is poorly but finely laminated, cleaved and mostly irregularly interbedded and intercalated to a max thickness of a few tens of cm, mostly a few cm (except 90.5-91) Carbonate and qtz-carb veinlets/veins are common throughout but preferential to grey-wacke, mostly 1-2mm but rarely 1-2cm in width and at times form a fine intense webbing within the sediment (eg 78.3-78.9, 84.3-85.1, 86.8-87.4, 89.3-90.5) at times carbonate occurs within the sediment matrix and its patchy development and the frequency of webbing tends to increase down interval. Bedding and cleavage appear subparallel 40-55° except within 81-83.5 where slump faulting has produced a 10° bedding to core angle. 71.5-74.2 Fault breccia: core appears sheared and brecciated Upward fining gradings towards end of hole (bases at 89.4, 89.9, 90.5) indicate sequence is upright (i.e. west facing)	64.2-66.7 little recovery, but similar to 66.7-68.1 66.7-68.1 5-10% wisps & patchy stringers of po +asp + less py 68.1-68.7 little recovery 68.7-71.5 1-2% disseminated py as small blebs and cubic crystals (0.5-1.0mm) + very minor sp+gn as specks & wisps within carb vns 71.5-72.5 tr diss cubic py + blebs/wisps of po 72.5-73.3 1% max diss py 73.3-74.5 tr diss py 74.5-77 2-3% av, 5% max wisps & stringers py + po in approx equal proportions 77.0-77.4 15% stringers + vnls po + lesser py + tr ccp assoc with qtz-carb veining 77.4-77.9 2-3% wisps + blebs po + py + tr ccp similar to 74.5-77 above. 77.9-78.25 2% wisps + specks po +py + 2-3% diss sp 78.25-80.5 0.5% tr diss py 80.5-80.9 1-2% wisps po+py assoc with 1-c vng + tr diss py 80.9-81.0 5% atrs po+py 81-84.8 Tr 0.5% max diss cubic + bleb py. Some diss bleb & wispy po 84.8-85.1 10% bleb+ patches po+py assoc with qc vng 85.1-87.5 tr diss py + asp 87.5-88.2 2-3% po+py in approx equal proportions within q vng + tr diss py in sandstone 88.2-89.1 tr diss py	48401	66.7	67.7	1.0	95	375	355	0.5	1508	3.75	28	3600	0	
				406	67.7	68.1	0.4	10	55	490	1.5	1050	5.75	21	3	55.5	-
				402	77.0	77.4	0.4	38	85	875	6.5	565	5.35	38	X	58.5	-
				403	77.9	78.25	0.35	80	7800	155	3.8	725	5.50	26	18	64.2	5.45
																66.7	2.25
																68.7	0.5
																69.7	0.2
																71.5	0.6
																72.9	0.6
																74.2	-
																75.1	-
																77.1	0.25
																77.9	-
																79.2	-
																80.7	0.1
																81.6	-
																84.7	-
																85.5	0.1
																87.3	-
																88.2	-
																90.5	-
																92.8	0.2

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA						CORE REC'D			
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT	
			89.1-89.2 Quartz vn with 10% po + py 89.2-92.8 Tr py within sandstone virtually absent within black shale														

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DIAMOND DRILL CORE RECORD

LOCATION	STERLING VALLEY	Footage	Direction	Dip.	Footage	Direction	Dip.	COLLAR DIP.	-60°	TOTAL DEPTH	198.2m
OBJECTIVE	To intersect mineralisation associated with the Henty Fault Zone and a ground magnetic anomaly	67m			83°			DIRECTION	108°	HOLE SIZE	NQ 68.2 BQ 198.2
RESULT		109m			-52°			R.L.	174.0°	COMMENCED	
		151m			-49.5°			COORDINATES	384,395.8mE	COMPLETED	9th August, 1981
		192m			-45°				5,374,728.5mN	LOGGED BY	R.A. Sainty
					-39°						

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE RECD	ASSAY DATA per ppm							CORE RECD		
FROM	TO							Mn	Zn	Cu	Ag	Pb	Fe%	As	Sn	RUN	SHORT
0	63.0	GLACIAL COVER		Split											63	-	
63.0	198.2	FARRELL GROUP	64.7-66.9 trace -2% stringer + wisps py assoc with silicification and qtz veining. Bad recovery												63.9	0.65	
63.0	101.6	Argillaceous sandstone and intercalated/interbedded black shale.	66.9-68 2-5% stringers of po + lesser py + tr bleb sp assoc with qc veining	48404	67.0	68.0	1.0	875	80	325	1.0	15	5.05	31	3100	64.7	0.65
		Sandstone is light grey, fine to medium grained, massive to poorly foliated and contains pervasive wisps and mottlings of black chlorite and sericite. Black shale is weakly cleaved with black chlorite films on cleavage surfaces. Shale beds are commonly 10-20cm thick but may be up to 50cm thick.	68-72.1 Tr diss cubic py + tr sp (0.5-10mm) + trace gn	405	74.7	75.7	1.0	855	220	370	1.5	30	5.5	16	5	65.7	0.75
		The carbonate content is generally weak in the sandstone where qtz-carbonate veinlet webbing is occasionally developed	72.1-74.7 <1% v. weak wisps py + po within sheared + becciated sediment assoc with fine qc veining. 20mm veinlet of sp + minor py at 73.7m	407	75.7	76.7	1.0	825	105	485	2.0	15	6.45	200	45	66.9	1.0
		72.0-73.4 Fault breccia: rock is sheared, oxidised and brecciated with intense chlorite-sericite veining	74.7-78.9 2-5% patchy stringers + wisps of po + lesser py within qc veining	408	76.7	77.7	1.0	730	85	365	1.5	5	6.7	14	10	68.2	
			78.9-198.2 Tr-locally 1% v. weakly diss cubic py, with the following spot instances of qc-sulphide veining	409	77.7	78.7	1.0	710	80	325	0.5	10	5.85	6	18	69.5	
			81.25-81.3 Tr diss sp + gn within carbonate	48410	98.9	99.9	1.0	1200	25	135	125	0.5	8.9	44	30	80.3	
			81.4-81.5 po + lesser py as stringers + wisps assoc with qc veining	411	99.9	100.9	1.0	1400	35	135	75	0.5	9.8	35	X	82.5	
			85.2-85.4 Qtz vein with po + py to 10%	412	104.6	104.9	0.3	685	365	115	845	14.5	5.55	4.5	X	83.7	
			87.45-87.5 Qtz vein with po + py + trace ccp to 10% Vn at 50° c.a.	413	112.0	113.2	1.2	1550	100	190	160	1.5	4.9	520	1	85.5	
			87.6-87.65 po + py to 1%													86.7	
			87.85-88 po + py to 2% in qtz													89.8	
			97.7-101.1 po + minor py stringers + veinlets assoc with qtz veining (2-5mm, 5cmX1)													91.5	
																94.5	
																95.9	
																99.0	
																101.4	
																103.5	
																106.5	
																109.4	
																110.4	

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D	
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT
101.6	139.5m	Argillaceous sandstone Interbeds of black shale occur as follows: 117.5-119.5 sandstone with intercalated and interslumped grey to black shale 132.3-132.6 as above	104.6-104.9 50% stringers of po (50%), asp (35%), py (15%): Asp is crystalline, py is accessory to po 110.4-110.9 2% stringers (2-10mm) py + minor po assoc with minor qtz veining 111.4-112.0 Tr sp + py + less gr assoc with carbonate gn 112-113.25 1-2% blebs + stringers py + minor po + py crystalline aggregates 115.65-115.9 As for 112-113.25 118-119.5 Tr sp + 1mm wisps of py within qc veining 119.5-119.9 1% wisps + stringers (<1-5mm) sp + lesser py as blebs + wispy trails 119.9-120.5 Tr sp + py as blebs + wisps in qtz veining 129.1-129.45 0.5% sp + py as specks + fine wisps (>1-5mm)													
139.5	157.6m	Interbedded Sandstone and Shale Interbeds thicker and more uniform than above 63.0-101.6	140.2 Trace sp + asp within 4mm carbonate veinlet 141.3 V minor py + po as blebs + wisps within qc veining 144.15-144.4 Minor py + po + trace sp as irregular blebs + small patches within area of qc veining													
157.6	198.2m EOH	Argillaceous Sandstone 179.8-184.3 interbedded with black shale	162.5 Py as irregular stringer within qc vein 171.4 Tr sp + py in qc veining 180.35 Tr sp in qc veining 181.1 Qtz vein (20mm) with 20% sp + py 190.5-190.7 0.5% max thin wisps + specke sp + minor py within carbonate veining													

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D																							
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT																						
		<p>Carbonate occurs both as thin veinlets (accompanied by qtz) uniformly through the rock 1-5mm wide injected along cleavage and interconnecting. Qtz carbonate veining abundant (to 100% of core volume average 30%) to 4cm width within 151.0-160.7m.</p> <p>Distribution of matrix carbonate is patchy occurring preferentially to greywacke.</p> <p>Grading (upward fining) is visible at 91.9, 92.3 and 93.0. Interbeds are otherwise of massive nature.</p> <p>Bedding core angles as follows:-</p> <table border="0"> <tr> <td>91.8</td> <td>50°</td> <td>101.6</td> <td>60°</td> <td>132.1</td> <td>65°</td> </tr> <tr> <td>134.9</td> <td>45°</td> <td>146.6</td> <td>50°</td> <td>147.8</td> <td>65°</td> </tr> <tr> <td>159.5</td> <td>45°</td> <td>170.3</td> <td>50°</td> <td>172.3</td> <td>45°</td> </tr> <tr> <td>181.5</td> <td>65°</td> <td>192.3</td> <td>60°</td> <td></td> <td></td> </tr> </table>	91.8	50°	101.6	60°	132.1	65°	134.9	45°	146.6	50°	147.8	65°	159.5	45°	170.3	50°	172.3	45°	181.5	65°	192.3	60°			191.8-192.0 Trace sp stringers within carbonate veinlets.											
91.8	50°	101.6	60°	132.1	65°																																	
134.9	45°	146.6	50°	147.8	65°																																	
159.5	45°	170.3	50°	172.3	45°																																	
181.5	65°	192.3	60°																																			

700016

STP 232A-1

Sample No.	From	To	Core Rec'd	Sample Length	Assay Data per ppm								
					Pb	Zn	Cu	Ag	Au	Fe%	Mn	As	Sn
41624G	63	65	2	2	435	100	25	0.5	X	2.0	560	58	X
625G	65	70	5	5	605	510	130	3.5	X	6.2	2250	92	X
626G	70	75	5	5	280	1850	180	3.0	X	6.5	2750	240	68
627G	75	80	5	5	5	145	200	1.0	X	7.1	1850	47	X
628G	80	85	5	5	30	120	20	0.5	X	3.5	2550	210	X
629G	85	90	5	5	90	215	40	1.0	X	5.3	1400	86	10
41630G	90	95	5	5	30	70	20	0.5	X	3.05	1300	38	X
631G	95	100	5	5	50	120	45	1.0	X	4.55	2650	68	X
632G	100	105	5	5	50	110	85	2.0	X	5.2	1050	1500	X
633G	105	110	5	5	35	150	20	0.5	X	2.95	1750	80	X
634G	110	115	5	5	200	630	95	1.0	X	4.75	2350	280	X
635G	115	120	5	5	145	2250	55	0.5	0.008	6.0	2650	160	10
636G	120	125	5	5	15	160	10	X	X	5.0	1500	39	X
637G	125	130	5	5	220	2000	20	X	0.008	3.0	1450	58	X
638G	130	135	5	5	65	185	20	X	X	2.85	1900	74	X
639G	135	140	5	5	20	35	10	X	X	2.1	705	24	X
41640G	140	145	5	5	75	105	40	X	X	3.5	2200	37	X
641G	145	150	5	5	20	30	45	X	X	3.25	1900	47	X
642G	150	155	5	5	45	90	35	X	0.008	3.75	3100	49	X
643G	155	160	5	5	105	195	35	X	X	3.1	2200	41	X
644G	160	165	5	5	25	55	35	X	X	2.15	1100	26	X
645G	165	170	5	5	45	180	35	X	X	2.3	755	7	X
646G	170	175	5	5	55	100	25	X	X	1.95	590	21	X
647G	175	180	5	5	20	25	25	0.5	X	1.85	565	21	X
648G	180	185	5	5	25	365	65	X	X	3.05	1000	41	X
649G	185	190	5	5	20	35	230	X	X	2.5	1000	22	X
41650G	190	195	5	5	195	415	70	X	X	2.9	1400	73	X
651G	195	198.2	3.2	3.2	30	25	70	X	X	2.2	500	30	X

700017

LOCATION	STERLING VALLEY	Footage	Direction	Dip.	Footage	Direction	Dip.	COLLAR DIP.	-70	TOTAL DEPTH	342.5m
OBJECTIVE	To follow up massive sulphide mineralisation in STP 221 associated with a strong magnetic anomaly	72m	101 AMG	-67°	222m	98 AMG	-49.5°	DIRECTION	108° AMG	HOLE SIZE	NW 0-20 NQ -63 BQ -342
RESULT	Hole intersected strong vein sulphide approx. 80m above Henty Fault Zone within Mt. Black Volcanics, devoid of Sn. D.36% Sn (2.1m) associated with minor sulphide 15m above fault	102m	101.5°	-65°	252m	97°	-45°	R.L.	176m	COMMENCED	27.8.81
		132m	98°	-61°	282m	98°	-43°	COORDINATES	4340N 4477E Grid	COMPLETED	15.9.81
		162m	97°	-58°	312m	093.5°	-38.5°			LOGGED BY	R.A. Sainty
		192m	100°	-54.5°	342m	096°	-32°		5,374,400mN 384,413mE		

FOQTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE RECD	ASSAY DATA							CORE RECD	
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag-g/t	Au-g/t	Fe%	RUN	SHORT
0	20	GLACIAL COVER												20	-	
20	267.9	MT. BLACK VOLCANICS												22.5	0.5	
20	70.25	Andesitic agglomerate Massive dark green coarse to very coarse and possibly graded unit as follows: 20-app 45 Agglomerate consisting of rounded to sub-angular andesitic fragments having diffuse (?welded) boundaries, densely packed (fragments 80% of rock) with a max dimension of 15mm within a chloritised and epidotised fine grained matrix.  45-70.25 Agglomerate consisting of coarse to very coarse angular fragments of porphyritic andesite commonly 20-60mm across, with occas fragments approx 10cm rarely to 28cm. Andesitic fragments vary from pale flesh pink to mostly medium green in colour, accompanied by smaller, ragged black fragments. Many fragments have diffuse (?welded) boundaries, matrix is silicified/epidotised to pale greenish-yellow.  Only 20% of core 20-49.25 is unweathered, remainder has undergone oxidation to an earthy brown colour. Weathered patches persist to 81m.												28.5	-	
														31.5	0.4	
														34.5	1.7	
														37.2	1.2	
														39.5	-	
														40.5	-	
														42.5	-	
														45.0	0.7	
														46.5	-	
														48.5	0.6	
														50.7	-	
														51.3	-	
														54.4	-	
														55.3	-	
														58.4	-	
														59.8	-	
														61.5	-	
														62.7	-	
														63.1	-	
														64.5	-	
														67.0	-	
														67.3	-	
														70.4	-	
														71.4	0.25	
														73.1	0.3	
														75.6	0.15	
														77.4	0.1	
														78.9	0.4	
														81	-	
														82.5	-	
														85.5	-	
														88.5	-	
														91.5	-	
														94.5	-	
														97.5	-	
														98.9	-	
														100.5	-	

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE REC'D	ASSAY DATA							CORE REC'D	
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN	SHORT
85.9	87.0	Sheared fine grained ?andesitic spilite similar to 70.25-73.1 above.													101.7	-
															103.5	-
															106.5	-
87.0	101.3	Andesitic Agglomerate Similar to 73.1-85.9 and 40-70.25 above Below 91.0m epidotisation/serpentinisation of matrix is well reduced and matrix is more visibly ash-tuff. Fragments are less well defined with more diffuse boundaries this feature may be apparent - a result of the less altered (chloritic) matrix, but may also reflect a more ignimbritic nature with depth. Matrix has pervasive chloritic alteration (?sericitic) in the form of black chlorite stringers, clasts appear at least partly welded, many are fractured (and have chloritic infilling of fractures). Towards base of interval some 'clasts' appear to be that of fine spilite lavas although these may represent lava intercalations.													109.5	-
															112.5	-
															115.5	-
															118.5	-
															121.5	-
															124.5	-
															127.5	-
															130.5	-
															133.9	-
															135.0	-
															136.5	-
															139.5	-
															142	-
															145.1	-
															148.2	-
															148.8	-
															150.2	-
															151.8	-
101.3	111.9	Sheared fine grained ?andesitic spilite - as described above 70.25-73.1 Includes several large (to 15cm) blocks of porphyritic andesitic lava towards base, 110.0-111.9													153.5	-
															156.6	-
															159.7	-
															162.8	-
															165.9	-
															169	-
111.9	116.4	Andesitic agglomerate similar to 87-101.3 above.													172.1	-
															175.2	-
															178.3	-
116.4	121.25	Sheared fine grained ?andesitic spilite as described above 70.25-73.1 Epidotisation at 117.2-117.35 Massive qtz-chlorite veining 118.4-118.7, 120.15-120.3 (+epidotisation)													181.4	-
															187.3	-
															189.9	-
															191.7	-
															192.8	-
															193.3	-
121.25	126.65	Andesitic Agglomerate As described above 87.0-101.3 Epidotisation 125.8-125.9													195.5	-
															196.6	-
															199.5	-
															201.3	-
126.65	166.9	Sheared altered andesite lavas 126.65-128.2 sheared fine grained ?andesitic spilite as described 70.25-73.1 above 128.2-133.5 Altered locally sheared porphyritic andesite. Dark green, fine grained with small dark green chloritised ?hornblende phenocrysts; patchy development of strong													201.8	-
															204.2	-
															204.4	-
															205.7	0.1
															208.5	-
															211.5	-
															214.5	-

700019

FOOTAGE		ROCK DESCRIPTION	MINERALISATION	SAMPLE NO.	FROM	TO	CORE RECD	ASSAY DATA						CORE REC'D	
FROM	TO							Sample Length	Pb%	Zn%	Cu%	Ag - g/t	Au - g/t	Fe%	RUN
		shearing Samples 48430, 431, CMS Report 81/12/18												216.3	-
		133.5-141.15 sheared fine grained andesitic epilite, as described 70.25-73.1 above	135.5-135.7 Isolated cubic & bleb py within broken area 132.5-151.8 Py stringers at 140.0, 142.5											219.4	-
		141.15-142.55 Altered locally sheared por- phyritic andesitic as described 128.2-133.5 above												222.5	-
		142.55-143.25 Massive to semi-massive qtz	142.55-143.25 Massive to semi- massive qtz-carb veining											225.3	-
		143.25-166.9 altered, locally sheared por- phyritic andesite, as described 128.2- 135.5 above.	157.5 as for 142.55-143.25											228.4	-
		143.25-163.7 includes patchy development of silicification	155.5-155.65 2cm veinlet of py+ po+sp+5cm area of stringer sp + minor py + ccp with q-c veining											229.7	-
		163.7-166.9 more intensive chloritisation giving pseudo-fragmental appearance to lava												232.5	-
166.9	180.2	Andesitic Agglomerate Fragments of both porphyritic and non-por- phyritic andesitic lava 4-10cm within a matrix of lithic vitric tuff. Lower density of fragments than previous agglomerate intervals.												235.5	-
														238.5	-
														241.5	-
														245.5	8.9
														246.4	-
														247.3	-
														248.4	-
														251.1	-
														251.8	-
														254.9	-
														256.9	-
														257.6	-
														259.1	0.15
														262.2	-
														265.5	0.15
														266.3	0.5
														267.4	0.1
														268.9	0.1
180.2	267.9	Sheared altered porphyritic andesite - as described 128.2-135.5 above. Locally brecciated, patchy areas of silici- fication and shearing 246.8-248.8 leached zone: cavities + spongy broken core 251.-267.9 FAULT ZONE rock is sheared, broken and oxidised with semi-massive qtz veining	181.7-182.2 thin po wisps on cleavage assoc with qc veinlets 185.2-185.5 80% massive sp vein + po stringers as edging. Associated with 15-20mm carbonate vein. 185.75-185.9 2% wisps of po + sp associated with qc veining 187.1-187.2 30% stringer po + py 188.3-189.3 5% stringer + patchy po + py. Py as aggregates of cubic crystals 189.3-189.6 50% stringer + veinlet po+ crystalline asp + trace ccp 189.6-190.1 5% wisps + bleb po + ccp 190.1-191.4 50% average (10-80%) stringer + veinlet po (70%) + py asp + minor esp											270	0.40
														271.1	-
														272.3	0.2
														273	-
														273.7	-
														275.1	-
														277.0	-
														278.5	-
														279.9	0.1
														280.2	0.15
														281.5	0.1
														283.8	0.1
														285.3	-
														288.4	-
														291.6	-
														294.7	-
														295.4	-
														298.1	-
														299.1	-
														300.3	0.1
														300.9	-
														301	-
														301.2	-
														303.4	-

F000020



## STP 234

Sample No.	From	To	Core Rec's	Sample Length	Pb	Zn	Assay Cu	Data Ag	per Au	ppm Fe%	Mn	As	Sn
<i>Grind</i>													
41687	20.0	25.0	5.0	5.0	30	150	95	X		6.0	1650	13	16
688	25.0	30.0	5.0	5.0	20	150	65	X		5.85	1750	24	6
689	30.0	35.0	5.0	5.0	20	185	105	X		7.15	2100	7	14
61690	35.0	40.0	5.0	5.0	10	145	70	X		6.0	1500	7	X
691	40.0	45.0	5.0	5.0	15	175	55	X		6.50	1600	9	X
692	45.0	50.0	5.0	5.0	20	155	80	X		6.15	1450	10	10
693	50.0	55.0	5.0	5.0	10	125	105	X		5.50	1200	15	8
694	55.0	60.0	5.0	5.0	25	190	60	X		7.60	1950	15	22
695	60.0	65.0	5.0	5.0	15	150	130	X		6.30	1950	17	10
696	65.0	70.0	5.0	5.0	20	160	160	X		5.65	945	11	X
697	70.0	75.0	5.0	5.0	5	125	100	X		5.95	1300	7	6
698	75.0	80.0	5.0	5.0	10	160	85	X		7.55	1700	6	X
690??	80.0	85.0	5.0	5.0	15	135	85	X		5.5	1400	6	4
41700	85.0	90.0	5.0	5.0	15	135	60	X		5.90	1600	2	X
45801	90.0	95.0	5.0	5.0	10	155	25	X		5.65	1750	1	X
802	95.0	100.0	5.0	5.0	15	160	30	X		8.15	2400	4	26
803	100.0	105.0	5.0	5.0	20	145	25	X		5.70	1750	2	X
804	105.0	110.0	5.0	5.0	10	160	40	X		5.30	1550	2	X
805	110.00	115.0	5.0	5.0	15	155	65	X		5.55	1450	9	X
806	115.0	120.0	5.0	5.0	20	305	60	X		6.95	2100	3	X
807	120.0	125.0	5.0	5.0	30	275	50	X		6.65	2300	3	X
808	125.0	130.0	5.0	5.0	5	165	75	X		6.65	2050	4	X
809	130.0	135.0	5.0	5.0	15	245	145	X		7.55	2200	14	26
45810	135.0	140.0	5.0	5.0	20	195	85	X		8.55	2700	43	66
811	140.0	145.0	5.0	5.0	45	195	120	X		8.70	2550	100	280
812	145.0	150.0	5.0	5.0	10	190	70	X		7.45	2450	340	14
813	150.0	155.0	5.0	5.0	40	500	30	X		8.15	3050	690	82
814	155.0	160.0	5.0	5.0	75	1900	150	1.5		6.05	2300	130	12
815	160.0	165.0	5.0	5.0	15	375	55	X		7.80	2300	18	14
816	165.0	170.0	5.0	5.0	165	195	30	0.5		7.70	2300	150	33
817	170.0	175.0	5.0	5.0	5	195	40	X		9.95	2350	190	24
818	175.0	180.0	5.0	5.0	20	190	20	X		8.70	2150	180	28
819	180.0	185.0	5.0	5.0	20	245	55	X		10.50	2750	55	68
45820	185.0	190.0	5.0	5.0	55	1.95%	2100	5.0		10.00	2750	2.0%	12
821	190.0	195.0	5.0	5.0	150	400	1700	10.00		3.45	1500	1.6%	16
822	195.0	200.0	5.0	5.0	30	820	85	X		7.00	1950	520	6
823	200.0	205.0	5.0	5.0	15	145	60	X		4.80	1650	21	4
824	205.0	210.0	5.0	5.0	90	585	160	X		7.50	1850	80	6
825	210.0	215.0	5.0	5.0	35	175	75	X		5.60	1800	23	6
826	215.0	220.0	5.0	5.0	90	240	55	X		6.35	2250	14	6
827	220.0	225.0	5.0	5.0	5	165	25	X		7.20	1800	20	8
828	225.0	230.0	5.0	5.0	5	125	35	X		5.85	1800	6	8
829	230.0	235.0	5.0	5.0	10	130	25	X		6.30	1650	4	X
45830	235.0	240.0	5.0	5.0	10	175	100	X		7.20	2000	3	X
831	240.0	245.0	5.0	5.0	20	205	85	X		8.20	2200	3	32
832	245.0	250.0	5.0	5.0	30	185	40	X		8.15	1650	730	12
833	250.0	255.0	5.0	5.0	45	175	410	X		9.20	2800	670	1000
834	255.0	260.0	5.0	5.0	40	210	75	X		9.05	1950	16	120
835	260.0	265.0	5.0	5.0	20	140	1200	X		8.20	1300	1.4%	140
836	265.0	270.0	5.0	5.0	125	125	1700	3.5		5.15	865	9600	250
837	270.0	275.0	5.0	5.0	10	70	90	X		4.75	1200	2700	28
838	275.0	280.0	5.0	5.0	10	70	20	X		4.50	1050	39	8
839	280.0	285.0	5.0	5.0	10	80	130	X		5.20	1050	280	X
45840	285.0	290.0	5.0	5.0	10	85	15	X		4.00	860	40	X
841	290.0	295.0	5.0	5.0	10	65	15	0.5		3.00	635	20	4
842	295.0	300.0	5.0	5.0	10	80	20	0.5		3.30	620	20	4
843	300.0	305.0	5.0	5.0	25	105	15	0.5		3.25	770	23	X
844	305.0	310.0	5.0	5.0	X	195	105	0.5		5.15	885	430	X
845	310.0	315.0	5.0	5.0	5	160	1050	4.0		5.45	830	1.3%	X
846	315.0	320.0	5.0	5.0	20	170	170	1.0		4.90	910	1850	X
847	320.0	325.0	5.0	5.0	10	80	40	0.5		4.40	1050	55	X
848	325.0	330.0	5.0	5.0	45	120	30	1.0		4.40	1050	42	6
849	330.0	335.0	5.0	5.0	10	70	30	X		3.50	840	24	X
45950	335.0	340.0	5.0	5.0	10	50	10	0.5		3.45	845	31	X
45851	340.0	342.5	2.5	2.5	50	105	15	0.5		3.45	1350	61	X

## STP 234

Sample No.	From	To	Core Rec'd	Sample Length	Pb	Zn	Assay Data per ppm			Fe%	Mn	As	Sn
							Cu	Ag	Au				
48414 G	185.2	185.5	0.3	0.3	415	32.5%	525	2.5		1.55	1658	920	19
<u>Split</u>													
415	188.3	189.0	0.7	0.7	20	360	610	1.0		13.5	2750	430	52
416	189.0	190.0	1.0	1.0	130	1050	7100	16.5		13.5	1900	3.2%	X
417	190.0	191.0	1.0	1.0	310	415	4850	29.5		9.1	1150	4.0%	X
418	191.0	191.5	0.5	0.5	185	285	4300	20.5		1.95	625	5.3%	X
48423	252.0	253.0	1.0	1.0	25	95	865	0.5		7.0	1450	3800	3000
424	253.0	254.1	1.1	1.1	10	125	250	0.5		13.5	3458	60	4200
48419	260.0	261.0	1.0	1.0	10	140	395	0.5		6.55	1358	1100	10
48428	261.0	262.0	1.0	1.0	30	125	2150	2.0		6.0	1350	5.2%	1150
48421	262.0	263.0	1.0	1.0	50	200	2350	2.0		6.55	1400	3.5%	X
422	263.0	264.0	1.0	1.0	15	100	655	1.0		4.9	950	380	6
48425	309.3	310.3	1.0	1.0	15	85	455	2.0		5.05	578	3100	17
425	310.3	311.3	1.0	1.0	15	75	225	0.5		5.1	578	9900	X
427	313.25	313.85	0.6	0.6	50	505	1.15%	29.5		3.15	2900	9.0%	X

APPENDIX II

Petrological Reports - C.M.S. Report No. 81/12/18

REPORT CMS 91/12/18D.D. Core Samples 48428 - 48431

Four drill core samples were received for petrological examination; thin-sections were prepared, and offcuts were subjected to carbonate- and potash-stain tests as appropriate.

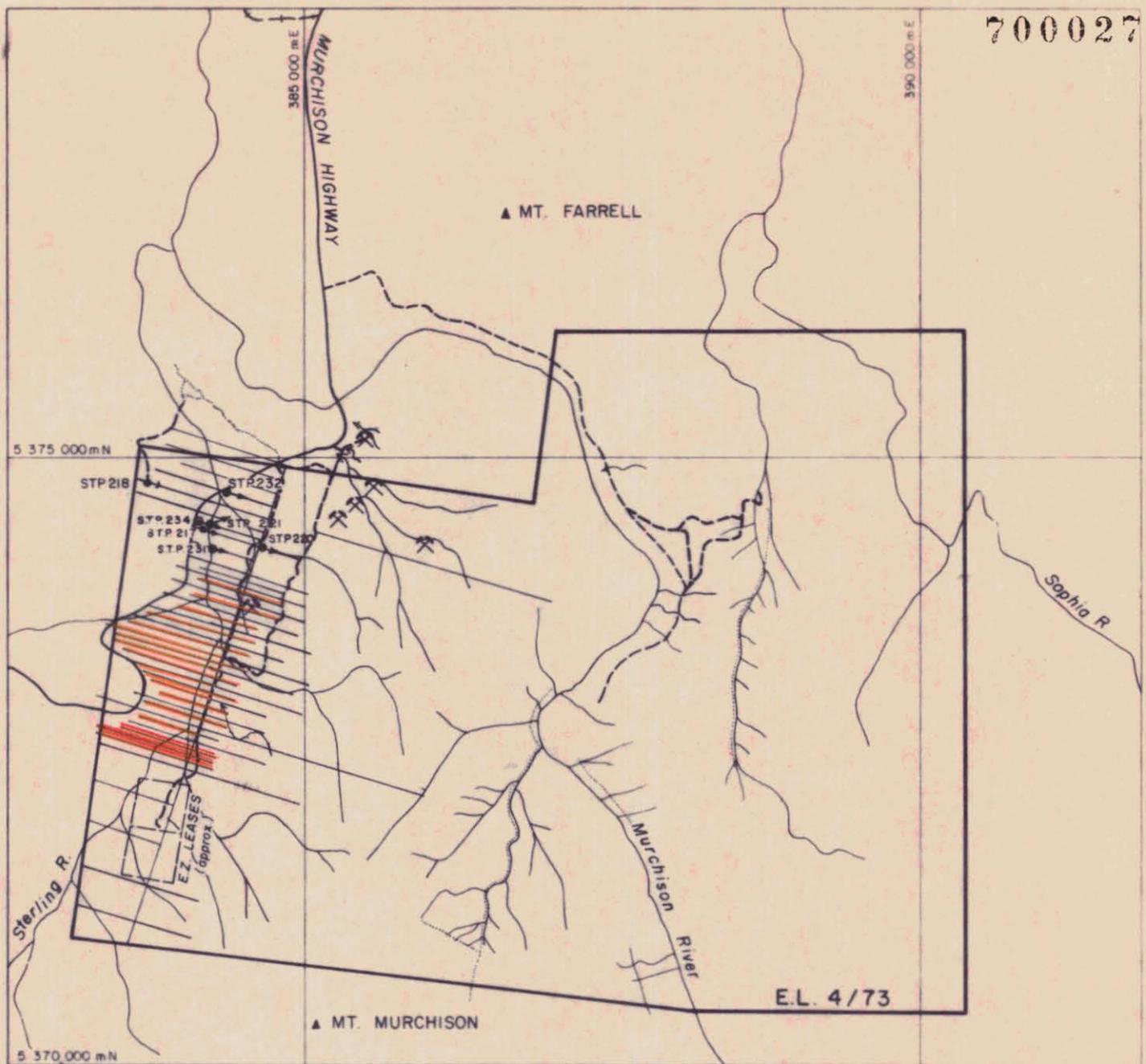
Summary

48428 is a very mildly metamorphosed clastic sediment, evidently deposited under reducing conditions and containing traces of carbon (sub-graphite); the carbonate species is calcite and is post-depositional, perhaps even post-metamorphic.

48429-31 are igneous rocks of intermediate to basic composition; all are probably extrusive, but could be minor intrusives; their relationships to rocks above and below may need closer study to establish this. They are not pyroclastics. 48430/31 are almost certainly genetically related, though compositionally slightly different; 48429 has been termed a spilite - this is a difficult group altogether, because of alteration; it may be a pillow-lava, i.e. subaqueously deposited, and there may be some evidence in the core to support this; re-examination of the core intervals with this in mind could perhaps be carried out.

H.W. Fander, M. Sc.

Sample No.	Rock Type - Composition	Fabric	Minor Minerals	Central Mineralogical Service Comments
48428 (T.S. 40209)	Micaceous metaquartzite. Framework of subangular quartz grains and clastic muscovite flakes; schistose sericite-chlorite matrix, weakly carbonaceous.	Good preferred orientation; sand-size grains, with finer, more schistose bands.	Scattered fine calcite and calcite-quartz veinlets. Sporadic pyrite patches.	Carbonate (calcite) is scarce and appears post-metamorphic or at least diagenetic. Greenschist facies metamorphism of micaceous argillaceous sandstone.
48429	Sheared ?Spillite. Small subparallel stubby albite laths and interstitial chlorite; many aggregates/streaks of cloudy microgranular leucoxene.	Uniform, medium/fine-grained, strong preferred orientation (almost schistose).	Small calcite patches and sheared veins throughout.	Suspected andesitic-basaltic rock originally, but present assemblage is typical of spilites; not pyroclastic.
48430	Altered Porphyritic Andesite. Scattered oligoclase and chloritised hornblende phenocrysts set in fine matted mass of chlorite, altered plagioclase.	Fine-grained, well-orientated, probably due to flow and later, weak shearing.	Deuteric epidote, secondary leucoxene throughout. Quartz-carbonate veins.	Thoroughly altered, and precise composition not known, but certainly broadly andesitic. Probably extrusive.
48431 (T.S. 40212)	Sheared, Altered Andesite. Many small phenocrysts of partly sericitised oligoclase-andesine in a fine felted mass of plagioclase, chlorite, epidote.	Extrusive shearing superimposed on flow fabric. Fine-grained.	Leucoxene throughout. Isolated chloritised hornblende phenocrysts. Trace pyrite.	Quite similar to 48430, but more feldspathic ("leucocratic") originally. Probably extrusive; not pyroclastic.
48428	STP 232 A1 107.3m			
48429	STP 234 117.8m			
48430	STP 234 130.4m			
48431	STP 234 128.5m			



**LEGEND**

- → ● → Drill Hole Proposed/Completed
- ⚡ Prospects Inspected
- Line Cut and Pegged
- Line Mapped
- Stream Sediment Sampling and Mapping Completed
- Line I.P. Dipole - dipole
- Line Ground Magnetics
- Access Mapping Completed
- Road
- - - Vehicle Track Bulldozed
- ..... Walking Track Cut
- +— Railway
- +— Abandoned Tramway
- Transmission Line
- Grid Line

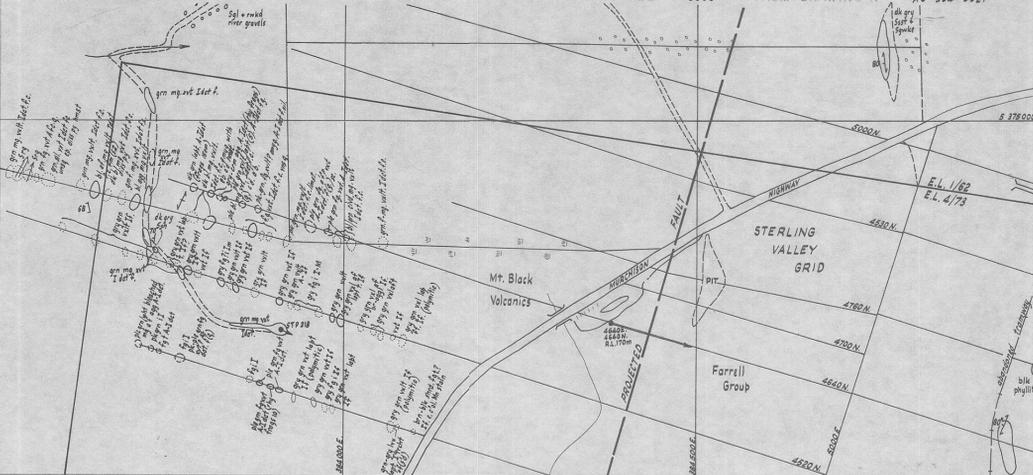
ELECTROLYTIC ZINC CO. OF ASIA LTD.  
PROJECT STERLING VALLEY TAS

WORK COMPLETED DURING

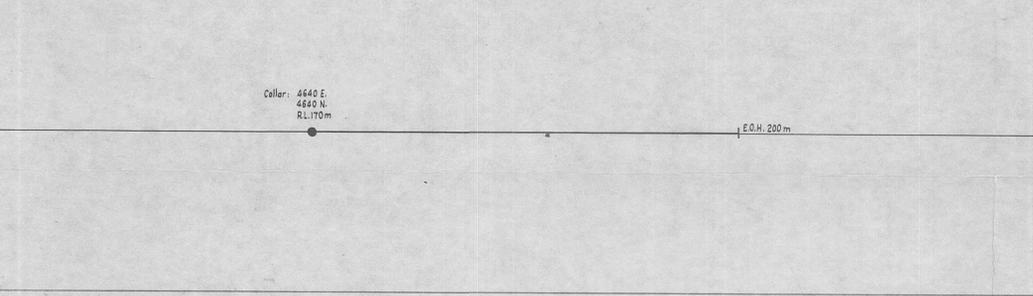
1. 7 81. - 15. 12. 81

SCALE 1:50,000	Survey J.M.B.A.M.	Revised 1/9/1981
Reference	Date 19/11/1981	REF NO
Drawn T.G.D.S.	Checked	A4-526-0003

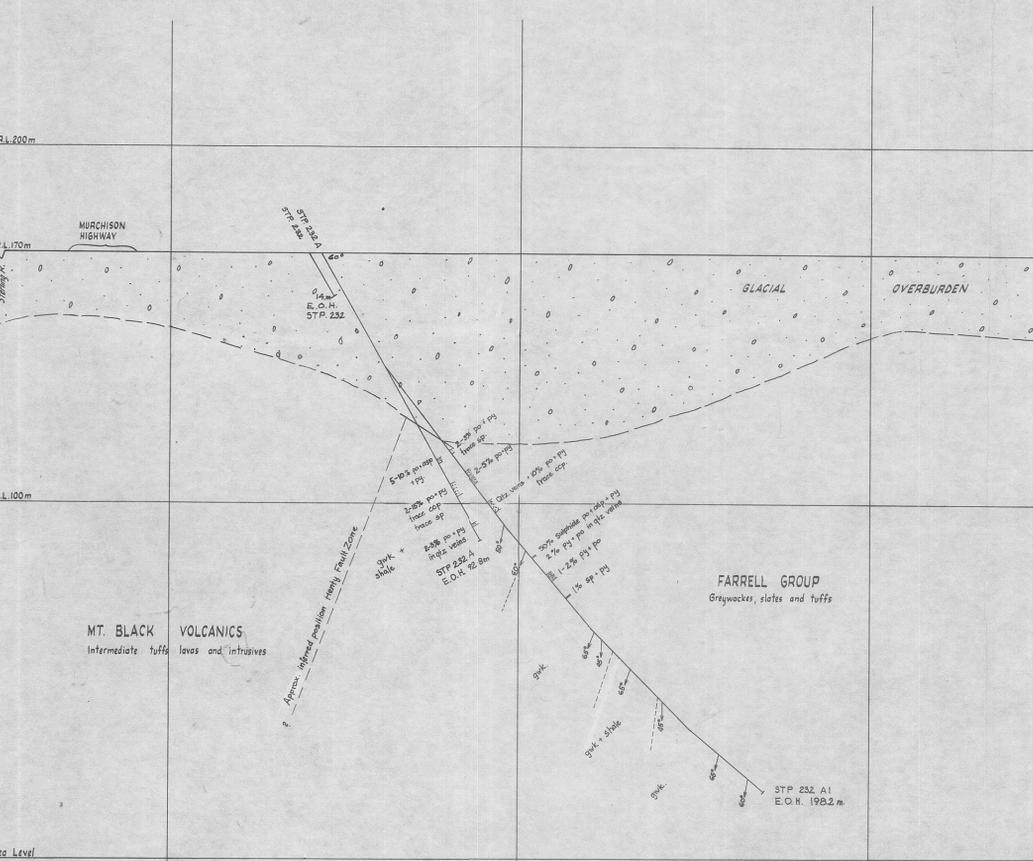
GEOLOGICAL PLAN OF HOLE LOCALITY



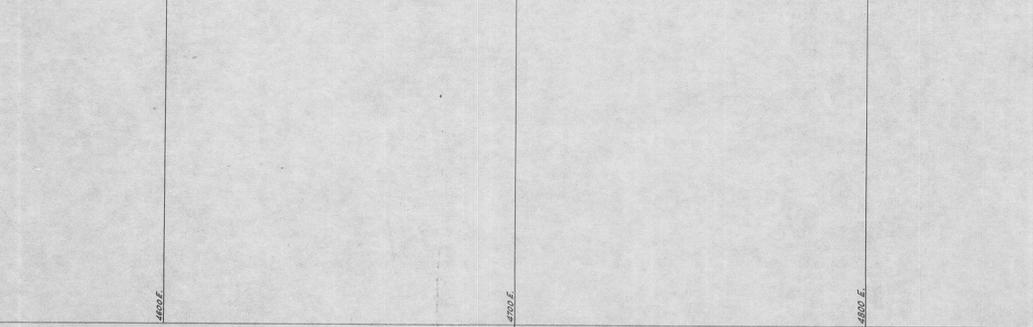
PLAN OF DRILLHOLE 4640 N. STERLING VALLEY GRID SCALE 1:1000



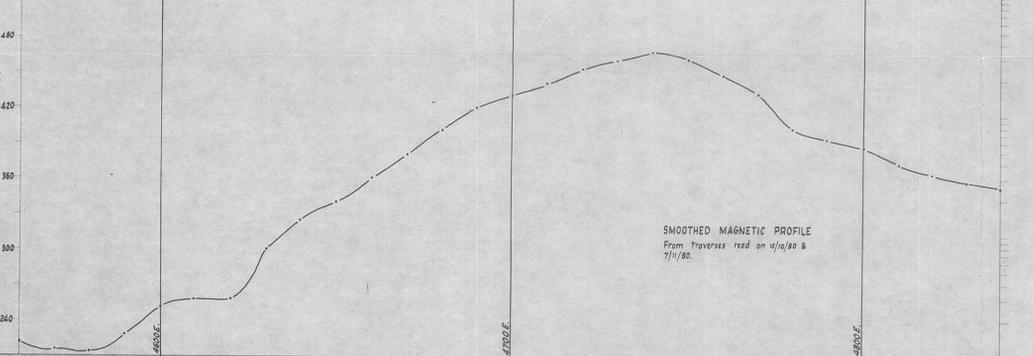
DRILLHOLE CROSS SECTION SCALE 1:1000



STANDARD LEVEL



SURFACE GEOPHYSICS

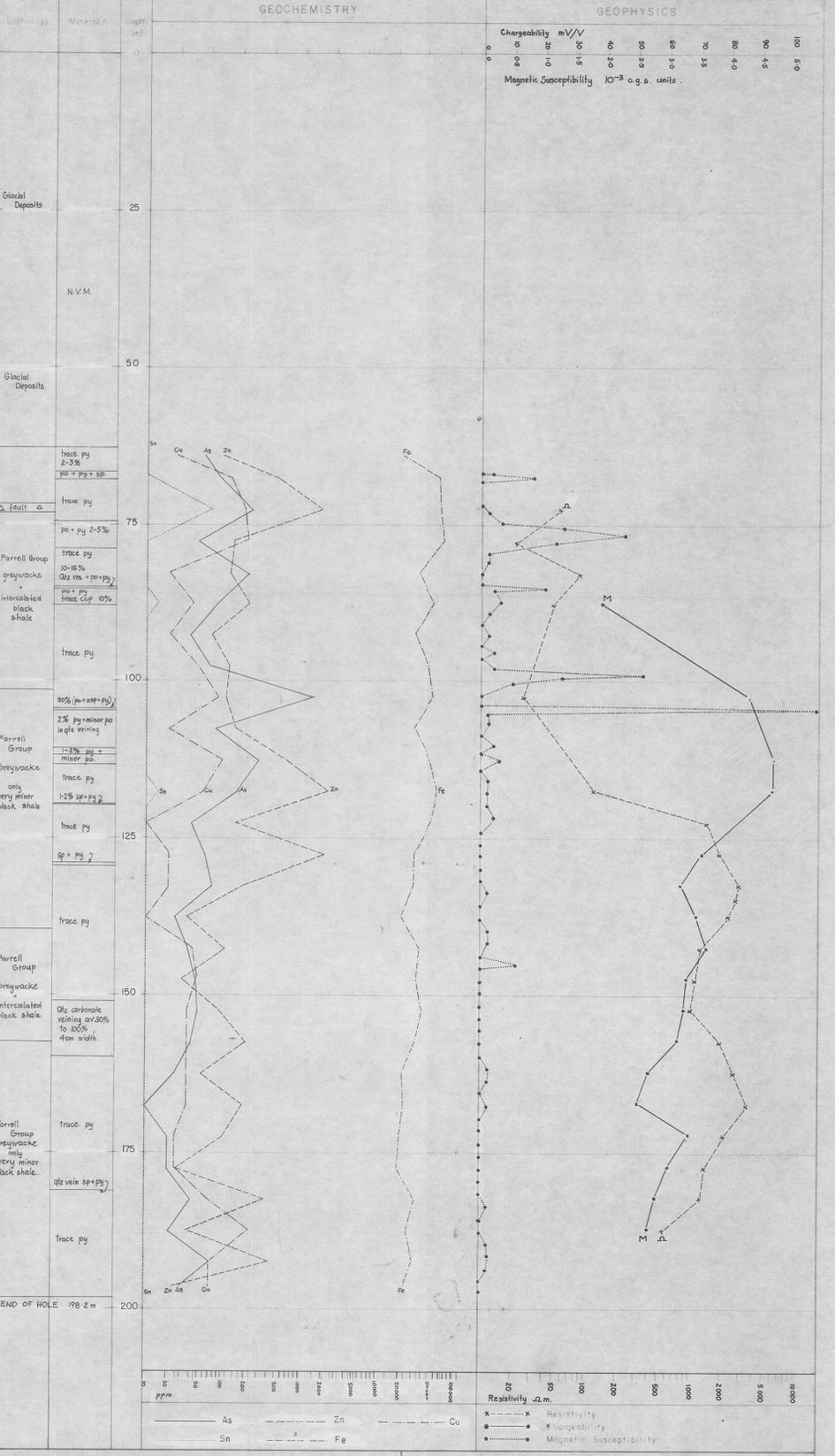


SURFACE GEOCHEMISTRY

Glacial Covered  
No Soil Geochemistry

5 cm

DOWN HOLE INFORMATION



SUMMARY OF COMPLETED HOLE

CO-ORDINATES	NORTHING	EASTING	R. L.
LOCAL GRID	4640	4643	174
A.M.G.	5,374,728.5	384,395.8	174.0

SPECIFICATIONS OF PROPOSED HOLE

CO-ORDINATES	NORTHING	EASTING	R. L.
LOCAL GRID	STERLING VALLEY 4640 N.	4640 E.	170m
A.M.G.			

INTERNAL SURVEY INFORMATION

DEPTH	AZIMUTH	DIP	DEPTH	AZIMUTH	DIP
67 m	83°	-32°			
109 m	105°	-49.5°			
151 m	98°	-45°			
192 m	98°	-39°			

DRILLED GEOLOGY (SUMMARISED)

DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0-63.0	Glacial Overburden	Negligible Sulphides
63.0-192	Farrell Group volcanoclastic greywacke and intercalated black shale as follows:	66.9-68.0 2-3% po+py, trace sp.
63.0-101.6	Greywacke and shale	74.7-78.7 2-3% po+py in qtz carbonate veining
101.6-139.5	Greywacke and very minor shale	85.2-88.0 qtz veins with 10-15% po+py + trace ccb
139.5-157.6	Greywacke and shale	104.6-104.9 50% sulphide - Py(50%), asp(35%), py(15%)
157.6-192.2	Greywacke and very minor shale	104.6-110.9 2% py + minor po in qtz veining
NOTE:		112.0-113.25 1-2% py + minor po
		115.65-115.9 "
		119.5-119.9 1% sp (1-6mm stringer) + py
		129.1-129.46 0.5% sp + py
		144.15-144.4 minor py; po + trace sp
		151.1 20% sp + py in 20mm qtz vein
		190.5-190.7 sp + py in carbonate veining
		191.6-192.0 "

LOGGED BY R. A. S. DATE 20.11.81

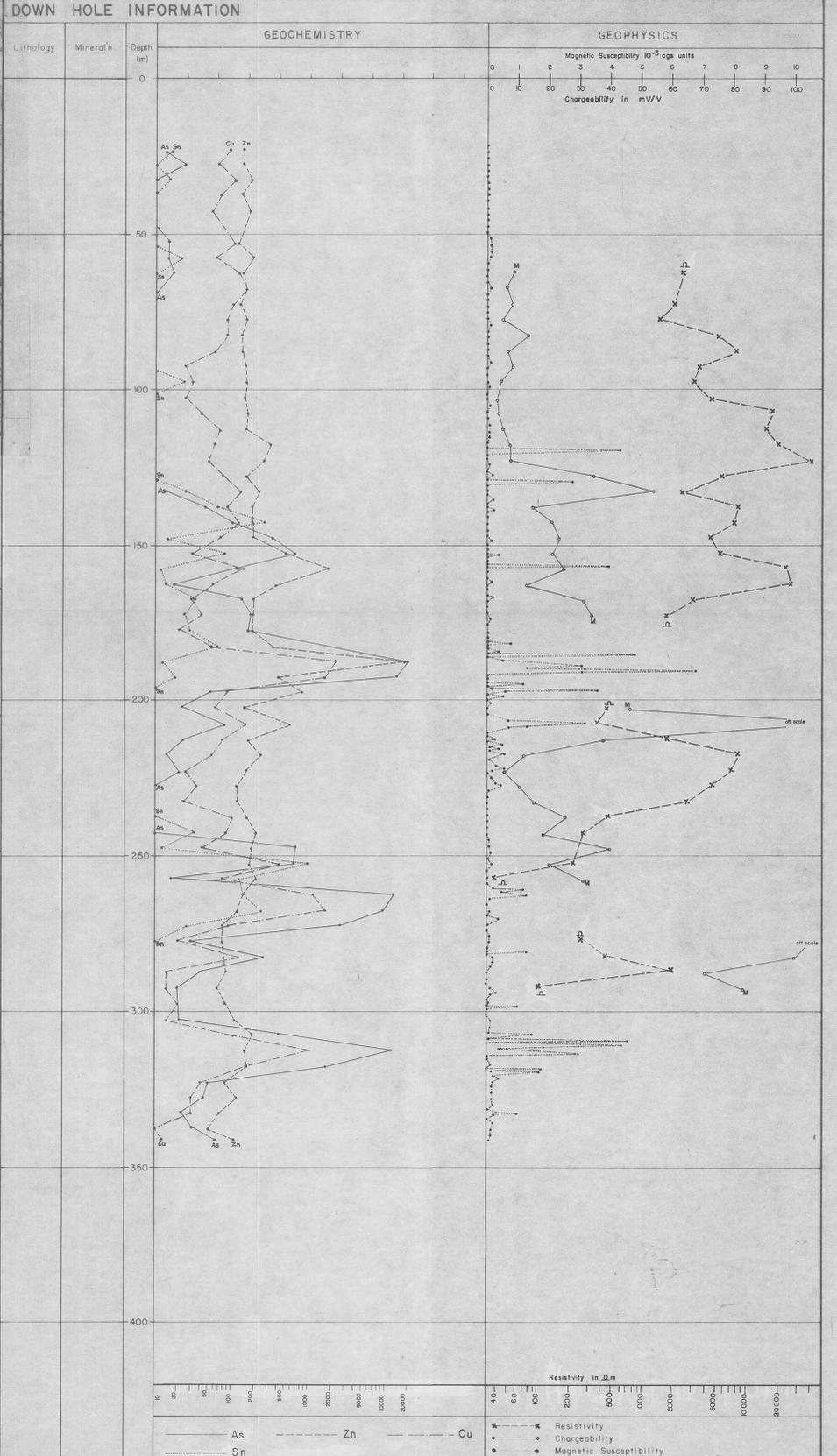
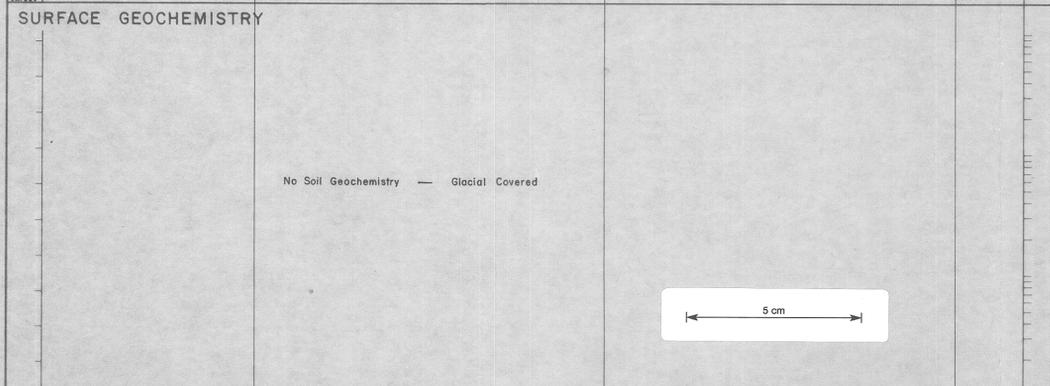
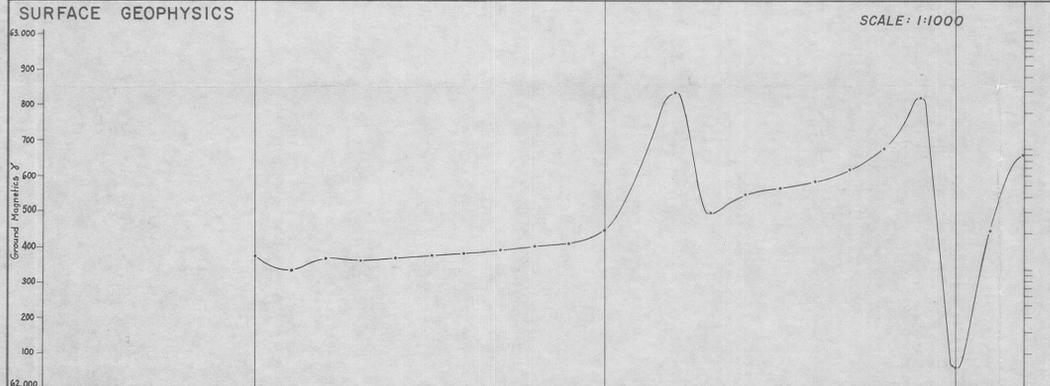
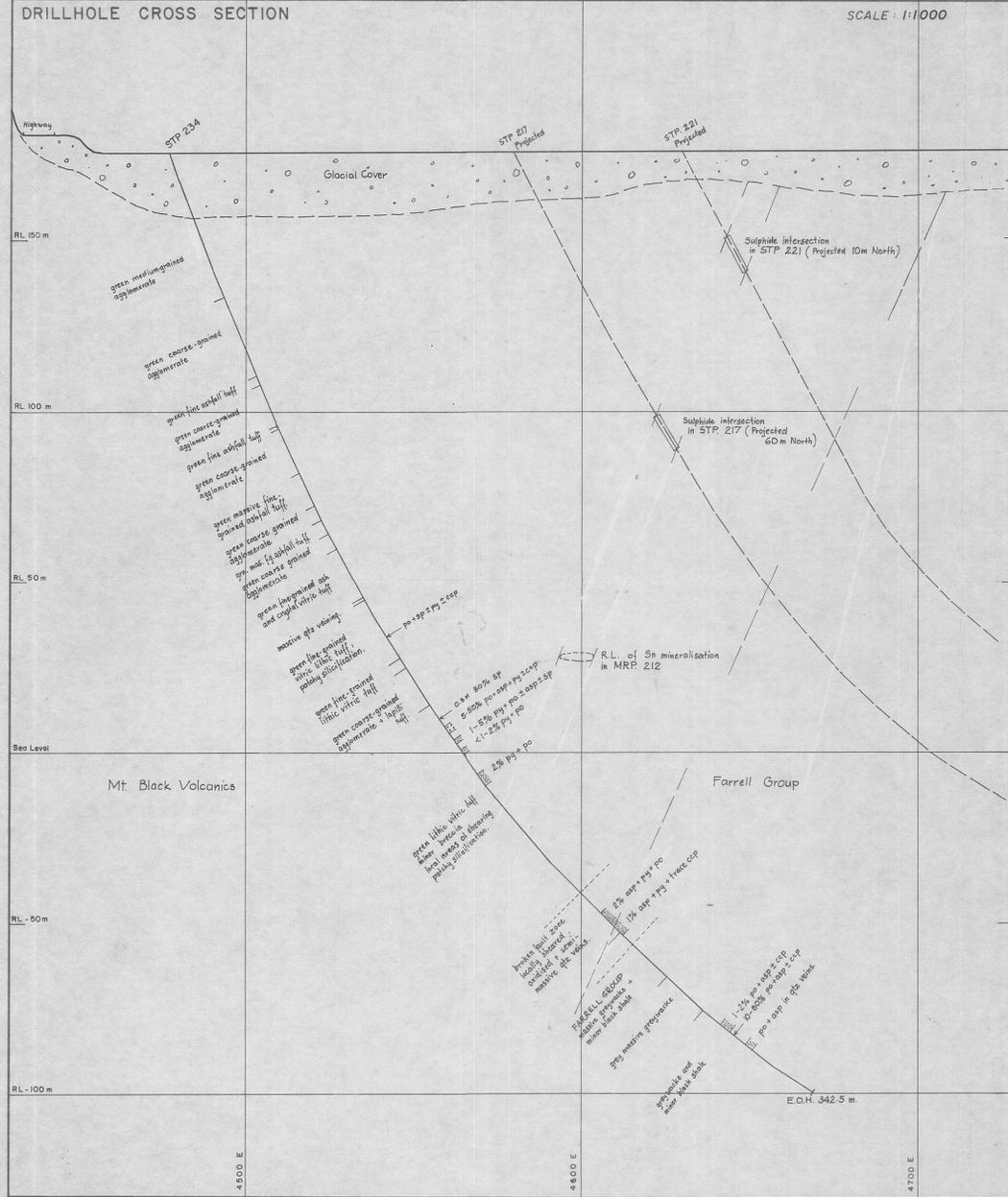
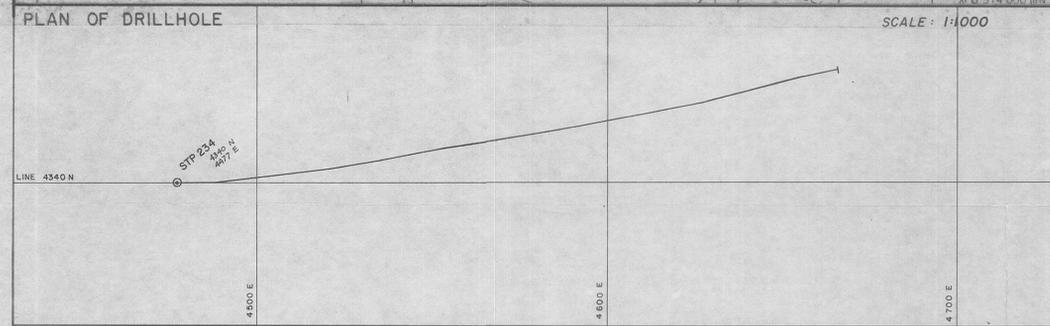
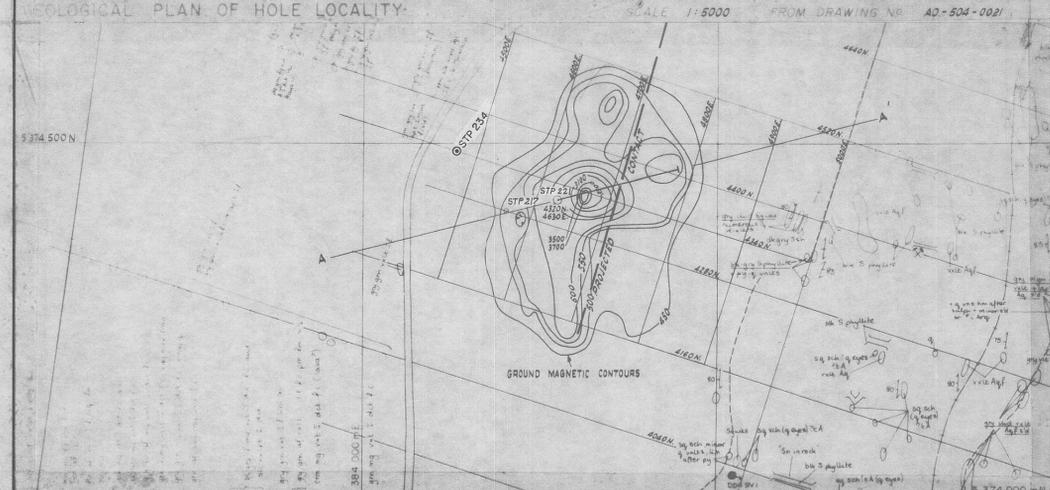
SAMPLE DATA

SAMPLE INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED	LAB. METHOD
63.0 - 192.2	41624 - 41651	grind	Pb, Zn, Cu, Ag, Au, Fe, Mn, As, Sn	A.A.S.
67.0 - 68.0	48404	split	Pb, Zn, Cu, Ag, Fe, Mn, As, Sn	"
74.7 - 78.7	48405, 48407, 48409	split	"	"
98.7 - 100.9	48410, 48411	split	"	"
104.6 - 104.9	48412	split	"	"
112.0 - 113.2	48413	split	"	"
107.3 STP 232 A	48428	split core	Petrographic examination	"

NOTES

Survey Azimuth information unreliable as readings taken inside the barrel

ELECTROLYTIC ZINC CO. OF ASIA LTD  
PROJECT: STERLING VALLEY EL.4/73 TAS.  
SPECIFICATIONS AND SUMMARY OF RESULTS  
EXPLORATION DIAMOND DRILL HOLE No. STP 232 A1  
700028 82-1845  
SCALE: As shown Survey J.M. Revised R.A.S. 20.11.81  
Reference: Date 18.11.1980 REF No.  
Drawn: R.G.W. Checked: AI 526-0020



SUMMARY OF COMPLETED HOLE				SPECIFICATIONS OF PROPOSED HOLE			
CO-ORDINATES	NORTHING	EASTING	R. L.	CO-ORDINATES	NORTHING	EASTING	R. L.
LOCAL GRID	4340 N	4477 E	176 m	LOCAL GRID	4340 N	4477 E	176 m
A.M.G.	5374 400 N	384 413 E		A.M.G.	4340 N	4477 E	176 m
AZIMUTH	108° AMG	DIP -70°	TOTAL DEPTH 342.5	AZIMUTH	108° AMG	DIP -70°	DESIGNED DEPTH 350 m
COMMENCEMENT DATE	27 AUG. 1981	COMPLETION DATE	15 SEPT. 1981	ESTIMATED COMMENCEMENT	27. AUG. 1981		

INTERNAL SURVEY INFORMATION			ANTICIPATED GEOLOGY		
DEPTH	AZIMUTH	DIP	DEPTH	LITHOLOGY	NATURE OF TARGET AND ANTICIPATED DEPTH
72 m	101° AMG	-67°	222 m	98° AMG	-49.5°
102	101.5°	-65°	252	97°	-45°
132	98°	-61°	282	98°	-43°
162	97°	-58°	312	93.5°	-38.5°
192	100°	-54.5°	342	96°	-32°
HOLE SIZE	FROM	TO	HOLE SIZE	FROM	TO
TRICONE NO	0	20.0	80	63.0	342.5

DRILLED GEOLOGY (SUMMARISED)		
DEPTH	LITHOLOGY	MINERALISATION AND SIGNIFICANT ASSAYS
0 - 20	Glacial cover	po + sp + minor py + ccp
20.0 - 267.9	Mt. Black Volcanics Intermediate pyroclastics as follows: 20.0 - 126.63 Agglomerate with interbeds of fine-grained ashfall tuff; 70.25-73.1 85.9-87.0 101.3-111.9 116.4-121.25 126.65-166.9 166.9-180.2 180.2-267.9	80% massive sp vein and po stringer Assay 325% Zn 2% po + sp 30% stringer po + py 5% stringer po + py 50% po + asp + minor ccp 5% wisps po + ccp
267.9 - 342.5	Farrell Group sediments grey massive volcanoclastic grey-wacke and minor intercalated cleaved block shale.	193.1 - 194.4 1-5% py + po + trace asp + sp 196.5 - 198.5 <1-2% py + po 205.3-209.0 2% py + minor po 260.1-264.0 2% (asp + py) + (po + py) 264.0-268.5 Fault zone 1% max. py + asp + trace ccp 309.3-311.3 1-2% po + asp + trace py 312.3-312.8 313.25-313.65 10-80% asp + po + trace ccp 318.4-321.4 Several 1.5 - 5 cm q.c. veins with asp + po

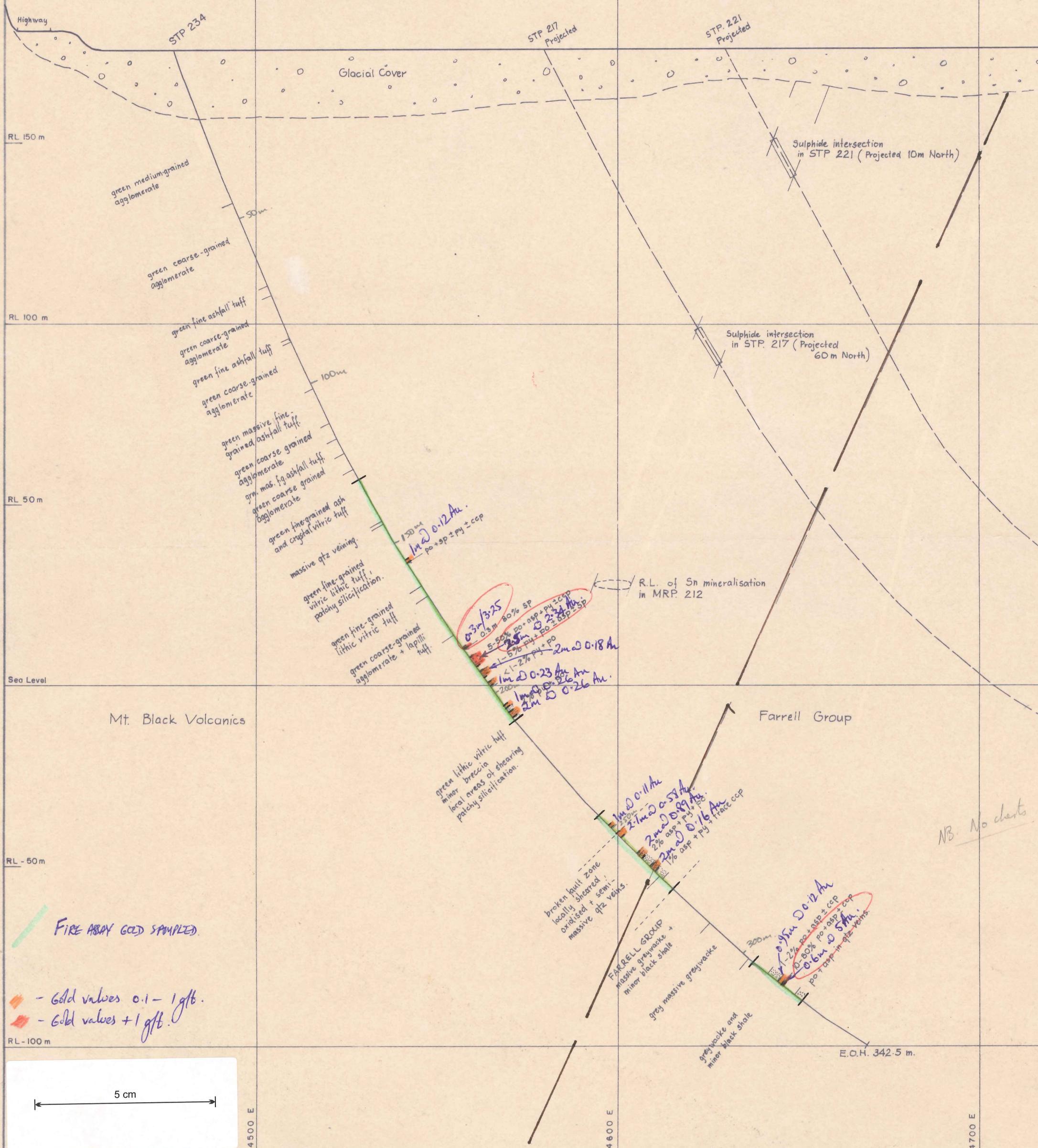
SAMPLE DATA			
SAMPLED INTERVAL	SAMPLE NUMBERS	SAMPLE TYPE	ELEMENTS DETERMINED
20 - 900	41687 - 41700	grind	Pb Zn Cu Ag Au Fe Mn As Sn
90 - 342.5	45801 - 45851	grind	"
185.20 - 185.5	48414	split	Pb Zn Cu Ag Fe Mn As Sn
188.3 - 191.5	48415 - 48418	split	"
252.0 - 254.1	48423, 48424	split	"
260.0 - 264.0	48419 - 48422	split	"
309.3 - 311.3	48425, 48426	split	"
313.25 - 313.65	48427	split	"
117.8	48429		
128.5	48431		
130.4	48430	petrographic examination	

ELECTROLYTIC ZINC CO. OF ASIA LTD.  
PROJECT: TAS.  
SPECIFICATIONS AND SUMMARY OF RESULTS  
EXPLORATION DIAMOND DRILL HOLE No. STP 234  
82-1845  
700029  
SCALE: As shown Survey: 1. MCD. Revised  
Reference: Date 12.1.1982 REF No.  
Drawn: Niko Checked: A1-526-0030

LOGGED BY: ROD SAINTY DATE 10.12.81  
NOTES

DRILLHOLE CROSS SECTION

SCALE: 1:1000



R.L. 200m

R.L. 170m

R.L. 100m

Sea Level

MURCHISON HIGHWAY

Starling R.

STP 232 A  
E.O.H. 14.2m  
STP 232

GLACIAL OVERBURDEN

Handwritten:  $1.4m @ 0.67 Au.$

Handwritten:  $1.2m @ 0.21 Au @ 311.9m$

5-10% po+asp + py.  
2-15% po+py trace ccp  
3-8% sp  
0.35m-0.78% 2% po+py in qtz veins  
STP 232 A E.O.H. 92.8m

2m-0.44Au  
Qtz veins + 10% po+py trace ccp.

0.3m-1.4Ag  
4.5% As

50% sulphide po+asp+py  
2% py+po in qtz veins

1-2% py+po  
1% sp+py

1.2m-0.12Au

FARRELL GROUP  
Greywackes, slates and tuffs

MT. BLACK VOLCANICS  
Intermediate tuffs lavas and intrusives

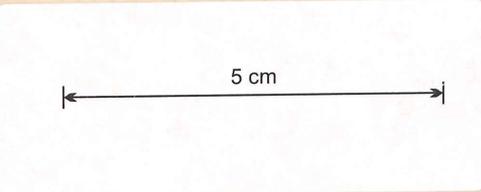
Approx. inferred position Fault Zone

65°  
45°  
65°  
45°  
65°  
45°  
150m  
gwk.  
gwk + shale  
gwk.

STP 232 A1  
E.O.H. 198.2 m.

FIRE ASSAY GOLD SAMPLES

- Gold values + 1 g/t Au.
- Gold values 0.1 - 1 g/t Au.



4600 E.

4700 E.

4800 E.