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PROJECT NAME:

COMSTAFF PTY. LTD.

EL 5/63

TITLE:

CHESTER AREA

1973/74 SUMMER FIELD SEASON

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES:

Chester Area K-55-3

COMMODITY/IES:

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PLAN NOS:

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APPENDICES:

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DATE:

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AUSTRALIAN ANGLO AMERICAN LIMITED

Melbourne

Incorporated in the State of Victoria

AUSTRALIAN ANGLO AMERICAN LIMITEDCOMSTAFF PROPRIETARY LIMITEDCHESTEREXPLORATION LICENCE 5/631973/74 SUMMER FIELD SEASON1. INTRODUCTION1.1. Location and Access

The Chester area is situated six kilometres north of Rosebery, Western Tasmania, in Exploration Licence 5/63. Access is via a 22.5 km (14 miles) of bulldozed track from the Murchison Highway.

1.2. Topography and Vegetation

The topography is characterised by steep ridges and deeply incised valleys except where modified by glaciation. Valleys infilled by glacial till are often swampy. Vegetation consists mostly of bauera, horizontal, and ti tree scrub. Button grass is sometimes found growing in areas of glacial cover.

1.3. Aim and Procedure

The object of the programme was to locate base metal mineralization in the general vicinity of the Chester pyrite mine. 21 east-west (true) grid lines, 46 km total length, were cut 100m apart. The grid covers an area of approximately four sq.km centred roughly on the Chester pyrite mine.

Primarily, the grid was cut for a geophysical survey by I.P. equipment using the dipole-dipole technique. The geophysical programme was further supported by S.P., Crone E.M., and magnetometer surveys.

Geological mapping of the pyrite mine, grid lines and access roads was undertaken in addition to geochemical soil sampling of the grid.

2. REGIONAL SETTING

The Primrose Pyroclastics Formation is the only stratigraphic unit to outcrop in the Chester area. This Formation lies within the Mt. Read Volcanic Arc, a well defined strip of Middle to Upper Cambrian volcanic rocks which consist largely of rhyolites and dacites with minor andosites, basalts and siltstone lenses. The volcanics are similar to those of volcanic arcs and active continental margins, suggesting that a trench and subduction zone may have existed in Western Tasmania during the Cambrian (Solomon et.al., 1973, University of Tasmania, in prep.).

The Mt. Read Volcanics trend approximately north-south between Queenstown and Chester and this trend is reflected by the occurrence of mineral deposits in north-south zones. The deposits may be related to north-south faults within the succession. Chester is situated six km north of Rosebery, the site of a lead-zinc mine. The stratigraphic position of Chester requires further elucidation, but its prospectivity is beyond doubt.

1.5 km to the west of Chester the Primrose Pyroclastics Formation is in contact with the Hatfield Greywacke Sequence, which consists of shales, siltstones, greywackes, etc. The contact has been considered coincident with a fault (The Owen Shear zone) but it may be a normal sedimentary contact. Shales of the Hatfield Greywacke Sequence adjacent to the contact are exposed on surface and in boreholes CP1 and CP2 at Pinnacles, 2 km north of Chester. The shales are inclined at steep angles, and there is no evidence of a faulted contact at surface. Extrapolation of the contact between surface and the intersection in DDH CP2 indicates the contact to dip at a shallow angle (20° east) suggesting a faulted contact.

### 3. GEOLOGY

The Primrose Pyroclastics Formation at Chester comprises agglomerate lavas, lapilli tuffs, agglomerates, flow rhyolites, porphyritic dacites, "sericite schists", and chert. The volcanics range from rhyolite to dacite in composition. Alteration by sericitisation, chloritisation and recrystallization makes identification and genesis of the rocks difficult. Geological interpretation is further hindered by lack of outcrop.

#### 3.1. Distribution of Rock Types

A tentative north-south contact just east of the Chester pyrite mine divides the grid into eastern and western blocks which are characterized by differing lithologies.

##### 3.1.1. The Western Block

Rhyolitic lapilli tuffs, agglomerates, and rhyolitic to dacitic agglomerate lavas predominate in the northern two-thirds of the western block. The agglomerates and lapilli tuffs are restricted to the south eastern portion of this area.

The agglomerate lavas have a green to dark green groundmass, which often contains oligoclase phenocrysts, surrounding sub-angular to rounded fragments. Rhyolitic agglomerate lavas possess a strongly potassic quartz-feldspathic groundmass containing oligoclase phenocrysts. In colour the fragments are commonly pink, grey or shades of green and they occasionally display layering and/or a porphyritic texture. The agglomerate lavas are vent or near vent phases (Central Mineralogical Laboratories, Adelaide.)

The agglomerate and lapilli tuffs are grey to green in colour with indistinct component fragments. Differential weathering makes the component fragments more conspicuous. Micro-textures, indicative of pumice fragments, have been observed.

Sericitized rocks foliated by shearing have been termed "sericite schists" for convenience. The "sericite schists" outcrop in the western block and are most commonly seen on the four most southern grid lines. On lines 3.0N and 4.0N the sericite schists contain pyrite.

The Chester open cut pyrite mine is located half way down the eastern slope of Mt. Kershaw. The pyrite body, which outcrops over a plan area measuring 200m by 160m, consists of grey pyritiferous chert of variable grade containing "rafts" of bedded chert. Faulting and folding have occurred resulting in remobilization of the pyrite rich chert and boudinaging of more massive chert horizons. The highest grade pyritiferous chert consists of discrete pyrite grains with some intergranular silica. The outer surface of the chert is leached of pyrite to a white porous siliceous honeycomb, coated and impregnated by iron oxides. A relatively barren chert breccia is exposed on the northern side of the mine. No appreciable carbonate has been found within the mine, although carbonate is known to be a common associate of the ore in the Rosebery lead-zinc mine.

Lack of outcrop does not allow either footwall or hanging wall contacts to be seen. Sericitization of rocks surrounding the mine has been severe but the immediate host rocks of the chert may well have been lapilli tuffs and agglomerates.

Grey pyritiferous chert, comparable to that found in the Chester mine, is exposed in a small excavation 500m south-west of the mine.

### 3.1.2. The Eastern Block

Dacites, which are often porphyritic, predominate in the eastern block. Most of the dacites are green due to chloritization but some are only partially chloritised and are grey in colour. Chlorite formation could be reasonably ascribed to greenschist facies regional metamorphism, but chloritization has occurred in varying intensity suggesting that other processes of chloritization must be involved.

Grey vitric crystal (lithic) tuffs outcrop in a belt trending north easterly in the southern half of the eastern block.

Grey green to pink rhyolites outcrop in the centre of the northern grid lines and sometimes display flow layering.

### 3.2. Alteration

Sericitization is the most widespread form of alteration and occurs to a greater degree in the western block. Chloritization is generally of minor importance but has occurred to a greater degree in exposures along a bulldozed road 300m south-east of the Chester pyrite mine. Undue emphasis should not be placed on the latter observation as lack of outcrop prevents a true interpretation to be made.

The pink colouration of dacites of the north eastern part of the grid may be due to haematisation.

### 3.3. Structural Geology

Shearing has been widespread in the Chester area, particularly in the western block, though the outcrop pattern would not indicate any major displacement.

Exposures of sericite schists which owe their foliated structure to shearing are virtually restricted to the western block. The foliation of the sericite schists remains essentially vertical and trends approximately  $162^{\circ}$  (true) in the south of the block. Further north, near the Chester mine, a foliation trend of approximately  $008^{\circ}$  (true) is predominant.

Four sets of air photo linears have been distinguished trending approximately  $020^{\circ}$ ,  $070^{\circ}$ ,  $110^{\circ}$ , and  $160^{\circ}$  (true) respectively. Air photo linears are coincident with joint and shear trends. Segments of CC Creek occupy a fault which may be traced on aerial photographs south to Williamsford.

Evidence of bedding is scarce and possibly trends north-north-west with variable angle and direction of dip. Insufficient information is known for an interpretation related to bedding.

## 4. GEOCHEMISTRY

Geochemistry results are poor and generally inconsistent.

### 3.1. Chester Geochemistry

Soil samples were collected every 20m on each of the lines. A sample was taken at the base of the humus layer and the -80 mesh fraction was analysed by A.A.S. for copper, lead, zinc and barium. Assay results were generally low with 80% below the level of detection.

#### 3.1.1. Copper

A few isolated values occur to the south and east of the open cut workings on lines 9N,

10N, 11N, and 12N. The samples on line 1N between 5E and 6E form a second patch of anomalous values. Between the old Chester tramway and CC Creek statistically anomalous values occur on lines 14N and 15N.

### 3.1.2. Lead

As with copper the anomalous samples are very spotty with a few anomalous samples south and east of the mine plus some good values on line 1N between 5E and 6E which peak at 650 ppm lead.

### 3.1.3. Zinc

The pattern of zinc values coincides with those for lead and copper with patchy values to the south and east of the open cut and some higher values on line 1N.

## 5. GEOPHYSICS

### 5.1. Chester Geophysics

Three main I.P. zones are outlined. Concomitant low resistivity values are usually evident. In general, there are no interesting geophysical results north of line 12N. Two apparently isolated S.P.-I.P. coincident anomalies (640E-740E and 1040E-1100E) occur on line 11N. In view of the fact that there is no continuity onto adjacent lines they have little importance. The more easterly zone is almost certainly due to sulphides.

Geophysically, each of the three main I.P. zones are of the same significance. The eastern anomaly because of its linear character is likely to be a mineralized shear or a formational response. The southern anomaly may be a continuation of this zone although it has no response on line 5.

Areas within the very extensive 200m by 500m western zone which have coincident low resistivities are probably due to sulphides.

### 5.2. Diamond Drilling

A diamond drill hole was sited on station 1.2E on line 6N. It was inclined at  $-45^{\circ}$  to the east along the cut line. Borehole surveys were taken every 100 feet throughout the borehole which was complete at 602.89m (1978 feet).

This borehole was planned to explore the two geophysical anomalies. The first 268.8m intersected predominantly foliated pyritiferous tuff with interbedded dacite bands. From 268.8m the borehole intersected interbedded agglomerates crystal tuffs with minor dacite bands.

Sulphide mineralization throughout the borehole was predominantly pyrite which was confined mainly to the finer grained tuff horizons. Sphalerite and galena were intersected from 516.5m to 518.9m in a light yellow green to dark green tuff. Assay results for this section indicate the following values:-

22.3% zinc; 5.24% lead and 65.4 ppm silver over 2.4m D.T.

From 519.43m to 546.2m light green crystal tuff with disseminated sphalerite is present.

## 6. CONCLUSIONS

Geochemical response in the soils is virtually non-existent. This may be due to the very high sulphide content of the rocks providing a very low pH which combined with humic acid would tend to retain base metals in solution.

This poor geochemical response in soils, the absence of geophysical response to sphalerite, and the poor outcrop combined with rugged terrain and dense bush makes the Chester area a difficult prospecting target.

However, the occurrence of massive pyrite associated with lapilli tuffs and agglomerates is similar to the Kuroko deposits of Japan and the Noranda mineral field in Canada. The existence of the two working mines within the Read Volcanics at Rosobery and Queenstown, and known lead zinc mineralization at the Pinnacles, makes the Chester area a very bullish proposition.

Diamond drilling on line 6N has shown the presence of sphalerite associated with the south eastern geophysical anomaly on strike from the Chester pyrite deposit. The sulphide mineralization is located close to a change from predominantly pyroclastic to predominantly lava lithologies. All the characteristics of a Kuroko deposit are present at Chester, acid volcanics, agglomerates, sericite and chlorite alteration and abundant pyrite.

Unlike the Kuroko deposits of Japan, the Chester rocks have been altered and deformed during the Tabberabberan Orogeny so that remobilization of sulphides has occurred along foliation planes having a close to vertical attitude.

Since most known geoscience techniques have been tried with limited success, and a possible horizon of sphalerite mineralization has been determined, a series of diamond drill holes is now planned to explore the zone from the exposed massive pyrite in the open cut to the southern end of the grid.

Author: R.N. Smith (Geologist)

Approved: D.B. Orr (Senior Geologist  
- Tasmania).



Abbreviations: m = metre(s)  
cent

AUSTRALIAN ANGLO AMERICAN LIMITED  
PROJECT: CHESTER METRIC GOLD - E.L.5/63, TASMANIA

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BOREHOLE NO. CP 3

TYPE Diamond Drill Hole

CO-ORDINATES 6.0N 1.2E

INCLINATION 45° at surface

DIRECTION 080° (mag) at surface

DATE START 1/4/74

DATE FINISH 20/4/74

DRILLER Ian Pringle, Steve Remae COMPANY Longyear

FINAL DEPTH

CORE SIZE	DEPTH metres	DRILLED FEET metres	RECOVERED FEET metres	CORE DEPTH AND ANGLE METRES	SAMPLE NO.	DESCRIPTION	Cu	Pb	ASSAY RESULTS		
									Zn	Ag	Ba
NX	12.80	12.80	1.24			1.14 metres whole, rest broken.					
NX	14.48	1.68	1.60			1.35 metres whole, rest broken.					
NX	17.07	2.59	2.66			2.49 metres whole, rest broken.					
NX	19.51	2.44	2.72			2.52 metres whole, rest broken.					
NX	22.56	3.05	2.74			2.56 metres whole, rest broken.					
NX	24.38	1.82	1.82	25-26	TE 016	1.32 metres whole, rest broken.	40	32	400	0.1	800
NX	26.21	1.83	1.83	26-27	TE 017	Whole core.	25	22	620	0.3	800
NX	29.26	3.05	3.05	27-28	TE 018	Whole core.	25	22	1850	0.3	800
NX	32.31	3.05	3.07	28-29	TE 019	Whole core.	25	260	650	0.3	1000
NX	35.36	3.05	3.18	35-36	TE 020	2.93 metres whole, rest broken.	18	60	340	0.3	800
NX	38.40	3.04	3.12			Whole core.					
NX	41.45	3.05	3.08	42.80m	TA 951	Whole core.					
NX	44.50	3.05	3.05	45-46	TE 021	2.90m whole, rest broken.	18	72	700	0.3	800
						0.0m to 47.12m - Gray-white initially weathered fine siliceous pyritiferous rock which, in places, is porphyritic with white phenocrysts (probably pseudomorphed by an alteration mineral) 0.1cm in size. Alignment of the phenocrysts and pyrite aggregates at 35°-45° to the core axis. Occasionally pyrite is concentrated in stringers (by remobilization?) isolating patches of the white host rock as at 28.23m. From 2% to 15% pyrite present but on average 5%. Euhedral to globular in form as disseminated single crystals (0.1cm size) or fine aggregates. The rock is probably a crystal tuff - refer to thin section TA 951 sampled at 42.80 metres.					
NX	47.24	2.74	2.74	46-47	TE 022	2.56 metres whole, rest broken.	18	15	110	0.1	800
NX	50.29	3.05	3.05	47-48	TE 023	Whole core.	50	10	680	>0.1	800
NX	53.44	3.15	3.10			Whole core.					
NX	56.59	3.15	3.07	55-56	TE 024	2.92 metres whole, rest broken.	8	140	38	0.3	800
						47.12m to 48.54m Fine dark green ductite(?) with a faint foliation at 50° to the core axis. Carbonate veins are present, some elongate quartz bodies (up to 1cm x 0.2cm in size) are present. The lower contact of this lithology at 48.54m is inclined at 26° to core axis.					
NX	59.74	3.15	3.20			3.12 metres whole, rest broken.					
NX	60.35	0.61	0.38			0.16metres whole, rest broken.					
						48.54m to 59.80m The same lithology (tuff?) as from 0m to 47.12m but with an initial mottling of grey and yellowish white. Thereafter mottled dark and light grey. Layering in the rock has core angles ranging from 45° to 60°. Phenocrysts are sparse. Disseminated					

588108

BOREHOLE No. CP 3  
 DATE START \_\_\_\_\_  
 DATE FINISH \_\_\_\_\_

TYPE Diamond Drill Hole  
 DRILLER \_\_\_\_\_

CO-ORDINATES \_\_\_\_\_  
 COMPANY Longyear

INCLINATION \_\_\_\_\_  
 FINAL DEPTH \_\_\_\_\_

DIRECTION \_\_\_\_\_  
 FINAL DEPTH \_\_\_\_\_

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS				
							Cu	Pb	Zn	Ag	Ba
						pyrite as before in same concentrations. Black globules (0.1cm size) occur at 64m. Sericitisation has occurred, also shearing has foliated the rock. <u>59.89m to 60.04m</u> Fine dark green foliated dacite. <u>60.04m to 64.54m</u> Tuff(?) containing pyrite, as before with shear foliation. <u>64.54m to 64.71m</u> Fine dark green foliated vesicular dacite with limonite infilled fractures at 45° to the core axis. Trace of disseminated euhedral pyrite less than 0.1cm in size. The rock has been foliated by shearing.					
NX	62.79	2.44	2.44	63-64	TE 025	2.14 metres whole, rest broken.	15	5	18	< 0.1	600
NX	64.62	1.83	1.90	64-65	TE 026	1.60 metres whole, rest broken.	15	5	180	0.1	800
NX	66.45	1.83	1.62	69.49-		1.32 metres whole, rest broken.					
NX	69.49	3.04	2.44	70.63	TE 027	2.14 metres whole, rest broken.	110	< 5	1020	0.1	500
NX	70.41	0.92	0.92	70.63-71.5	TE 028	0.33 metres whole, rest broken.	12	< 5	730	0.1	400
						<u>64.71m to 69.49m</u> Pyritiferous tuff(?) as before, sericitised and foliated. <u>69.49m to 70.63m</u> Dark green foliated dacite with upper contact at 24° to core axis, parallel to which are layers of vesicles (1cm = 0.2cm size). At 69.60m is a 1.0cm wide band of euhedral quartz crystals (core angle = 62°) containing 3 bodies of chalcopyrite, each 0.6cm across.					
NX	71.63	1.22	1.68	76.4-		1.0 metres whole, rest broken.					
NX	73.46	1.83	0.75	77.66	TE 029	0.60 metres whole, rest broken.	130	< 5	860	< 0.1	400
NX	74.98	1.52	2.54	77.66-78.5	TE 030	2.0 metres whole, rest broken.	10	< 5	95	< 0.1	800
						<u>70.63m to 76.40m</u> Pyritiferous tuff as above, schistosity (produced by shearing) inclined 60° to core axis, sericitised. TA 952 70.7m					
NX	77.11	2.13	2.06	78.5-79.5	TE 031	by shearing) inclined 60° to core axis, sericitised. TA 952 70.7m	10	< 5	12	< 0.1	1200
						<u>76.40m to 77.66m</u> Dark green foliated dacite; some penetration by carbonate as pods. The rock itself is slightly calcareous.					
						Upper contact core angle = 47°, lower contact core angle = 27°					
						<u>77.66m to 80.24m</u> Pyritiferous foliated tuff as before.					
						<u>80.24m to 81.77m</u> Calcareous dark green foliated dacite with some carbonate veins (0.5cm wide) at 30° to 40° to core axis. One such vein is truncated by the lower contact of this lithology suggestive of a fault contact. The rock is foliated by shearing upper contact core angle = 37°, lower contact core angle = 34°.					
NX	80.16	3.05	3.05			2.75 metres whole, rest broken.					
NX	83.21	3.05	3.12			Whole core.					
NX	90.53	7.32	7.16			Whole core.					
NX	92.51	2.98	2.08			Whole core.					

88009

PROJECT: CHESTER METRIC GRID - E.L.5/63 TASMANIA

BOREHOLE No. CP 3

TYPE Diamond Drill Hole

CO-ORDINATES .....

INCLINATION .....

DIRECTION .....

DATE START .....

DATE FINISH .....

DRILLER .....

COMPANY Longyear

FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED FEET metres	RECOVERED FEET metres	Depth metres	SAMPLE NO.	DESCRIPTION	Cu	ASSAY RESULTS			
								Pb	Zn	Ag	Ba
NX	95.61	3.10	3.07	95-96	TE 037	Whole core.	8	90	410	0.3	800
NX	98.76	3.15	3.12			Whole core.					
NX	101.80	3.04	3.11			2.05 metres whole, rest broken.					
NX	105.00	3.20	3.11			Whole core.					
NX	108.10	3.10	3.06			Whole core.					
						81.77m to 126.50m Foliated sericitised pyritiferous tuff(?) at 82.80m the foliation is inclined at 55° to core axis at 84.85m " " " " " 25° " " " with slickensides pitching 25° from strike. at 91.60m the foliation has core angle of 40° at 100.90m " " " " " 65°					
				105-106	TE 038	at 100.90m heavily slickensided surface with core angle of 30°, slickensides pitch 37° from strike. From 100.90m to 104.04m the foliation core angle is 55° to 65°. Phenocrysts are visible again from 90.53m to 98.76m. At 126.50m the contact with dark green dacite below has core angle = 52°. 126.50m to 130.33m Foliated dark green dacite with elongate mafic bodies aligned parallel to the lithology's upper contact (core angle 52°).	8	8	18	0.3	500
NX	111.25	3.15	3.07			Whole core.					
NX	114.30	3.05	3.05			Whole core.					
NX	117.04	2.74	2.94	115-116	TE 039	2.84 metres whole, rest broken.	8	10	22	0.1	400
NX	120.09	3.05	3.12			3.02 metres whole, rest broken.					
NX	123.14	3.05	3.12			Whole core.					
NX	126.34	3.20	3.10	125-126	TE 040	2.95 metres whole, rest broken.	8	< 5	12	< 0.1	800
NX	128.93	2.59	2.52	127-128	TE 041	1.80 metres whole, rest broken.	45	5	800	< 0.1	400
NX	130.76	1.83	1.78			1.17 metres whole, rest broken. 130.33m to 130.66m Grey foliated sericitised pyritiferous tuff as before. 130.66m to 131.89m Dark green dacite foliated by shear as is the tuff.					
				135-136	TE 042	At 131.26m the foliation has core angle of 57° with dip slip slickensides. 131.89m to 132.22m Grey foliated sericitised pyritiferous tuff as before.	10	< 5	20	< 0.1	1200
NX	132.89	2.13	1.93			Whole core.					
NX	135.94	3.05	3.06			Whole core.					
NX	137.36	1.42	1.50			1.43 metres whole, rest broken. 132.22m to 133.22m Foliated dark green dacite. 133.22m to 162.92m Grey foliated sericitised pyritiferous tuff as before. Core angle of foliation is 65° at 138.29m. The latter half of this section is slightly coarser in grain size.					

588010

BOREHOLE No. CP.3 TYPE Diamond Drill Hole CO-ORDINATES ..... INCLINATION ..... DIRECTION .....  
 DATE START ..... DATE FINISH ..... DRILLER ..... COMPANY Longyear ..... FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	CORE DEPTH AND ANGLE metres	SAMPLE NO.	DESCRIPTION	Cu	Pb	ASSAY RESULTS		
									Zn	Ag	Ba
BX	139.29	1.93	2.01			Whole core.					
BX	142.04	2.75	2.51			Whole core.					
BX	143.08	3.04	3.10	145-146	TE 043	Whole core.	20	< 5	12	0.1	800
BX	148.13	3.05	2.98			Whole core.					
BX	151.18	3.05	3.08			Whole core.					
BX	154.23	3.05	3.05			Whole core.					
BX	157.28	3.05	3.05	155-156	TE 044	Whole core.	20	5	15	0.1	800
BX	160.32	3.04	3.05			Whole core.					
BX	163.37	3.05	3.04	162-162.92	TE 045	Whole core.	18	8	28	0.1	1200
BX	166.42	3.05	2.57	162.92-		2.0 metres whole, rest broken.					
BX	169.47	3.05	2.96	163.67	TE 046	Whole core.	28	8	400	0.3	600
BX	172.52	3.05	2.95	163.67-165	TE 047	Whole core. 162.92m to 163.67m Fine dark grey igneous rock lacking foliation (cf tuff and dacite members). A shear parallel to the core axis has slickensides pitching at 60° from strike. The upper contact of this lithology has a core angle of 50°. 163.67m to 177.85m Foliated sericitised pyritiferous tuff as before.	55	15	140	0.3	800
				175-177	TE 048		50	10	22	0.3	1000
				177-177.85	TE 049		50	15	28	0.1	800
				177.85-178.16	TE 050	Lenticular bodies of quartz (up to 1.5cm x 0.5cm in size) are aligned parallel to the foliation from 169.5m to 170.5m. A shear at 172.5m has core angle of 57°. The core angles are in brackets for the foliation at the following depths:- 146.5m (60°); 159m (68°); 166.55m (52°); 172.4m (72°). TA 953 at 172.4	70	30	150	0.1	400
				178.16-179.11	TE 051		15	5	500	< 0.1	600
				179.11-180.2	TE 052		25	8	180	< 0.1	1000
BX	175.56	3.04	3.08			Whole core.					
BX	178.61	3.05	3.07			Whole core.					
BX	181.66	3.05	3.03			Whole core. 177.85m to 178.16m Shear zone contact, inclined at 10° to core axis, which separates the tuff above from the lithology below. This zone contains 30% pyrite and patches of dark green chlorite. 178.16m to 179.11m Fine dark green dacite(?), faintly foliated by shear and containing a trace of pyrite. 179.11m to 180.20m Grey foliated sericitised pyritiferous tuff, but 50% is chlorite as disseminated patches (0.2cm in size). 5-10% pyrite at 180.20m is a 2cm wide fault with core angle = 60°. 180.20m to 180.37m Fine dark green dacite(?) containing elongate mafic bodies (0.02cm x 0.005cm) aligned parallel to the fault contact at 118.20m. At 180.37m is a 2cm wide fault with core angle = 52°. 180.37m to 187.33m Grey sericitised foliated pyritiferous tuff. The foliation at 182.2m has core angle of 52°. 187.33m to 190.36m Fine dark green foliated dacite with upper contact at 52° to core axis. The					
BX	184.71	3.05	3.03								

588011

BOREHOLE No. CP 3 TYPE Diamond Drill Hole CO-ORDINATES ..... INCLINATION ..... DIRECTION .....  
 DATE START ..... DATE FINISH ..... DRILLER ..... COMPANY Longyear ..... FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS							
							Cu	Pb	Zn	Ag	Ba			
						rock is finely sheared with foliation core angle of 50° at 189.90m.								
BX	188.98	4.27	1.30	189.5-190.36	TE 053	Some fine particles of chalcopyrite(?) occur on a slickensided surface. Core angle of lower contact = 46°.	90	5	580	< 0.1	< 50			
BX	191.11	2.13	1.88			1.28 metres whole, rest broken. 190.36m to 192.05m Grey sericitised foliated pyritiferous tuff, which is initially quite coarse. The foliation core angle at 195.1m is 55°. 1-2% pyrite present in disseminated form. 199.05m Fault zone inclined at 45° to core axis, refilled with quartz, coarse pyrite and fine pyrrhotite(?) along fractures.								
BX	193.85	2.74	2.79	198-199	TE 054	Whole core.	38	22	60	0.1	1000			
BX	196.90	3.05	3.10	199-200	TE 055	Whole core.	60	< 5	520	< 0.1	< 50			
BX	199.95	3.05	3.07	200-201	TE 056	Whole core. 199.05m to 200.2m Fine dark green foliated dacite containing less than 1% pyrite and quartz carbonate veinlets. The upper contact is a shear inclined at 56° to the core axis. 200.2m to 211.46m Grey foliated sericitised pyritiferous tuff containing, on average, 5% pyrite. The tuff is coarse from 684.3m to 211.46m. At 211.46m the lower contact is a shear with core angle	18	5	120	0.1	300			
				210-211	TE 057	of 66°. 211.46m to 212.15m Fine dark green dacite which is faintly	25	18	18	0.1	800			
				211-212	TE 058	foliated and contains less than 1% pyrite. The lower contact is inclined at 25° to core axis. 212.15m to 231.00m Grey foliated sericitised pyritiferous coarse tuff. Pyrite content = 1-4%,	15	12	360	0.1	300			
				220-221	TE 059	foliation core angle varies from 60° to 90°. At 220.7m is a 10cm band of 50% pyrite inclined at 65° to the core axis. From 227.0m to 233.0m is heavy tuff breccia with interfragmental coarse pyrite (50%).	12	10	18	0.1	600			
BX	202.39	2.44	2.38			Whole core.								
BX	205.44	3.05	3.08			Whole core.								
BX	208.64	3.20	3.05			Whole core.								
BX	211.84	3.20	2.83			2.70 metres whole, rest broken.								
BX	214.88	3.04	3.05			Whole core.								
BX	217.93	3.05	3.15			3.10 metres whole, rest broken.								
BX	220.98	3.05	3.20			Whole core.								
BX	224.03	3.05	3.50			Whole core.								
BX	227.08	3.05	3.05	226-227	TE 060	Whole core. 233m to 233.36m Fine dark grey igneous rock(?) out by	22	5	12	0.1	400			
				227-228	TE 061	numerous slickensided shear surfaces at high core angles up to 90°.	15	8	18	0.1	400			
BX	230.43	3.35	3.12	228-229	TE 062	3m whole, rest broken. 233.36m to 234.75m Grey foliated sericitised	15	12	30	0.1	400			
				229-230	TE 063	pyritiferous tuff as before which is cut by a wughy milky quartz vein.	15	10	12	0.1	600			
				230-231	TE 064	The vein is coated with a 0.1cm thick layer of light green mica.	12	8	12	0.1	400			

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PROJECT: CHESTER METRIC GRID - E.L.5/63 TASMANIA

BOREHOLE No. CP 3 TYPE Diamond Drill Hole CO-ORDINATES INCLINATION DIRECTION  
DATE START DATE FINISH DRILLER COMPANY Longyear FINAL DEPTH

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	Cu	Pb	ASSAY RESULTS		
									Zn	Ag	Ba
BX	233.48	2.05	3.09	231-232	TE 065	2.79 metres whole, rest broken.	15	8	15	0.1	300
BX	236.22	2.74	2.59	232-233	TE 066	1.38 metres whole, rest broken.	45	10	95	0.1	300
BX	239.57	3.35	3.37	233-234	TE 067	3.17 metres whole, rest broken. 234.75m to 236.22m Fine grey igneous rock(?) cut by slickensided surfaces, the lower contact is a shear with a core angle of 10°. Less than 1% pyrite present.	12	5	300	0.1	200
				240-241	TE 068	236.22m to 251.76m Grey foliated sericitised pyritiferous tuff but slightly finer than the tuffs since 212.15m. Pyrite content is 3% to 6%. The foliation is inclined at 65°-70° to core axis. 251.76m to 254.81m Light grey silicified crystal tuff with white phenocrysts and/or barite inclusions (0.2cm size). The groundmass is siliceous without a foliation. Whole core.	8	< 5	8	0.1	400
BX	242.62	3.05	1.73			Whole core.					
BX	245.67	3.05	3.68			Whole core.					
BX	248.72	3.05	3.10	250-251	TE 069	Whole core. 254.81m to 265.6m Grey silicified vuggy tuff lacking a foliation. Numerous irregularly shaped vughs (0.5cm to 2cm across) coated by quartz and barite? (unreactive HCl acid) or completely filled by these minerals. A trace of galena occurs in a vugh at 257.90m. Light and dark layers inclined at 65° to core axis.	15	8	210	0.3	2000
				251-							
				251.76	TE 070	Up to 6% pyrite present.	25	18	260	0.5	1000
				251.76-253	TE 071		25	260	2700	1.0	800
				253-254	TE 072		28	100	1650	1.0	1000
				254-							
				254.81	TE 073		15	440	570	0.5	800
BX	251.76	3.04	3.04	254.81-		Whole core.					
BX	254.81	3.05	1.22	256	TE 074	1.66 metres whole, rest broken.	12	300	1000	0.3	400
BX	257.86	3.05	3.20	256-257	TE 075	2.90 metres whole, rest broken.	8	390	1000	0.5	1000
BX	259.69	1.83	1.96	257-258	TE 076	Whole core.	5	450	1280	0.5	500
BX	262.74	3.05	3.10	258-259	TE 077	Whole core.	5	370	1450	0.5	800
BX	265.79	3.05	3.16	259-260	TE 078	Whole core. From 259.69m to 265.6m The vughs are not common.	18	1850	4450	1.0	500
				260-261	TE 079	From 261.26m to 261.56m The pyrite looks darker than usual (stained?)	18	550	820	0.3	400
				261-262	TE 080	and is similar to chalcocyanite or a thin coating of sphalerite?	22	800	2250	1.0	500
				262-263	TE 081	265.6m to 268.8m Grey sericitised foliated pyritiferous tuff which is not silicified as in previous section. 4% pyrite present and a trace of pyrrhotite. At 266.2m the foliation core angle is 35°.	12	58	42	0.3	500
				263-264	TE 082		8	110	120	0.3	800
				264-265	TE 083		10	130	190	0.3	500
BX	268.83	3.04	3.00	265-266	TE 084	2.94 metres whole, rest broken.	8	120	410	0.1	600
BX	271.88	3.05	3.08	266-267	TE 085	Whole core. 268.8m to 319.3m Lapilli tuff, medium grained tuff and agglomerate mottled greyish green in dark and light shades, and also pink, which represent relict fragments. No foliation, some chloritisation. A faint layering is sometimes visible at between 50° and 90° to core axis. Up to 3% pyrite present. At 317.33m is a 0.35m wide band of fine dark green dacite (could possibly be a tuff deposited under water) with fine layering inclined at 57° to core axis;	15	290	230	0.5	500
				267-268	TE 086		18	190	65	0.3	500
				268-269	TE 087		15	58	55	0.1	600
				269-270	TE 088		10	28	85	0.1	600
				280-281	TE 089		10	10	70	0.1	500

588013

PROJECT: CHESTER METRIC GRID - E.L.5/63 TASMANIA

BOREHOLE No. CP 3

TYPE Diamond Drill Hole

CO-ORDINATES .....

INCLINATION .....

DIRECTION .....

DATE START .....

DATE FINISH .....

DRILLER Longyear

COMPANY .....

FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS								
							Ca	Pb	Zn	Ag	Ba				
						The upper contact core angle = 67°, the lower contact core angle = 32°. A trace of chalcopyrite and galena occurs in a quartz vein (core angle = 14°) at 336.5m. Up to 1% pyrrhotite occurs between									
BX	274.93	3.05	3.07			291.0m and 303.0m.									
BX	277.98	3.05	3.12			Whole core.									
BX	281.10	3.12	3.17			Whole core.									
BX	284.23	3.13	3.10			Whole core.									
BX	287.27	3.04	3.16			Whole core.									
BX	290.40	3.13	3.14			Whole core.									
BX	293.52	3.12	3.15	290-291	TE 090	Whole core.	8	45	160	0.1	500				
BX	296.57	3.05	3.13			Whole core.									
BX	299.77	3.20	3.13			Whole core.									
BX	302.97	3.20	2.91	300-301	TE 091	Whole core.	10	20	160	0.1	1200				
BX	306.02	3.05	3.09			Whole core.									
BX	309.22	3.20	3.13			Whole core.									
BX	312.42	3.20	3.11	310-311	TE 092	Whole core.	70	750	1200	0.3	600				
BX	315.16	2.74	2.84			Whole core.									
BX	318.29	3.13	3.15			Whole core.									
BX	321.41	3.12	3.12	320-321	TE 093	Whole core.	8	12	90	< 0.1	500				
BX	324.61	3.20	3.08			Whole core.									
BX	327.66	3.05	3.02			Whole core.									
BX	330.71	3.05	3.04	330-331	TE 094	2.90 metres whole, rest broken.	5	5	80	< 0.1	800				
BX	333.76	3.05	3.01			Whole core.									
BX	336.80	3.04	3.01			Whole core.									
BX	339.85	3.05	3.02			Whole core.									
BX	342.90	3.05	3.09	340-341	TE 095	Whole core.	8	140	600	0.1	1500				
BX	345.95	3.05	3.18	348-	TE 096	Whole core.	28	18	85	0.1	600				
BX	349.00	3.05	2.30	349.3		Whole core.									
BX	352.04	3.04	3.79	349.3-350	TE 097	3.69 metres whole, rest broken. 349.3m to 350.96m Dark grey-green	22	12	80	0.1	1000				
				350-351	TE 098	crystal tuff containing chlorite and carbonate veins. Between 350.06m	15	< 5	100	0.1	800				
				351-352	TE 099	and 350.96m is a coarse quartz carbonate vein at 10° to core axis	8	10	75	0.1	800				
						containing 0.1cm sized particle of bornite. Veins of chlorite and carbonate (2cm wide) have core angle of 27°. Bodies of carbonate occur throughout. Rounded quartz crystals up to 1cm across are present in the tuff. A trace of pyrite occurs along fractures associated with chlorite. 350.96m to 420.1m Agglomerates and lapilli tuffs. Mottled in shades of gray, green & brown. The component fragments are dark grey-green to pink brown with mafic spots (0.5cm). The									

588014

PROJECT: CHESTER METRIC GRID - E.L. 5/63 TASMANIA

BOREHOLE No. CP 3 TYPE Diamond Drill Hole CO-ORDINATES ..... INCLINATION ..... DIRECTION .....  
 DATE START ..... DATE FINISH ..... DRILLER ..... COMPANY Longyear ..... FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Dega mangles	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS				
							Cu	Pb	Zn	Ag	Ba
						fragments range up to 6.0cm in size. Negligible pyrite is present. Occasional random chlorite veins occur. White crystals (up to 0.4cm size) occur, sporadically in concentration lending a porphyritic texture to the rock at times. Occasionally the rock is entirely dark grey-green.					
BX	355.09	3.05	3.07			Whole core.					
BX	358.14	3.05	3.01			Whole core.					
BX	360.58	2.44	2.31	360-361	TE 100	1.95 metres whole, rest broken.	8	5	80	0.1	800
BX	363.63	3.05	3.09			Whole core.					
BX	366.67	3.04	3.05			Whole core.					
BX	369.72	3.05	3.05	370-371	TE 102	Whole core.	45	8	120	0.1	800
BX	372.85	3.13	3.12			Whole core.					
BX	375.97	3.12	3.20			2.80 metres whole, rest broken.					
BX	378.87	2.90	3.03			2.90 metres whole, rest broken.					
BX	381.91	3.04	3.12	380-381	TE 102	3.0 metres whole, rest broken.	15	12	80	0.1	600
BX	384.96	3.05	3.15			Whole core.					
BX	388.01	3.05	2.95			Whole core.					
BX	391.06	3.05	3.00	390-391	TE 103	Whole core.	8	8	90	0.1	800
BX	394.11	3.05	3.05			Whole core.					
BX	397.15	3.04	3.00			Whole core.					
BX	400.20	3.05	3.14			Whole core.					
BX	403.25	3.05	3.05	400-401	TE 104	Whole core.	12	5	95	0.1	1000
BX	406.30	3.05	3.00			Whole core.					
BX	409.35	3.05	3.10			Whole core.					
BX	411.78	2.43	2.46	410-411	TE 105	1.56 metres whole, rest broken.	10	15	130	0.1	1500
BX	414.53	2.75	2.72			Whole core.					
BX	416.36	1.83	1.73			Whole core.					
BX	419.40	3.04	2.62	419-420	TE 106	2.52 metres whole, rest broken.	15	8	110	0.1	800
BX	422.45	3.05	2.83	420-421	TE 107	2.13 metres whole, rest broken.	260	18	280	0.1	500
BX	425.50	3.05	3.06			Whole core.					
BX	427.94	2.44	2.57			Whole core. 420.1m to 421m Fine dark green partially bleached dacite, lower contact core angle = 50°. 421m to 462.1m Fine dark grey-green to pale pink quartz-feldspar crystal tuff, containing white feldspars and, less abundantly, quartz. Occasional veins of quartz occur; chlorite veins are inclined at 30° to the core axis. A 1cm bleb of sphalerite(?) occurs in a quartz infilling. From 436.80m to 440.40m is agglomerate of grey fragments in dark green groundmass. Between					

288015

BOREHOLE No. CP 3

TYPE Diamond Drill Hole

CO-ORDINATES .....

INCLINATION .....

DIRECTION .....

DATE START .....

DATE FINISH .....

DRILLER .....

COMPANY Longyear

FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	CORE Depth Angle metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS				
							Cu	Pb	Zn	Ag	Ua
						458.11m to 460.3m is from 2' to 6% pyrrhotite in fissures (on average 3'). 462.1m to 507.1m Agglomerate and lapilli tuff. Groundmass or pink-brown in a dark grey groundmass. The rock is barren of mineralization and appears porphyritic in places with white feldspar phenocrysts. Quartz crystals are also present.					
BX	431.14	3.20	3.05	430-431	TE 108	0.15 metres whole, rest broken.	12	12	65	0.1	600
BX	434.26	3.12	3.11			3.05 metres whole, rest broken.					
BX	437.39	3.13	3.20			2.70 metres whole, rest broken.					
BX	440.44	3.05	3.09	440-441	TE 109	2.90 metres whole, rest broken.	8	15	130	0.1	600
BX	443.55	3.01	3.08			2.70 metres whole, rest broken.					
BX	446.55	3.08	2.94			2.70 metres whole, rest broken.					
BX	448.26	1.83	1.90			1.90 metres whole, rest broken.					
BX	450.89	2.13	2.20	450-451	TE 110	1.50 metres whole, rest broken.	15	22	110	0.3	600
BX	452.93	2.44	2.36			2.26 metres whole, rest broken.					
BX	455.68	2.75	2.13	457-458	TE 111	1.80 metres whole, rest broken.	20	510	1700	0.5	600
BX	458.11	2.47	3.23	458-459	TE 112	2.73 metres whole, rest broken.	15	320	210	0.3	800
BX	461.37	3.26	3.14	459-460	TE 113	2.74 metres whole, rest broken.	22	700	550	1.0	300
BX	464.36	2.99	3.18	460-461	TE 114	Whole core.	28	500	1200	0.5	800
BX	467.49	3.13	3.07	461-462	TE 115	Whole core.	42	50	180	0.1	600
BX	470.61	3.12	3.13	462-463	TE 116	Whole core.	10	8	90	0.1	600
BX	473.66	3.05	2.38	470-471	TE 117	Whole core.	8	20	210	0.1	800
BX	476.86	3.20	3.76			Whole core.					
BX	479.91	3.05	3.09			Whole core.					
BX	482.96	3.05	3.08	480-481	TE 118	Whole core.	8	20	90	0.5	800
BX	486.16	3.20	3.12			Whole core.					
BX	489.05	2.89	3.04			Whole core.					
BX	492.05	3.00	3.16	490-491	TE 119	Whole core.	15	70	410	0.1	800
BX	495.22	3.17	3.12			3 metres whole, rest broken.					
BX	498.35	3.15	3.16	500-501	TE 120	Whole core.	12	30	210	0.1	800
BX	501.40	3.05	3.07	507-508	TE 121	Whole core.	8	38	370	0.3	400
BX	504.44	3.04	3.02	508-509	TE 122	Whole core.	8	25	250	0.1	1500
BX	507.49	3.05	3.05	509-510	TE 123	2.80 metres whole, rest broken.	22	18	310	0.3	1500
BX	510.54	3.05	2.98	510-511	TE 124	Whole core.	8	12	120	<0.1	1000
BX	516.79	6.25	6.17	511-512	TE 125	5.90 metres whole, rest broken.	10	70	210	0.3	2000
BX	519.99	3.20	3.03	512-513	TE 126	2.90 metres whole, rest broken.	12	100	270	1.0	1500
BX	523.04	3.05	3.04	513-514	TE 127	2.94 metres whole, rest broken.	15	30	290	0.5	1000
BX	526.08	3.04	3.08	514-515	TE 128	Whole core.	100	22	400	0.3	300

588016

PROJECT: CHESTER METRIC GRID - E.L. 5/63 TASMANIA

BOREHOLE No. CP 3 TYPE Diamond Drill Hole CO-ORDINATES INCLINATION DIRECTION  
 DATE START DATE FINISH DRILLER COMPANY Longyear FINAL DEPTH

CORE SITE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS				
							Cu	Pb	Zn	Ag	Ba
				515- 515.5- 515.87	TE 129	507.1m to 521.00m Fine light yellow-green to dark green tuff containing negligible pyrite until 516.3m after which there is 2% very fine pyrite. From 516.52m to 519.43m is lead-zinc mineralization: 516.42m to 516.80m 23% sulphides (Galena 90%, pyrite 10%).	85	110	580	5.0	2000
				516.5- 517.5- 518.9	TA 955 TA 956 TA 957	GRADE WAS DETERMINED 516.8m to 517m 20% sulphides, (Galena 80%, sphalerite 5%, pyrite 15%).	0.007%	0.16%	1.37%	12.0	0.78%
				518.9- 520	TA 958	BY VISUAL ESTIMATION. 517m to 517.3m 10% sulphides (galena 90%, pyrite 7%, sphalerite 3%)	0.003%	0.31%	0.12%	6.0	0.28%
				520-521 521-522 522-523 523-524 524-525	TE 131 TE 132 TE 133 TE 134 TE 135	517.3m to 517.5m 10% sulphides (galena 55%, sphalerite 45%, chalcocpyrite trace)	12	40	75	5.0	1500
						517.5m to 518.9m 70-80% sulphides (galena 25%, sphalerite 75%).	12	12	470	0.3	400
							12	50	360	0.3	2000
							15	60	290	0.3	1000
							15	80	1200	0.3	800
BX	529.13	3.05	3.12	525-526	TE 136	Whole core. 518.9m to 519.43m 1% galena and sphalerite.	10	32	1200	0.1	800
BX	532.18	3.05	3.1	526-527	TE 137	2.9 metres whole, rest broken.	35	35	3050	0.3	800
BX	535.23	3.05	3.12	527-528	TE 138	Whole core.	95	170	2200	0.3	1000
BX	541.02	5.79	5.82	528-529	TE 139	5.4 metres whole, rest broken.	12	22	600	3.0	1000
BX	544.07	3.05	3.20	529-530	TE 140	Whole core.	10	20	380	<0.1	1500
				530-531 531-532 532-533 533-534 534-535 535-536 536-537 537-538	TE 141 TE 142 TE 143 TE 144 TE 145 TE 146 TE 147 TE 148	521m to 525m Light green tuff with numerous irregularly shaped inclusions of yellowish white barite (usually 1cm size). Trace sphalerite and galena. 525m to 536.2m Light yellowish green crystal tuff with pale yellowish-white phenocrysts (up to 0.2cm size). Occasional pods and veins of barite are present and a trace of sphalerite. At 545.4m is a 3cm quartz band containing 30% sphalerite and 30% galena, inclined at 40° to core axis. Pods and veins of barite(?) are occasionally present.	38	38	590	0.3	1500
							20	10	130	0.3	600
							15	85	900	0.3	600
							12	30	700	0.3	1000
							12	8	90	0.1	800
							22	18	95	0.5	600
							10	18	400	0.3	400
							10	58	280	0.1	800
BX	547.42	3.35	3.08	538-539	TE 149	Whole core.	15	12	600	0.1	800
BX	550.47	3.05	3.06	539-540	TE 150	Whole core.	15	15	330	0.1	3000
BX	553.52	3.05	3.05	540-541	TE 151	Whole core.	15	10	85	0.1	800
BX	556.56	3.04	3.14	541-542	TE 152	Whole core.	15	25	120	0.1	1000
BX	559.61	3.05	3.13	542-543	TE 153	Whole core.	15	20	100	0.1	1200
BX	562.66	3.05	3.00	543-544	TE 154	2.95 metres whole, rest broken.	30	22	650	<0.1	1500
BX	565.71	3.05	2.95	544-545	TE 155	Whole core.	30	10	140	0.1	1000
BX	568.76	3.05	3.15	545-546	TE 156	Whole core.	60	30	9200	0.3	1000
BX	571.80	3.04	3.08	546-547	TE 157	Whole core.	10	10	100	0.1	600
BX	574.85	3.05	3.12	550-551	TE 158	Whole core.	12	140	590	0.3	500
BX	577.90	3.05	3.04	560-561	TE 159	Whole core.	12	5	60	0.1	500

588017

PROJECT: CHESTER METRIC GRID - E.L.5/63 TASMANIA

BOREHOLE No. CP 3

TYPE Diamond Drill Hole

CO-ORDINATES .....

INCLINATION .....

DIRECTION .....

DATE START .....

DATE FINISH .....

DRILLER .....

COMPANY Longyear

FINAL DEPTH .....

CORE SIZE	DEPTH metres	DRILLED metres	RECOVERED metres	Depth metres	SAMPLE NO.	DESCRIPTION	ASSAY RESULTS				
							Cu	Pb	Zn	Ag	Ba
BX	580.95	3.05	3.05	570-571	TE 160	Whole core.	28	35	220	0.1	600
BX	584.00	3.05	3.00	580-581	TE 161	Whole core.	10	10	40	0.1	800
BX	587.00	3.00	3.01			Whole core.					
BX	590.09	3.09	2.94	590-591	TE 162	Whole core.	15	18	100	<0.1	800
BX	593.14	3.05	3.14			Whole core.					
BX	596.19	3.05	2.87			Whole core.					
BX	599.24	3.05	3.16			Whole core.					
BX	601.83	2.59	2.67	600-601	TE 163	Whole core.	60	15	60	0.1	400
BX	602.00	1.07	0.96			0.9 metres whole, rest broken.					
						546.2m to 602.9m Dark green tuff, lapilli tuff and agglomerate containing very indistinct porphyritic component fragments which are discerned most easily by a clustering of phenocrysts. The fragments are slightly lighter in colour than the dark green groundmass. Trace of pyrite present.					
						<u>END OF HOLE</u>					

588018

COMSTAFF PROPRIETARY LIMITEDCHESTER METRIC GRID - E.L.5/63SUMMARY OF DIAMOND DRILL HOLE CP 31. ROCK INTERSECTIONS

0.0m to 47.12m	Grey crystal tuff containing 5% pyrite.
47.12m to 48.54m	Fine dark green dacite foliated by shear.
48.54m to 59.59m	Grey sericitised foliated pyritiferous tuff.
59.59m to 60.04m	Fine dark green foliated dacite.
60.04m to 64.54m	Tuff.
64.54m to 64.71m	Dacite.
64.71m to 69.49m	Tuff.
69.49m to 70.63m	Dacite.
70.63m to 76.40m	Tuff.
76.40m to 77.66m	Dacite.
77.66m to 80.24m	Tuff.
80.24m to 81.77m	Dacite.
81.77m to 126.50m	Tuff.
126.50m to 130.33m	Dacite.
130.33m to 130.66m	Tuff.
130.66m to 131.89m	Dacite.
131.89m to 132.22m	Tuff.
132.22m to 133.23m	Dacite.
133.23m to 162.92m	Tuff.
162.92m to 163.67m	Fine dark grey rock, lacking shear foliation.
163.67m to 178.16m	Tuff. (Fault at 177.85m to 178.16m)
178.16m to 179.11m	Dacite.
179.11m to 180.20m	Tuff, Chloritised.
180.20m to 180.37m	Dacite - no shear foliation.
180.37m to 187.33m	Tuff.
187.33m to 190.36m	Dacite.
190.36m to 199.05m	Tuff.
199.05m to 200.20m	Dacite.
200.20m to 211.46m	Tuff.
211.46m to 212.15m	Dacite.
212.15m to 227.00m	Tuff.
227.00m to 233.00m	Tuff breccia.
233.00m to 233.36m	Fine dark grey rock.
233.36m to 234.75m	Tuff.
234.75m to 236.22m	Fine grey rock.
236.22m to 251.76m	Tuff.
251.76m to 254.81m	Unfoliated grey porphyry.
254.81m to 265.60m	Tuff; silicified, vughy, no foliation.
265.60m to 268.60m	Tuff.
268.60m to 349.30m	Tuffs, lapilli tuffs and agglomerates.
349.30m to 350.96m	Dark grey-green crystal tuff.
350.96m to 420.10m	Lapilli tuffs and agglomerates.
420.10m to 421.00m	Unfoliated dacite.
421.00m to 462.10m	Dark grey green to pink crystal tuff.
462.10m to 507.10m	Lapilli tuffs and agglomerates.
507.10m to 521.00m	Light yellow-green to dark green tuff, mineralized (galena, sphalerite) between 516.52m and 519.43m.
521.00m to 525.00m	Light green tuff with barite(?) inclusions.
525.00m to 546.20m	Light yellow green crystal tuff - some lead-zinc at 545.40m.
546.20m to 602.90m	Dark green lapilli tuffs and agglomerates.

END OF HOLE.

2. INDICATED VALUES OF ORE

At 5% zinc cut off 516.50m to 518.90m	22.33% Zn; 5.24% Pb; 65.4 ppm Ag; 8.77% Ba; 0.086% Cu x 2.4m D.T.
At 1% zinc cut off 515.87m to 518.90m	17.97% Zn; 4.18% Pb; 54.3 ppm Ag; 7.02% Ba; 0.070% Cu x 3.03m D.T.
At 0.1% zinc cut off 515.50m to 520.00m 251.76m to 262.00m	12.17% Zn; 2.90% Pb; 38.7 ppm Ag; 4.80% Ba; 0.050% Cu x 4.5m D.T. 0.17% Zn; 0.05% Pb; 0.7 ppm Ag; 0.07% Ba; 0.002% Cu x 10.24m D.T.

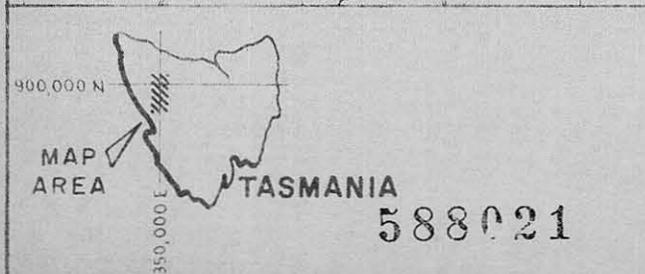
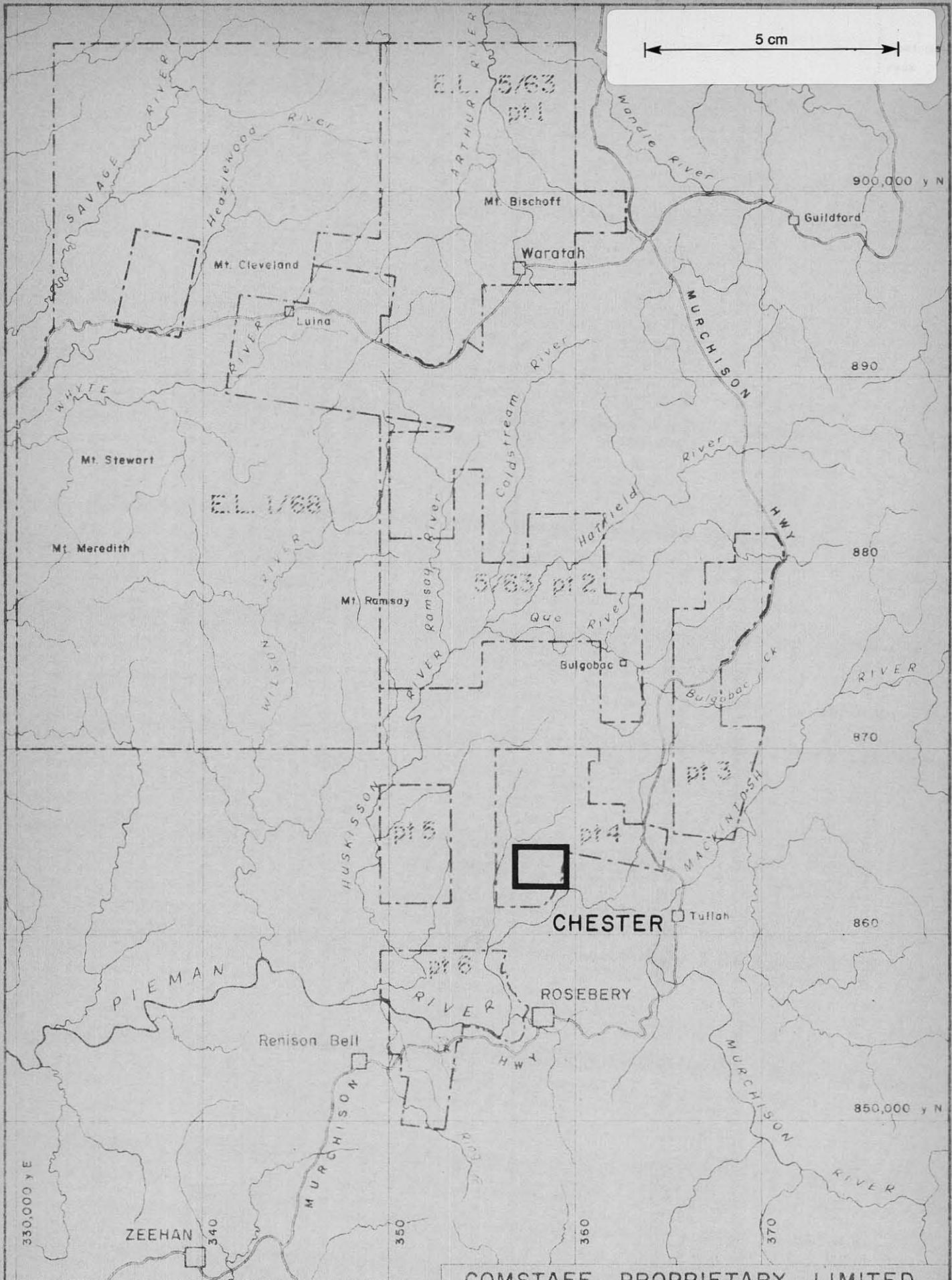
<u>SPECIFIC GRAVITY</u>	Ore 516.50m to 518.50m	3.64
	Country rocks	2.88

SUMMARY OF DIAMOND DRILL HOLE - CP3 (continued)3. CORE RECOVERY

	<u>1% out off</u>	<u>Overall</u>
Metres drilled	515.87 to 518.9	0 to 602.9m
Metres recovered	94.68%	584.22
Percentage recovery	94.68%	96.90%

4. WATER TABLE not recorded - lost water.CASING LEFT IN HOLE None.BOREHOLE SURVEYS USING EASTMAN MULTISHOT BOREHOLE CAMERA AND ACID READINGS

	<u>Borehole Depth</u>		<u>Inclination</u>	<u>Direction</u>	
	Feet	Metres			
Acid survey corrected for capillarity	50	15.2	44½	E 10°N at surface	
	100	30.5	38½		
	150	45.7	34	Unable to determine direction	
	200	70.0	31½		
	250	76.2	24½		
	300	91.4	24		
	350	106.7	21		
	330	100.6	24		
	450	137.2	18½		
	570	173.74	17		
Eastman	690	210.31	14		
	810	246.89	14		
Eastman	930	283.46	13½	E 4°S mag.	
	1050	320.04	12		
	1125	342.90	9	Unable to determine direction.	
	1225	373.38	8		
	1325	403.86	8		
	1425	434.34	8		
	1520	463.29	7½		
	1620	493.78	5		
	Acid survey	1700	518.16		5
	as above.	1800	548.64		3½
Eastman	1978	602.9	0		In south-east quadrant.



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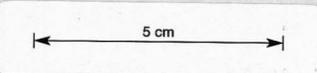
CHESTER

1973/74 SUMMER SEASON REPORT

**LOCATION MAP**

DRAWN MAY, 73 R. Bottomley	COMPILED	SCALE 1: 250,000	DWG TAS-2-691
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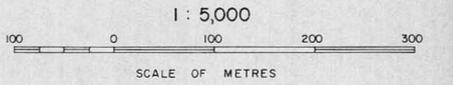




**LEGEND**

- Line tested for S.P.
- ▬ Self potential anomaly
- ⋯ 20m grid — see note below
- ~ Drainage
- == Road
- Railway or tramway

NOTE: The distances between pegs have been corrected for slope, but they have not been reduced to plane survey distances.  
 L14 N was pegged at 16m intervals (assumed 20m) to 1750 E (actually 1480 E), thence at 20m intervals.



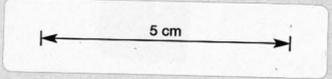
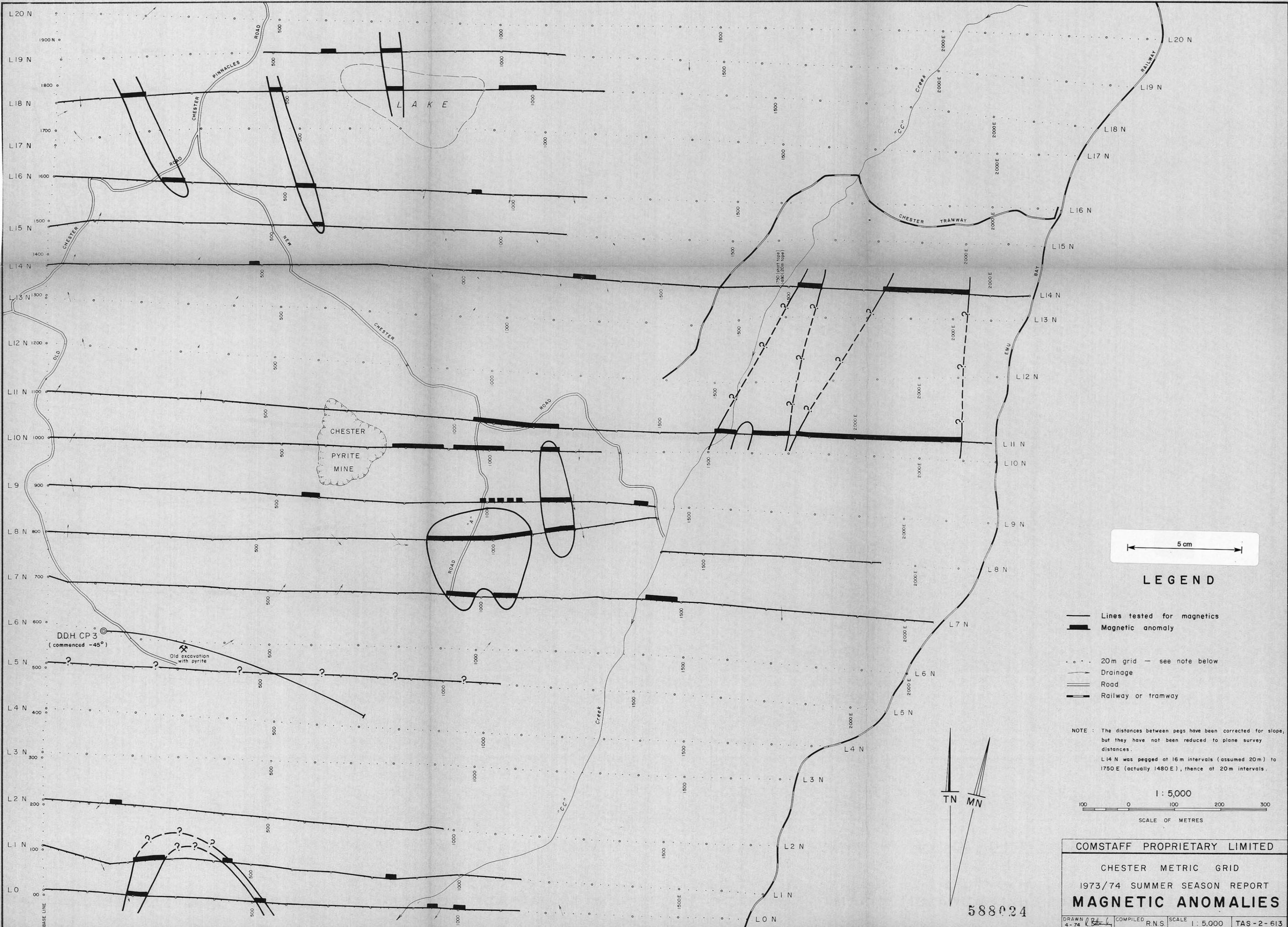
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CHESTER METRIC GRID

1973/74 SUMMER SEASON REPORT

**S.P. ANOMALIES**

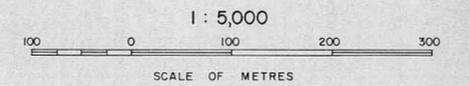
DRAWN BY: [Signature] COMPILED R.N.S. SCALE 1:5,000 TAS-2-614



**LEGEND**

- Lines tested for magnetics
- ▬ Magnetic anomaly
- ⋯ 20m grid — see note below
- Drainage
- Road
- Railway or tramway

NOTE: The distances between pegs have been corrected for slope, but they have not been reduced to plane survey distances.  
 L14 N was pegged at 16m intervals (assumed 20m) to 1750 E (actually 1480 E), thence at 20m intervals.



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CHESTER METRIC GRID

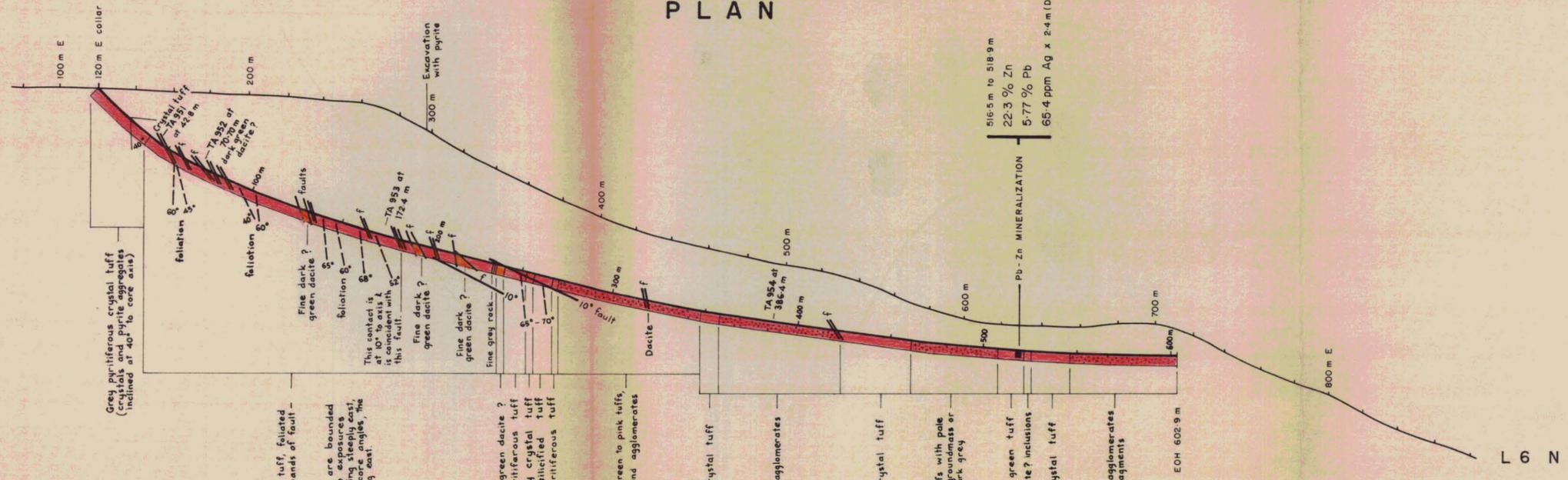
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**MAGNETIC ANOMALIES**

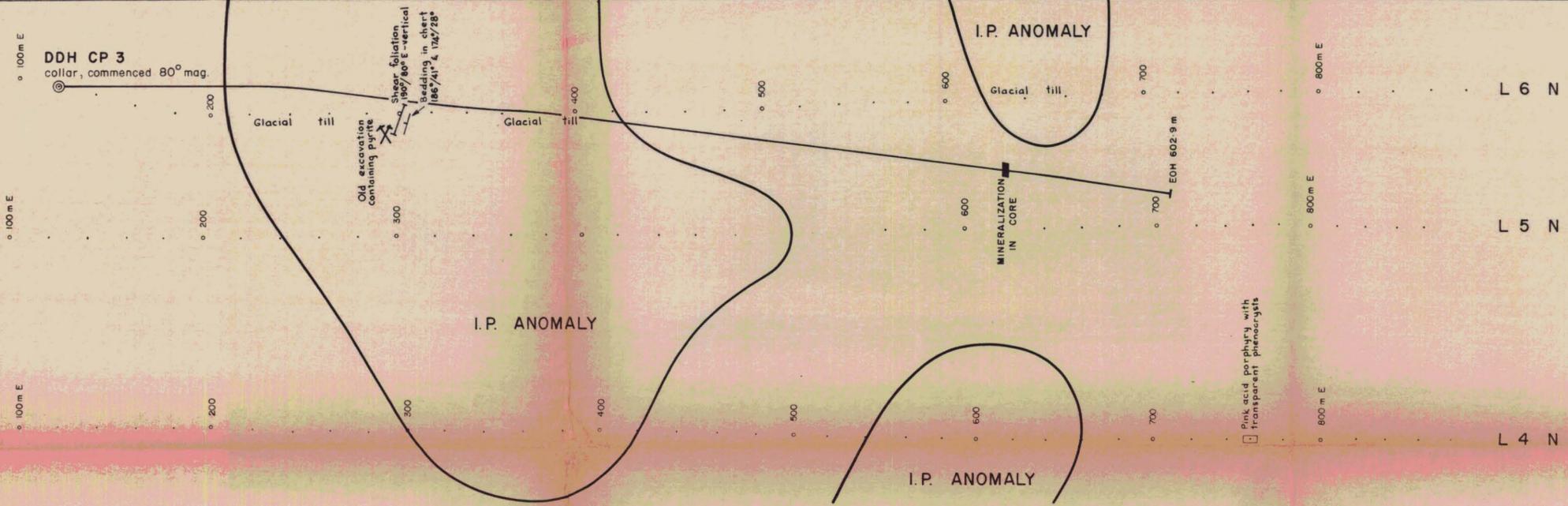
DRAWN 4-74 R.S. COMPILED R.N.S. SCALE 1:5,000 T.A.S.-2-613

588024

DDH CP 3  
80° mag / 45° dep.



L6 N SECTION



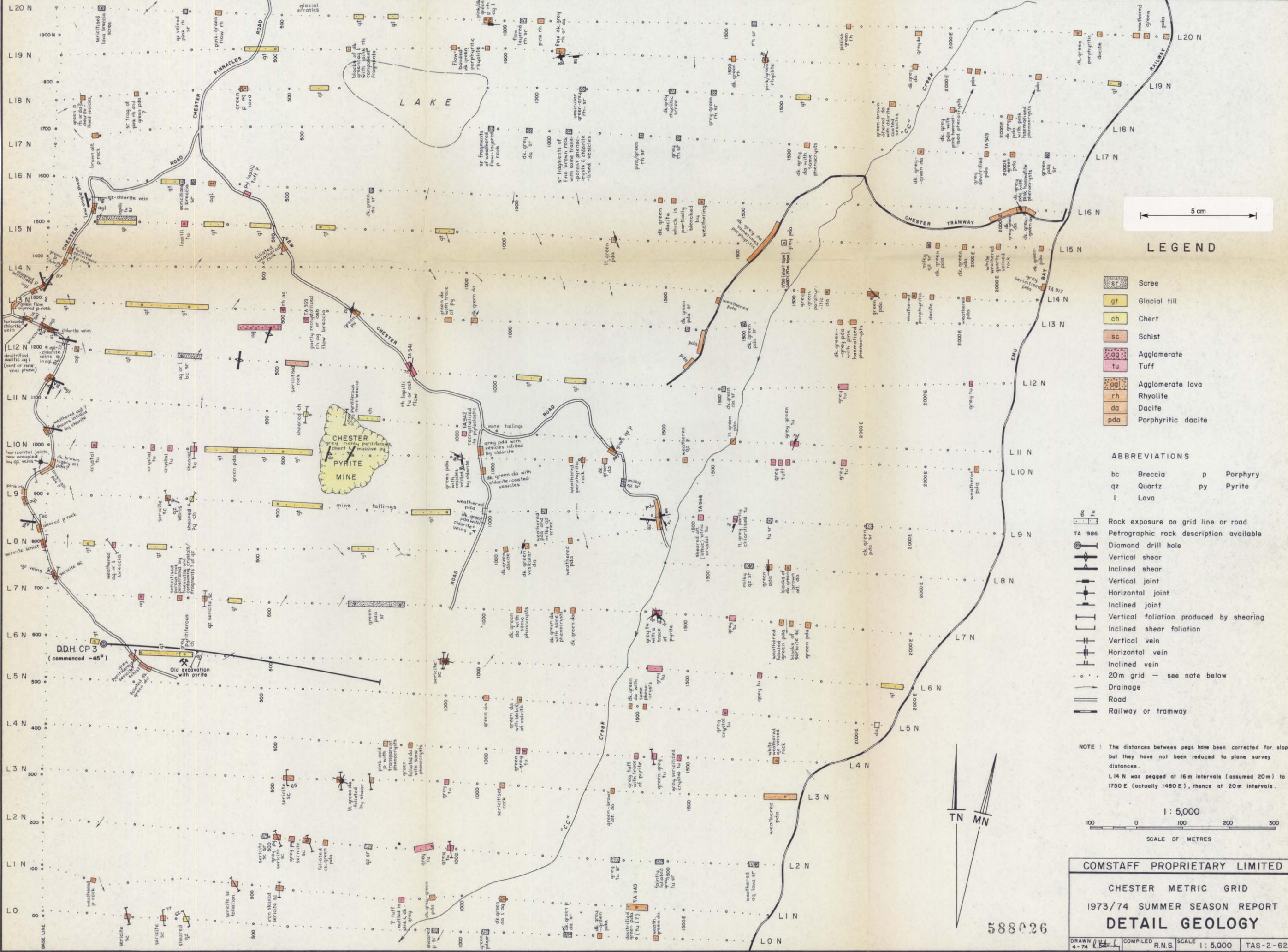
PLAN

TA 953 - Petrographic sample



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 CHESTER METRIC GRID — LINE 6 N  
 1973/74 SUMMER SEASON REPORT  
**D.D.H. CP 3**  
 DRAWN 5-74 [Signature] COMPILED R.N.S. SCALE 1:2,000 TAS-2-612

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**LEGEND**

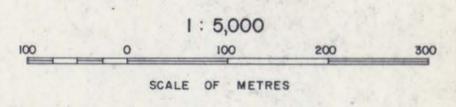
- Scree
- Glacial till
- Chert
- Schist
- Agglomerate
- Tuff
- Agglomerate lava
- Rhyolite
- Dacite
- Porphyritic dacite

**ABBREVIATIONS**

- bc Breccia
- qz Quartz
- l Lava
- p Porphyry
- py Pyrite

- Rock exposure on grid line or road
- TA 986 Petrographic rock description available
- Diamond drill hole
- Vertical shear
- Inclined shear
- Vertical joint
- Horizontal joint
- Inclined joint
- Vertical foliation produced by shearing
- Inclined shear foliation
- Vertical vein
- Horizontal vein
- Inclined vein
- 20 m grid — see note below
- Drainage
- Road
- Railway or tramway

NOTE: The distances between pegs have been corrected for slope, but they have not been reduced to plane survey distances. L14 N was pegged at 16 m intervals (assumed 20 m) to 1750 E (actually 1480 E), thence at 20 m intervals.



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 CHESTER METRIC GRID  
 1973/74 SUMMER SEASON REPORT  
**DETAIL GEOLOGY**  
 DRAWN BY [initials] COMPILED R.N.S. SCALE 1:5,000 TAS-2-621

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