057001

000

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

MINERAL RESOURCES DIVISION

EXPLORATION LICENCE NO. 4/73 - STERLING VALLEY

ANNUAL REPORT ON EXPLORATION ACTIVITY

7TH MARCH, 1985 TO 6TH MARCH, 1986

E.Z. REPORT NO. T214

I.R. McDONALD,

FEBRUARY, 1986

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF PLANS

1. INTRODUCTION

This is an Annual Report for E.L. 4/73 covering work undertaken by Electrolytic Zinc Company of Australasia Limited up to the Licence renewal date of 6th March, 1986. Work was undertaken initially on behalf of a Joint Venture between E.Z. Co., Getty Mining and Aberfoyle Exploration. During the year, following on the decision of Texaco to sell off Getty Mining, E.Z. exercised its option to purchase the Getty equity in the Joint Venture. Later in the year Aberfoyle elected to withdraw from the Joint Venture leaving E.Z. as the only party exploring in E.L. 4/73. Title to the Licence is in the process of being transferred from Aberfoyle to E.Z.

2. PREVIOUS EXPLORATION

Exploration within E.L. 4/73 up to the commencement of this report is detailed in E.Z. Report No's 133 (1980), 143 (1981), 146 (1981), 150 (1982), 154 (1982), 161 (1983), 167 (1983), T181 (1984) and T202 (1985).

3. EXPLORATION ACTIVITY COMPLETED 7TH MARCH, 1985 - 6TH MARCH, 1986

Two access tracks totalling approximately 720m were constructed from the H.E.C. powerline track to diamond drill hole sites.

Two diamond drill holes were completed for a total of 296.3m. Details as follows (refer Fig. 1):-

Hole No.	:	DDH STP 283
Collar Co-ords	:	Grid - 3,266N; 4,549E
		A.M.G. - 383,885E; 5,373,435N
Dip	:	-45°
Azimuth	:	108° A.M.G.
Final Depth	:	179.6m

Hole No.	:	DDH STP 284
Collar Co-ords	:	Grid - 4,330.5N; 4,800.3E
		A.M.G. - 383,440E; 5,374,380N
Dip	:	-60°
Azimuth	:	108° A.M.G.
Final Depth	:	116.7m

The drill core was geologically logged and 12 samples were submitted to Central Mineralogical Services for thin section description.

The drill core was split sampled and chip sampled. The samples were sent to Analabs Pty. Ltd. and analysed for Cu, Pb, Zn, Ag, Bi by A.A.S. after nitric-perchloric acid digestion; for As by A.A.S. after nitric-perchloric digestion and vapour hydride generation; for Sn by X.R.F.; and for Au by 30g fire assay with A.A.S. finish. The split core samples were later resubmitted for analyses of Ga and Ge by X.R.F.

4. RESULTS RECEIVED 7TH MARCH, 1985 - 6TH MARCH, 1986

4.1. DDH STP 283 (Refer - Appx 1. - Drill hole log & Sample data sheets;
- Appx 2. - C.M.S. thin section report;
- Plan No. A2-526-0053)

This hole was drilled into a low resistivity zone, seen in I.P. surveying, underneath a costean which had returned high spot gold values from quartz-sulphide veins in strongly altered volcanics and brecciated intra-volcanic sediment. The zone also contained a strong arsenic soil anomaly.

The hole intersected a sequence of mainly lavas with lesser pyroclastics and epiclastics, which are all strongly chloritised and variably sheared and cleaved. Thin section samples from DDH STP 283 were all described as altered basalts. Discussions with D. Cowans of C.M.S. confirmed that the rocks were in essence chlorite schists, but that the alteration assemblage and relict textures were indicative of a basalt origin rather than the trachy-andesite, which previously has been the most commonly described rock type from the area. Evidence for faulting or brittle fracture occurs throughout the hole with several zones of quartz veining and brecciation Sulphides occur throughout the hole in minor amounts but are concentrated in zones of quartz breccia and fine grained chloritic rock. The hole can be divided into 5 major units.

0	-	28.8m	Very strongly oxidised rock composed essentially of ferruginous clays with poor core receovery.
28.8	-	66.9m	Variably oxidised, sheared, basaltic lavas. These contain a sheared and brecciated chert band at 48.2m suggesting a sub-aqueous, possibly spillitic character to the lavas. This unit

is variably mineralised with quartz+sulphide veins and stringers and contains a prominant quartz-sulphide breccia with included tuff material between 61.8 to 63.8m

66.9 - 87.8m Sheared pyroclastic and epiclastic rocks of intermediate composition. A coarse grained polymict unit between 78.3 and 82.8m looks like a laharic debris flow deposit. No unequivocal facing directions could be determined from the epiclastics. This unit is also variably mineralised with quartz±sulphide±tourmaline veins and stringers.

87.8 - 167.7m Sheared and altered amygdaloidal basaltic lavas. A chert band at 163m suggests a similar sub-aqueous origin to the upper lavas. Mineralisation is scattered throughout but is concentrated more in the bottom half of this unit. Semi-massive sulphides occur in a fine grained chlorite rock at 140.9 to 141.9m.

167.7 - 179.6m Massive fine grained non-porphyritic altered basalts with sulphide stringer mineralisation.

Complete geochemical analyses results for DDH STP 283 are presented on the sample data sheets in Appendix 1. Signifiacnt assays returned were:-

40.1	-	40.25m	0.15m @ 0.33 g/t Au;	1.40% As
44.9	-	45.05m	0.15m @ 0.31 g/t Au;	3.35% As
61.8	-	63.8m	2.00m @ 0.38 g/t Au;	6.22% As, 0.77% Cu, 28.7 g/t Ag
87.8	-	88.0m	0.20m @ 0.86 g/t Au;	11.0% As
140.95	-	141.8m	0.85m @ 1.16 g/t Au;	4.15% As, 29 g/t Ag
145.1	-	145.65m	0.55m @ 1.10 g/t Au	
173.15	-	173.6m	0.45m @ 2.00 g/t Au	

The gold mineralisation occurs in two associations. The first is a high sulphide quartz-pyrite-arsenopyrite±chalcopyrite assemblage which is characterised by high arsenic values and elevated copper values. The second is a low sulphide quartz vein+minor pyrite±minor pyrrhotite assemblage which is characterised by gold only values. The two assemblages show a crude zoning. In the upper section of the hole the mineralisation is arsenic rich and gold poor; in the middle section it is arsenic rich with increasing gold; and at the base it is gold rich and arsenic poor; as is shown in the table.

Depth of Intersection		Arsenic Grade	Gold Grade
Upper	40.25	1.40%	0.33 g/t
	45.05	3.35%	0.31 "
	63.8	6.22%	0.38 "
Middle	88.0	11.0%	0.86 "
	141.8	4.15%	1.16 "
Lower	145.65	87 ppm	1.10 "
	173.6	19 "	2.00 "

4.2. DDH STP 284 (Refer to - Appx 1. - Drill hole log & sample data sheets
- Appx 2. - Thin section petrology report
- Plan No. A2-526-0052)

This hole was drilled into a Dighem airborne E.M. conductor anomaly under a cover of glacial till. The anomaly lay on strike from the southern extension of the Henty Fault, and across strike from significant sulphide mineralisation seen in previous diamond drill holes STP 217, 221, 231, 234 (Fig. 1).

The hole was completed entirely within Farrell Slates lithologies, intersecting a series of strongly foliated quartz-lithic wackes and siltstones with rarer mudstones, felsic tuffaceous rocks and dolomitic wackes. The sequence is extensively veined and fractured with a major fault/fracture zone occurring near the top of the hole. Sulphides are sparse throughout the hole and are associated with veins. The hole can be divided into seven major units.

0 - 22.7m Glacial till cover.

22.7 - 33.1m Schists and phyllites after felsic volcanics, wackes and mudstones. Quartz veined and weakly sulphide mineralised. Grading implies up-hole facing.

33.1 - 37.9m Major fault/fracture zone composed mainly of quartz and minor carbonate veins with intercallations of chloritic mudstone and siltstone.

37.9	-	49.0m	Strongly schistose and quartz-carbonate veined black mudstones, siltstones and wackes. Very weakly sulphide mineralised.
49.0	-	91.0m	Interbedded strongly cleaved wackes and siltstones. Almost devoid of mineralisation. Grading and flame structures imply down-hole facing. The lower contact is massive quartz-(carbonate) veins and is probably a fault.
91.0	-	113.8m	Dolomitic wackes and siltstones with minor mudstone. Moderately to strongly cleaved and unmineralised. Grading and cross-bedding imply up-hole facing.
113.8	-	116.7m	Cleaved quartz-lithic wacke with coarser grained tuffaceous bands. Thin quartz-carbonate veining and trace pyrite in stringers.

The hole appears to have traversed at least three fault slices of Farrell Slates sequence. The faulting must be fairly significant because facing reverses across the faults and each slice contains different lithologies. The major fracture occurring between 33.1m and 37.9m is interpreted as the strike continuation of the southern Henty Fault trace. The shearing effects of this fracture extend from the base of the glacials at 22.7m to about 49.0m. This zone contains all the significant mineralisation and most of the dark grey to black mudstone lithologies seen in the hole. This zone is probably the source of the Dighem anomaly on which the hole was targetted.

Significant assays returned from DDH STP 284 were:-

27.75	-	27.9m	0.15m @ 1.65 g/t Au; 1.65% As, 64 g/t Ag, 1.23% Zn
28.95	-	29.8m	0.85m @ 0.12 g/t Au
45.5	-	45.9m	0.40m @ 0.63 g/t Au
64.9	-	66.05m	1.15m @ 0.11 g/t Au

The first intersection comes from a semi-massive pyrite vein with stringers of sphalerite. The other three are associated with from 1% to 2% stringers and veinlets of pyrite and pyrrhotite. Although the values are very low, this hole also displays both the high sulphide and low sulphide associations of gold mineralisation.

5. CONCLUSIONS

The results from the two holes DDH STP 283 and 284 confirm that low grade gold mineralisation is widespread in the vicinity of the Henty Fault, and that it occurs either as gold only mineralisation or as gold associated with high sulphide, arsenic rich mineralisation.

The drill holes also confirm that the Henty Fault in this area is much more than a single fault plane which separates the Farrell Slates and the Mt. Black Volcanics. The main locus of that contact suffers a sinestral displacement in the vicinity of 5,374,000mN (see Fig. 1), but the critical area is covered by glacial till. DDH STP 284 has shown that the southern trend of the fault contact continues northwards as a major fracture system but is contained entirely within the sediment lithologies of the Farrell Slates. It has also shown that this fracture trend does not appear to be significantly sulphide mineralised. DDH STP 283 has shown that the fracture system associated with the northern trend of the Henty Fault contact continues southwards through the STP 283 area, and that this trend is significantly sulphide mineralised.

The nature of the rocks enclosed by the north-western and the south-eastern trends of the Henty Fault is largely unknown due to generally poor outcrop and glacial till cover. DDH STP 283 is the best sample of this area seen to date. The rocks in the drill hole would appear to belong to the Mt. Black Volcanics suite, but their identification as basalts is inconsistent with the majority of the Mt. Black Volcanics, in the Sterling Valley area, which are dominantly trachy-andesites and leuco-andesites. It is possible that the area between the two arms of the Henty Fault is a fault slice of exotic stratigraphy which does not outcrop anywhere else in the general vicinity.

The overall style and the tenor of the mineralisation seen in STP 283 is very similar to that seen in drill holes STP 217, 221, 231, 234, which lie along strike between 900m and 1,100m to the north (Fig. 1). These holes were originally drilled on a magnetic anomaly which was due to a significant pyrrhotite content in the sulphide assemblage. DDH STP 283 has shown that similar arsenic and gold grades can occur in an assemblage without significant magnetic expression. The entire zone from north of DDH STP 234 to south of DDH STP 283 can be regarded as equally potential for this style of mineralisation. This north-western Henty Fault arm appears to have much more mineralisation potential than the south-eastern arm.

There are some indications that gold values may be increasing with depth. The highest value of 2.0 g/t Au in DDH STP 283 came from the deepest intersection in the hole. Similarly, the highest assay from the northern group of holes was 5.0 g/t Au from the deepest intersection in DDH STP 234.

APPENDIX 1.

Diamond Drill Hole Logs and Sample Data Sheets - DDH STP 283

- DDH STP 284

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. STP 283
SHEET No. 1.

PROJECT: STERLING VALLEY JOINT VENTURE - E.L. 4/73
LOCALITY: Henty Fault - Sterling River Zone
OBJECTIVE: To test a low resistivity zone under a costean containing high gold-arsenic values associated with sheared, brecciated, veined sediments.
RESULT: Several zones of sulphides intersected in altered basalts and sediments. Best assays 2.0m @ 0.38g/t Au; 6.22% As; 0.45m @ 2.0g/t Au.

GRID CO-ORDS: 3,266N, 4,549E } Sterling Val. Grid
A.M.G. CO-ORDS: 5,373,443N, 383,894E
COLLAR R.L.: 235m
COLLAR DIP: -45°
AZIMUTH: 108° AMG
TOTAL DEPTH: 179.6m

HOLE SIZE: HQ 72m, NQ 72-179.6m
CASING: PVC to end
COMMENCED: 5th June, 1985
COMPLETED: 14th June, 1985
LOGGED BY: Ian McDonald

Depth (m)	Azimuth (°a.m.g.)	Dip	Depth (m)	Azimuth (°a.m.g.)	Dip
83	102	-46°			
131	102	-46°			
179	98	-46°			

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
0	3.0	No core. Tricone bit		3.0	
				4.5	
3.0	28.8	Orange-brown very strongly oxidised rock with black-brown manganese oxide staining. Rock is essentially made up of ferruginous clays. Average core recovery is 37% as broken fragments, rubble and occasional sticky clay zones. Total core loss occurs at 19.8-21.6m and 25.6m-27.0m. 10.5-10.6m Some greenish-grey less oxidised sericite rich rock fragments.		6.0	0.9
				6.6	0.10
				8.6	0.65
				10.5	1.15
				12.0	0.75
28.8	29.4	Ferruginous and Manganous stained broken fragments of weakly oxidised blue-green chloritic, weakly porphyritic ?Andesite lava.		14.0	0.65
				15.0	0.10
				16.8	1.25
29.4	33.0	Khaki-brown, strongly oxidised, manganese oxide stained rock. Slightly less oxidised greenish patches are weakly ?feldspar phyric ?Andesite lava.		18.0	0.70
				19.8	1.40
				21.0	1.20
33.0	36.0	Khaki-green to green moderately to strongly oxidised broken core of glomeroporphyritic ?Andesite lava.		21.6	0.60
				23.0	0.75
				25.6	1.50
36.0	37.9	Green, ferruginous and manganous stained, moderately oxidised, sheared f.g. chloritic ?andesitic lava. Vague fragmental textures and vague eutaxitic textures are believed to be due to, respectively, shearing and oxidation effects. The shearing gives a weak banding @ 50°.		27.0	1.40
				28.5	0.95
				29.4	0.4
				31.5	1.55
37.9	39.7	Khaki-green, strongly oxidised, manganous stained, very broken glomeroporphyritic ?Andesite lava. 39.7m is the base of the very strong oxidation.		33.0	0.08
				34.5	-
				36.0	0.55
39.7	47.2	Green-grey fresh to weakly oxidised, weakly porphyritic sheared chloritised basaltic lava. Thin quartz crackle veins occur throughout.		37.5	0.25
				39.0	0.55
		40.1-40.25 Zone of broken and crushed core with quartz-arsenopyrite-(pyrite) veins	5% Arsenopyrite + (pyrite)	39.6	0.05
		40.5 Sample No. 48099 - Thin Section		43.5	-
		40.7-44.7 Weakly oxidised khaki -green section with very broken zones between 40.7-40.8; 41.7-41.8; 42.7-43.0m		45.0	0.2
				46.0	-
		43.5-44.7 Quartz-carbonate crackle veins increase in intensity		47.2	0.2
		44.7-44.9 Lost core		79.1	-
		44.9-45.05 Zone of quartz-pyrite-arsenopyrite veins and crushed puggy core on the top contact.	20% Arsenopyrite and pyrite	80.1	0.1
				81.7	0.05
		45.05-45.3 Quartz veins decrease downwards		82.4	-
		45.4-46.5 Weakly oxidised manganous stained very broken core.		84.0	0.4
				85.6	0.1
47.2	48.55	Zone of very strong silicification of brecciated ?basaltic ?lava, centred round a broken brecciated cherty quartz unit from 48.15 to 48.35.		86.8	0.25
				87.8	0.2
				91.6	
48.55	50.2	Grey-green brecciated vesicular ?basaltic lava with prominant quartz crackle veins. Core becoming more broken downwards.		94.3	0.1
				96.2	-
				97.3	0.85

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 283
SHEET No. 2

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
50.2	57.6	Khaki-green, brown and grey-green, moderately to strongly oxidised and very broken, weakly porphyritic ?basaltic lava with ferruginous and manganous staining.			
		50.6-54.6 Most strongly oxidised section.		98.1	0.1
		56.2-57.6 Relatively fresh but very broken. Some fragments are fine grained and strongly chloritic.		101.2	-
				102.8	0.1
				175.6	-
57.6	61.8	Green, sheared, chloritised, weakly porphyritic, f.g. basaltic lava. Feldspar phenocrysts are mostly completely sericitised and chloritised.		177.0	0.1
				179.6	-
		57.8-58.1 Veins and stringers of pyrite, arsenopyrite and pyrrhotite	Py+Asp+Po = 5%		
		58.35 8mm thick quartz-pyrite-(pyrrhotite) vein @ 55°	Py+Po 10% of vein		
		58.6 Sample No. 48100 - Thin Section			
		58.7-59.2 Core very broken			
		58.8-59.2 Thin anastomosing quartz-carbonate veins	2% Pyrite in stringers		
		59.2-59.5 Core very broken			
		60.0-60.5 Anastomosing quartz-carbonate veins up to 10% of core			
		60.5-61.0 Core very broken			
		61.5-61.8 Silicification increasing downwards			
		Lower contact brecciated and irregular, about 45°			
61.8	62.8	Quartz-sulphide Breccia with intraclasts of altered volcanic and volcaniclastic material	25% sulphides as stringers, veins, blebs and semi-massive bands of Pyrite Arsenopyrite and minor chalcopyrite		
62.8	63.45	Brecciated, strongly sericitised ?lithic vitric tuff. Pnkish-brown and cream lava clasts occur in a sericitic sheared and brecciated matrix. Core very broken in patches.	Sulphides less than 1%		
		63.2-63.4 Quartz-arsenopyrite-pyrite-chalcopyrite veins with intervein clasts of dark green chloritic ?argillaceous sediment	Arsenopyrite-pyrite-chalcopyrite 5% of interval		
63.45	63.8	Quartz-Sulphide Breccia as per 61.8-62.8. Sulphides more chalcopyrite rich	30% Arsenopyrite+pyrite+chalcopyrite		
63.8	66.9	Green f-mg chloritised, sericitised and carbonated, strongly sheared basaltic ?lava. Vague banding and rare chloritic partings at about 60°. Very thin quartz veins. Penetrative cleavage at about 35°.	Sulphides on average less than 1% but occur locally up to 2% as stringers, thin veinlets and rare blebby dissemination of pyrite, pyrrhotite, arsenopyrite and galena-sphalerite		
		66.4 Sample No. 64345 - Thin Section	66.65-66.85 10% Pyrite in veinlets and stringers associated with quartz veins plus minor pyrite and sphalerite-galena lying in the bending plane.		
		Contact zone from 66.85 to 67.0 is very broken core.			
66.9	71.2	Grey-green lithic-crystal ashflows of variable grainsize and ?intermediate composition. Lithic clasts mainly intermediate lava. ?Primary flow foliation 40° - possibly a secondary schistosity due to shearing. Thin quartz-carbonate veins occur throughout.			
		66.9-68.4 Mostly mg with clasts 1-2mm and up to 4mm.			
		67.45 Broken zone around a 15mm thick vuggy quartz vein @ 45°			
		68.05 10mm quartz vein @ 50° with disseminated tourmaline, pyrite, sphalerite and galena	Pyrite+sphalerite-galena 5% of vein		
		68.4-68.7 Cg unit with liths up to 8mm			
		68.7-69.9 Mixed mg and cg bands			
		69.7 15mm thick quartz vein @ 35° with disseminated sulphides	Sphalerite+galena+minor pyrite 25% of vein		
		69.9-71.2 Cg section with liths up to 10mm			
		Lower contact gradational.			
71.2	72.4	Green chloritic fg lithic vitric (minor crystal) tuff of intermediate to mafic composition. Lower contact diffuse about 45°.	1% small stringers of pyrite and sphalerite		

A 18622

012

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 283
SHEET No. 3

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
72.4	78.3	Greyish-green weakly to moderately chloritised andesitic ashflow. Grainsize variable from fg up to clasts of 10mm. Vague flow banding in parts at about 50°. Fine grained chloritic sections may be large clasts or may be finer ash-cloud sections of the pyroclastic flow. Contacts are all diffuse			
		72.55 4mm thick quartz schorl vein @ 45°			
		74.0-75.7 Thin stringers and irregular veinlets of sulphides associated with quartz veining	Average 2% mainly pyrite with minor sphalerite and trace galena.		
		76.15 8mm thick quartz-pyrite vein @ 45°	Pyrite 50% of vein		
		76.35-76.4 30mm thick vein @ 35° of Arsenopyrite-pyrite-chalcopyrite quartz and chlorite	Sulphides 60% of vein.		
		77.15 15mm thick quartz-pyrite-pyrrhotite vein @ 35°	Pyrite+Pyrrhotite 5% of vein		
		77.3-77.45 Irregular veins of pyrite + trace arsenopyrite enclosing 'clasts' of ashflow, as if pyrite were annealing a breccia	Pyrite 25%		
		77.9 55mm band of strong epidote alteration with quartz veinlets and quartz phenocrysts; may be large lava clast. Contacts diffuse.			
		78.07-78.15 Epidote rich band as per above.			
		78.3 25mm thick corroded quartz vein @ 45° with ferruginous staining.			
78.3	82.8	Greenish brown, moderately to strongly oxidised, c.g. epiclastic rock. Possibly a debris flow deposit. Lithic clasts up to 20mm are mainly lava but volcanoclastic sandstone clasts also occur in a chloritic matrix.			
		78.3-78.5 Fairly fresh grey-green section with increasing clast content			
		78.5-80.55 Moderately to strongly oxidised			
		79.7-79.8 Broken fragments of vuggy white vein quartz with ferruginous staining.			
		80.55-80.7 Fairly fresh green chloritic tuffaceous siltstone to fg sandstone			
		80.7-82.8 Brown strongly oxidised			
		80.8 Broken fragments of vuggy white vein quartz with ferruginous staining.			
		Lower contact ?gradational - very strongly oxidised.			
82.8	84.8	Brown strongly oxidised, ferruginous and manganous stained m-cg ashflow of ?andesitic composition. Becomes finer grained towards the base.			
84.8	85.7	Green chloritic fg ?intermediate tuff becoming more porphyritic towards the base.			
		85.0 20mm thick vein @ 50° of quartz-pyrite-sphalerite	Pyrite-sphalerite 60% of vein		
		85.25-85.45 Core very broken			
		Lower contact diffuse irregular change in oxidation			
85.7	87.8	Brown strongly oxidised f-mg ?intermediate crystal-lithic tuff. Lower contact very broken ferruginous stained core.			
87.8	88.6	Green v. fg strongly chloritised, sericitised, very weakly porphyritic basaltic ?lava			
		87.85-88.0 Ragged 'vein' of cg arsenopyrite and quartz @ 35°	Arsenopyrite 25% of interval		
		88.1-88.6 Irregular thin quartz-pyrite veinlets	Pyrite 1% of interval		
		88.3 Sample No. 64346 - Thin Section			
		Lower contact diffuse.			
88.6	109.35	Green generally sheared and stressed, variably porphyritic and strongly chloritised and sericitised basaltic lavas. Weakly amygdaloidal in places.			
		88.6-91.6 Patchy weak oxidation gives khaki-green colour and strong ferruginous staining on joints.			
		91.4-91.6 More strongly oxidised broken core sections.			
		89.65-90.15 Thin quartz-pyrite veinlets.	Pyrite 1% of interval		
		91.6-93.2 Very fg non-porphyritic section			

A 18622

050013

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 283
SHEET No. 4

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
		92.0-92.1 Irregular band of pyrite-quartz-chalcopyrite. Upper contact 80°, Lower contact irregular 45°	Pyrite 60% chalcopyrite 2%		
		92.5-92.9 Thin quartz veinlets with pyrite stringers	Pyrite less than 1%		
		93.2 30mm thick quartz-pyrite-arsenopyrite vein @ 55°	(Pyrite+arsenopyrite 30%)		
		93.45-93.65 Breccia Zone; with epidote stained lava clasts and minor thin quartz veinlets ?possible flow breccia			
		93.65-94.1 Some broken core with strong ferruginous staining on broken surfaces.			
		94.5-94.75 Anastomosing quartz crackle veins.			
		94.75-94.95 Breccia zone with epidote stained lava clasts			
		95.05-95.2 Broken oxidised zone.			
		95.3-95.4 Quartz vein breccia with pyrite stringers @ 40° on boundary between porphyritic lava above and v fg non-porphyritic stongly chloritic lava below.	Pyrite stringers 2%		
		95.4-96.0 Non-porphyritic v fg strongly chloritised lava. Lower contact about 45° on a weak breccia zone.			
		96.0-102.0 Patches of corroded broken core with strong ferruginous staining. Weak shear foliation at 45-50°			
		100.8 Sample No. 64347 - Thin Section			
		102.2-102.4 Breccia Zone with pale cream, very siliceous ?lava clasts			
		102.2-104.4 Anastomosing quartz crackle veins, mostly 2-3mm thick but up to 12mm thick. Quartz veins 10% of core.			
		104.4-105.5 Brown ferruginous stained corroded core with very weak quartz veining.			
		105.1-105.3 Breccia with broken quartz veins.			
		105.5-109.35 Irregular thin quartz and minor quartz-epidote-sericite crackle veins, generally 2-4mm thick. Veins 5% of core.			
		105.8-107.0 ?Flow breccia, ?"Tuff-lava". Vague clast shapes with diffuse edges are outlined by variable epidote staining.			
109.35	109.5	Pale creamy v fg weakly porphyritic ?lava. Groundmass is strongly sericitised. Streaked out phenocrysts up to 1.5mm form 5% of rock, and are weakly aligned at 55°. Quartz crackle veins form ~5% of rock. Contacts are irregular but sharp.			
109.5	109.9	Green chloritised massive ?basaltic lava with 5% thin quartz crackle veins. Lower contact diffuse.			
109.9	110.2	Dark green massive fg chlorite rock. Possibly an altered glassy lava or an altered argillaceous sediment.			
		110.18 8mm thick arsenopyrite vein @ 65°. Lower contact diffuse about 55°.	Arsenopyrite 100% of vein.		
110.2	111.0	Green weakly porphyritic ?basaltic lava. Chloritised and sericitised groundmass with dark gry amygdales 0.3mm to 2.0mm composed of sericite+chlorite+?quartz. Shapes fairly irregular Rare thin quartz crackle veins.			
111.0	111.45	Breccia. Silicified quartz veined weakly sulphidic ?lava. Core slightly broken, especially on lower contact.	Pyrite+rare arsenopyrite disseminations and thin stringers 3%		
111.45	130.55	Green weakly porphyritic amygdaloidal basaltic lava as per 110.2-111.0m. Phenocrysts can be up to 4mm across. Strongly chloritised with a pervasive strained fabric giving a weak foliation at 55-60°. Quartz crackle veins are variably developed throughout and sporadic epidote alteration occurs towards the base of the unit.	M-cg pyrite occurs throughout as rare scattered disseminations and thin stringers mostly associated with quartz veins. Total sulphides less than 1%		
		112.9-116.0 1% mg disseminated pyrite associated with quartz crackle veins and minor epidote staining.	1% Pyrite		

A 18622

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. UM SIP 283
SHEET No. 5

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
		116.0-117.4 Brecciated and branching quartz vein running sub parallel to core. Average width ~15mm but up to 50mm. Minor fg black ?tourmaline.	M-cg disseminated pyrite ~5% of vein less than 1% of interval		
		120.1 Sample No. 64348 Thin Section			
		121.55-122.3 Autobrecciated Zone			
		123.7-123.75 Band of quartz veins and disseminated pyrite. Upper contact 45°. Lower contact 60°	Pyrite 5%		
		124.85 10mm thick vein of white quartz @ 50°			
		124.2-130.55 Sporadic epidote alteration in veinlets and patches increasing in frequency downwards.			
		Lower contact 30°			
130.55	131.1	Dark green very chloritised and sericitised, weakly porphyritic, sheared basaltic lava breccia. Possible ?chilled margin			
		130.75 Irregular quartz-tourmaline vein			
		131.0 Sample No. 64349 - Thin Section			
		Lower contact diffuse			
131.1	140.85	Green Basaltic lava as per 111.45-130.55. Quartz and quartz-epidote crackle veins are more abundant.	Sulphides less than 1% overall but local disseminations of 5% pyrite over 50mm occur.		
		131.2 8mm thick quartz-pyrrhotite vein @ 65°	(Pyrrhotite 25% of vein)		
		Lower contact diffuse gradational.			
140.85	141.9	Dark green massive fg chlorite rock. ?After glassy lava or ?argillaceous sediment. Strongly mineralised with Pyrite-pyrrhotite-arsenopyrite veins.	140.95-141.2 20% pyrite+minor arsenopyrite in irregular veins and veinlets.		
			141.35-141.55 Anastomosing massive pyrrhotite pyrite veins. Po 30% Py 5%		
			141.65-141.77 Arsenopyrite 50% + Pyrrhotite 10% + pyrite 10% in veins @ 70°		
141.9	167.7	Green, chloritised amygdaloidal basaltic lava as per 111.45-130.55. Degree of porphyritic texture (?vesicles) slightly more variable. Quartz-crackle veins have tendency towards fewer but thicker discrete veins.			
		142.5-145.0 Sporadic veins and patches of epidote alteration	145.1-145.65 5% cg pyrite in disseminations and stringers associated with quartz veins.		
		145.9-148.5 Two series of quartz veins (1) From 5 to 20mm thick @ 20-30°, some with bleached halos round them; and (2) From 2-5mm thick @ 50-70°.			
		150.6> 40mm thick quartz vein @ 70° surrounded by halo of weak epidote alteration extending about 200mm either side of vein			
		150.85-151.3 Quartz Vein Breccia. Veins mainly @ 15°. Inter-vein material is dark green very strongly chloritised ?glassy lava.	1% Pyrite and pyrrhotite stringers		
		151.3-151.55 Breccia with epidote stained lava clasts.			
		151.55-151.6 Broken corroded ferruginous stained quartz vein.			
		151.6-152.6 Zone of weakly oxidised and corroded core with strong ferruginous staining on broken core surfaces.			
		152.9-153.65 Strongly vesicular section			
		153.25 35mm thick quartz vein @ 40°			
		153.75-155.75 Weakly oxidised and corroded zone with strong ferruginous staining on broken core surfaces.			
		154.2-154.45 Fractured corroded and ferruginous stained white quartz vein @ 25°			
		155.4-155.75 Most broken section with epidote alteration and red-brown ferruginous spots after ?chlorite			
		155.85-156.25 35mm thick quartz vein sub-parallel to 10° with an epidote alteration halo in strongly vesicular lava.			

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. UGH SIP 283
SHEET No. 6

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
		156.4-156.55 Broken core zone with ferruginous staining 159.7-160.1 Zone of epidote alteration with irregular quartz veins throughout. 160.3-160.75 Broken corroded core with ferruginous staining 161.1-161.3 " " " " 161.45-161.65 Bands of very strong silicification and quartz veins @ 30° 162.05-162.2 Corroded ferruginous quartz vein. 45mm thick @ 20° 162.4-164.65 Weakly oxidised corroded broken core with ferruginous staining on the broken surfaces. 162.9-163.05 Band of pale greenish white silica. Possibly very stongly silicified volcanic or possibly an original chert band. Upper contact 55°. Lower contact broken core.			
167.7	169.4	Green massive fg non-porphyritic chlorite-albite-epidote-calcite altered basalt with thin calcite-epidote veinlets. 167.9 Sample No. 64350 - Thin section 169.0 30mm thick quartz vein @ 50° Lower contact irregular brecciated.			
169.4	171.05	Quartz Vein Breccia Zone. ?Annealed Fault Zone. White vein quartz is 65% of core. Intraclast material is chloritised ?basaltic lava. Lower contact gradational through a zone of strongly chloritic material	Pyrite and pyrrhotite in patchy stringers and veinlets 3%.		
171.05	179.6	Green, massive, strongly chloritised fg non-porphyritic basaltic lava. 175.75-175.9 Breccia Zone 175.9-176.15 0.15m of crushed puggy strongly chloritic core recovered 176.15-176.9 Dark green strongly chloritic very fg section ?glassy lava 176.45-176.75 Discontinuous quartz vein @ 10° 177.1 10mm thick skeletal quartz vein @ 50° 177.2-179.6 Discontinuous irregular and seletal quartz veins mostly at low angle to core form ~ 2% of core END OF HOLE 179.6m	173.15-173.6 3% pyrite+pyrrhotite stringers associated with irregular ragged quartz veins 173.6-175.25 Rare pyrite+pyrrhotite stringers less than 1% total 175.25-175.7 Stringers of pyrite and sphalerite mainly associated with quartz veinlets 3% total sulphides 175.7-175.75 Band of semi-massive stringery sphalerite @ 45°. Sphalertie 50% Pyrrhotite-chalcopyrite stringers 5% 2% pyrrhotite + chalcopyrite Veins have associated stringers of pyrite and pyrrhotite total less than 1%		

A 18622

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE GEOCHEMICAL ANALYSES RECORD

HOLE No. DDH STP 283
SHEET No. 1

GRID CO-ORDS: 3,266N 4,549E S.V.
A.M.G. CO-ORDS: 5,373,443 N 383,894 E
COLLAR R.L.: 235m
COLLAR DIP: -45°
AZIMUTH: 108° AMG
TOTAL DEPTH: 179.6m

LABORATORY						ANALABS													
ANALYTICAL TECHNIQUE						309	108	114	108	108	108	108	402	402	199				
						Fire Assay	AAS	AAS	AAS	AAS	AAS	AAS	XRF	XRF					
DETECTION LIMIT						0.008	0.5	1	5	5	5	10	3	5	10				
Sample No.	Sample Type	From	To	Core Rec'd %	Sample Length	METAL CONTENT (ppm unless specified)													COMMENTS
						Au	Ag	As	Cu	Pb	Zn	Bi	Sn	Ga	Ge				
	-	0	3	-	-														
67414	Chip	3.0	6.0	70	3.0	X	X	1	10	5	375	X	X						
15	"	6.0	9.0	66	3.0	X	X	24	10	10	330	X	X						
16	"	9.0	12.0	42	3.0	X	X	21	10	X	260	X	7						
17	"	12.0	16.0	64	4.0	X	X	3	10	10	385	X	3						
18	"	16.0	19.8	30	3.8	X	X	59	40	10	700	X	3						
-	-	19.8	21.6	0	-														
67419	Chip	21.6	25.6	17.5	4.0	X	X	66	25	10	900	X	X						
-	-	25.6	27.0	0	-														
67420	Chip	27.0	29.4	44	2.4	X	X	86	250	665	2600	X	97						
21	"	29.4	33.0	35	3.6	X	X	330	195	1950	1850	X	37						
22	"	33.0	36.0	82	3.0	X	X	92	55	1750	1300	X	4						
23	"	36.0	39.7	77	3.7	X	X	95	60	275	1450	X	16						
66901	Split	39.7	40.1	100	0.40	0.10	1.5	4700	80	200	730	X	43	20	X				
02	"	40.1	40.25	"	0.15	0.33	0.5	1.40%	60	120	325	10	69	15	X				Quartz-arsenopyrite-pyrite veins
03	"	40.25	40.7	"	0.45	0.01	X	78	15	130	400	30	23	15	X				
67424	Chip	40.7	44.7	"	4.0	X	X	12	15	60	390	X	12						
-	-	44.7	44.9	0	-														
66904	Split	44.9	45.05	100	0.15	0.31	1.0	3.35%	550	75	795	30	536	15	X				Quartz-pyrite-arsenopyrite veins
05	"	45.05	45.3	"	0.25	X	0.5	100	5	X	265	X	83	15	X				
06	"	45.3	46.3	"	1.00	0.01	1.0	98	5	X	480	X	4	15	X				
07	"	46.3	47.2	"	0.90	X	0.5	52	5	X	285	X	30	15	X				
08	"	47.2	48.55	"	1.35	X	X	22	15	60	220	20	17	10	X				
09	"	48.55	49.4	"	0.85	X	X	15	10	5	275	X	22	15	X				
66910	"	49.4	50.2	"	0.80	X	X	85	55	30	560	X	64	15	X				
67425	Chip	50.2	52.4	"	2.2	X	X	23	40	10	790	X	7						
26	"	52.4	54.6	"	2.2	0.04	0.5	780	85	30	545	X	32						
27	"	54.6	57.6	"	3.0	X	X	54	135	220	900	20	81						
66911	Split	57.6	58.4	"	0.80	0.02	1.0	220	200	70	455	20	78	15	X				
12	"	58.4	59.2	"	0.80	X	1.0	37	145	75	505	X	72	15	X				
13	"	59.2	60.0	"	0.80	0.02	0.5	20	90	55	345	X	149	10	X				
14	"	60.0	61.0	"	1.00	X	0.5	107	190	25	255	10	313	15	X				
15	"	61.0	61.8	"	0.80	0.04	1.5	2500	860	30	200	20	405	20	X				
16	"	61.8	62.8	"	1.00	0.55	23.0	8.65%	4550	100	325	160	3600	7	X				Quartz-sulphide breccia
17	"	62.8	63.2	"	0.40	0.11	5.0	2.85%	2300	35	305	40	1870	15	X				
18	"	63.2	63.45	"	0.25	0.08	5.0	5500	3500	15	270	20	449	20	X				2.0m @ 0.38 g/t Au; 6.22% As; 0.77% Cu
19	"	63.45	63.8	"	0.35	0.42	89.0	7.15%	2.56%	1350	3250	820	1790	X	X				Quartz-sulphide breccia
66920	"	63.8	64.8	"	1.00	0.01	17.0	220	200	3325	0.99%	X	148	10	X				
21	"	64.8	65.9	"	1.10	0.39	5.0	62	45	3350	5550	X	36	20	X				
66922	Split	65.9	66.9	"	1.00	0.02	24.0	940	150	3750	3350	X	106	15	X				1-2% stringers py, asp, po, gn-sph
67428	Chip	66.9	68.4	"	1.5	0.01	0.2	13	20	1900	2650	X	40						
29	"	68.4	71.2	"	2.8	0.01	X	11	35	250	2250	X	34						
67430	"	71.2	72.4	"	1.2	X	X	72	45	140	4900	X	67						
31	"	72.4	74.0	"	1.6	X	X	17	15	115	1650	X	19						

A 19624

046

046 of 047

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE GEOCHEMICAL ANALYSES RECORD

HOLE No. UGH STP 283
SHEET No. 2

017

Sample No.	Sample Type	From	To	Core Rec'd %	Sample Length	METAL CONTENT (ppm unless specified)													COMMENTS
						Au	Ag	As	Cu	Pb	Zn	Bi	Sn	Ga	Ge				
66923	Split	74.0	74.9	100%	0.90	0.05	4.0	4100	160	2400	8400	X	124	10	X				
24	"	74.9	75.7	"	0.80	X	1.0	60	200	105	400	10	250	20	X				
25	"	75.7	76.4	"	0.70	0.03	4.5	3600	2750	60	265	30	1040	15	X				
26	"	76.4	77.3	"	0.90	X	2.0	1500	250	125	230	10	624	15	X				
27	"	77.3	77.45	"	0.15	0.02	8.5	2700	650	340	155	220	1230	8	X				
28	"	77.45	78.3	100%	0.85	X	0.5	180	70	25	215	X	28	15	X				
67432	Chip	78.3	80.55	93%	2.25	X	X	5	35	15	235	X	4						
33	"	80.55	82.8	100%	2.25	X	X	13	65	5	305	X	X						
34	"	82.8	85.7	83%	2.9	X	X	110	235	100	3950	X	26						
35	"	85.7	87.8	79%	2.1	X	X	100	90	65	1800	X	13						
66929	Split	87.8	88.0	100%	0.20	0.86	1.0	11.0%	40	65	210	10	633	7	X				Arsenopyrite-quartz vein
30	"	88.0	88.6	"	0.60	X	X	240	115	20	275	X	856	15	X				
31	"	88.6	89.65	"	1.05	X	0.5	39	85	50	315	10	41	10	X				
32	"	89.65	90.15	"	0.50	X	0.5	24	80	15	250	X	18	10	X				
33	"	90.15	91.0	"	0.85	X	0.5	26	200	20	300	X	140	10	X				
34	"	91.0	92.0	"	1.00	X	0.5	21	75	35	345	X	60	15	X				
35	"	92.0	92.5	"	0.50	0.05	59.0	350	4175	1250	475	110	119	10	X				
36	"	92.5	92.9	"	0.40	X	2.5	27	160	75	535	X	77	15	X				
37	"	92.9	93.45	"	0.55	X	0.5	850	45	35	280	X	109	10	X				
38	"	93.45	94.10	85	0.65	X	0.5	10	30	5	215	X	X	15	X				
39	"	94.10	94.75	100	0.65	X	X	4	15	X	215	X	X	15	X				
66940	"	94.75	95.4	"	0.65	X	X	17	125	20	180	X	14	15	X				
67436	Chip	95.4	99.0	49	3.6	0.01	X	21	25	30	270	X	17						
37	"	99.0	102.0	100	3.0	X	X	X	45	10	275	X	X						
38	"	102.0	104.4	96	2.4	X	X	X	5	X	150	X	3						
39	"	104.4	107.0	100	2.6	X	X	X	25	5	165	X	3						
67440	"	107.0	109.35	"	2.35	X	X	X	70	5	195	X	X						
66941	Split	109.35	109.5	"	0.15	X	X	4	10	10	25	X	X	20	X				
42	"	109.5	109.9	"	0.40	X	X	13	15	10	245	X	4	15	X				
43	"	109.9	110.2	"	0.30	X	9.5	280	5	4050	2300	X	19	10	X				
44	"	110.2	111.0	"	0.80	X	0.5	22	50	325	1350	X	29	15	X				
45	"	111.0	111.45	"	0.45	0.02	5.0	76	2000	240	1900	X	20	15	X				
46	"	111.45	112.0	"	0.55	X	0.5	20	5	80	355	X	16	15	X				
67441	Chip	112.0	115.0	"	3.0	X	X	5	450	X	205	X	X						
66947	Split	115.0	116.0	"	1.00	X	X	16	5	10	240	X	X	15	X				
48	"	116.0	116.7	"	0.70	X	X	19	120	10	200	X	4	15	X				
49	"	116.7	117.4	"	0.70	X	0.5	43	200	15	225	X	3	15	X				
50	"	117.4	118.4	"	1.00	X	X	12	10	5	220	X	13	20	X				
67442	Chip	118.4	121.0	"	2.6	X	X	9	5	5	245	X	X						
43	"	121.0	123.5	"	2.5	X	X	14	10	5	210	X	X						
66951	Split	123.5	124.0	"	0.50	X	X	14	10	5	260	X	X	20	X				
67444	Chip	124.0	127.3	"	3.3	X	X	X	105	X	230	20	3						
45	"	127.3	130.55	"	3.25	X	X	X	140	X	205	X	X						
66952	Split	130.55	131.1	"	0.55	X	X	7	80	14	275	X	222	20	X				
53	"	131.1	131.5	"	0.40	X	0.5	16	135	20	175	X	8	15	X				
67446	Chip	131.5	134.5	"	3.0	X	X	X	145	5	230	X	6						
47	"	134.5	137.5	"	3.0	X	X	X	80	X	240	X	X						
48	"	137.5	140.0	"	2.5	X	X	X	175	X	150	X	X						
66954	Split	140.0	140.95	"	0.95	X	1.0	10	65	25	155	X	7	20	X				
55	"	140.95	141.8	"	0.85	1.16	29.0	4.15%	1600	1225	725	170	79	20	X				Py+Po+Asp, semi massive in chlorite rock.
56	"	141.8	142.5	"	0.70	X	X	42	50	25	335	X	13	15	X				
57	"	142.5	143.5	"	1.00	X	X	20	90	20	270	X	7	20	X				

A 18626

05/018

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE GEOCHEMICAL ANALYSES RECORD

HOLE No. DDH STP 283
SHEET No. 3

Sample No.	Sample Type	From	To	Core Rec'd %	Sample Length	METAL CONTENT (ppm unless specified) Au	Ag	As	Cu	Pb	Zn	Bi	Sn	Ga	Ge	COMMENTS
66958	Split	143.5	144.5	100	1.00	0.01	X	5	75	15	245	10	X	15	X	
59	"	144.5	145.1	"	0.60	0.04	X	11	120	15	265	X	X	20	X	
66960	"	145.1	145.65	"	0.55	1.10	1.0	87	290	20	235	X	16	15	X	Quartz veins 5% dissem & stringer Pyrite
61	"	145.65	146.6	"	0.95	X	X	6	20	25	120	X	6	20	X	
67449	Chip	146.6	149.6	"	3.0	X	X	X	65	X	175	X	4			
50	"	149.6	152.6	"	3.0	X	X	1	155	125	230	X	10			
51	"	152.6	155.75	"	3.15	X	0.5	1	75	5	190	X	X			
52	"	155.75	158.75	"	3.0	X	X	X	110	X	150	X	X			
53	"	158.75	161.45	"	2.7	X	X	X	55	5	185	X	X			
54	"	161.45	163.05	"	1.6	X	0.5	X	45	10	165	X	X			
55	"	163.05	165.4	"	2.35	X	0.5	X	185	X	235	X	X			
56	"	165.4	167.7	"	2.3	X	0.5	X	115	5	200	X	5			
66962	Split	167.7	168.6	"	0.90	0.03	X	6	110	20	205	X	6	15	X	
63	"	168.6	169.4	"	0.80	X	0.5	6	115	15	165	X	5	20	X	
64	"	169.4	170.25	"	0.85	0.03	X	7	120	20	195	10	61	10	X	
65	"	170.25	171.05	"	0.80	X	1.0	3	420	25	70	X	266	7	X	
66	"	171.05	172.1	"	1.05	X	X	3	115	30	255	X	41	10	X	
67	"	172.1	173.15	"	1.05	X	X	3	170	20	190	10	X	15	X	
68	"	173.15	173.6	"	0.45	2.00	2.5	19	560	30	480	40	13	15	X	Ragged quartz veins with py & po stringer.
69	"	173.6	174.4	"	0.80	X	2.0	11	170	120	435	X	19	15	X	
66970	"	174.4	175.25	"	0.85	0.02	1.0	10	85	95	765	X	22	20	X	
71	"	175.25	175.75	"	0.50	0.95	35.0	16	950	875	9.25%	60	43	15	X	Stringers Py+Sph + bnd semi massive Sph
72	"	175.75	176.45	86	0.70	0.17	22.0	18	3650	125	925	30	23	15	X	
73	"	176.45	176.75	100	0.3	0.02	4.5	8	700	200	1500	X	30	15	X	
66974	"	176.75	177.2	"	0.45	0.09	3.5	15	555	185	340	X	23	15	X	
67457	Chip	177.2	179.6	"	2.4	X	1.0	X	90	110	555	X	17			
END OF HOLE 179.6m																

A 18626

018

05/4019

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 284
SHEET No. 1.

PROJECT: Sterling Valley Joint Venture - E.L. 4/73
LOCALITY: Henty Fault Sterling River Zone
OBJECTIVE: To test a Dighem anomaly under glacial cover, on strike of the Henty Fault and across strike from known sulphide zones.
RESULT: Major quartz veined fault zone intersected. Conductor probably due to black mudstones. Best assay 0.15m @ 1.65 g/t Au, 64 g/t Ag, 1.65% As

GRID CO-ORDS: 4,330N St. 4,775E Val. Grid
A.M.G. CO-ORDS: 5,374,386N 384,418E
COLLAR R.L.: 176m
COLLAR DIP: -60°
AZIMUTH: 108° AMG
TOTAL DEPTH: 116.7m

HOLE SIZE: HQ roller to 21.3 NQ 21.3 to 116.7m
CASING: PVC 40mm to base
COMMENCED: 16 June, 1985
COMPLETED: 23 June, 1985
LOGGED BY: Ian McDonald

Depth (m)	Azimuth (°a.m.g.)	Dip	Depth (m)	Azimuth (°a.m.g.)	Dip
26	99	-60			
71	102	-56			
116	100	-51			

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
0	21.3	No core. Roller bit through glacial till cover.		0	
21.3	22.7	Recovery of 20cm of pebbles of glacial scree. Owen Quartzite; pink rhyolite lava; quartz-sericite schist.		21.3 23.2 30.0	21.3 1.20 -
22.7	22.95	Strongly schistose, thinly interbedded black mudstone and grey quartz wacke. Boudinaged thin carbonate veins parallel to kinked foliation at 70°.	Pyrite stringers 5% at top decreasing to 1% at base.	30.5 106.6 107.9	0.05 - 0.50
22.95	25.65	Grey quartz-sericite schist after a felsic volcanic - possibly a dacitic lava, with some interbedded thin bands of dark grey to black ?mudstone - possibly cataclasite zones. Strong schistosity mainly 55-60°. Thin quartz and minor carbonate veins are broken and boundinaged. 23.1-23.2 Very broken core - possible core loss in this zone. 23.9 Sample No. 64351 - Thin section 24.1-24.3 Strong schistosity @ 25° 25.3-25.65 Increasing kink banding defines a cleavage @ 5°. Cleavage to schistosity angle 55°.	22.95-23.1 2% Pyrite stringers	116.7	-
25.65	27.75	Grey mg quartz-lithic wacke - now a quartz-sericite-chlorite phyllite with a pervasively stained fabric showing small scale kinking. Weak schistosity 50°.	2-3% stringers of pyrite and pyrrhotite scattered throughout		
27.75	27.9	Wacke-Phyllite as above with semi-massive pyrite vein. Upper contact irregular. Lower contact 40°	Pyrite 60%. Sphalerite stringer 3%		
27.9	28.95	Quartz vein breccia zone. ?Annealed fault zone. Quartz veins average 40% of core but are up to 100% over short intervals. Breccia clast material is quartz-sericite-chlorite phyllite.	2-3% Pyrite stringers.		
28.95	29.25	Grey phyllitic quartz lithic wacke. Minor quartz veins. Contorted black mudstone clasts may define original bedding @ 15°. Lower contact 45°	2% Pyrite stringers		
29.25	30.85	?Graded unit. Dark grey siltstone passes down into paler grey f-mg wacke. Whispy fg wacke bands in the siltstone define bedding which is everywhere parallel to the strong cleavage. 29.25-29.7 Bedding and cleavage 40° 29.7-30.1 " " 10° 29.9-30.1 Core very broken along strongly chloritic cleavage surfaces. 30.1-30.5 Bedding and cleavage change gradually from 25° to 50° 30.5-30.8 Quartz veins increase to 40% of rock with contortion of the foliation.	29.25-29.7 Pyrite stringers 5% 29.7-30.5 " " 2% 30.5-30.8 Pyrite+minor pyrrhotite stringers 5%		
30.85	33.1	Mainly grey phyllitic to schistose mg quartz-lithic wacke with minor bands of dark grey siltstone to fg wacke. Foliation variable from 25° to 50° Quartz + minor carbonate veins occur throughout with variable intensity; on average from 5% to 10% of core 31.1-31.6 Quartz veins more abundant approx. 15% of core 31.9-32.05 Massive white quartz-(carbonate) vein with irregular contacts about 25° 32.5 Sample No. 64352 - Thin section	Pyrite and pyrrhotite less than 1% in rare stringers		

A 18620

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 284
SHEET No. 2

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
33.1	33.25	Massive white quartz-(carbonate) vein. Upper contact 25°. Lower contact 40°.			
33.25	33.85	Dark grey to black cleaved mudstone passes down into grey phyllitic fg and mg wacke and minor laminated siltstone. Strong foliation 40-50°. Minor crenulations in mudstone laminae define a foliation at 10°. Thin, sometimes boudinaged, quartz-carbonate veinlets.			
33.85	34.60	Quartz-(minor carbonate) Vein Zone with intervein clasts of dark grey siltstone and greenish-grey chloritic quartz phyllite. Massive veins mostly at about 40° 34.3-34.5 Cg recrystallised carbonate veins dominate over quartz veins.	Pyrite+pyrrhotite less than 1% in rare blebs and stringers		
34.60	35.4	Dark grey chloritic siltstone, variably quartz-(carbonate) veined. Strong foliation at 40-55°			
35.4	36.8	Essentially massive white quartz vein. Minor included clasts of country rock.	2-3% stringers and blebs of Pyrite+Pyrrhotite		
36.8	37.35	Brecciated and quartz-veined dark grey to black mudstone and green massive strongly chloritic siltstone.			
37.35	37.9	Essentially white quartz-(carbonate) veins with included clasts of dark grey mudstone and green massive chloritic siltstone			
37.9	38.1	Dark grey to black mudstone and green massive chloritic siltstone.			
37.9	38.1	Dark grey to black mudstone. Quartz veins decrease downwards.			
38.1	38.85	Grey phyllitic fg wacke. Strong foliation 55°. Minor quartz veins throughout. 38.5-38.55 Massive white quartz vein @ 65°			
38.85	39.4	Dark grey to black mudstone. Moderate to strong chloritic cleavage at 55° 38.8-39.1 Broken quartz-(carbonate) veinlets Lower contact diffuse ~50°			
39.4	40.55	Grey f-mg wacke with abundant quartz-crackle veins. Moderate foliation 60°			
40.55	41.1	Dark grey siltstone to fg wacke. Weak laminations @ 70° sub-parallels cleavage. Minor quartz-carbonate crackle veins.	Rare blebs of pyrrhotite and pyrite. Less than 1%		
41.1	43.0	Grey mg quartz wacke. Moderate foliation 50°. Quartz crackle veins moderately developed throughout 42.5-42.65 ?Sedimentary breccia, with streached ovoid clasts of mg wacke in a fg matrix. Possibly entirely tectonic boundinage.			
43.0	43.3	Dark grey to black mudstone. Upper contact 60°. Lower contact quartz veined 40°			
43.3	43.9	Grey mg quartz wacke with strong quartz-carbonate crackle veins and a moderate to strong foliation, variable from 30-60°			
43.9	45.9	Dark grey siltstone with minor fg wacke bands. Strong foliation 65°. Thin quartz and carbonate veins. 44.4-44.75 Massive quartz veins with irregular contacts form 50% of rock Lower contact sharp 75°	Trace Pyrrhotite and pyrite in rare stringers 45.5-45.8 Stringers and veinlets of pyrite and pyrrhotite 2%		
45.9	47.0	Grey mg quartz-lithic wacke. Moderate foliation 60°. 46.65 10mm thick vein of pyrite and minor quartz @ 55°	(Pyrite 90% of vein)		

A 18622

020

T20,250

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 284
SHEET No. 3

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
47.0	49.0	Zone of mixed wacke and siltstone with weak brecciation and quartz veining throughout. Foliation dominantly 55° but is contorted in places. 49.0m is the base of a major Fault/Fracture zone extending from 27.75m to 49.0m and centred round the massive quartz veining between 33m and 38m.			
49.0	52.0	Grey mg wacke with minor siltstone to fg wacke bands. Thin quartz crackle veins abundant throughout. Moderate to strong foliation 50° is also dominant vein direction. Lower contact sharp 50°			
52.0	53.3	Dark grey siltstone to fg wacke. Moderate to strong foliation 45-55°. Minor quartz crackle veins. Lower contact irregular diffuse.			
53.3	62.9	Dominantly grey mg quartz-lithic wackes, possibly originally felsic tuffaceous, with minor bands of dark grey siltstone. Contacts parallel to tectonic foliation at 50-60°. Thin quartz-(carbonate) veins are dominantly 40-60°. 59.2-59.6 Strong quartz-carbonate veining. Veins 20% of core. 59.4-59.9 Brecciated siltstone and fg wacke.			
62.9	90.4	Interbedded wacke and siltstone. Dominantly grey mg and m-cg quartz lithic wacke, possibly originally tuffaceous in parts. Siltstones to fg wacke are dark grey, occasionally black. Quartz crackle veins occur throughout with varying intensity. A moderate to strong foliation exists throughout mainly at 40-60°. In finer grained units it is expressed as a chloritic cleavage. Lithological contacts sub-parallel to cleavage. 62.9-63.9 Siltstone to fg wacke 63.9-64.0 Mg wacke 64.0-64.2 Siltstone 64.2-64.3 Sedimentary breccia with clasts of wacke in siltstone matrix 64.3-64.6 Mg wacke 64.6-64.75 Siltstone 64.75-66.6 M-cg chloritic wacke. Rare clasts of phosphate rock 64.9 Sample No. 64353 - Thin Section 66.0-66.5 Increasing quartz-(carbonate) veining 66.5-66.55 massive quartz-carbonate veins 66.6-66.65 Siltstone sharp contacts. 66.65-67.1 F-mg wacke grades down into siltstone suggesting downhole facing. Sharp contact @ 55° on base against wacke 67.1-69.25 Mg wacke 67.35-67.45 Massive quartz veining irregular contacts 69.25-69.9 Siltstone with quartz-carbonate veinlets paralleling schistosity @ 65° 69.9-70.2 Mg wacke 70.2-70.3 Siltstone. Gradational upper contact and sharp lower contact suggests downhole facing. 70.3-70.75 Mg wacke 70.75-71.25 Siltstone. Grading and flames on lower contact suggest downhole facing. Lower contact 85° 71.25-71.5 Wacke 71.5-71.8 Laminated siltstone-wacke. Laminations 71.8-73.35 Mg Wacke 73.35-73.45 Laminated siltstone-fg wacke. Laminations 55° 73.45-74.05 Wacke 73.9-73.95 Massive white quartz vein with thin chloritic selvedges. Upper contact 60° Lower contact 85°.	64.95-66.05 Patchy stringers and blebs of pyrite - average about 1%		

A 18622

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 284
SHEET No. 4

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
		74.05-74.15 Dark grey to black mudstone-siltstone. Contacts sharp. 74.15-78.55 Mg wacke with chloritic cleavage 35-50° 78.55-79.15 Slump breccia with clasts of mg wacke in a siltstone to fg wacke matrix 79.15-88.15 Dominantly mg wacke with very minor siltstone. Foliation moderate to strong 35° 87.8-88.15 Strong quartz-(carbonate) veining 88.15-88.6 Dark grey siltstone with strong chloritic cleavage at 30° 88.6-90.0 F-mg wacke with a moderate cleavage @ 15° 90.0-90.4 Siltstone to fg wacke. Strongly cleaved @ 15°. Brecciated and quartz-carbonate veined. Veins mainly @ 15°			
90.4	91.0	Massive white quartz-(carbonate) veining with included clasts of dark grey chloritic siltstone Upper contact irregular about 40°. Lower contact sharp 10°.			
91.0	93.0	Dark grey finely laminated siltstone to fg wacke. Laminations parallel cleavage @ 25-35° Lower contact gradational suggesting uphole facing.			
93.0	93.8	Grey mg quartz-lithic wacke. Lower contact irregular.			
93.8	94.2	Sedimentary breccia clasts of dolomite occur in a siltstone matrix. Lower contact fairly sharp 45°			
94.2	94.75	Grey mg wacke with a weak slump breccia texture. Lower contact sharp 25°			
94.75	96.7	Dark grey siltstone. Weak to moderate cleavage 35° 95.8-95.95 Clasts of grey impure dolomite.	Trace fg disseminated pyrite		
96.7	96.85	Band, possibly a large clast, of grey, yellowish weathering, impure dolomite. Upper contact 70°. Lower contact 55°.			
96.85	98.65	Dark grey siltstone. Cleavage 45-55° 97.3-97.5 Breccia with boundinaged quartz-carbonate veins 97.5-98.65 Siltstone becomes weakly dolomitic			
98.65	99.0	Zone of massive quartz and carbonate veins. Intervein material is chloritic mudstone and impure dolomite. Base of section core very broken.			
99.0	103.7	Grey, creamy weathering, Dolomitic Wacke. Rare thin carbonate-(quartz) veinlets. Weak to moderate foliation 40°. 99.9 Sample No. 64354 - Thin Section 102.7-103.7 Brecciation and increased carbonate veining with broken core zones.			
103.7	104.3	Dark grey to black chloritic mudstone with strong quartz and carbonate veining and contortion of laminations - Possible annealed Fault Zone.			
104.3	111.5	Interbedded black to dark grey mudstone-siltstone and grey mg dolomitic wacke. Moderate to strong cleavage 45-60°. 104.3-104.65 Dolomitic wacke 104.65-105.0 Black mudstone with coarse quartz-carbonate veins 105.0-105.15 Dolomitic wacke 105.15-105.35 laminated mudstone-wacke. Laminations 60°. Minor quartz veins. 105.35-106.6 Dolomitic wacke with minor mudstone laminae.			

A 16622

0522

0520523

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE RECORD

HOLE No. DDH STP 284
SHEET No. 5

DEPTH From	DEPTH To	ROCK DESCRIPTION	MINERALISATION	CORE REC'D Run	CORE REC'D Short
		106.6-106.85 Black mudstone with strong grey quartz veining. 106.85-108.7 Dolomitic wacke with rare mudstone laminae 107.3-107.9 Only 0.15m of core recovered. Ground away due to tube mismatch. 108.0-108.55 Abundant thin quartz-carbonate veins @ 40° 108.7-111.5 Mainly laminated mudstone-dolomitic wacke with some thicker sections of one lithology. Laminations 50-65° 110.6-110.7 Cg recrystallised carbonate veins 110.8-110.9 " " " " 110.8-111.05 Entirely dolomitic wacke			
111.5	113.8	Interbedded mudstone-dolomitic wacke as above but with zones of strong quartz and carbonate veining. Strong cleavage from 35° to 45°. 111.5-111.8 Dolomitic wacke with massive quartz-carbonate veins. 111.8-111.95 Mudstone. Truncation of slump bedding implies up-hole facing. 111.95-112.5 Dolomitic wacke with minor mudstone laminae and thin carbonate-quartz veins @ 50° 112.5-112.8 Massive white quartz-carbonate vein. Included clasts are mainly dolomitic wacke. Contacts irregular ~35° 112.8-113.5 Strongly cleaved dolomitic wacke @ 35° 113.35-113.5 Strong massive quartz-carbonate veins 113.5-113.8 Black mudstone with massive white quartz-(carbonate) veins at 113.64-113.68 and 113.74-113.80. Lower contact on vein irregular about 50°.			
113.8	114.05	Grey silicified, brecciated, quartz-(carbonate) veined wacke. Lower contact gradational			
114.05	116.7	Grey f-mg and mg quartz-lithic wacke. The coarsest grained sections are felsic-tuffaceous. Rare thin mudstone laminae. Becomes weakly dolomitic below about 115.5m. Moderate cleavage 65°. Thin quartz-carbonate veinlets. 115.2 20mm thick quartz-(carbonate) vein @ 85° **116.7m End of Hole** **Thin section samples** 64351 23.9m 64352 32.5m 64353 64.9m 64354 99.9m	Trace pyrite in rare stringers.		

A 18622

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE GEOCHEMICAL ANALYSES RECORD

HOLE No. DDH STP 284
SHEET No. 1

GRID CO-ORDS: 4,330N 4,775E S.V. Grid
A.M.G. CO-ORDS: 5,374,386N 384,418E
COLLAR R.L.: 176m
COLLAR DIP: -60°
AZIMUTH: 108° A.M.G.
TOTAL DEPTH: 116.7m

LABORATORY						ANALABS															
ANALYTICAL TECHNIQUE						309	108	114	108	108	108	108	402	402	402						
						Fire Assay	AAS	AAS	AAS	AAS	AAS	AAS	XRF	XRF	XRF						
DETECTION LIMIT						0.008	0.5	1	5	5	5	10	3	5	2						
Sample No.	Sample Type	From	To	Core Rec'd %	Sample Length	METAL CONTENT (ppm unless specified)															COMMENTS
						Au	Ag	As	Cu	Pb	Zn	Bi	Sn	Ga	Ge						
66975	Split	22.7	23.1	100	0.40	0.27	0.5	23	250	15	65	X	21	15	X						
76	"	23.1	24.0	"	0.90	X	X	13	50	15	95	X	X	10	X						
77	"	24.0	24.8	"	0.80	X	0.5	8	25	30	115	X	14	10	X						
78	"	24.8	25.65	"	0.85	X	0.5	14	15	50	120	X	10	15	X						
79	"	25.65	26.75	"	1.10	0.01	0.5	22	80	25	80	10	23	20	X						
66980	"	26.75	27.75	"	1.00	0.02	2.5	420	80	90	130	80	27	20	X						
81	"	27.75	27.9	"	0.15	1.65	64.0	1.65%	975	2675	1.23%	1300	32	15	X						Semi massive pyrite vein with sphalerite stg.
82	"	27.9	28.95	"	1.05	X	1.0	1200	160	20	65	10	21	10	X						
83	"	28.95	29.8	"	0.85	0.12	1.0	100	225	5	90	40	11	15	X						
84	"	29.8	30.8	95	1.00	0.07	1.0	100	160	10	125	X	11	15	X						
85	"	30.8	31.9	100	1.10	X	X	42	35	15	160	X	7	10	X						
86	"	31.9	33.1	"	1.20	X	0.5	43	65	40	80	20	7	15	X						
87	"	33.1	33.85	"	0.75	X	1.5	21	20	260	255	X	14	10	X						
88	"	33.85	34.6	"	0.75	X	0.5	56	35	20	80	10	X	10	X						
89	"	34.6	35.4	"	0.80	X	0.5	290	30	50	170	X	6	25	X						
66990	"	35.4	36.0	"	0.60	X	0.5	230	25	10	25	20	X	X	X						
91	"	36.0	36.8	"	0.80	X	1.5	470	100	55	25	20	X	6	X						
92	"	36.8	37.35	"	0.55	X	X	100	10	10	205	X	5	15	X						
93	"	37.35	37.9	"	0.55	X	24.0	36	25	4525	125	30	X	15	X						Quartz-(carb) veins
94	"	37.9	38.85	"	0.95	X	X	84	25	30	95	X	X	20	X						
67458	Chip	38.85	41.1	"	2.25	X	0.5	55	40	10	85	X	X								
59	"	41.1	43.9	"	2.80	X	0.5	54	30	20	95	X	X								
66995	Split	43.9	44.4	"	0.50	X	0.5	57	45	50	110	10	5	15	X						
96	"	44.4	44.75	"	0.35	X	1.5	33	50	185	65	40	X	10	X						
97	"	44.75	45.5	"	0.75	X	X	69	50	15	120	X	3	20	X						
98	"	45.5	45.9	"	0.40	0.63	0.5	66	135	20	140	X	9	15	X						Quartz veins, py+po, stringers
99	"	45.9	47.0	"	1.10	X	1.0	54	1055	20	105	10	1000	15	X						
67000	"	47.0	48.0	"	1.00	X	X	82	45	15	100	X	8	10	X						
67401	"	48.0	49.0	"	1.00	X	X	40	25	25	75	X	10	10	X						
67460	Chip	49.0	52.0	"	3.00	X	1.0	62	30	20	100	X	X								
61	"	52.0	54.0	"	2.00	X	0.5	47	30	X	115	X	9								
62	"	54.0	57.0	"	3.00	X	1.0	35	15	20	130	X	X								
63	"	57.0	60.0	"	3.00	X	1.0	23	20	10	90	X	3								
64	"	60.0	62.9	"	2.90	X	1.0	52	35	30	95	X	X								
67481	Split	62.9	63.9	"	1.00	0.02	X	27	40	400	100	X	X	20	X						
82	"	63.9	64.9	"	1.00	0.01	X	38	55	25	145	X	9	20	X						
83	"	64.9	66.05	"	1.15	0.11	X	38	200	90	700	X	9	9	X						
67466	Chip	66.05	69.25	"	3.2	0.01	0.5	21	85	50	180	X	X								
67	"	69.25	71.8	"	2.55	X	0.5	26	60	15	160	X	4								
68	"	71.8	74.15	"	2.35	X	X	24	20	15	75	X	X								
69	"	74.15	76.65	"	2.5	X	0.5	21	15	20	150	X	6								
67470	"	76.65	79.15	"	2.5	X	0.5	20	20	30	125	X	X								
71	"	79.15	82.15	"	3.0	X	X	26	15	20	80	X	X								

A 18624

ELECTROLYTIC ZINC COMPANY OF A'ASIA LTD.
MINERAL RESOURCES DIVISION — TASMANIA

DIAMOND DRILL CORE GEOCHEMICAL ANALYSES RECORD

HOLE No. UDH STP 284
SHEET No. 2

Sample No.	Sample Type	From	To	Core Rec'd	Sample Length	METAL CONTENT (ppm unless specified)														COMMENTS
						Au	Ag	As	Cu	Pb	Zn	Bi	Sn	Ga	Ge					
67472	Chip	82.15	85.15	100	3.0	X	X	20	20	85	155	X	6							
73	"	85.15	88.15	"	3.0	X	1.0	20	85	15	80	X	X							
74	"	88.15	90.0	"	1.85	X	X	21	40	10	65	X	X							
67402	Split	90.0	90.4	"	0.40	X	X	25	45	35	65	X	X	10	X					
03	"	90.4	91.0	"	0.60	X	X	24	35	20	55	20	X	9	X					
04	"	91.0	92.0	"	1.00	X	X	33	40	10	80	X	4	20	X					
67475	Chip	92.0	94.75	"	2.75	X	X	33	35	X	75	X	3							
76	"	94.75	97.75	"	3.0	X	0.5	37	55	15	75	X	X							
67405	Split	97.75	98.65	"	0.90	X	X	49	40	35	100	X	5	10	X					
06	"	98.65	99.0	"	0.35	X	X	90	10	10	70	X	4	15	X					
07	"	99.0	99.7	"	0.70	X	X	100	10	20	1650	X	5	9	X					
67477	Chip	99.7	102.7	"	3.0	X	0.5	86	15	X	545	X	X							
67408	Split	102.7	103.7	"	1.00	X	X	240	10	10	100	20	14	20	X					
09	"	103.7	104.3	"	0.60	X	X	90	15	10	100	X	X	20	X					
67410	"	104.3	105.05		0.75	X	0.5	100	20	15	100	20	11	15	X					
67478	Chip	105.05	108.7	88	3.65	X	0.5	67	120	20	95	X	3							
79	"	108.7	111.5	100	0.80	X	0.5	61	30	15	80	X	X							
67411	Split	111.5	112.5	"	1.00	X	X	39	30	10	100	X	X	10	X					
412	"	112.5	113.35	"	0.85	X	X	42	15	10	85	X	3	8	X					
413	"	113.35	114.05	"	0.80	X	X	45	35	10	115	X	3	10	X					
67480	Chip	114.05	116.7	"	2.65	X	0.5	10	20	10	80	X	X							
64765	Chip	62.9	66.05	100%	3.15	0.15	1.5	67	195	150	1200	X	3							

A 18626

025

0570026

APPENDIX 2.

Central Mineralogical Services - Thin Section Petrology Report No. 85/7/10.

REPORT CMS 85/7/10

Twelve samples of drill core from the Sterling Valley project were received for petrological examination. Representative thin-sections were prepared and examined together with the respective offcuts, with carbonate stain tests performed as warranted. Attached tabulated descriptions summarise the microscopic data and include interpretative comments.

Summary

This suite comprises mainly altered and mildly sheared, fine- to medium-grained basic igneous rocks which may be broadly classified as basaltic on the basis of relict features, although the primary compositional detail is obscured. These rocks are variably (feldspar) porphyritic and weakly amygdaloidal, with a pervasive albite-chlorite alteration assemblage supplemented by a little sericite and locally epidote and carbonate. Accessory sulphides (pyrite, variably pyritised pyrrhotite, sphalerite, galena) are associated with variably stressed chloritic quartz (± calcite) veinlets, with rarely associated traces of cassiterite.

Subordinate lithologies represented include a thoroughly sericitised felsitic intermediate-acid ("dacitic") volcanic, a sericite-quartz phyllite, and two quartzose, low-grade regional metasandstones. Metasedimentary and volcanic facies exhibit weak vein-controlled mineralisation analogous to that in the altered basics, with minor concentrations of recrystallized "syngenetic" pyrite.

D. Cowan, B. Sc.

057029

CENTRAL MINERALOGICAL SERVICES

Sample No.	Classification - Composition	Fabric	Accessories	Comments
48099 (T.S. 53882) STP283 40.5m	Altered "Microgabbro". Albitised/weakly chlorite-sericite-stained plagioclase laths, minor similarly altered plagioclase phenocrysts pervasive interstitial chlorite. Conspicuous fine leucoxenised opaques.	Sheared (trend phyllitic) relict "doleritic".	Minor weakly stressed quartz veinlets with thinly disseminated sphalerite.	Chlorite is shear-induced, "retrograd after uralitic (pyroxene-replacive) amphibole, at least in part. Veinlet subparallel to the shearing-foliation.
48100 STP283 58.6m	Altered "Basalt". Albitised/sericite-chlorite-stained plagioclase phenocrysts in a groundmass of similarly altered plagioclase microlaths, chloritised pyroxene microlaths; pervasive chlorite mesostasis. Minor chloritic quartz veinlets.	Relict porphyritic, weakly amygdaloidal, faintly flow-structured "basaltic". Incipiently sheared.	Minor chlorite amygdales. Conspicuous leucoxenised opaques, minor clots Fe-carbonate. Traces of pyrrhotite, sphalerite.	Close affinities with 48099, primari relatively porphyritic, finer-graine and weakly vesicular. Sulphides impregnate the altered phenocrysts and groundmass.
64345 STP283 66.4m	Altered "Basalt". Semi-sericitic white mica, chlorite and fine to microcrystalline quartz with semi-pervasive clots of cloudy carbonate. Sporadic chloritic quartz veinlets; late crosscutting veinlets of quartz, sphalerite, galena.	Phyllitic; vague relict even-grained "basaltic".	Leucoxenised opaques. Traces of pyrrhotite in mineralised quartz veinlets. Minor late sericitic fractures.	Relatively siliceous, carbonate-rich alteration pattern. Mineralised quartz veinlets are weakly chloritic postdate bulk of alteration, shearin effects.
64346 STP283 88.3m	Altered, Veined "Basalt". Sericite-chlorite-altered porphyritic "basalt" with irregular veins, veinlets of quartz and Fe-Mg chlorite with disseminated clots of pyritised pyrrhotite.	Host rock analogous to 48100, incipiently sheared. Veins, veinlets unstressed to weakly stressed.	Leucoxenised opaques, traces of chalcopyrite in host rock. Minor traces sphalerite, cassiterite in veins.	Host rock includes minor sheared sericite veinlets. Sulphide concentrated in late, relatively unstressed chloritic quartz veins wit rare loosely clustered 20-75μ cassiterite
64347 STP283 100.8m	Altered "Basalt". Albitised/chlorite-sericite-stained plagioclase phenocrysts, clusters in a groundmass of similarly altered plagioclase microlaths with a chlorite mesostasis, minor chlorite amygdales, chlorite-calcite veinlets.	Weakly glomero-porphyritic "basaltic" with a phyllitic overprint, sheared amygdales, veinlets.	Conspicuous fine leucoxenised opaques.	Close affinities with 48100. Main contrasts are the semi-glomero-porphyritic relict fabric and relatively marked shearing effects.
64348 STP283 120.1m	Altered "Basalt". Albitised sericitic/weakly chlorite-stained plagioclase phenocrysts/clusters in a groundmass of similarly altered plagioclase microlaths with a chlorite mesostasis. Minor chlorite amygdales.	Closely analogous to 64347, weakly flow-banded.	Conspicuous fine leucoxenised opaques.	Close affinities with 64347 and, by inference, 48100. Amygdales represented by chloritic lenses.
64349 STP283 131.0m	Altered "Basalt". Variably chloritic feldspar phenocrysts-pseudomorphous sericite aggregates in a groundmass of sericitised plagioclase microlaths, chlorite mesostasis. Minor chlorite veinlets; weakly pyritic quartz	Weakly flow-structured porphyritic, "basaltic". Mildly sheared. veinlets.	Leucoxenised opaques, minor chloritised phenocrystal pyroxene. Rare blebs of sphalerite.	Relatively sericitic, mildly sheared altered breccia. Quartz veinlets are variably chloritic, weakly stressed grade into late non-chloritic unstressed vugs, films.

8670

057030

CENTRAL MINERALOGICAL SERVICES

Sample No.	Classification - Composition	Fabric	Accessories	Comments
64350 STP283 167·9m	Altered Basalt. Albitised/weakly chlorite-epidote-calcite-stained plagioclase microlaths with a weakly epidote-calcite-stained chlorite mesostasis, conspicuous fine leucoxenised opaques.	Weakly flow-structured, fine-grained, basaltic (felted plagioclase laths), weakly sheared.	Minor mesostasis quartz. Sparse sheared calcite-epidote veinlets, late calcite films.	Relatively fine, even-grained basal with a typical albite-chlorite alteration assemblage enhanced by accessory carbonate-epidote impregnations, veining.
64351 STP284 23·9m	Altered "Dacite". Sericite aggregates with disseminated grains, clusters of quartz. Sporadic irregular calcite ± quartz veinlets with minor interspersed films of chlorite, disseminations of pyrrhotite.	Weakly banded, mildly crenulated phyllitic/vague relict felsitic. Variably stressed to sheared veinlets.	Minor leucoxenised opaques, rare relict microphenocrystal quartz. Traces pyrite (after pyrrhotite).	Thoroughly sericitised/mildly silicified felsic intermediate-acid volcanic interpreted as a felsitic-devitrified lava ("pitchstone").
64352 STP284 32·5m	Crenulated Phyllite. Semi-to sericitic white mica with subordinate to minor microcrystalline quartz, silt-sized detrital quartz mica flakes. Minor chlorite. Sporadic irregular quartz-calcite veinlets with thinly disseminated pyrrhotite.	Banded on sub- to fine millimetric scale, concordantly sheared, weakly high-angle microcrenulated. Stressed veinlets.	Traces of sericitised splintery to angular clastic feldspar, leucoxenic opaques, carbonaceous matter,	Phyllitic metapelite; incipiently tuffaceous characteristics in silty interbeds. Veinlets variously con- high-angle discordant; pervasively secondary pyrite. stressed.
64353 STP284 64·9m	Chloritic Metasandstone. Framework of angular to rounded quartz grains, subordinate quartzose pelite, greenschist metapelite clasts, muscovite and chloritised biotite flakes. Chlorite-quartz matrix. Minor quartz-pyrrhotite veinlets.	Phyllitic. Relict unbedded, poorly sorted (silty fine to medium) sandy clastic. Sheared concordant veinlets.	Carbonaceous pelite clasts, detrital leucoxenic semi-opaques, chromite. Secondary pyrite, rare ultrafine sphalerite in veinlets.	Low-grade, regional metasandstone devoid of tangible pyroclastic features. Includes rare clasts of te, phosphate rock. Veinlets are te weakly chloritic-calcitic.
64354 (T.S. 53893) STP284 99·9m	Dolomitic Metasandstone. Framework of quartz grains, subordinate muscovite flakes, quartzose to carbonaceous-sericitic pelite clasts. Matrix of sericite, dolomite, fine to microcrystalline quartz. Minor quartz-calcite veinlets.	Closely analogous to 64353.	Traces of syngenetic pyrite, chloritised clastic biotite, apatite, chromite, leucoxene. Rare films of muscovite, chlorite, sphalerite.	Close affinities with 64353, but dolomitic, weakly pyritic in comparison. Sphalerite-mineralised micaceous veinlets predate late calcite-quartz films.

imline A3 for report pockets

057031

030

SELECTED DRILL HOLE INTERSECTIONS

Hole No.	Depth Interval	Metres	g/t Au	% As
STP 234	189.0 - 191.5	2.50	2.34	3.95
	261.0 - 263.0	2.00	0.89	1.90
	312.3 - 313.85	1.55	2.00	3.56
	(313.25 - 313.85	0.60	5.00	9.00)
STP 221	32.6 - 39.5	6.90	0.15	6.15
	(32.6 - 33.15	0.55	0.41	3.20)
	(36.8 - 39.5	2.70	0.22	5.67)
	48.8 - 52.8	4.00	0.80	0.08
	(51.8 - 52.8	1.00	2.08	0.007)
	118.5 - 119.5	1.00	0.02	1.30
STP 217	92.35 - 93.35	1.00	0.21	1.80
	98.65 - 105.45	6.80	1.18	3.92
	(98.65 - 102.55	3.90	1.39	6.45)
	(99.65 - 100.7	1.05	4.01	15.00)
	(104.55 - 105.45	0.90	2.26	0.94)
	154.6 - 157.6	3.00	0.10	2.80
	159.6 - 160.6	1.00	0.95	0.44
	232.1 - 235.1	3.00	0.52	0.003
	(232.1 - 233.1	1.00	1.04	0.004)
STP 231	53.8 - 58.3	4.50	0.53	5.91
	(56.2 - 58.3	2.10	0.86	6.79)
	78.3 - 78.8	0.50	1.22	9.80
	85.2 - 85.5	0.30	0.58	9.00
STP 283	61.8 - 63.8	2.00	0.38	6.22
	87.8 - 87.0	0.20	0.86	11.00
	140.95 - 141.8	0.85	1.16	4.15
	145.1 - 145.65	0.55	1.10	0.009
	173.15 - 173.6	0.45	2.00	0.002

384 000mE

384 500mE

HENTY FAULT

STP 234

STP 217

STP 221

STP 284

DIGHEM ANOMALY

STP 231

STP 283

5 374 500mN

5 374 000mN

5 373 500mN

5 373 000mN

Murchison Highway

?

?

?

HENTY FAULT

LEGEND

- Glacial Till Cover.
- Farrell Slates.
- Mount Black Volcanics.
- Intra Volcanic Sediments.
- Costean.
- Low Resistivity Zone.

5 cm

1. 250000 SHEET

SCALE

0 100 200 300 400m

E·Z

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: E.L. 4/73 STERLING VALLEY

COMPLETED DIAMOND DRILL HOLES

Compiled: I. Mc D. Date: 25-3-'85 Scale 1: 5000

Latitude: Longitude: PLAN NO

Drawn: R. J. R. File No. FIG. 1

A2-526-0053

PLAN

031

4550E 4600E 4650E 4700E

STP 283

qtz-sul vns
GR
qtz-py vns
diss py
8·62 g/t Au
1·63 g/t Au
26·6 g/t Au
qtz vns in shr'd VSsit

Grid Line 3260N

SECTION

STP 283

qtz-sul vns
GR
diss py
8·62 g/t Au
qtz vns in shr'd VSsit
1·63 g/t Au
26·6 g/t Au

stg OX ferruginous clays poor core recovery

stg OX ?andesite lava

shr'd chl'd basaltic ?lava

sil'd bxd chert

altered ves basalt

stg OX broken basaltic lava

shr'd altered basalt

quartz-sulphide breccia

shr'd altered basalt 60°

?Intermediate Ashflows 40°

?Intermediate fg Tuff

Andesitic Ashflows 50°

cg ox Epiclastic ?Debris flow deposit

stg ox ?Andesitic Ashflow

stg ox ?Intermediate Tuff

qtz-asp vns

qtz-py-asp vns

qtz crackle veins 0·15m at 0·33 g/t Au, 1·40% As

py+asp+po veinlets

25% asp, cpy, py 2·0m at 0·38 g/t Au, 28·7 g/t Ag, 6·22% As, 0·77% Cu

py+po+asp veinlets

qtz-tm-py-sph-gn vein 50°

qtz-py-(po-sph-gn) veins

qtz-py-sph vein 50° 0·2m at 0·86 g/t Au, 11% As

qtz-asp-py veinlets

qtz-py-asp-cpy veinlets

sheared altered amygdaloidal basaltic lavas

vfg stgly chl'd ?basaltic lava sil'd qtz veined breccia

py-(asp) stringers

qtz crackle veins ± epi+py

qtz-tm vein

stressed altered amygdaloidal basaltic lavas

qtz-py veins veinlets and patches of epi alteration

qtz-(epi) crackle veins

shr'd stgly chl'd, basaltic lava breccia

altered amygdaloidal basaltic lava

semi-massive po+asp+py 0·85m at 1·16 g/t Au, 29 g/t Ag, 4·15% As

qtz veins, 5% diss py 0·55 m at 1·10 g/t Au

massive fg chlorite rock

chloritised amygdaloidal basaltic lava

qtz vein breccia 15°

qtz-epi veins

chloritised amygdaloidal basaltic lava

55°

chert band

amygdaloidal basaltic lava

massive fg altered basalt qtz vein breccia

py+po patchy stringers

py+po+sph stringers 0·45m at 2·0 g/t Au

0·50m at 0·95 g/t Au, 9·25% Zn

qtz veins po+py+cpy stringers

massive fg stgly chl'd basaltic lava

179·6m

RL 200m

RL 100m

4700E

5 cm

4600E

Scale = 1:5000

Spot Sample Gold Values
26·6 g/t Au
1·63 g/t Au
8·62 g/t Au

Proposed Drill Hole 'A'

Gr

bxd VSsit qtz-sul veins.

brecciated, veined, mineralised sediment

Gr + bx'd VS qtz-py-asp veins

Spot Sample Gold values
2·01 g/t Au
1·47 g/t Au
1·19 g/t Au

Scattered float of Andesitic volcanics.

Andesite Lavas and Agglomerates

Granite ?dyke

Low Resistivity Body

Strongly cleaved chloritised Andesites

Subsidiary Henty Fault Fracture Slices

Main Lecus Henty Fault

S.V. 3 (proj)

Sq sch (VS)

Sqws

Felsic Tuff

Sbs

VS Smd Tuff

Swvs Smd

strongly cleaved Mudstones, Wackes, Tuffaceous sediments.

Felsic ashflow pyroclastics.

Mudstones and Tuffaceous sediments.

STP 105

cleaved Rhyolite lavas

fg altered Rhyolite ? lava

Rhyolite Lavas

RL 400m
RL 300m
RL 200m
RL 100m
RL 0m

1:250000 SHEET

SCALE

0 5 10 15 20 25 30 35 40 45 50
metres

057032

EZ

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING RIVER E.L. 4/73

D.D.H. STP 283

Compiled: I. Mc D.	Date: 30-8-'85	Scale: 1:500
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: A2-526-0053

86-2522

A2-526-0052

PLAN

4340N Grid Line

4800E 4850E 4900E

STP 284

SECTION

STP 284

Glacial Till cover

Py stringers 0·40m at 0·27 g/t Au

Py+Po stringers

Py+Sphvein 0·15m at 1·65 g/t Au, 64 g/t Ag, 1·65% As, 1·23% Zn

Py+Po stringers

qtz-cb veins

Fault/Fracture zone

qtz-ser schist 55°

qtz-ser-chl phyllite 50°

qtz vein breccia

phyllitic Siltstone 15°

to f-mg wacke

qtz-(carb)veins

intercalations of

chloritic mudstone, siltstone

gd

cleaved and veined black mudstone, grey siltstone and f-mg wacke 30° | 60°

qtz-carb crackle veins

Py+Po in rare stringers and veinlets 0·40m at 0·63 g/t Au

qtz crackle veins mainly 50°

clvd mg wacke 50°

clvd siltstone 45°

50° | 50°

clvd mg wacke 50° | 60°

1% Py in patchy stringers in qtz-carb veins

massive qtz-carb veins

gd

gd fl

40° | 60°

35° 50°

interbedded mg & m-cg wackes and siltstones

35°

qtz-cb veins

45° 40° 10°

massive qtz-(carb)veins 30°

lam siltstone 25°

Dolomitic wacke and breccia 45°

Dolomitic siltstone 55°

qtz-carb veins

Dolomitic wacke 40°

stg qtz-carb veining

black mudstone

interbedded mudstone/siltstone and Dolomitic wacke 45° | 60°

cg carb veins

qtz-carb veining

thin qtz-carb veins

35°-45°

qtz-lithic wacke 65°

116·7m

gd

cr bd

F

F

RL 100m

4850E

5 cm

1:250000 SHEET

SCALE

0 5 10 15 20 25 30 35 40 45 50

metres

* Aqua regia Au values only

* 2·0m at 0·22 g/t Au

* 1·0m at 2·08 g/t Au

* 2·7m at 0·61 g/t Au

STP 217

STP 221

STP 284

STP 220

Glacial Till cover

DIGHEM Cond. Body

1·05m at 0·3 g/t Au

0·70m at 3·25% Pb, 3·2% Zn, 81 g/t Ag, 0·05 g/t Au.

RL 300m

RL 200m

RL 100m

RL 00m

RL -100m

Sgl

Ia

VS

GB

aga

Smd

Sssf

Sbs

Andesite Lavas and Agglomerates

Dolerite

Mudstones, Siltstones, Volcanic Wackes.

Tuffaceous Greywackes, Mudstones.

Black Shales and Siltstones

Volcanic Wacke and Mudstone

Black Shales

Ia Volcaniclastic Sediments

Black Shales, Siltstone

Felsic Tuffs

Rhyolite Lavas

6·8m at 1·18 g/t Au (1·05m at 4·01 g/t Au)

1·0m at 0·95 g/t Au

1·0m at 1·04 g/t Au

Altered brecciated mineralised volcaniclastic Sediment horizons.

Multiple HENTY FAULT fracture slices from the main northern fault locus.

Strike Extension of the main locus of the HENTY FAULT to the south.

All Lithologies are strongly cleaved.

4200 4400 4600 4800

E-Z

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED
MINERAL RESOURCES DIVISION

PROJECT: STERLING VALLEY E.L. 4/73

057033

DDH STP 284

Compiled: I. McD.	Date: 28-8-'85	Scale: 1:500
AMG:	Latitude:	Longitude:
Drawn: R.J.R.	File No:	PLAN NO: A2-526-0052

86-2522