

EXPLORATION LICENCE 47/71

PROGRESS REPORT

DECEMBER 1972

GIPPSLAND MINERALS

72-918

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MICROFILMED

711002

PROGRESS REPORT

E.L. 47/71

DECEMBER, 1972

During the winter period, all field work ceased, and the drilling was terminated on the 17th June, 1972, recommencing on the 10th October, 1972. This period of time was used to re-interpret the structure of the area allied with the re-logging of the core.

The future programme decided upon by the partners, Gippsland Minerals N.L. and Cominco Exploration Pty. Ltd., to be completed before the end of December, was to;

1. drill a minimum of five boreholes on Queen Hill, in order to outline further the extent and nature of the orebody already located.
2. drill a minimum of one hole in the Montana area, in order to investigate further the location of the previous mineralised intersection located in boreholes G.19 and G.20.
3. conduct further metallurgical testing of the ore and to investigate the economics of pyrometallurgy.
4. grid the total exploration licence area in preparation for further field work.
5. investigate the use of geophysical methods as an exploration tool and also as an aid to outlining the nature and extent of the Queen Hill orebody.

This report outlines and compiles the results obtained to date, from this programme, no interpretation has yet been attempted, as complete details are not yet to hand.

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Re-logging of Boreholes

The aim and objective of this work was to, wherever possible, locate and correlate,

1. fault and structure features.
2. facing data.
3. describe any sedimentary features of interest, in particular primary carbonates.

Although not entirely successful in obtaining an unquestionable correlation between drill holes, a series of cross sections have been re-drawn and are included in the appendix to this report.

The attached borelogs for the earlier holes should be read in conjunction with those prepared previously. An interesting feature has been the amount of primary carbonates not previously recognized.

Diamond Drilling

Detailed information is contained in the accompanying drill logs.

Diamond Drill Hole G.23

Encountered only insignificant mineralisation from 318'-327', 348'4"-351' and 371'3"-373', which assayed

<u>Footage</u>	<u>XRF % Sn</u>	<u>Scan % Sn</u>	<u>Cu %</u>	<u>Pb %</u>	<u>Zn %</u>	<u>Stannite Sn % AAS</u>	<u>Ag ozs/ton</u>
318-323'		0.28	0.006	0.38	2.4	0.05	0.7
323-327'		0.14	0.008	0.94	1.15	0.05	1.4
348'4"-351'	1.22	1.06	1.25	1.7	0.07	1.1	9.5
371'3"-373'	0.57	0.52	0.016	3.2	2.5	0.05	2.8

Diamond Drill Hole G.24

Encountered only significant mineralisation from 145.71-150.82 and 155.27-156.27 metres, which assayed as follows:

<u>METRES</u>		<u>XRF % Sn</u>	<u>XRF % Sn</u>	<u>Cu %</u>	<u>Pb %</u>	<u>Zn %</u>	<u>Stannite Sn % AAS</u>	<u>Ag ozs/ton</u>
<u>From</u>	<u>To</u>	<u>NATA Lab</u>	<u>Scan</u>					
145.71	146.71	0.13	0.13	0.015	0.19	0.007	0.05	0.6
146.71	147.71	1.43	1.2	1.3	0.66	0.049	1.2	6.1
147.71	148.62	3.1	2.3	2.85	2.9	0.11	2.05	12.7
148.62	149.52		0.17	0.013	0.59	0.016	0.05	0.6
149.52	150.82	0.75	0.47	0.08	26.0	2.3	0.08	22.6
155.27	156.27	0.44	0.47	0.03	0.23	0.08	0.08	0.4

Diamond Drill Hole G.25

No mineralisation encountered.

Diamond Drill Hole G.26

Encountered 30 metres of mineralisation from 235.50 to 264.00, which assayed as follows,

<u>METRES</u>		<u>Total Sn</u>	<u>Total Sn</u>	<u>Cu %</u>	<u>Pb %</u>	<u>Zn %</u>	<u>Ag</u>	<u>% Acid Soluble</u>
<u>From</u>	<u>To</u>	<u>% Scan</u>	<u>NATA Lab</u>				<u>ozs/ton</u>	<u>Stannite Sn</u>
235.50	236.50	0.005		<0.01	0.045	0.028		
236.50	238.00	0.05		<0.01	0.03	0.01		
238.00	239.00	0.99	1.03	0.024	0.95	0.21	0.73	<0.01
239.00	240.00	1.34	1.41	0.016	0.50	0.09	0.36	<0.01
240.00	241.00	1.49	1.90	<0.01	0.03	<0.01		0.04
241.00	242.00	2.39	2.94	0.016	0.025	<0.01		0.08
242.00	243.00	2.28	2.67	0.027	0.025	<0.01		0.04
243.00	244.50	0.31	0.29	0.012	0.035	<0.01		0.01
244.50	246.00	1.56	1.71	<0.01	0.04	<0.01		0.02
246.00	248.00	1.59	1.66	0.014	0.075	0.024		0.02
248.00	249.00	2.28	2.54	0.01	0.066	<0.01		0.01
249.00	250.00	1.76	1.90	0.013	0.047	<0.01		0.02
250.00	251.00	2.20	2.44	0.01	0.082	<0.01	0.4	0.02
251.00	252.00	3.69	4.93	0.028	0.16	0.017	0.7	0.05
252.00	253.00	3.47	4.56	0.011	0.23	0.088	0.4	0.04
253.00	254.00	2.87	3.55	0.058	1.85	2.9	1.2	0.05
254.00	255.00	1.26	1.38	0.04	1.1	1.2	0.9	0.07
255.00	256.00	1.63	1.73	0.019	0.04	0.027		0.04
256.00	257.00	2.14	2.39	0.012	0.036	0.01		0.04
257.00	258.00	3.08	3.69	<0.01	0.03	<0.01		0.07
258.00	259.00	2.80	3.39	0.012	0.028	<0.01		0.07
259.00	260.00	0.97	0.97	0.01	0.03	<0.01		0.07
260.00	261.00	1.09	1.09	0.042	0.02	<0.01		0.08
261.00	262.00	2.05	2.40	0.012	0.018	<0.01		0.04
262.00	263.00	1.72	1.82	0.02	0.064	0.044		0.05
263.00	264.00	0.14	0.01	0.01	0.01	<0.01		0.02

Diamond Drill Hole G.27 (Montana)

No significant mineralisation was encountered, position of borehole located on plan.

Diamond Drill Hole G.28

No significant mineralisation reported.

Field Mapping

Detailed maps of the work, which was undertaken as a reconnaissance on a scale of 1:2500, have not yet been completed but will be forwarded as soon as the new metric base maps are prepared.

In general, the area is devoid of outcrops due to the soil cover and the Permian Tillite, and geophysical methods will undoubtedly have to be employed in order to locate any mineralisation that may be present.

Geophysics

Preliminary copies of the results obtained by the use of

1. misse a la masse over the Queen Hill area, following down-hole surveys of boreholes 6, 9 and 26.
2. gradient array over the Montana area.

In general, interpretation at this stage is difficult until final results are obtained. However, Mr. A.W. Howland-Rose, Managing Director of Seigal Associates Australasia Pty. Ltd., comments as follows:

1. The equipotential contours show up the presence of an electrically continuous sulphide zone when the ore intersection in G.6 is energised. You will also note that the high induced polarization response is present up dip from the equipotential low which marks the Gippsland body's position.
2. The large intersection encountered in hole G.26 is in electrical continuity with, and an integral part of, the Gippsland orebody.

3. The separate sulphide and graphite zones encountered in hole G.9 are not in electrical continuity with the Gippsland body, and form a unique and unexpectedly large equipotential low truncating the northern end of the body.
4. It is suggested that (3) above is a mineralised fault zone, it should however, be noted that it has no electrical continuity with the ore zone.
5. The Stormsdown mineralisation is not in electrically continuity with the Gippsland body.
6. The contour pattern suggests a north easterly plunge to the Gippsland body which is in accordance with the known results.
7. Geophysically there are significant similarities between this deposit and the Renison and Mt. Cleveland occurrences.
8. The low resistivities (i.e. chargeabilities) encountered in this survey mark this body out as a potential low frequency electromagnetic target. It is suggested that a Turair/Turam approach would be an expeditious method to explain the surrounding areas.

Metallurgical Testing

This work is being undertaken by Cominco Exploration Pty. Ltd., and no results are yet available.

Samples were sent to A.M.D.E.L. for an initial investigation into pyrometallurgical techniques; their report is attached; and the results are very encouraging, further work is planned.

Future Exploration Policy

The scope and detail of future work will depend largely upon whether or not Cominco Exploration Pty. Ltd. exercise their option to join with Gippsland Minerals N.L.

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in February 1973. However, it is anticipated that either company would continue with the following exploration programme.

1. Investigate fully the possible use of pyrometallurgical and hydrometallurgical for the separation of tin.
2. Search extensively for further pyritic ore bodies in the exploration area. It is intended to experiment with ground magnetics in order to delineate rock units. Consideration after the success of limited geophysics, over the Queen Hill area, will also be given to the use of Turair.
3. Initial orientation geochemical surveys, which have commenced, could result in the future use of these methods, for target definition.
4. Continue drilling in order to outline further ore reserves on the Montana and Queen Hill structures. A minimum of 1.5 million tons is the estimated tonnage required for a viable operation.



C. P. BARNES
Chief Geologist

December, 1972

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COPY OF ORIGINAL REPORT FROM THE AUSTRALIAN MINERAL
DEVELOPMENT LABORATORIES, REFERENCE CM 3/241/0,
DATED 26TH OCTOBER, 1972

PART REPORT: CM 1481/73

YOUR REFERENCE: Your Order No. 2755 dated
1st October, 1972.

MATERIALS: Pyritic Tin Ore.

WORK REQUIRED: Volatilisation tests at 1100°C.

1. INTRODUCTION

Cominco Exploration Pty. Limited are currently seeking methods of treating a pyritic tin ore to produce a high grade saleable product. A single scouting sulphide flotation test was carried out some months ago at A.M.D.E.L. to guide us in our suggestions, and results are listed in Table 1.

The present work involved a preliminary investigation of fuming the volatile SnS from the ore utilising the sulphur present in the ore to form the tin sulphide.

2. EXPERIMENTAL PROCEDURE AND RESULTS

Fuming tests were carried out in a laboratory tube furnace at 1100°C in an atmosphere of flowing nitrogen. Two materials were tested viz. the ore and the flotation sink product. The heating time to 1100°C was approximately 45 minutes, and the samples were held at 1100°C for 6½ hours. The atmosphere of nitrogen was maintained until the sample cooled to below 100°C.

During the heating up period, elemental sulphur volatilised between 700°C and 800°C and condensed on the walls of a glass tube outside the furnace. Very little sulphur was volatilised from the flotation sink product. Volatilisation of SnS commenced between 900°C and 1000°C, and proceeded for 1½ hours after the temperature reached 1100°C. Crystals resembling SnS were recovered from the walls of glass tubing outside the furnace. The residue was sintered during the fuming process.

Analyses of the residues showed that virtually 100% of the tin had been volatilised. Full results are listed in Table 2. The tests were not repeated at 1200°C, as originally planned, because of the excellent results obtained at 1100°C.

3. DISCUSSION

The test work has shown that tin can be fumed as SnS from Cominco's pyritic ore in a neutral atmosphere, and that a very high recovery of tin can be obtained. However, before it can be accepted that such a process has promise of commercial viability, several other factors must be determined. It is almost certain that the furnace would be internally heated, and hence volatilisation in an atmosphere of combustion gases must be investigated. Assuming this is successful the conditions for volatilisation should be defined a little more closely, promising forms of equipment should be tested on a small scale, and a first preliminary estimate of capital and operating cost should be made to establish whether the process is likely to be viable. The technology of this process should be compared with that of the Capper Pass tin-fuming process if details can be obtained.

A further test will now be conducted at 1100°C in an atmosphere of artificial combustion gases (i.e. a N₂, CO₂, CO mixture) in place of the test work originally planned for 1200°C. Results will be forwarded as soon as they are available. If this test is successful, a proposal will be forwarded setting out the work required to optimise the process and establish it on a commercial basis.

TABLE 1: SULPHIDE FLOTATION TEST

	Weight g	Sn %	Sn %	Sn Distribution %	S %
Sulphide Concentrate	94.5	0.28	0.26	3.3	51.6
Cleaner Tail No. 2	115.3	0.39	0.45	5.7	51.2
Cleaner Tail No. 1	78.0	0.90	0.70	8.8	46.8
Final Tail (Sink Product)	206.2	3.15	6.50	82.2	3.6
Calculated Head	494.0	1.60	7.91	100.0	30.6
Assay Head	500.0	1.55	7.75	-	-

TABLE 2: VOLATILISATION TESTS (1100°C)

	Weight g	Sn %	Sn %	Sn Extraction %
a. <u>Ore</u>				
Head	7.00	1.55	0.109	
Residue	5.41	<0.05	<0.003	>97.3
b. <u>Flotation Sink Product</u>				
Head	7.00	3.15	0.221	
Residue	5.95	<0.05	<0.003	>98.7

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COPY OF ORIGINAL REPORT FROM THE AUSTRALIAN MINERAL
DEVELOPMENT LABORATORIES, REFERENCE CM 3/241/0,
DATED 6TH NOVEMBER, 1972

CONCLUDING PART REPORT: CM 1481/73

YOUR REFERENCE: Your Order No. 2755 dated
1st October, 1972, and telephone
conversation with
Dr. J.R. Tuffley, 25th October,
1972.

MATERIAL: Pyritic tin ore.

WORK REQUIRED: Fuming test at 1100°C in
artificial combustion gas
atmosphere.

1. INTRODUCTION

Part 1 of this report (dated 26th October, 1972) showed that virtually 100% of the tin was volatilised from the ore at 1100°C in a nitrogen atmosphere. The present work repeated the test in an atmosphere of simulated combustion gases.

2. EXPERIMENTAL PROCEDURE AND RESULTS

The fuming test was carried out in the same tube furnace under identical conditions to those in Part 1 of this report, except for the gas atmosphere. This consisted of 85% N₂, 10% CO₂ and 5% CO.

Analysis of the residue showed that 99% of the tin had been volatilised. Full results are listed in Table 1.

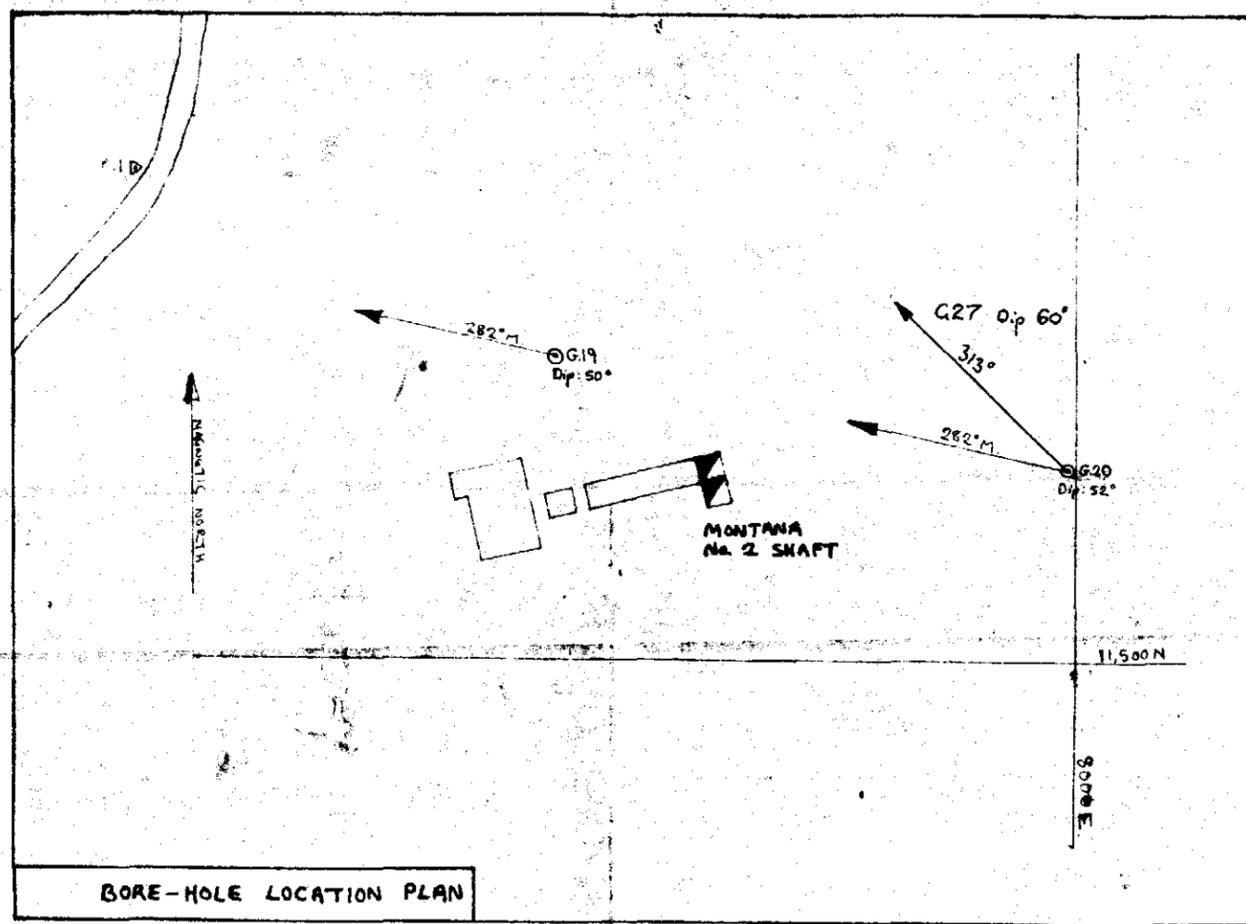
3. DISCUSSION

The presence of CO₂ and CO in the furnace atmosphere made no difference to the fuming process. In view of the extremely good results obtained so far, it is strongly recommended that further work be undertaken to outline suitable operating conditions for the process, examine its economic feasibility, and determine the equipment that would be used in a commercial plant. A proposal for this work will be forwarded within the next few days.

TABLE 1: FUMING TEST (1100°C)

	Weight g	Sn %	Sn g	Sn Extraction %
Head	7.00	1.55	0.109	
Residue	5.34	0.02	0.001	99.1

711012



BORE-HOLE LOCATION PLAN

5 cm

Drill Hole Record



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Property	Queen Hill	District	Hole No. G.5	Re-logged
Commenced		Location	Tests at	Hor. Comp. 711014
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates			True Brg.	Logged by
Objective			% Recov.	Date

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage From To	Description	Sample No.	Length	Analysis					
84' 91'	Same as 54'-74'. Not as much deformation as 74'-84'. No quartz or siderite veins. Beds dips $\approx 30^\circ$.								
91' 112'	Grey-black shales with shaley quartzite. Core mildly brecciated overall, but individual beds, relatively undisturbed are observable. Irregular quartz, siderite and pyrite veins up to 1/4" thick occur occasionally.								
112' 119'6"	Grey-black sheared shale with very minor shaley quartzite. Rare, thin irregular quartz and siderite veins.								
119'6" 142'	Brecciated grey-black shales and light grey shaley quartzite. Irregular quartz and siderite veins up to 1/8" thick present, but not in abundance. Pyrite segregations within shaley quartzite and blebs within shale. Broken core 125'-126'6" and 132'-133' - possible faults; a definite fault at 139'-142' - broken core, graphitic in places.								
142' 146'	Grey-black shale and minor shaley quartzite - core only slightly deformed. Bedding dips between $25^\circ-30^\circ$. Pyrite vein at 143' - 1/4" thick cuts bedding. Minor thin irregular quartz veining.								
146' 158'6"	Brecciated grey-black shales and minor shaley quartzites. Minor quartz and siderite veins. Pyrite occurs commonly as very thin, short veins and fine segregations within quartzite. Possible fault 148'-149'.								
158'6" 169'	Grey-dark grey shales and grey quartzite. Core only slightly deformed, bedding dips at an average of 30° . Numerous, planar siderite veins up to 1/8" thick, both parallel to and cutting the bedding. Occasional pyrite segregations up to								

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Drill Hole Record

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Property	Queen Hill	District	Hole No.	G.5	Re-logged	
Commenced		Location	Tests at		Hor. Comp.	711015
Completed		Core Size	Corr. Dip		Vert. Comp.	
Co-ordinates			True Brg.		Logged by	
Objective			% Recov.		Date	

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No.

Sheet

Footage		Description	Sample No.	Length	Analysis				
From	To								
		3/8" dia. within quartzite.							
169'	185'	Strongly brecciated grey-black shales and minor shaley quartzite. Very numerous and irregular siderite veins sometimes associated with sphalerite, numerous quartz veins up to 1/2" thick. Pyrite blebs up to 1/2" dia.							
185'	196'	Pyrite-galena, stannite, quartz and siderite fault lode within black shale. Stannite over 4" at 190', dips, very approximately, at 70°-80°.							
196'	200'4"	Sheared and brecciated black shale with quartz and siderite veins. Very broken and deformed core. Fault zone?							
200'4"	206'6"	Tuff, friable, yellow-orange colour. Fault zone - very poor recovery, specks of galena at 206'.							
206'6"	210'	Black chert with apparently deformed bedded pyrite. Rock extremely deformed overall.							
210'	237'	Lapilli and agglomeratic tuff - shows no sign of tectonic deformation.							
237'	240'	Coarse galena, siderite, quartz and sphalerite lode within tuff - Fault mineralization.							
240'	319'6"	Grey lapilli tuff and tuff - appears to becoming fine grained with depth and turning from a grey to a light green colour.							

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Hole Record

015

Property	Queen Hill	District	Hole No. G.6	Re-logged	711017
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage		Description	Sample No.	Length	Analysis					
From	To									
162'9"	166'	As 116'-147'6", expect for weak siderite, pyrite, galena (fine) and jamesonite mineralization (vein), associated with minor graphite. Possible fault zone? now mineralized.								
166'	203'	Brecciated grey-black shales and minor quartzite. Numerous, irregular quartz veins up to 1/4" thick, associated with minor siderite veining. Irregular, relatively sparse, pyrite veins up to 1/4" thick also present, as are pyrite segregations with quartzite fragments. At 203', sphalerite, pyrite vein 1"-1 1/2" thick dips 20°. 197'-199' - sheared shale, little quartz; within above.								
203'	219'	Similar to 166'-203' except for stronger deformation i.e. brecciation. Shale graphitic in places. Possible faults 206'-207' and 213'215'.								
219'	227'	Fault mineralization:- pyrite, sphalerite, siderite, galena ^{and} 1" stannite vein at 222' dips ≈ 50°. Graphite present. Faulted - mineralized rock is apparently shale.								
227'	234'6"	Light grey tuff - fine anydules, similar to thin tuff beds in G.22. Tuff mineralized with fine pyrite, siderite and rarer coarse galena and fine jamesonite: vein mineralization apparently from fault. Similar tuff to that encountered over small sections in G.22.								
234'6"	236'	Grey-yellow tuff; broken and brecciated, mineralized with pyrite veins.								
236'	263'	Brecciated tuff - cherty in places, as breccia matrix. Brecciation appears to be tectonic? Rare thin veins of pyrite present.								

Major fault - CPG - POS

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Drill Hole Record



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Property	Queen Hill	District		Hole No.	G. 11 re-logged.	711020
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No	Sheet
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Footage From To	Description	Sample No.	Length	Analysis						
62' - 67'	Sheared dark grey-black shale, with very minor grey shaley quartzite. Core very broken in places, - most probably due to forceful drilling. Rare, thin pyrite and quartz veins up to 1/16" thick dipping approx. parallel to fissility i.e. 40°.									
67' - 97'	Brecciated grey-black shales, grey shaley quartzites and grey quartzites. Irregular and planar quartz and siderite veins occasionally occur. Core very broken between 67' - 87', doubtful ^{if fault, most probably} due to forceful drilling. Very rare irregular hair-like siderite veins.									
97' - 113'6"	Similar to 67' - 97', but core more broken, graphite occasionally observed on cleavage planes and fractures. Slight increase in quartz veining intensity. Overall, a possible weak fault zone. Definite fault 110' - 113'. Pyrite occurs at 100' as very small, bedded lenses within shale.									
113'6" - 116'6"	Pyrite, fine galena, siderite fault mineralisation (veining) within a grey-black shale and shaley quartzite host.									
116'6" - 123'	Brecciated and graphitic grey-black shales and shaley quartzite. Quartz veins present, but not in abundance. Graphite plentiful, but not plentiful enough to be termed a proper fault or fault zone.									
123' - 157'	Fault zone. Grey-black shales and minor shaley quartzite - very graphitic, soft and friable. Strong quartz veining. Sparse pyrite vein mineralisation throughout.									
157' - 172'	Brecciated black shales and rare grey-black quartzite. Prolific, very irregular quartz veins up to 1/2" thick, associated siderite and pyrite veins. Siderite and pyrite veins cut quartz veins. Brecciated quartzite 164' - 165'.									

Drill Hole Record

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Property	Queen Hill	District		Hole No.	G. 11 re-logged.	711021
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No.

Footage		Description	Sample No.	Length	Analysis				
From	To								
172'	175'	Sheared, grey-black shale. Minor irregular quartz veins up to 1/8" thick. Numerous, hair-like siderite veins approximately parallel to fissility, dip $\approx 45^\circ$.							
175'	177'	As 157' - 172'.							
177'	182'	Similar to 172' - 175', with shales brown-grey to black. No siderite parallel to fissility.							
182'	223'	Brecciated grey-black shales, shaley quartzites and minor brown-grey quartzite. Irregular scattered quartz veins throughout. Siderite veins associated? with quartz veins and cut quartz veins. Quartzite 183' - 184' - brecciated. Thin pyrite veins sometimes associated with siderite.							
223'	227'	Light grey quartzite with minor interbedded black shale. Bedding well developed and relatively undistorted, dips $20^\circ - 25^\circ$, Irregular and planar quartz and siderite veins up to 1/8" thick, the siderite veins cutting the quartz veins.							
227'	243'	Contoured, very slightly brecciated grey-dark grey-black shales and shaley quartzite. Rare, irregular quartz veins up to 3/4" thick. Where un-deformed, bedding dips 30° at 235', 40° at 237' and 25° at 241'.							
243'	268'	Brecciated grey-black shales and minor grey-brown shaley quartzite and quartzite. Minor irregular quartz veins up to 1/4" thick. Possible faults 243' - 245', 248' - 249' with 1/2" wide sheared galena-siderite vein with 7" of pyrite. Moderately numerous, irregular hair-like siderite veins, with rarer siderite veins up to 1/4" thick.							

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Drill Hole Record

Property Queen Hill District _____ Hole No. G. 11 relogged 711022
 Commenced _____ Location _____ Tests at _____ Hor. C _____
 Completed _____ Core Size _____ Corr. Dip _____ Ver. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim _____
 T. Brg. _____
 Collgr _____
 Elev. _____
 Length _____
 Hole No. _____
 Sheet _____

Footage		Description	Sample No.	Length	Analysis				
From	To								
268'	294'	Brecciated grey-black shales and minor grey shaley quartzites and quartzites. Very numerous, irregular quartz veins up to 1/4" thick. Rarer, irregular siderite veins up to 1/4" thick, sometimes associated with pyrite. Possible faults 279' - 281', 283'6" - 284'6" 289' - 291', 293' - 294'. - Core broken, graphitic. Irregular, hair-like siderite veins throughout.							
294'	298'	Grey-black shales and grey shaley quartzite - well bedded, dip approx. 50°. Rare irregular quartz veins, and rarer planar siderite veins.							
298'	352'	Brecciated dark grey-black shales with minor grey shaley quartzite and quartzite. Numerous, irregular quartz veins up to 1/2" thick throughout. Hair-like siderite veins approx. parallel to fissility and cutting it (planar veins) and cutting quartz veins. Thin (1/16") irregular pyrite veins between 347' - 352'.							
352'	357'6"	Fault. Weak pyrite, sphalerite, galena and siderite vein mineralisation in some host as 298' - 352'. Galena coarse and sheared.							
357'6"	381'	Brecciated dark grey-black shales and shaley quartzite. Numerous, irregular and planar siderite veins, usually cutting fissility. In places, siderite veining extends over 1/2" - 1 1/2" and is accompanied by sphalerite with minor galena and pyrite. Rare, irregular quartz veins present.							
381'	396'	Similar to 357'6" - 381'. except that quartz veining more intense - classed as impregnated. Pyrite blebs up to 1/4" thick within shale. Siderite veins common, associated with sphalerite in places. Possible fault 394' - 395' - core broken and soft							

Drill Hole Record

Property	Queen Hill	District	Hole No.	G. 11 re-logged.	711024
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Footage From To	Description	Sample No.	Length	Analysis					
458' - 463'	Graphitic sheared shale - Fault zone, finely disseminated pyrite throughout, rare irregular quartz veins.								
463' - 467'	Pyrite-quartz minor siderite and fine galena vein mineralisation within a grey-black shale. Occasional grey-greenish-black cherty pieces of rock, estimated sulphide content 10%.								
467' - 469'	Massive pyrite, coarse crystals, friable, crumbly. Estimated sulphide content 60% Host grey-black shale.								
469' - 474'6"	As 463' - 467'.								
474'6" - 475'6"	Similar to 467' - 469' Estimated sulphide content 90%.								
475'6" - 490'	As 463' - 467' Possible fault 483' - 484'.								
490' - 508'	Massive, coarsely crystalline pyrite with minor galena (490'6" - 491'; 463' - 463'6") and sphalerite. Pyrite friable, crumbly. Soft white clay mineral occurs with pyrite 491' - 492', associated with light grey cherty material. Green-light grey-grey chert occurs irregularly between 499' - 508', and is devoid of pyrite. Rare irregular fluorite crystals up to $\frac{1}{4}$ " across between 594' - 508'. At 505'6", tremolite? present.								
508' - 520'	Tuff. Dull yellow-orange in colour. Relatively soft and friable compared to other tuffa observed. Bedding or flow characteristics apparently destroyed - rock has a granular texture. Pyrite veining in places, which has apparently altered tuff to a light grey cherty rock - volcanic textures are observable within this rock. Overall, the tuff would appear to have been tectonically brecciated and altered, destroying the original volcanic texture.								
520' - 537'	Hard tuff and lapilli tuff grey-dark green-grey colour.								

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No.

Sheet

Drill Hole Record



Property	Queen Hill	District	Hole No. G.12 Re-logged	711025
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by D. Brown	
Objective		% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis								
From	To												
0'	30'	Dark grey-black shales and very minor grey quartzite. Core very broken - shale apparently sheared. Occasional quartzite fragments, up to 1½" dia., with pyrite segregations occurring in part or all of the fragment. Overall, quartzite content low.											
30'	36'	Light grey quartzite with very minor grey-black shale. Quartzite irregularly fractured - with quartz and minor siderite veins up to ¼" thick.											
36'	49'	Grey-black shales with minor shaley grey quartzite. Brecciated in places (not strongly), but for most part sheared or slightly contorted. At 39', 1½" thick "bed" of pyrite, within a quartzite. Individual crystals of pyrite observed with the hand lens. This bed dips 15°-25° and is slightly broken. In other places, blebs of fine pyrite up to 3/8" dia. are occasionally observed within shale. Irregular quartz and siderite veins up to 1/4" thick occur spasmodically.											
49'	63'	Brecciated grey-black shales, shaley quartzite and quartzite. Graphite observable in rare places. Where not deformed, shales dip ≈ 40°. Occasional irregular and sometimes planar quartz and siderite veins, usually associated with the quartzite. Very rare pyrite blebs up to ½" dia. in quartzite.											
63'	107'	Brecciated grey-black shales with shaley quartzite and quartzite. Numerous, very irregular quartz and siderite veins, the siderite veins sometimes associated with pyrite. Occasional quartzite beds up to 6" thick. Rock termed 'quartz impregnated' although veining and brecciation slightly decreases in intensity between 88'-104', 68'-69'6" and 83'-84' faults, graphitic pug present.											

U.S. GEOLOGICAL SURVEY

Drill Hole Record



Property	Queen Hill	District	Hole No. G.12	Re-logged	711030
Commenced	Location	Tests at	Hor. Comp.		
Completed	Core Size	Corr. Dip	Vert. Comp.		
Co-ordinates	True Brg.		Logged by		
Objective	% Recov.		Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis									
From	To													
		thin irregular veins. Core very broken, puggy and slightly graphitic between 479'-486' and 498'-499' - faults.												
499'	509'	Grey-black shale with minor grey quartzite. Fine pyrite specks observable in quartzite in rare cases. Occasional very thin pyrite veins within shale parallel to the fissility. 3" pyrite vein with siderite dips 20° at 504'. Occasional irregular, thin siderite veins.												
509'	554'	Brecciated dark grey-black shale and grey-brownish grey shaley quartzite. Extremely numerous and irregular quartz veins up to 3/4" thick throughout. Less numerous siderite veins up to 1/4" thick throughout. Occasional pyrite veins up to 1" thick at 530' between 537'-538', and at 542' dip ~ 50°.												
554'	577'	Coarse pyrite mineralization within a brecciated black shale. Pyrite mineralization friable, individual cubes up to 1/8" across observable. A light green host? or gangue? is present occasionally, and more specifically between 555'-556'6". Fault 568'-569' - Graphitic, poorly mineralized												
577'	584'	Black shale - poorly mineralized. Occasional very thin veins of pyrite. Core very broken. Possible fault 577'-579'. Graphitic in places, slightly puggy.												
584'	588'	Grey-black "chert". Siliceous rock strongly mineralized with pyrite and siderite veining. Between 584'-585', a soft cream coloured clay mineral occurs within chert.												
588'	592'	As 577'-584'.												

COCK NATION PRINT

Drill Hole Record

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029

Property	Queen Hill	District	Hole No. G.12	Re-logged	711031
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No.

Sheet

Footage		Description	Sample No.	Length	Analysis				
From	To								
592'	616'	Massive pyrite mineralization. Estimated sulphide content 90-95%. Coarse pyrite with fragments of light grey-black "chert" and black quartzite? Minor coarse siderite and quartz present. Pyrite friable in places. Soft, light grey clay mineral between 592'-599'.							
616'	624'	Coarse to fine pyrite mineralization. Estimated sulphide content 60%. A hard, black host is present - or an introduced mineral? - it shows long, individual finger like crystals under the hand lens. Crystals have a prismatic section. Appear to be an amphibole - more precisely tremolite.							
624'	648'	Bedded and coarse grained (with no bedding) pyrite. Bedding dips 0-5°. Estimated sulphide content 50-60%. Black, cherty shale? as unmineralized host rock? Quartz and siderite veining practically absent, except for quartz veins up to 1/8" thick, dipping 90° between 647'-648'.							
648'	666'	Bedded pyritic shale, light grey-bluish-brown in colour. Bedding dips 0-5°. Estimated sulphide content 10-15%. Chert between 664'6"-665' not pyritic. Bedding very undisturbed.							
666'	673'	Grey-blue grey laminated pyritic shale. Estimated pyrite content 5-10%. Occasional fine pyrite beds up to 1/16" thick, associated with blebs of pyrite up to 1/16" dia. Bedding dips 0-5°.							
673'	674'	Tuff - orange-brown in colour, dips 5°, appears conformable with enclosing sediments. Tuff contains within it very thin grey shale beds - also apparently conformable with the surrounding tuff.							

Drill Hole Record

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030

Property	Queen Hill	District	Hole No. G.12	Re-logged
Commenced	Location	Tests at	Hor. Comp.	711032
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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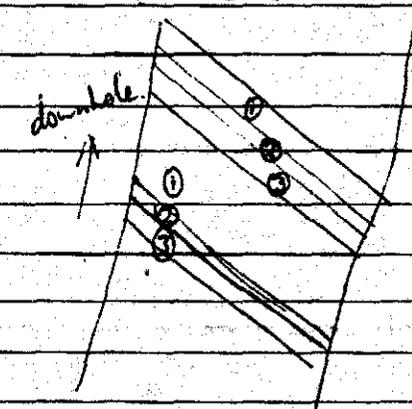
Footage		Description	Sample No.	Length	Analysis									
From	To													
674'	679'	As 666'-673'												
679'	679'1"	Tuff, orange-brown in colour, appears conformable, dips 5°.												
679'1"	701'	As 666'-673'.												
701'	705'	Mineralized light grey-black cherty rock, shaley (minor) in part. Mineralized by pyrite veins and blebs, estimated sulphide content 20-30%.												
705'	718'	Same as 666'-673'.												
718'	724'	Grey-dark greenish black cherty - siliceous rock. Dark mineral possibly due to tremolite. Mineralized by irregular pyrite veins and coarse patches of pyrite. Estimated sulphide content 10-15%. Shows carbonate-type textures (i.e. as observed in G.22) when cut with diamond saw.												
724'	728'	Coarse grained bedded pyrite within a black shale host. Contorted in places. Estimated sulphide content 10-15%. Possible fault 726'6"-727'6" - graphitic, broken.												
728'	738'6"	Similar to 718'-724', but shows a more deformed carbonate type texture, similar to G.22. Estimate sulphide content 50-60%. Pyrite as intense veins, blebs and segregations of crystals. The host rock? is a light-green colour, not exhibiting a recognizable texture, at 738'.												
738'6"	771'	Grey-black slate very hard. At 746'6" large, fine grained pyrite fragment 2" in dia. At 748' and 757', siderite veins 3" and 6" respectively dip 25°-35°.												
771'	779'	Agglomeratic tuff; contact, apparently conformable with slate dips \approx 40°.												

COCKINGTON PRINT

Drill Hole Record

Property	Queen Hill	District	Hole No. G.13	Re-logged	711035
Commenced	Location	Tests at	Hor. Comp.		
Completed	Core Size	Corr. Dip	Vert. Comp.		
Co-ordinates	True Brg.		Logged by		
Objective	% Recov.		Date		

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage From	To	Description	Sample No.	Length	Analysis
146'	150'	Fault zone in shale, weak pyrite, galena vein mineralization.			
150'	171'	Brecciated shales and shaley quartzite. Core broken 157'-160'. Fault? At 160'6"			
		 <ul style="list-style-type: none"> ① siliceous, dark, pyritic shale ② finer grained black shale ③ siliceous cherty 			
		doubtful facing up hole, i.e. east.			
171'	172'6"	Grey quartzite - brecciated - quartz veins.			
172'6"	195'	Grey-black shale with grey quartzite. Quartzite content more than usual. Regular, unbrecciated bedding frequently observed in thin bedded quartzite.			
195'	214'	Brecciated and quartz impregnated grey-black shale. Very numerous and irregular quartz veins. Strong pyrite mineralization between 197'-204' (late stage mineralization?). Broken core throughout - possible fault zone. Core mineralization angle 30°-45°.			
214'	217'	Grey sheared shale. Fissility - dip 30°.			
217'	229'	Graphitic fault zone with short (< 1 foot) sections quartz impregnated brecciated black shales. Core - fault angle 10°-25°.			

TO SUPERVISOR

Drill Hole Record



Property	Queen Hill	District	Hole No. G.13	Re-logged	711037
Commenced		Location	Tests at		Hor. Comp.
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage		Description	Sample No.	Length	Analysis				
From	To								
571'	594'	Grey shaley quartzite interbedded with dark-grey-black shales. Bedding relatively undeformed, as in 439'-497'. Fine siderite veinlets. Core-bedding angle 5°-35°.							
594'	614'	Grey-black shales and quartzites. Contorted and brecciated in part, but not enough to be termed brecciated overall.							
614'	642'	Brecciated and sheared black shale and minor shaley quartzites.							
642'	646'6"	Sheared graphitic black shale.							
646'6"	653'	Moderately pyritic carbonate-quartz lode (cherty quartz in places) (Mostly hard, crystalline carbonate).							
653'	656'10"	Hard, crystalline carbonate rock, little pyrite, minor galena.							
656'10"	659'	Soft earthy, light brown fine grained altered? carbonate rock.							
659'	662'	Same as 657'-656'10".							
662'	664'	Similar to 656'10"-659' but more crystalline.							
664'	666'	Hard crystalline carbonate rock with shale inclusions and moderate pyrite in last foot.							
666'	675'6"	Graphitic fault zone. Patches of shale-quartzite breccia within fault zone.							
675'6"	676'6"	Highly altered basic tuff - soft, friable brown-green-white colour.							
676'6"	679'	Carbonate veined black shale grading into massive light brown carbonate?							
679'	679'6"	Light grey chert.							
679'6"	681'	Carbonate veined silicified black shale.							
681'	682'	Graphitic shale with carbonate vein. Possible small fault zone.							

COCKINGTON PRINT

Drill Hole Record



Property Queen Hill	District	Hole No. G.18	Re-logged	
Commenced	Location	Tests at	Hor. Comp.	711039
Completed	Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by L.V.G. DRJ.	
Objective		% Recov.	Date	

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No. Sheet

Footage		Description	Sample No.	Length	Analysis					
From	To									
882'	908'	Brecciated dark grey-black shales and shaley quartzites.								
908'	914'	Fault - graphitic fault zone with small sections brecciated shale in quartzite.								
914'	921'	Same 882'908'								
921'	931'	Weak fault zone. Short sections graphitic broken shales, altering with brecciated shales and quartzites. Core broken.								
931'	955'	Brecciated grey-black shale and quartzite bands.								
		936'939' - Unbrecciated - was contorted (relatively).								
		Pyrite quartz-siderite veins and pyrite disseminations from 940'-955'.								
955'	957'6"	Heavily mineralized to massive pyrite - within quartz and black shales.								
957'6"	961'	Brecciated grey-black shale with minor quartzite, with disseminated pyrite. Pyrite appears to be selectively concentrated within some fragments.								
961'	962'6"	Tuffite - 2" of actual tuff 962'4"-962'6". Mineralized with coarse pyrite.								
962'6"	963'6"	As 957'6" - 961'.								
963'6"	967'	Tuff and tuffite - tectonically brecciated?								
967'	969'6"	Brecciated grey-black shale with minor quartzite, with disseminated pyrite.								
969'6"	983'6"	Massive pyrite mineralization in a fine grained dark grey-brown-black matrix. Appears to be possibly a dolomitic host. Exhibits a fine web-like texture in places - the sulphides that is.								
983'6"	987'	Very fine grained grey-black pyritic shales with occasional coarse pyrite-siderite veins. Minor grey quartzite beds.								

COCHRAN PRINT

Drill Hole Record



Property	Queen Hill	District	Hole No. G.18	Re-logged	711040
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis									
From	To													
987'	987'6"	Massive fine grained pyrite.												
987'6"	991'	Massive, fine grained black carbonate - extremely hard, no bedding observable anywhere.												
991'	994'	Moderately pyrite mineralized brecciated grey-black shale.												
994'	1034'	Sheared grey and black shales, some narrow pyrite rich shales. Siderite vein lets with some coarse pyrite.												
		Small scale faulting common (not major fault zone).												
		1" tuff? 997'6" possibly siderite?												
1034'	1035'6"	Pyrite-siderite mineralized brecciated shale.												
1035'6"	1041'	As 994'-1034', except lower pyrite content.												
1041'	1042'	Siderite-pyrite mineralization.												
1042'	1056'	Grey and minor black brecciated shales. Some siderite veins with minor pyrite.												
1056'	1061'	Black, graphitic fault zone.												
1061'	1066'	Well bedded black and dark grey shale. Relatively underformed.												
1066'	1067'	Graphitic fault.												
1067'	1076'	Fine grained black shale - minor grey shale and blebs of pyrite - sheared.												
1076'	1079'	Graphitic fault zone.												
1079'	1081'	Heavily pyritic (coarse pyrite) black shale. Heavy veining.												
1081'	1081'9"	Tuff.												
1081'9"	1083'3"	Heavily pyritic (coarse pyrite) black shale as 1079'-1081'.												

COCKINGTON PRINT

Drill Hole Record

Page 2



Property	Queen Hill	District	Hole No.	G.23	711043
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates		True Brg.	Logged by		
Objective		% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No	Sheet
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Footage		Description	Sample No.	Length	Analysis					
From	To									
46'6"	48'6"	<u>Weak quartz-pyrite lode:</u> Cavity rich and porous throughout, host a black shale. Estimated sulphide content 20-25%.								
48'6"	57'	<u>Sheared and mildly brecciated dark grey-black shales:</u> With very minor grey quartzite; core very broken, with graphite occasionally visible. Possibly a fault zone.								
		<u>Mineralisation:</u> Minor irregular quartz veins with even rarer irregular pyrite veins, Pyrite also occurs in blebs up to 3/8" dia..								
57'	58'6"	<u>Strongly sheared black shale:</u> Abundant quartz veins, graphite on some shear planes.								
		<u>Mineralisation:</u> Very minor pyrite veins and areas (up to \approx 1 square inch) of finely disseminated pyrite.								
58'6"	60'	<u>Weak quartz-pyrite lode:</u> Within light grey-dark grey shale. Beds dip \approx 50°. Estimated sulphide content 20-25% lode cavity rich.								
60'	62'	As 57'-58'6"								
62'	62'6"	<u>Light grey quartzite</u>								
62'6"	64'3"	<u>Light grey-dark grey-black shale:</u> Slightly brecciated in places. Bedding dips between 30° to 70°. Irregular, thin quartz veins scattered throughout. Core very broken.								
64'3"	65'3"	<u>Pyrite-quartz-galena lode:</u> Within a black shale, pyrite, quartz, galena (as disseminated crystals) 64'3"-64'8". Fine bedded and vein pyrite between 64'8"-65'3", dips \approx 70°. Estimated sulphide content 40-55%.								

COCKINGTON PRINT

Drill Hole Record



Property	Queen Hill	District		Hole No.	G.23		
Commenced		Location		Tests at		Hor. Comp.	711044
Completed		Core Size		Corr. Dip		Vert. Comp.	
Co-ordinates				True Brg.		Logged by	
Objective				% Recov.		Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage		Description	Sample No.	Length	Analysis				
From	To								
65'3"	88'	<u>Brecciated grey-black shale with minor light grey quartzite:</u> Abundant irregular quartz veins, core graphitic in places, in others, very broken and soft. Between 73' to 78', recovery 2', between 84'-88', recovery 2'. Probable large fault zone. <u>Mineralisation:</u> Occasional pyrite veining usually parallel with fissility.							
88'	88'9"	<u>Quartz-pyrite lode:</u> Strong veining within black shale. Core very broken. Estimated sulphide content 50-60%.							
88'9"	91"	<u>Sheared grey-black shale:</u> Core broken between 88'9"-90'. <u>Mineralisation:</u> Quartz-pyrite veining over 1" at 89'4", otherwise very minor, irregular quartz and pyrite veining.							
91'	93'3"	<u>Brecciated grey-black shale with minor light grey quartzite:</u> Abundant irregular quartz veins. <u>Mineralisation:</u> Irregular pyrite veins between 93'3"-93'6", elsewhere pyrite veins associated with quartz veins.							
93'3"	101'	<u>Black Shale and light grey quartzite:</u> Contorted to brecciated in places. <u>Mineralisation:</u> Occasional irregular quartz and pyrite veins up to 1/8". Pyrite blebs up to 3/4" dia, and pyrite beds (up to 1/8" thick) occasionally occur.							
101'	111'	<u>Light grey-dark grey shale and minor grey quartzite:</u> Slightly contorted, micaceous in places. Bedding dips 65° at 104', 60° at 106'. Irregular thin quartz veins up to 1/4" thick occur sporadically.							

Drill Hole Record



Property	Queen Hill	District	Hole No.	G.23	711046
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis									
From	To													
213'	238'	<u>Brecciated grey-black shale and grey quartzite:</u> Shale predominant, quartzite in brecciated beds up to 4" thick. Fissility, very broadly dips between 0°-40°. Weak fault between 228'-230'. Occasional irregular quartz, siderite and pyrite veins up to 1/8" thick.												
238'	259'	<u>Fault:</u> Extremely broken and puggy black shale. Sheared galena - pyrite vein 3" thick dips $\approx 45^\circ$ at 240'. Very thin, irregular pyrite veining throughout. Core recovery 10'.												
259'	273'	<u>Brecciated grey-black shale and grey quartzite:</u> Shale predominant, intensity of deformation decreasing with depth. Weak, minor faulting at 260'6", 263'6", 266' and 267'-268'. Bedding dips $\approx 40^\circ$ at 271'6", $\approx 40^\circ$ at 273'. Rare irregular quartz veins up to 1/8" thick, with planar veins at 265'6" 1/2" thick and dipping $\approx 70^\circ$.												
273'	279'	<u>Grey-dark grey shale and grey quartzite:</u> Contorted and mildly brecciated. <u>Mineralisation:</u> Rare, finely disseminated pyrite in areas up to 1/2 square inch. Oyrite veining at 275' over 3" dips 50°.												
279'	310'	<u>Grey-black shale with very minor grey quartzite:</u> Quartzite as very rare brecciated patches. Shale mildly contorted to brecciated in places. Relatively numerous, irregular siderite veins up to 1/4" thick, minor associated quartz veins. Small fault at 288' dips $\approx 5^\circ$, possible fault zones between 304'6"-305' and 306'-308'. Overall fissility angle between 0°-40°.												

COCRINGTON PRINT

Drill Hole Record

Property Queen Hill District _____ Hole No. G.24 711050
 Commenced 25.10.72 Location _____ Tests at _____ Hor. Comp. _____
 Completed 7.11.72 Core Size "N" to 54.87 m Corr. Dip 60° Vert. Comp. _____
 Co-ordinates 10, 572N, 8980W. "B" to 164.58 True Brg. 282° Logged by D.R. Brown
 Objective _____ % Recov. _____ Date _____

Claim _____ T. Brg. _____ Collar Dip _____ Elev. _____ Length _____ Hole No. _____ Sheet _____

Metres		Description	Sample No.	Length	Analysis									
From	To													
0	3.81	No core recovery: casing.												
3.81	10.25	Grey-black shale and light grey quartzite: core very broken, graphite on occasional faces. Difficult to determine whether weathered or fault zone - most probably fault zone. Core recovery 55%. Mineralisation: between 8.23-8.36 metres, heavy galena veining, pyrite veining between 8.76-8.96 metres.												
10.25	12.60	Grey quartzite and black shale: as "rounded" pieces up to 2" dia. with occasional pyrite and galena veining. Core recovery 30%.												
12.60	18.29	Fault and/or naturally filled stope: black-grey shale and quartzite (minor) cuttings. Fine pyrite with cuttings. Recovery \approx 85% as cuttings.												
18.29	25.60	Brecciated grey-black shale and quartzite: brecciation not intense; at 23.29 beds dip \approx 35°. Core very broken between 18.29-22.90 m. Mineralisation: pyrite veining and disseminations occur spasmodically between 23.31 and 25.60 m..												
25.60	28.04	Grey quartzite and grey-dark grey shale: core slightly brecciated. Mineralisation: irregular pyrite and quartz veins up to 2mm thick scattered through; pyrite minor galena veining intense between 27.57-27.67 m and 27.47-27.75 m, where estimated sulphide content is \approx 50-60%.												
28.04	29.41	Moderately brecciated grey-black shale and minor quartzite: where observable, bedding dips \approx 40°.												

COCKINGTON PRINT

Drill Hole Record

Property	Queen Hill	District	Hole No.	G. 24	711051
Commenced	Location	Tests at	Hor. Comp.		
Completed	Core Size	Corr. Dip	Vert. Comp.		
Co-ordinates		True Brg.	Logged by		
Objective		% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage	Description	Sample No.	Length	Analysis				
From	To							
	Mineralisation: "bedded" pyrite up to 8mm thick at 28.54 and 29.00 m. Elsewhere, disseminated and irregular vein pyrite, disseminations up to 20 mm dia.							
29.41	32.66							
	Grey-black shale and minor grey quartzite: well bedded, bedding dips 30° at 29.8m; 55° at 30.36m; 50° at 31.55m.							
	Mineralisation: Rare irregular and planar pyrite veins up to 5mm thick.							
32.66	35.46							
	Grey-black shale and grey quartzite: moderately brecciated. Numerous irregular quartz veins up to 3mm thick. Core very broken, slightly puggy and showing occasional graphite faces between 33.34-34.68 and 34.96-35.31m - fault zones.							
35.46	35.96							
	Grey quartzite: occasional irregular and planar quartz veins up to 3mm thick.							
35.96	36.88							
	Grey-black shale and grey quartzite: core broken, bedding dips \approx 70°.							
36.88	41.35							
	Grey quartzite: with very rare black shale. Quartzite contains numerous planar quartz veins, dipping between 10°-35°. Core broken and/or puggy between 38.94-39.19m and 40.37-40.70m - small faults.							
41.35	46.11							
	Fault zone: core extremely broken throughout and puggy in places, graphite observable between 44.51-46.11m. Rock type shale and quartzite to brecciated shale last 2m. Quartz veining very strong in last 2m. Core recovery 90%.							
46.11	50.60							
	Brecciated grey-black shale and minor quartzite: core brecciated for most part; where not bedding dips 60° at 48.65m; 70° at 50.25m. Very numerous and irregular quartz veins up to 4mm thick throughout.							
	Mineralisation: very rare pyrite and siderite veins up to 2mm thick. At 46.89m galena and vein pyrite over 5cm.							

CHECK FOR PRINT

Drill Hole Record



053

Property	Queen Hill	District		Hole No.	G.24	
Commenced		Location		Tests at		711055
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No.

Footage From To	Description	Sample No.	Length	Analysis				
107.21 113.54	Moderately brecciated grey-black shale with minor grey quartzite: where deformation weak, bedding dips $\approx 40^\circ$ at 109.31m; $\approx 70^\circ$ at 111.62m. Occasional irregular quartz veins up to 3mm thick. Quartzite as stringers etc. and as broken beds up to 22cm thick. <u>Mineralisation:</u> pyrite as fine irregular veins, veins up to 10mm thick (rare) and blebs up to 3cm dia. At 111.51m, c pyrite, siderite, sphalerite vein 5cm thick dips $\approx 50^\circ$.							
113.54 114.36	Fine pyrite mineralisation: within a brecciated light grey-black shale. Pyrite is of the fine "bedded" variety associated with comparatively coarser vein pyrite. Estimated sulphide content 60-70%.							
114.36 117.32	Brecciated grey-black shale and grey quartzite: quartzite as stringers etc. and as brecciated beds up to 25cm thick. Fissility dips 30° at 115.31m; 0° at 115.05m; bedding dips 50° at 117.81m. Occasional irregular quartz veins up to 3mm thick. <u>Mineralisation:</u> Scattered irregular thin pyrite veins (up to 2mm thick) and irregular blebs (up to 5 mm dia) throughout. Strong pyrite veining between 115.81-115.91m.							
117.32 121.93	Dark grey-black shale: slightly brecciated between 121.50-121.93m. Irregular quartz veins up to 3mm thick between 118.27-121.93m.							

CUCKINGTON PRINT

Drill Hole Record



Property	Queen Hill	District	Hole No.	G.24	
Commenced		Location	Tests at		711056
Completed		Core Size	Corr. Dip		Vert. Comp.
Co-ordinates			True Brg.		Logged by
Objective			% Recov.		Date

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage		Description	Sample No.	Length	Analysis					
From	To									
		<u>Mineralisation:</u> Irregular and planar pyrite, siderite and sphalerite veins up to 1cm thick occur spasmodically throughout. The planar veins dip between 30° and 50°.								
121.93	123.36	<u>Brecciated grey-black shale and grey quartzite:</u> relatively numerous irregular quartz veins up to 15mm thick.								
		<u>Mineralisation:</u> Pyrite disseminations up to 25mm dia. in brecciated quartzite.								
123.36	123.60	<u>Massive galena lode:</u> with associated minor quartz and siderite. Estimated sulphide content 95%.								
123.60	128.01	<u>Light grey-dark grey shale:</u> slightly brecciated in places. Irregular and planar quartz veins in minor proportions. Fissility dips 20° at 130.55m; 50° at 132.15m; 40° at 126.70m.								
		<u>Mineralisation:</u> Rare blebs of pyrite up to 12mm in dia.								
128.01	136.55	<u>Brecciated grey-dark grey-black shale and grey quartzite:</u> brecciation weak between 128.01 to approx. 130 metres. Where observable, bedding dips \approx 40° at 128.41; Irregular quartz veins up to 3mm thick occur throughout, but not in any quantity. Quartzite as stringers, irregular brecciated pieces and in brecciated beds up to 28cm thick. Small fault (over 4cm) at 134.28.								
		<u>Mineralisation:</u> strong pyrite veining with minor siderite and galena between 131.35 to 131.73 metres, elsewhere occasional irregular pyrite veins up to 3mm thick.								

GSC - 1-10-1968

Drill Hole Record

455

Property	Queen Hill	District	Hole No.	G.24	711057
Commenced		Location	Tests at	Hor. Comp.	
Completed		Core Size	Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage	Description	Sample No.	Length	Analysis				
From	To							
136.55	143.70							
	<p><u>Brecciated grey-black shale and minor quartzite:</u> brecciation strong, numerous irregular quartz veins up to 5mm thick. Quartzite as stringers, etc. and brecciated beds up to 8cm thick. Where not brecciated strongly, fissility dips $\approx 40^\circ$ at 140.95; $\approx 40^\circ$ at 142.35.</p> <p><u>Mineralisation:</u> irregular and planar pyrite and siderite veins up to 2cm thick but generally below 4mm thick, occur spasmodically throughout. At 139.10 pyrite vein 2cm thick dips 40°; at 139.95, siderite vein 9mm thick dips 40°. Pyrite veining increasing towards 143.70.</p>							
143.70	144.69							
	<p><u>Brecciated grey-dark grey shale:</u> occasional irregular quartz veins up to 2mm thick.</p> <p><u>Mineralisation:</u> numerous irregular pyrite veins up to 2mm thick.</p>							
144.69	146.49							
	<p><u>Light grey-black siliceous shale and quartzite:</u> could also be termed "cherty". Core very hard and broken; possible small fault between 145.46-145.66m.</p> <p>Occasional irregular quartz veins up to 3mm thick.</p> <p><u>Mineralisation:</u> irregular pyrite veins up to 3mm thick scattered throughout, at times associated with pyrite blebs up to 4mm in dia.. At 144.84m, pyrite veining over approx. 10cm dips $\approx 25^\circ$. Between 145.79-146.49 pyrite veining and bleb development increases, estimated sulphide content for this section 5%.</p>							

Drill Hole Record

056

Property	Queen Hill	District	Hole No.	G.24
Commenced		Location	Tests at	Hor. Comp.
Completed		Core Size	Corr. Dip	Vert. Comp.
Co-ordinates		True Brg.	Logged by	
Objective		% Recov.	Date	

Claim	T. Brg.	Collar Dip	Elev.	Length
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Footage		Description	Sample No.	Length	Analysis				
From	To								
146.49	150.41	<u>Quartz-pyrite-galena-siderite-minor stannite lode:</u> within a shale-quartzite host. Massive galena occurs between 149.50 to 149.86m, stannite with pyrite and quartz between 148.13-148.28m and 147.75-147.85m (estimated stannite content 10%). Estimated sulphide content overall 40-50%.							
150.41	155.31	<u>Brecciated grey-black shale and minor quartzite:</u> quartzite as stringers and brecciated pieces up to 3cm across. Brecciation strong, accompanied by numerous irregular quartz veins up to 3mm wide. At 152.70, fissility direction dips $\approx 20^\circ$. Small faults between 152.08-152.18; 150.41-150.71 and 153.80-153.92m. <u>Mineralisation:</u> strong pyrite veining between 153.52-153.72, elsewhere occasional irregular and planar pyrite veins up to 4mm thick and blebs and disseminations pyrite up to 2cm dia.							
155.31	156.27	<u>Pyrite mineralisation:</u> within a light grey to grey chert and carbonate host up to 155.92m, thence within a light green-grey tuff, now very hard and siliceous. Pyrite in veins and crystal segregation throughout - estimated sulphide content 30-35%.							
156.27	164.58	<u>Light yellow to green grey tuff and lapilli tuff:</u> numerous, irregular siderite veins up to 8mm thick between 158.04-159.44m.							

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DRI Hole Record

0578

Property Queen Hill District Zeehan Hole No. G.25
 Commenced 10.11.72 Location Tasmania Tests at Hor. Comp. 711060
 Completed 17.11.72 Core Size "N" to 33.53m Corr. Dip 65° Vert. Comp.
 Co-ordinates 10,184N,9009W. "B" to 193.70m True Brg. 282° Logged by D.R. Brown
 Objective % Recov. Date

Claim
 T. Brg.
 Collar Dip
 Elev.
 Length
 Hole No.
 Sheet

Meters Footage		Description	Sample No.	Length	Analysis					
From	To									
0	8.36	<u>Light cream-light grey quartzite:</u> slightly weathered, very broken.								
8.36	14.42	<u>Light grey to grey shale and minor grey quartzite:</u> shale weathered to lighter colour. Quartzite as beds up to 15cm thick. Core broken and puggy between 11.91-13.03 metres - fault zone.								
14.42	20.52	<u>Brecciated dark-grey-black shale and minor quartzite:</u> quartzite as stringers and brecciated beds up to approx. 10cm thick. At 15.37, fissility direction dips approx. 40°; at 18.54 approx. 60°. Core broken and graphitic between 15.72-15.90 and 16.12-16.31 - faults. Occasional irregular quartz veins up to 5mm thick. <u>Mineralisation:</u> sparse pyrite-siderite veins up to 5mm thick - both planar and irregular. Pyrite blebs and disseminations up to approx. 3cm dia., also occur in small proportions.								
20.52	25.80	<u>Brecciated grey-black shale and grey quartzite:</u> brecciation slightly less intense than above. Quartzite as stringers and brecciated beds. Occasional irregular quartz veins up 1cm thick. Small fault 23.42-23.70m. <u>Mineralisation:</u> numerous irregular siderite veins up to 8mm thick. Between 22.72-22.92m, disseminated and vein pyrite, one vein 6mm thick.								
25.80	30.57	<u>Grey-black shale and grey quartzite:</u> slightly contorted to brecciated in occasional places. Bedding/laminations, dips 75° at 25.90; 30° at 27.02; 50° at 28.24; 90° at 28.70; 50° at 30.27. Rare irregular quartz veins up to 3mm thick.								
30.57	31.07	<u>Black shale:</u> Fissility directions \approx 60°.								
31.07	33.53	<u>As 25.80-30.57:</u> Bedding/laminations dip 10° at 32.42 and approx. 30° at 33.27. Strength of deformation increasing.								

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Drill Hole Record

Page 4

Property	Queen HILL	District	Zeehan	Hole No.	G.25	711063
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage		Description	Sample No.	Length	Analysis								
From	To												
84.55	93.58	<u>Brecciated grey-black shale and minor grey quartzite:</u> quartzite as stringers etc. and brecciated beds up to 12cm thick.											
		<u>Faults between 85.85-86.66; 88.75-89.57 (weak fault); 90.73-91.04; 91.28-91.64 (weak fault).</u> Occasional irregular quartz veins up to 6mm thick, sometimes associated with siderite.											
93.58	94.08	<u>Light grey-brown quartzite:</u> containing irregular and planar quartz and siderite veins up to 2mm thick.											
94.08	101.18	<u>Brecciated dark grey-black shale and very minor grey quartzite:</u> quartzite as stringers brecciated pieces and brecciated beds up to 3cm thick. Fissility direction dips between 75°-90°. Rare irregular quartz and siderite veins up to 6mm thick.											
		<u>Mineralisation:</u> Occasional, usually planar pyrite-siderite veins up to 3mm thick. Rare pyrite blebs up to 7mm in dia											
101.18	101.72	<u>Light grey quartzite:</u> bedding dips 50°											
101.72	106.84	<u>As 94.08-101.18:</u> fault 103.13-103.23. Pyrite vein over 4cm dips 50°, at 104.51.											
106.84	108.52	<u>Brecciated grey-black shale and grey quartzite:</u> numerous irregular quartz and siderite veins up to 4mm thick.											
108.52	111.82	<u>Brecciated grey-black shale and minor grey quartzite:</u> quartzite as brecciated beds and stringers. Numerous, irregular quartz and siderite veins up to 5mm thid.											
111.82	112.34	<u>Light grey quartzite:</u> minor shale between 112.07-112.17m. Occasional irregular quartz veins up to 2mm thick.											

SCANNED FROM PRINT

Drill Hole Record



Property	Queen Hill	District	Zeehan	Hole No.	G.25	711064
Commenced	Location		Tests at	Hor. Comp.		
Completed	Core Size		Corr. Dip	Vert. Comp.		
Co-ordinates			True Brg.	Logged by		
Objective			% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis						
From	To										
112.34	118.83	<u>Brecciated dark grey-shale and minor grey quartzite:</u> quartzite minor to very minor, occurs as stringers, brecciated pieces and brecciated beds up to 3cm thick. Occasional irregular quartz and siderite veins up to 3mm thick. Small fault zone 117.15-117.35. <u>Mineralisation:</u> rare pyrite veins up to 2mm thick.									
118.83	122.77	<u>Grey-black shale and grey quartzite:</u> contorted to slightly brecciated. Bedding dips between 55°-90°. Occasional irregular and planar quartz veins up to 3mm thick. <u>Mineralisation:</u> occasional planar pyrite and siderite veins up to 3mm thick.									
122.77	125.37	<u>Brecciated dark grey-black shale and very minor grey quartzite:</u> occasional irregular quartz veins up to 3mm thick.									
125.37	132.40	<u>Brecciated grey-black shale and minor grey quartzite:</u> quartzite as stringers, individual brecciated pieces and brecciated beds up to 4cm thick. Degree of brecciation strong; numerous to abundant (in places) quartz veins up to 6mm thick. Quartz veining appears to increase with depth. <u>Mineralisation:</u> occasional irregular and planar pyrite-siderite veins up to 4mm thick. Rare blebs of pyrite up to 1cm dia.									
132.40	132.94	<u>Strong pyrite-quartz veining:</u> within black slate. Veins mostly planar; dip between 80°-90°. Fault pug 136.86-136.94.									
132.94	139.20	<u>Dark grey-black shale:</u> shale contorted in places. Fissility direction dips between 0°-50°. Strong quartz veining between 134.60-135.70m., elsewhere occasional, irregular quartz veins up to 3mm thick.									

REPRODUCED FROM ORIGINAL RECORDS

Drill Hole Record

Property Queen Hill District Zeehan Hole No. G.25 711065
 Commenced Location Tests at Hor. Comp.
 Completed Core Size Corr. Dip Vert. Comp.
 Co-ordinates True Brg. Logged by
 Objective % Recov. Date

Claim
 T. Brg.
 Collar Dip
 Elev.
 Length
 Hole No. Sheet

Footage		Description	Sample No.	Length	Analysis					
From	To									
		Mineralisation: Occasional pyrite veins, irregular and planar, up to 3mm thick.								
139.20	147.02	Brecciated grey-black shale and grey-dark grey shale: abundant irregular quartz and siderite veins up to 1cm thick. Quartzite as brecciated beds up to approx. 20cm thick.								
		Small faults between 144.83-145.08; 146.70-146.80.								
147.02	151.10	Fault zone: core very broken, graphitic and puggy for most part. Rock type brecciated black slate with abundant irregular quartz veins.								
		<u>Mineralisation:</u> strong pyrite-quartz veining between 147.52-147.69.								
151.10	151.85	<u>Black Shale:</u> occasional irregular quartz-siderite up to 5mm thick.								
		<u>Mineralisation:</u> small, rare blebs of pyrite up to 2mm dia.								
151.85	153.31	<u>Faulted and quartz veined zone:</u> core graphitic and broken in places, where not, very strong, vuggy quartz veins up to 4cm thick. Rock type brecciated shale and quartzite.								
		<u>Mineralisation:</u> fine, bedded pyrite between 151.85-151.95 and 152.32-152.36.								
53.34	154.05	<u>As 151.10-151.85</u>								
154.05	155.40	<u>Fault zone:</u> core very broken, graphitic and puggy in places - where not strong, vuggy quartz veins up to 2cm thick. This zone weaker than between 151.85-153.31.								
		<u>Mineralisation:</u> 'bedded' pyrite between 154.30-154.85. Estimated sulphide content 5-10%.								
155.40	158.82	<u>Dark grey-black shale:</u> brecciated in rare places. Fissility direction dips approx. 50°.								
		Numerous, irregular quartz and siderite veins between 157.41-159.02m.								
		<u>Mineralisation:</u> rare pyrite blebs up to 8mm dia.								

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Drill-Hole Record



064

Property	Queen Hill	District	Zeehan	Hole No.	G.25	
Commenced		Location		Tests at		711066
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No.

Sheet

Footage		Description	Sample No.	Length	Analysis				
From	To								
158.82	158.92	<u>Tuff within shale:</u> relatively rounded tuff fragments up to 1cm across within black shale. Abundant planar siderite veins dipping 60° and up to 5mm thick. Rarer quartz veins up to 7mm thick.							
158.92	193.70	<u>Grey to green grey tuff and lapilli tuff:</u> contact with shale and tuff (above) dips 60°. <u>Faults:</u> between 167.29-167.47; 167.65-168.00; 168.57-169.01; 169.06-169.28. Core very soft and puggy. <u>Mineralisation:</u> fine pyrite veins and disseminations between 158.92-159.25 and 159.49-159.55. Between 166.31-166.45 galena, sphalerite and siderite vein dips approx. 30°.							
<u>SURVEY RESULTS</u>									
Acid Tube:		Tropari							
100 ft.	30.48m	62°							
200 ft.	60.96m	60°	220'	67.57m	61°	dip bearing: 281°			
300 ft.	91.44m	60°							
400 ft.	121.92m	58°	420'	128.02m	57°	"	"	278°	
500 ft.	152.40m	58°							
600 ft.	182.88m	54°	620'	188.97	55°	"	"	279°	

Drill Hole Record



63

Property	Queen Hill	District	Zeehan	Hole No.	G.26	711067
Commenced	15.11.72	Location	Tasmania	Tests at		Hor. Comp.
Completed	23.11.72	Core Size	"N" to 64.47m	Corr. Dip	75°	Vert. Comp.
Co-ordinates	10,267N, 8833 W.		"B" to 316.84m	True Brg.	282°	Logged by D. Brown
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No	Sheet
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Footage		Description	Sample No.	Length	Analysis					
From	To									
0	20.60	<u>Cream-light grey quartzite</u> : weathered and very broken.								
20.60	22.86	<u>Cream-grey quartzite and shaley quartzite</u> : core weathered and broken in places. Bedding dips 45°.								
22.86	30.12	<u>Light grey-grey quartzite</u> : numerous planar veins of siderite up to 8mm thick. Bedding dips 40°. Small fault: 27.93-28.01.								
30.12	33.72	<u>Light grey-grey shale and shaley quartzite</u> : bedding dips between 30-35°. Faults between 31.70-31.80 and 32.42-33.22. Mineralisation: rare irregular pyrite veins up to 6mm thick.								
33.72	53.31	<u>Light grey-grey quartzite</u> : core very broken (due to drilling). Bedding dips 40°. Occasional sections (up to 60cm) of shaley quartzite. Rare irregular and planar quartz veins up to 5mm thick. For most part, core very broken. Quartzite mildly weathered.								
53.31	59.12	<u>Light grey-grey shaley quartzite and grey quartzite</u> : slightly weathered. Numerous irregular quartz and siderite veins up to 1cm thick.								
59.12	61.97	<u>Brecciated grey-black shale and grey quartzite</u> : abundant irregular quartz veins up to 1 cm thick. Quartzite as brecciated beds up to 14cm thick.								
61.97	85.16	<u>Brecciated grey-black shale and minor quartzite</u> : quartzite as stringers, brecciated pieces and brecciated beds up to 10cm thick. Fissility direction dips between 0°-40° (61.97-77.00m); 35°-70° (77.00m). Faults: at 70.38-70.45; 71.35-71.91; 73.15-73.45 (weak); 74.42-74.76.								

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Drill Hole Record



066

Property	Queen Hill	District	Zeehan	Hole No.	G.26	711068
Commenced	Location		Tests at	Hor. Comp.		
Completed	Core Size		Corr. Dip	Vert. Comp.		
Co-ordinates	True Brg.		Logged by			
Objective			% Recov.	Date		

Claim

T. Brg.

Collar Dip

Elev.

Length

Hole No. Sheet

Footage		Description	Sample No.	Length	Analysis					
From	To									
		<u>Mineralisation:</u> very rare irregular and planar pyrite and siderite-pyrite veins up to 2mm thick.								
85.16	86.96	<u>Brecciated dark grey-black shale:</u> rare irregular quartz veins up to 3mm thick. Fissility direction dips between 35°-40°.								
86.96	88.85	<u>Brecciated dark grey-black shale and grey quartzite:</u> rare irregular quartz and siderite veins up to 5mm thick.								
		<u>Mineralisation:</u> rare irregular pyrite veins up to 6mm thick.								
88.85	91.22	<u>Fault zone:</u> core very broken, puggy and graphitic. Rock type - black shale and grey quartzite.								
91.22	102.31	<u>Brecciated grey-black shale and grey quartzite:</u> rare irregular and planar quartz and quartz-siderite veins up to 1cm thick.								
		<u>Faults</u> between 91.68-91.80; 94.00-94.16; 99.96-100.06.								
		<u>Mineralisation:</u> rare, irregular and planar siderite-pyrite veins up to 6mm thick. At 94.27-94.47, quartz, siderite and pyrite veining.								
102.31	103.18	<u>Fault:</u> core extremely puggy and graphitic.								
103.18	104.32	<u>Black shale and grey quartzite:</u> bedding dips 50°.								
104.32	104.36	<u>Fault:</u> core extremely puggy and broken.								
104.36	108.50	<u>Brecciated black shale and very minor grey quartzite:</u> numerous to abundant (in places) irregular quartz veins up to 2cm thick.								
		<u>Mineralisation:</u> occasional irregular pyrite and irregular and planar siderite - pyrite veins up to 1cm thick.								

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Drill Hole Record



Property	Queen Hill	District	Zeehan	Hole No.	G.26	
Commenced		Location		Tests at		711070
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis										
From	To														
		Mineralisation: occasional irregular and planar pyrite veins up to 2mm thick.													
		Between 135.59-135.69, veining intense, dips 55°. At 136.80, veining dips 50°.													
138.38	142.78	Grey-dark grey shale and grey quartzite: contorted in places. Occasional irregular quartz and siderite veins up to 3cm thick. Bedding dips 30° at 139.13; 80° at 139.70; 20° at 142.58. Shale and quartzite finely interbedded.													
142.78	144.18	Light grey-brown quartzite and very minor black shale: bedding dips 50° at 143.33. Numerous irregular quartz veins up to 2 cmthick.													
144.18	146.96	Grey-black shale and grey quartzite: rock contorted to mildly brecciated in places, where not, bedding dips 40° at 144.57; 50° at 146.48. Shale and quartzite finely interbedded and laminated. Occasional irregular quartz veins up to 4mm thick.													
146.96	148.45	Grey-dark grey-black shale: slightly contorted over last 40cm. Occasional irregular quartz veins up to 3mm thick.													
148.45	149.92	Grey-dark grey shale and grey quartzite: strongly contorted. Shale and quartzite finely interbedded and laminated.													
149.92	161.95	Grey-black shale and grey quartzite: quartzite as individual beds up to 40cm thick (152.25-152.65), elsewhere quartzite does not exceed 15cm in thickness. Core contorted in places. At 155.30, bedding dips 65°; at 156.37, dips 65°; at 158.50, dips 40°; at 161.45, dips 30°.													
		Faults between 151.23-152.25 (relatively weak); 156.78-156.98; 158.90-159.20. Occasional irregular and planar quartz and siderite veins up to 4mm thick.													

COCKING FOR PRINT

Drill Hole Record

Property	Queen Hill	District	Zeehan	Hole No.	G.26	
Commenced		Location		Tests at		Hor. Comp. 711072
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis								
From	To												
		Mineralisation: occasional irregular pyrite and pyrite-siderite veins up to 6mm thick. Rare disseminations of pyrite within quartzite. Between 142.41-142.94 vein and "bedded" pyrite within grey brecciated chert (?) and brecciated shale. Estimated sulphide content 15%.											
186.79	187.25	Pyrite-minor stannite lode: within a brecciated black shale. Stannite very minor within pyrite. Quartz and siderite also present. Estimated sulphide content 60-70%.											
187.25	199.24	Brecciated grey-black shale and grey quartzite: quartzite as stringers, brecciated pieces and brecciated beds up to 4cm thick. Fissility direction dips between 35°-65°. Numerous fine (up to 3mm thick) siderite veins. Occasional irregular quartz veins up to 8mm thick. Fault 198.73-198.91 and 199.23-199.29. Mineralisation: numerous, irregular pyrite veins up to 7mm thick; and pyrite associated with siderite and quartz veins. Strong, pyrite, siderite veining between 191.07-191.21 and 197.31-197.36.											
199.24	201.28	Dark grey-black shale: occasional irregular and planar quartz and siderite veins up to 3mm thick. Fissility direction dips between 30°-45°. Mineralisation: pyrite-siderite-quartz veining between 199.49-199.55 and 199.87-199.93m.											
201.28	205.11	Brecciated grey-black shale and grey quartzite: numerous irregular quartz and siderite veins up to 1cm thick. Quartzite as stringers, brecciated pieces and brecciated beds up to 7cm thick.											

COCKINGTON PRINT

Drill Hole Record



Property	Queen Hill	District	Zeehan	Hole No.	G.26
Commenced		Location		Tests at	Hor. Comp. 711073
Completed		Core Size		Corr. Dip	Vert. Comp.
Co-ordinates				True Brg.	Logged by
Objective				% Recov.	Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis								
From	To												
		<u>Mineralisation:</u> occasional irregular pyrite veins up to 4cm thick. Fine bedded pyrite dips 40° between 202.69-202.73.											
205.11	205.91	<u>Brecciated grey quartzite:</u> numerous irregular quartz veins up to 7mm thick.											
205.91	217.29	<u>Brecciated grey-black shale and grey quartzite:</u> quartzite as stringers, brecciated pieces and brecciated beds up to 4cm thick. Numerous irregular quartz veins, minor planar siderite veins up to 3mm thick. Where observable, fissility direction dips 50°. Quartz vein intensity increasing with depth.											
		<u>Mineralisation:</u> irregular veins (up to 1cm thick) and blebs (up to 6mm thick) of pyrite between 209.87-213.82. Between 210.92-210.97 and 211.61-211.69 very strong, practically massive, pyrite veining. Between 214.75-214.79 "bedded" fine pyrite dips 50° and brecciated fine bedded pyrite between 216.99-217.14.											
217.29	217.72	<u>Grey quartzite:</u> occasional planar quartz veins up to 1mm thick.											
217.72	228.24	<u>Brecciated grey-black shale and minor grey quartzite:</u> abundant irregular quartz veins up to 1cm thick, occasional irregular siderite veins up to 8mm thick. Quartzite as stringers and brecciated pieces up to 2cm dia.											
		<u>Mineralisation:</u> occasional irregular pyrite veins up to 6mm, associated with quartz and siderite veins. Brecciated bedded pyrite at 218.48 (over 7cm).											
		Strong pyrite, siderite veining between 227.30-228.24 with minor galena. Estimated sulphide content 10-20%.											

COCKINGTON PRINT

Property	Queen Hill	District	Zeehan	Hole No.	G.26	711074
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No.

Footage		Description	Sample No.	Length	Analysis						
From	To										
228.24	233.00	<u>Pyritic grey-black shale:</u> very fine pyrite appear introduced rather than sygenetic. Thin (up to 4mm thick) "beds" of pyrite have a "whispy" character. Numerous very thin to thick (1½cm) irregular and planar siderite veins. Estimated sulphide content below 2%. <u>Faults</u> between 227.62-227.76 and 229.04-229.14.									
233.00	235.50	<u>Siderite-quartz lode:</u> core extremely broken, rock type brecciated black shale. Very minor vein pyrite.									
235.50	238.42	<u>Faulted pyrite mineralisation:</u> coarse massive and fine massive and veined (237.80-238.42) pyrite mineralisation, which is extremely broken and friable in places. Massive pyrite appears to have been subjected to leaching. Faulting is apparently post mineralisation. Core recovery 75%. Estimated sulphide content 85-90%.									
238.42	239.17	<u>Quartz-siderite-pyrite mineralisation:</u> within a brecciated and silicified black shale. Quartz and siderite as irregular veins up to 1cm thick; pyrite as coarse segregations of crystal clusters. Estimated sulphide content 25%.									
239.17	241.90	<u>Pyrite-minor galena mineralisation:</u> coarse, heavily disseminated to massive pyrite with fine minor galena. Host rock appears to be a grey-black silicified carbonate rock. Estimated sulphide content 85-95%. Rare inclusions of soft light green-yellow soapy material up to 6mm dia.									

COCKINGTON PRINT

Drill Hole Record



Property	Queen Hill	District	Zeehan	Hole No.	G.26	711075
Commenced	Location		Tests at	Hor. Comp.		
Completed	Core Size		Corr. Dip	Vert. Comp.		
Co-ordinates	True Brg.		Logged by			
Objective	% Recov.		Date			

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No.

Footage		Description	Sample No.	Length	Analysis				
From	To								
241.90	244.45	<u>Faulted pyrite mineralisation:</u> coarse massive and veined pyrite associated with quartz veins up to 2½cm thick. Host rock-black shale. Core extremely broken, graphitic and puggy in places. Estimated sulphide content 55-60%. Leaching apparent in massive sulphides. Core recovery 80%.							
244.45	247.75	<u>Leached pyrite-quartz mineralisation:</u> coarse segregations of pyrite crystals associated with minor quartz and siderite. Core cavity rich. Estimated sulphide content 60%.							
247.75	262.81	<u>Pyrite mineralisation:</u> coarse pyrite, in rare places almost massive but commonly as crystals aggregates within a light grey to black silicified carbonate rock. Rare, usually planar, siderite veins up to 4mm thick. At 262.00 a fluorite crystal with siderite inclusions is 2½cm across. Estimated sulphide content 40% overall. Between 258.10-262.81, estimated sulphide content 70%.							
262.81	273.21	<u>Light grey-dark green-grey-black shale:</u> contorted to moderately brecciated in places. Bedding dips between 0-25° overall. Occasional to numerous irregular and planar carbonate and minor quartz veins up to 1cm thick. <u>Mineralisation:</u> finely disseminated and segregated pyrite crystals between 263.31-263.41.							
273.21	273.44	<u>Light brown-grey carbonate rock:</u> numerous planar carbonate-galena (minor) veins up to 2mm thick.							

COCKINGTON PRINT

Drill Hole Record



Property	Queen Hill	District	Zeehan	Hole No.	G.26	711076
Commenced		Location		Tests at		Hor. Comp.
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage	Description	Sample No.	Length	Analysis			
From	To						
273.44	279.12						
	Light grey-black shale: contorted to moderately brecciated in places. Bedding dips between 35°-60°. Numerous quartz-carbonate veins up to 1cm thick, but usually below 2mm in thickness.						
	<u>Mineralisation:</u> very rare pyrite blebs up to 1cm dia. occurring mostly over last 2m.						
279.12	281.95						
	<u>Fault:</u> core extremely puggy and soft; strong quartz-carbonate veining where not puggy.						
281.95	290.13						
	Light grey-black brecciated shale: where observable, bedding/fissility direction dip between 0-30°. Numerous, irregular and planar quartz-carbonate veins up to 2cm thick.						
	<u>Mineralisation:</u> occasional pyrite veins up to 4mm thick associated with carbonate-quartz veins. Between 288.79-288.86, fine and coarse pyrite within grey shale.						
290.13	290.29						
	Light brown carbonate rock: numerous irregular and planar carbonate veins up to 1mm thick.						
290.29	292.23						
	Brecciated grey-black shale: abundant irregular and planar carbonate-quartz veins. Between 291.07-291.31 siderite vein dips \approx 25°.						
292.23	298.20						
	<u>Coarsely crystalline bedded pyrite:</u> bedding dips between 25-35°. Bedded pyrite within a dark grey-black shale. Between 294.49-294.89 and 296.72-297.18, brown dark grey siderite-carbonate rock, containing fine vein pyrite. Elsewhere, occasional irregular carbonate veins up to 1cm thick. Estimated sulphide content						

Drill Hole Record

Property **QUEEN HILL** District **ZEEHAN** Hole No. **G. 27** 711079
 Commenced **20-11-72** Location **TASMANIA** Tests at _____ Hor. Comp. _____
 Completed **26.11.72** Core Size **"N" to 93.92m** Corr. Dip **60°** Vert. Comp. _____
 Co-ordinates **11,557N 8004 W** "B" to **199.94m** ~~Mag~~ **True Brg. 313°** Logged by **D. Brown**
 Objective _____ % Recov. _____ Date _____

Footage		Description	Sample No.	Length	Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
From	To										
0	23.47	Black Shale: extremely broken & soft - probably due to weathering									
23.47	25.02	Black Shale: less broken than before. Bedding dips $\approx 30^\circ$									
25.02	30.96	Eight grey black shale: slightly brecciated in places. Bedding dips $\approx 15^\circ$ at 25.80 and $\approx 25^\circ$ at 29.64. Occasional rounded "pebbles" of quartzite & shale up to 2 cm dia. Core very broken in places - probably due to weathering and drilling because graphite & pug absent. Rare siderite veins up to 7 mm thick. Mineralisation: very rare pyrite blebs up to 2 cm dia.									
30.96	35.37	Light grey to grey shale and sheared conglomerate: shale exhibits very little bedding or fissility characteristics. Sheared conglomerate, with pebbles up to 4 cm dia., occurs between 31.66 - 31.86 and 34.45 - 34.73. Bedding dips 30° at 34.80. Numerous irregular and planar siderite veins (up to 1mm thick) and siderite "blebs" (up to 3 mm dia).									
35.27	35.66	<u>Green Shale</u> : occasional planar siderite veins up to 1 mm thick									
35.66	35.78	As 30.96 - 35.77									
35.78	36.75	<u>Shaley quartzite</u> : grey brown colour, siderite specks abundant throughout, numerous planar siderite veins up to 2 mm thick.									
36.75	42.96	<u>Brecciated black shale</u> : numerous irregular calcite veins up to 4 mm thick. Core broken, puggy and slightly graphitic between 36.75 - 39.15 and 40.90 - 42.96. Fault zone 36.75 - 42.96									
42.96	45.13	Grey quartzite: core very broken on fractures & bedding (?0 planes. Core recovery 60%									
45.13	47.75	<u>Grey-black shale</u> : contorted to slightly brecciated, occasional irregular carbonate veins up to 8 mm thick. Bedding dips $\approx 40^\circ$. <u>Faults</u> : between 46.26 - 46.33 and 46.75 - 47.45.									

COCKINGTON PRINT

Drill Hole Record



079

Property	QUEEN HILL	District	ZEEHAN	Hole No.	G. 27	711081
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis					
From	To									
		relatively weak.								
87.59	92.56	<u>Leached quartz-siderite-sulphide lode:</u> core very broken & vuggy. Limonitic clay in boxwork type structures. Opaline material present. Core recovery 75%								
92.56	93.00	<u>Light grey-buff shale:</u> very strong carbonate veining present, associated with a veined grey opaline material.								
93.00	93.31	<u>Light grey shale:</u> numerous planar carbonate veins								
93.31	96.31	<u>Stope or filled cavity:</u> 5% core recovery-shale chips; Reduced to "B" here.								
96.31	100.54	<u>Grey-black shale:</u> bedding dips between 25° - 35°. Numerous irregular and planar carbonate veins up to 5 mm thick.								
		<u>Fault</u> between 98.60 - 98.78; 98.93 - 99.20.								
100.54	101.51	<u>Grey dolomitic siltstone:</u> abundant irregular and planar carbonate veins up to 5mm thick.								
101.51	101.79	<u>Fault</u> very broken shale and 5 cm thick quartz veins with minor specks of sphalerite.								
101.79	104.11	<u>Black Slate:</u> fissility direction dips 40°. Numerous, irregular carbonate veins up to 4mm thick. Graphite observable on numerous faces, but no large fault zones with pug above 5 cm thick.								
104.11	107.25	<u>Light grey-grey shaley quartzite:</u> bedding dips 60°. Rare, irregular carbonate veins up to 2 mm thick.								
107.25	110.60	<u>Light grey-grey shale:</u> core very broken. Fissility direction dips 65° due to softness of shale.								
110.60	118.91	<u>Light brown silicified carbonate rock:</u> very numerous quartz veins throughout, core very broken and vuggy in places.								
		<u>Core or stope:</u> between 11.78 -114.61 No core recovery..								

COCKINGTON PRINT

Drill Hole Record

080

Property	QUEEN HILL	District	ZAN	Hole No.	G. 27	
Commenced		Location		Tests at		Hor. Comp. 711082
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage		Description	Sample No.	Length	Analysis				
From	To								
		<u>Mineralisation:</u> 110.60 - 110.68 - Possible stannite vein. At 115.12, pyrite vein 5 mm thick dips 40°. Between 115.78 - 115.85 pyrite-galena veins dip 25°							
118.91	119.41	<u>Galena-pyrite-sphalerite lode:</u> predominant massive galena. Estimated sulphide content 70%							
119.41	120.29	<u>Fault:</u> core extremely broken & puggy.							
120.29	133.80	<u>Light brown silicified carbonate rock:</u> very numerous quartz veins throughout. Core broken - & vuggy in places. <u>Faults:</u> between 129.85 - 130.95; 131.20 - 131.30; 133.34 - 135.02 (core recovery 50%) <u>Mineralisation:</u> occasional irregular galena & pyrite veins up to 5 mm thick, and segregations of galena, sphalerite & pyrite up to 8 mm dia.							
133.80	140.21	<u>Light grey to grey shale:</u> with abundant irregular & planar carbonate veins up to 12 cm thick. Fissility direction dips between 40°-60°. Core very broken <u>Fault</u> 138.51 - 139.02 core puggy & graphitic.							
140.21	141.54	<u>Black Shale:</u> fissility direction dips 55°, occasional planar quartz-carbonate veins up to 3 mm thick. <u>Mineralisation:</u> occasional pyrite blebs up to 7 mm in dia.							
141.54	151.21	<u>Grey dolomitic siltstone:</u> very undeformed, bedding dips between 50-60°. Numerous, mostly planar carbonate veins up to 8 mm. thick. Rock reacts with 10% HCl. cold. Weak fault. 149.26-149.51 - core broken & strongly carbonate veined.							
151.21	154.43	<u>Light grey dolomite and very minor black shale:</u> dolomite interbedded with very fine shale beds. Bedding dips 55°. Occasional, irregular carbonate veins up to 5 mm thick.							

Drill Hole Record



081

Property	QUEEN HILL	District	ZEEHAN	Hole No.	G. 27	
Commenced		Location		Tests at		Hor. Comp. 711083
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage		Description	Sample No.	Length	Analysis					
From	To									
154.43	158.51	Grey shale: slightly dolomitic; bedding dips 60°. Occasional planar carbonate veins up to 3 mm thick.								
158.51	163.80	Black Shale: occasional planar carbonate veins up to 2 mm thick. Small fault between 162.09 - 162.20. Mineralisation: Fine, bedded pyrite up to 2 cm thick between 159.37 - 159.90, dip 50°								
163.80	164.23	Light grey dolomitic shale: occasional planar carbonate veins up to 2 mm thick								
164.23	170.38	Light grey -black shale: dolomitic in places. Shale laminated. Numerous planar and irregular carbonate veins up to 2 cm thick. Bedding dips 10° at 153.48; 55° at 169.34.								
170.38	177.66	Green-grey-black shale: laminated, bedding dips between 25-30° Rare, planar carbonate veins up to 4 mm thick. Small faults between 170.76 - 170.98; 173.75 - 174.15; 177.56 - 177.66.								
177.66	180.66	Brecciated dark grey-black shale: very numerous irregular carbonate veins up to 2 cm thick.								
180.66	193.15	Light grey quartzite: with minor shale between 180.66 - 181.70. Quartzite slightly brecciated in rare places. Occasional planar quartz veins up to 3 mm thick. Mineralisation: pyrite veining between 186.86 - 187.19								
193.15	199.94	Grey shaley quartzite: bedding dips between 50-60°. Occasional irregular and planar carbonate & quartz veins up to 2 mm thick.								

COCKINGTON PRINT

Drill Hole Record



083

Property	QUEEN HILL	District	Zeehan	Hole No.	G. 28	711085
Commenced	28.11.71	Location	Tasmania	Tests at		Hor. Comp.
Completed	7.12.72	Core Size	"N" to 118.87	Corr. Dip	75°	Vert. Comp.
Co-ordinates	10373N 8628W		"B" to 335.28	True Brg.	280°	Logged by D.R. BROWN
Objective				% Recov.		Date

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage		Description	Sample No.	Length	Analysis									
From	To													
	3.05	No core recovery.												
3.05	23.70	Light grey-grey quartzite; with very rare interbedded grey shale and shaley quartzite. Numerous irregular and planar veins up to 6cm thick. Quartzite micaceous in rare places. Bedding dips 20° at 6.09; 50° at 11.05; 40° at 20.27; 30° at 22.40; 30° at 24.51. Possible faults: 15.25 - 15.65; 17.07 - 17.70:- very broken & slightly puggy shale beds. Mineralisation. numerous irregular & planar pyrite veins (up to 3mm thick) and finely disseminated pyrite between 4.57 - 10.10. Estimated sulphide content below 1%.												
23.70	26.78	Grey-green shaley quartzite, shale & grey quartzite: bedding dips between 35-40° Numerous irregular & planar carbonate veins up to 3mm thick.												
16.78	49.71	Light grey-grey quartzite with minor shaley quartzite & green-grey shale. Bedding dips 35° at 26.85; 45° at 29.41; 40° at 31.09. Quartzite micaceous in rare places. Numerous, irregular & planar quartz and carbonate veins up to 1cm thick. Small fault 43.90 - 44.04, dips \approx 20°. Mineralisation: numerous pyrite - quartz - sphalerite veins in fractured zone between 38.30 - 39.20. Pyrite vein .5 to 1cm wide dips 20° at 39.20.												
49.71	50.26	Brecciated grey-dark grey quartzite: brecciated quartzite pieces up to 10cm dia. within a quartz matrix. Mineralisation: Pyrite heavily disseminated throughout, associated with siderite. Between 50.24 - 50.26, pyrite, galena vein dips 25°.												

GEORGINTON PRINT

Drill Hole Record



084

Property	Queen Hill	District	Zeehan	Hole No.	G. 28	711086
Commenced	Location		Tests at		Hor. Comp.	
Completed	Core Size		Corr. Dip		Vert. Comp.	
Co-ordinates			True Brg.		Logged by	
Objective			% Recov.		Date	

Claim
T. Brg.
Collar Dip
Elev.
Length

Footage		Description	Sample No.	Length	Analysis					
From	To									
50.26	52.61	<u>Grey-dark grey shaley quartzite & shale</u> : bedding dips 45° at 50.61; 35° at 51.30; 5° at 52.33. Rare, planar quartz veins up to 2mm thick. Fault: 50.93 - 51.21. <u>Mineralisation</u> : pyrite vein 1 cm thick dips 35° at 52.20.								
52.61	54.17	<u>Grey-dark grey shale</u> : bedding dips between 0 - 10°. Occasional, irregular siderite veins up to 3mm thick. Core becoming contorted. Small fault: 53.76 - 53.95.								
54.17	60.80	<u>Brecciated dark grey-black shale and minor quartzite</u> : quartzite as stringers, brecciated pieces and brecciated beds up to 5cm thick. Numerous, irregular quartz & siderite veins up to 7mm thick. Fault: 60.24 - 60.34.								
60.80	65.72	<u>Brecciated dark grey-black shale and minor quartzite</u> : abundant, irregular quartz veins up to 5mm thick. Quartzite as brecciated pieces up to 6cm dia. Fault, approx. 5cm wide, dips 5° at 65.32.								
65.72	71.46	As 54.17 - 60.80								
71.46	74.01	<u>Grey-black shale</u> : laminated between 71.46 - 71.87 - laminations dip 20° - elsewhere fissility direction dips between 10 - 30°. Occasional irregular quartz veins up to 6mm thick.								
74.01	92.02	<u>Brecciated grey-black shale and minor grey quartzite</u> : quartzite as stringers, irregular brecciated pieces and rarely as brecciated beds up to 5cm thick. Numerous, irregular & planar quartz veins and mostly planar siderite veins up to 1cm thick. <u>Faults</u> occur between 76.48 - 76.80; 77.55 - 77.72; 80.77 - 80.85. <u>Mineralisation</u> : Pyrite occasionally associated with siderite veins.								

CHRISTIAN PRINT

Drill Hole Record

185

Property	QUEEN HILL	District	Zeehan	Hole No.	G. 28	711087
Commenced	Location		Tests at	Hor. Comp.		
Completed	Core Size		Corr. Dip	Vert. Comp.		
Co-ordinates			True Brg.	Logged by		
Objective			% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis									
From	To													
92.02	92.83	Light grey quartzite: slightly brecciated, occasional quartz & siderite veins up to 2mm thick.												
92.83	106.68	Brecciated grey-black shale and grey quartzite: quartzite as stringers, brecciated individual pieces and strongly conformed to brecciated beds up to 9cm thick. Occasional irregular quartz and siderite veins up to 8mm thick. Fissility direction dips $\sim 50^\circ$ at 96.71; 75° at 98.05; 60° at 102.18 and 35° at 104.95.												
106.68	107.69	Grey quartzite and very minor black shale: moderately brecciated & broken. Numerous irregular quartz veins up to 8mm thick. Mineralisation: Pyrite-siderite vein 3cm thick at 107.96 dips $\sim 25^\circ$. Pyrite-siderite veining between 108.26 - 108.36 dips $\sim 50^\circ$.												
107.69	108.51	Grey-black shale & grey quartzite: laminated; laminations dip $\sim 30^\circ$. Mineralisation: irregular & planar pyrite veins up to 1cm thick throughout.												
108.51	111.03	Brecciated dark grey-black shale: occasional irregular quartz veins up to 8mm thick. Faults: between 108.51 - 109.07; 110.16 - 110.48. Graphite & broken core in other narrow places.												
111.03	111.79	Fault; core puggy, friable & very broken.												
111.79	114.50	Brecciated dark, grey-black shale: occasional irregular planar quartz & siderite veins up to $1\frac{1}{2}$ cm thick.												
114.50	114.75	Grey quartzite												
114.75	115.23	As 111.79 - 114.50												
115.23	118.56	Grey quartzite & very minor black shale: quartzite brecciated slightly where interbedded with shale. Occasional irregular siderite quartz veins up to 5mm thick.												

COCKINGTON PRINT

Drill Hole Record

86

Property	Queen Hill	District	Zeehan	Hole No.	G.28	711088
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage		Description	Sample No.	Length	Analysis				
From	To								
118.56	123.74	<u>Grey-dark grey-black shale and shaley quartzite:</u> shale laminated in places; laminations dips between 30°-40°. Core slightly contorted in places. Occasional irregular siderite and quartz veins up to 5mm thick.							
123.74	130.87	<u>Brecciated grey-black shale and grey quartzite:</u> quartzite as stringers, irregular brecciated pieces and moderately brecciated beds up to 35cm thick. Numerous irregular quartz veins up to 2cm thick, associated with rarer siderite veins. Fissility direction dips between 40°-55°. <u>Mineralisation:</u> pyrite veining between 129.88-129.93 dips 25°. Elsewhere, rare, irregular veins up to 3mm thick and blebs up to 5mm dia.							
130.87	139.16	<u>Laminated grey-black shale and minor grey quartzite:</u> laminations dip 20° at 131.50; 30° at 132.42; 30° at 134.59; 45° at 135.80; 40° at 138.05; 50° at 138.77. Rare irregular siderite and quartz veins up to 6mm thick.							
139.16	143.36	<u>Light grey-grey coarse grained quartzite:</u> with extremely minor interbedded shale between 142.46-143.36. Occasional planar and irregular siderite-quartz veins up to 4mm thick.							
143.36	146.13	<u>Grey-black shale:</u> laminated between 143.36-145.83. Laminations dip 40°. Occasional irregular siderite-quartz veins up to 4mm thick. Siderite veining between 144.07-144.11 dips 80°.							

PRINTED

DRI Hole Record

287

Property	Queen Hill	District	Zeehan	Hole No.	G.28	711089
Commenced	Location		Tests at	Hor. Comp.		
Completed	Core Size		Corr. Dip	Vert. Comp.		
Co-ordinates			True Brg.	Logged by		
Objective			% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
-------	---------	------------	-------	--------	----------	-------

Footage		Description	Sample No.	Length	Analysis						
From	To										
146.13	154.17	<u>Brecciated dark grey-black shale and minor grey quartzite:</u> brecciation relatively weak between 146.13-149.96. Numerous to very numerous irregular quartz-siderite veins up to 2cm thick. Quartzite as irregular brecciated pieces and brecciated beds up to 9cm thick.									
		<u>Mineralisation:</u> numerous irregular pyrite veins up to 1cm thick throughout, occasionally associated with quartz and siderite veins.									
154.17	155.06	<u>Weak pyrite-quartz lode:</u> coarse and very fine pyrite associated with quartz in a brecciated black shale host. Estimated sulphide content 25%.									
155.06	158.38	<u>Brecciated dark grey-black shale and minor quartzite:</u> numerous to abundant irregular, irregular quartz veins up to 6mm thick.									
		<u>Mineralisation:</u> numerous irregular pyrite veins up to 1½cm thick. Strong pyrite veining between 156.11-156.31.									
158.38	160.49	<u>Weak pyrite-quartz minor stannite lode:</u> within a black shale. Stannite occurs as veins and specks between 160.33-160.49. Veins up to 7mm wide, dips approximately 30°.									
160.49	168.22	<u>Brecciated dark grey-black shale and grey quartzite:</u> fissility direction dips between 40-50°. Numerous irregular quartz and siderite veins up to 7mm thick.									
		<u>Mineralisation:</u> rare veins (up to 2mm thick) and blebs (up to 5mm dia) of pyrite.									
168.22	168.61	<u>Grey quartzite:</u> numerous, irregular and planar quartz veins up to 8mm thick.									

PRINT FROM

Drill Hole Record

Property	Queen Hill	District	Zeehan	Hole No.	G.28	711090
Commenced		Location		Tests at		Hor. Comp.
Completed		Core Size		Corr. Dip		Vert. Comp.
Co-ordinates				True Brg.		Logged by
Objective				% Recov.		Date

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No.
Sheet

Footage	Description	Sample No.	Length	Analysis				
From To								
168.61 176.22	<u>Brecciated grey-black shale and minor grey quartzite:</u> numerous irregular and planar quartz and siderite veins up to 1½cm thick. Brecciation intensity weak between 172.20-174.88. Weak fault: 171.04-171.38.							
176.22 178.61	<u>Dark grey-black shale:</u> occasional irregular quartz veins up to 2mm thick.							
178.61 185.19	<u>Grey-black shale and very minor grey quartzite:</u> core moderately brecciated in places. Occasional planar and irregular quartz veins up to 2cm thick. <u>Mineralisation:</u> very rare irregular pyrite veins up to 4mm thick.							
185.19 192.08	<u>Brecciated dark grey-black shale and grey quartzite:</u> quartzite as brecciated beds up to 60cm thick. Occasional irregular quartz and siderite veins up to 8mm thick. Bedding dips 40° at 191.71. <u>Mineralisation:</u> rare, irregular pyrite veins up to 4mm thick.							
192.08 198.59	<u>Brecciated grey-black shale and very minor grey quartzite:</u> occasional irregular quartz and siderite veins up to 4mm thick. Weak fault 196.50-196.60. <u>Mineralisation:</u> occasional, irregular and planar pyrite-siderite veins up to 5mm thick.							
198.59 202.51	<u>Grey-black shale:</u> slightly contorted in places. Extremely minor grey quartzite. Rare, irregular quartz veins up to 3mm thick.							
202.51 206.45	<u>Brecciated grey-black shale and grey quartzite:</u> quartzite as brecciated beds up to 20 cm thick. Numerous, irregular quartz veins up to 1cm thick. <u>Mineralisation:</u> occasional irregular pyrite veins up to 3mm thick, sometimes associated with pyrite specks. Between 205.74-205.77, pyrite veins dip 70°.							

Drill Hole Record

Property	Queen Hill	District	Zeehan	Hole No.	G.28	711091
Commenced		Location		Tests at		
Completed		Core Size		Corr. Dip		
Co-ordinates				True Brg.		
Objective				% Recov.		Date

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.	Sheet
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Footage		Description	Sample No.	Length	Analysis								
From	To												
206.45	212.44	Grey-dark grey-black shale and very minor grey quartzite: quartzite as undeformed beds up to 1cm thick. Bedding dips between 45-55°. Rare, planar quartz veins up to 2mm thick.											
		<u>Mineralisation:</u> Rare, planar pyrite veins up to 6mm thick.											
212.44	215.56	Brecciated grey-black shale and minor grey quartzite: occasional irregular quartz and siderite veins up to 1½cm thick.											
		<u>Mineralisation:</u> pyrite-siderite vein 1cm thick, dips approximately 50° at 215,10.											
215.56	216.96	Grey quartzite and minor black shale: shale brecciated. Numerous, irregular and planar quartz and siderite veins up to 1cm thick.											
		<u>Mineralisation:</u> occasional irregular pyrite veins and specks between 216.30-216.96.											
216.96	224.25	Brecciated grey-black shale and very minor grey quartzite: quartzite as stringers and individual brecciated pieces. Occasional to rare irregular quartz and siderite veins up to 2mm thick.											
224.25	230.34	Brecciated grey-black shale and grey quartzite: quartzite as stringers, irregular brecciated pieces and brecciated beds up to 21cm thick. Occasional irregular quartz veins up to 8mm thick.											
		<u>Mineralisation:</u> occasional, irregular and planar pyrite veins up to 1cm thick, associated with siderite.											

METON PRINT

090

Property	Queen Hill	District	Zeehan	Hole No.	G.28
Commenced	Location		Tests at	Hor. Comp. 711092	
Completed	Core Size		Corr. Dip	Vert. Comp.	
Co-ordinates			True Brg.	Logged by	
Objective			% Recov.	Date	

Footage From To	Description	Sample No.	Length	Analysis				
230.34 232.00	<u>Brecciated grey-black shale and minor grey quartzite:</u> quartzite as stringers and irregular brecciated pieces up to 1cm dia. Occasional, irregular quartz and siderite veins up to 1½cm thick. <u>Mineralisation:</u> rare, irregular and planar pyrite veins up to 4mm thick. Fine pyrite disseminations within quartzite in rare places.							
232.00 232.59	<u>Pyrite-carbonate lode:</u> pyrite veining within a hard, cream carbonate. Estimated sulphide content 25%.							
232.59 238.94	As 230.34-232.00.							
238.94 240.05	<u>Brecciated grey-black shale and grey quartzite:</u> quartzite as individual brecciated beds up to 20cm thick. Occasional, irregular and planar quartz and siderite veins up to 8mm thick. Brecciation of moderate intensity.							
240.05 244.92	<u>Brecciated grey-black shale and minor grey quartzite:</u> quartzite as stringers individual brecciated pieces and brecciated beds up to 5cm thick. Numerous, irregular and planar quartz and siderite veins up to 1cm thick. <u>Mineralisation:</u> rare, irregular pyrite veins up to 4cm thick.							
244.92 246.13	Pyrite veining within brecciated grey-black shale and grey quartzite: associated with quartz and siderite veins. Estimated sulphide content 15-20%.							
246.13 246.71	<u>Pyrite lode:</u> associated with quartz and siderite - within brecciated grey-black shale and grey quartzite. Estimated sulphide content 60-65%.							

Claim
T. Brg.
Collar Dip
Elev.
Length
Hole No.

Sheet

Dip Hole Record

711095

Property	Queen Hill	District	Zeehan	Hole No.	G.28
Commenced	Location	Tests at	Hor. Comp.	711095	
Completed	Core Size	Corr. Dip	Vert. Comp.		
Co-ordinates		True Brg.	Logged by		
Objective		% Recov.	Date		

Claim	T. Brg.	Collar Dip	Elev.	Length	Hole No.
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Footage From To	Description	Sample No.	Length	Analysis				
286.30 294.95	Light grey-black shale and very minor grey quartzite: quartzite as beds up to 1½cm thick. Bedding dips between 25-35°. Rare, mostly planar siderite veins up to 4mm thick; irregular quartz veins between 294.40-294.95, up to 6mm. Core very slightly brecciated in places.							
294.95 295.05	Siderite-quartz vein: dips approximately 50°; minor pyrite.							
295.05 296.88	Light grey-dark grey carbonate rock: probably dolomite to silty dolomite. Numerous, irregular and planar carbonate veins up to 3mm thick. Mineralisation: fine, bedded pyrite over 2cm dips 25° at 295.83.							
296.88 300.43	Brecciated cream-grey-darkgrey carbonate rock: probably dolomite and shaley dolomite. Numerous, irregular and planar carbonate veins up to 7mm thick. Mineralisation: irregular pyrite veins and dissemination up to 1cm thick occur occasionally. Pyrite bleb at 298.14, is 4cm dia. Very rare, sphalerite specks with some carbonate veins.							
300.43 302.69	Grey-black shale: contorted in places. Occasional, irregular and planar carbonate veins up to 3mm thick.							
302.69 304.34	Conglomeratic black shale: pebbles of grey-black shale up to 3cm dia. within a finely pyritic black shale. AT 303.23, an irregular brecciated piece of carbonate is 5cm in dia.							

DUCKINGTON PRINT

Property Queen Hill District Zeehan Hole No. G. 28
 Commenced _____ Location _____ Tests at _____ Hor. Comp. 711096
 Completed _____ Core Size _____ Corr. Dip _____ Vert. Comp. _____
 Co-ordinates _____ True Brg. _____ Logged by _____
 Objective _____ % Recov. _____ Date _____

Claim _____ T. Brg. _____ Collar Dip _____ Elev. _____ Length _____ Hole No. _____

Footage From To	Description	Sample No.	Length	Analysis						
304.34 307.85	<u>Fault zone:</u> grey-black shale extremely broken. Very soft and puggy between 304.34-304.65; 306.33-306.64; 307.14-307.49. Quartz-siderite veining between 304.34-304.65.									
307.85 310.48	<u>Grey-dark grey shale:</u> extremely broken, most probably by drilling. Bedding dips between 40-50°. Possible weak fault 308.57-308.82.									
310.48 311.96	<u>Fault zone:</u> black shale, very broken, graphitic and puggy.									
311.96 316.91	<u>Grey-black shale:</u> bedding dips between 20-30°. Croe very slightly brecciated in places. Occasional irregular siderite veins up to 8mm thick. Shale-volcanic contact appears "conformable" and dips approximately 35°.									
316.91 335.28	<u>Tuff, lapilli tuff:</u> Abundant carbonate veins between 316.91-321.08.									

SURVEY RESULTS

Topari	400'	121.92	71°	287°	Acid Tube	100'	30.48	69?
	600'	182.88	62°	279½°		300'	91.44	69?
			62°	280°		500'	152.40	66°
	800'	243.84	66°	278½°?		700'	213.36	58°
			53°	281½°		900'	274.32	47°?
	1000'	304.80	54°	281°		1100'	335.20	47°?

COCKINGTON PRINT

095

MAPS

LONGITUDINAL PROJECTION
SEPTEMBER 1971

PLATE 1274/71

GEOPHYSICS SEIGEL ASSOCIATES AUST.

PLATE 1:
THREE ARRAY DRILL HOLE LOGS G6 & G9

PLATE 2:
GIPPSLAND OREBODY ENERGISATION FROM G6:V.P. & IP DATA PROFILES

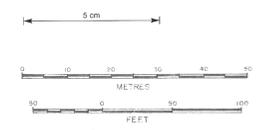
PLATE 3 & 3a
GISSLAND OREBODY ENERGISATION FROM G6:EQUIPOTENTIAL MAP

PLATE 4:
SULPHIDE & GRAPHITE/ SHEAR ZONE ENERGISATION FROM G9:
a) V.P. & IP DATA PROFILES b) EQUIPOTENTIAL MAP.

PLATE 5:
GRADIENT I.P. SURVEY DATA PROFILES.

SECTIONS:

SECTION 11	12	23	PLATE 1016F/72
SECTION G1	G3	G10	PLATE 1016G/72
SECTION G2			PLATE 1016C/72
SECTION G4			PLATE 1016D/72
SECTION G5	G6	G22	PLATE 1016E/72
SECTION G7	G8	G14	PLATE 1016B/72
SECTION G13	G18	G9	PLATE 1016A/72
SECTION G15			PLATE 1016H/72
SECTION G16			PLATE 1016I/72



711098 Vertical Reference Plane Bearing 120°W 72-918

DRAWN BY: KWB/FLA		TRACED BY: GER	
CHECKED BY: GLE		REVIEWED BY: JAR	
DATE: 2/8/62		DATE: 2/8/62	
Location code: K55/5/5C		Scale: 1:600	
		Date: SEPTEMBER 1971	
		Plate: 1274 / 71	

NOTE: ELEVATION DATA ASSUMED 630' ON WESTERNMOST CORNER OF QUEEN NO. 3 SHIRT

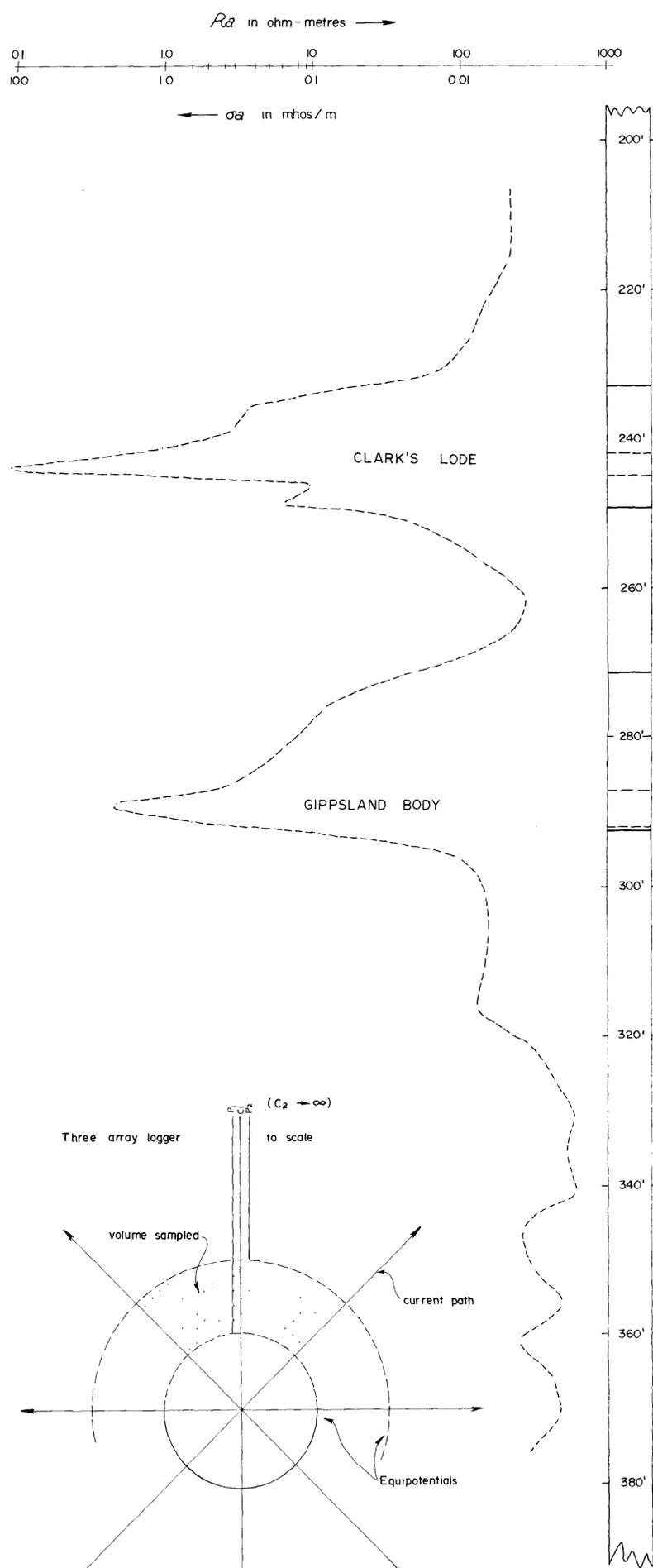
COMINCO EXPLORATION PTY LTD.

NORTH WEST TINI FIELD, TASMANIA

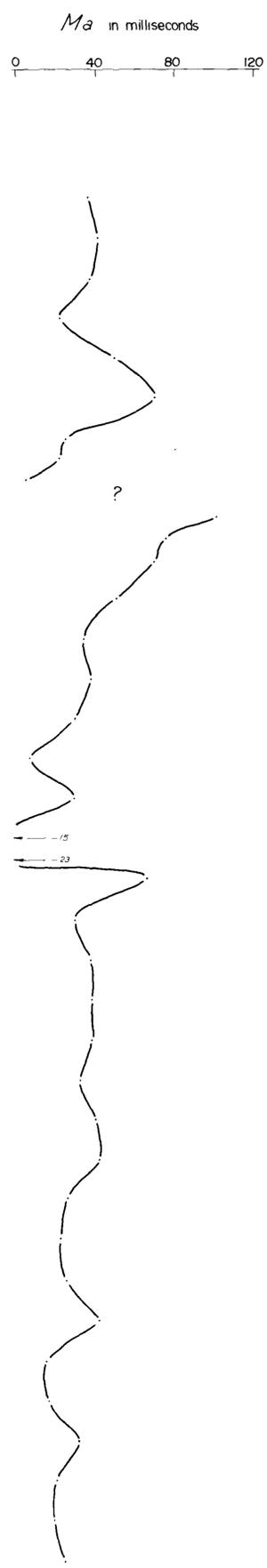
QUEEN HILL, ML 30M/62

LONGITUDINAL PROJECTION 3340

COMINCO GIPPLAND JOINT VENTURE



DD.H.-G6



DD.H.-G9

GIPPSLAND MINERALS N. L.
 QUEEN HILL, ZEEHAN, TASMANIA

THREE ARRAY DRILL HOLE LOGS
 G6 & G9

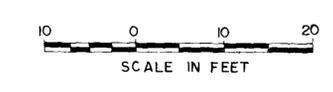


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 NOVEMBER 1972



PRELIMINARY
 ONLY

711099



500E 550 600 650 700 750 800 850 900 950E

L 1950 N

L 1925 N

L 1900 N

L 1875 N

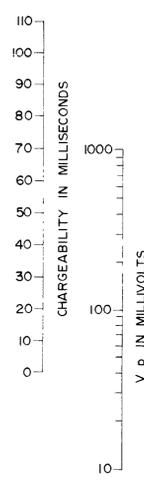
L 1850 N

L 1800 N

L 1750 N

L 1700 N

L 1650 N



LEGEND

CHARGEABILITY SCALE 1cm = 10 Milliseconds
 Base Level = 20 Milliseconds
 SYMBOL = ————

V p SCALE 5cm = 1 Logarithmic Cycle
 Base Level = 100 Millivolts
 SYMBOL = - - - - -

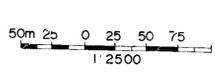
GIPPSLAND MINERALS N.L.

QUEEN HILL, ZEEHAN, TASMANIA

GIPPSLAND OREBODY
 energisation from G6
 V.p. & I.P. DATA PROFILES

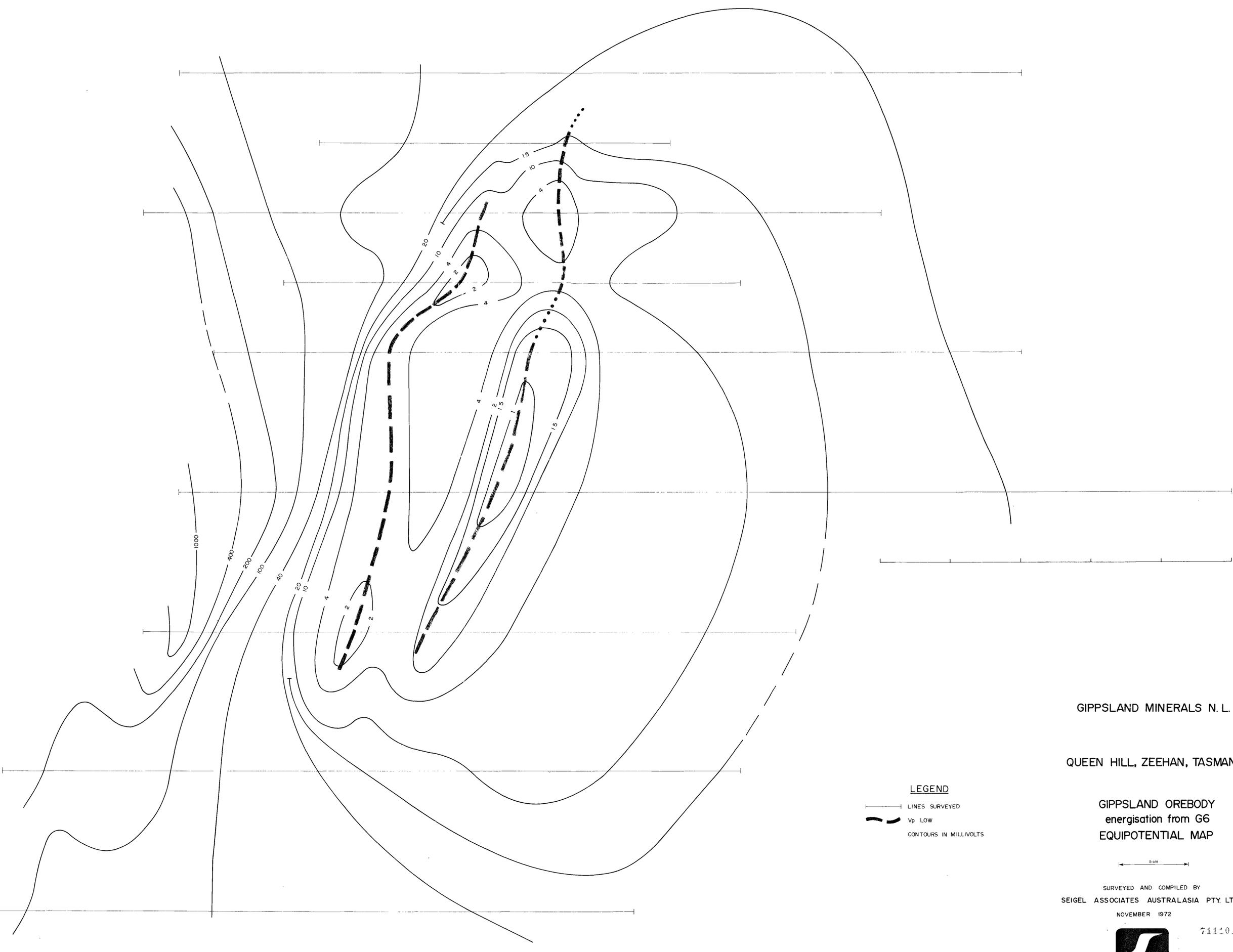
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 NOVEMBER 1972

3342



500E 525 550 575 600 625 650 675 700 725 750 775 800 825 850 875 900 925 950 975E

L 1950 N
L 1925 N
L 1900 N
L 1875 N
L 1850 N
L 1800 N
L 1750 N
L 1700 N
L 1650 N



GIPPSLAND MINERALS N. L.
QUEEN HILL, ZEEHAN, TASMANIA

GIPPSLAND OREBODY
energisation from G6
EQUIPOTENTIAL MAP

LEGEND
 - - - LINES SURVEYED
 - - - Vp LOW
 _____ CONTOURS IN MILLIVOLTS

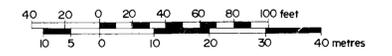
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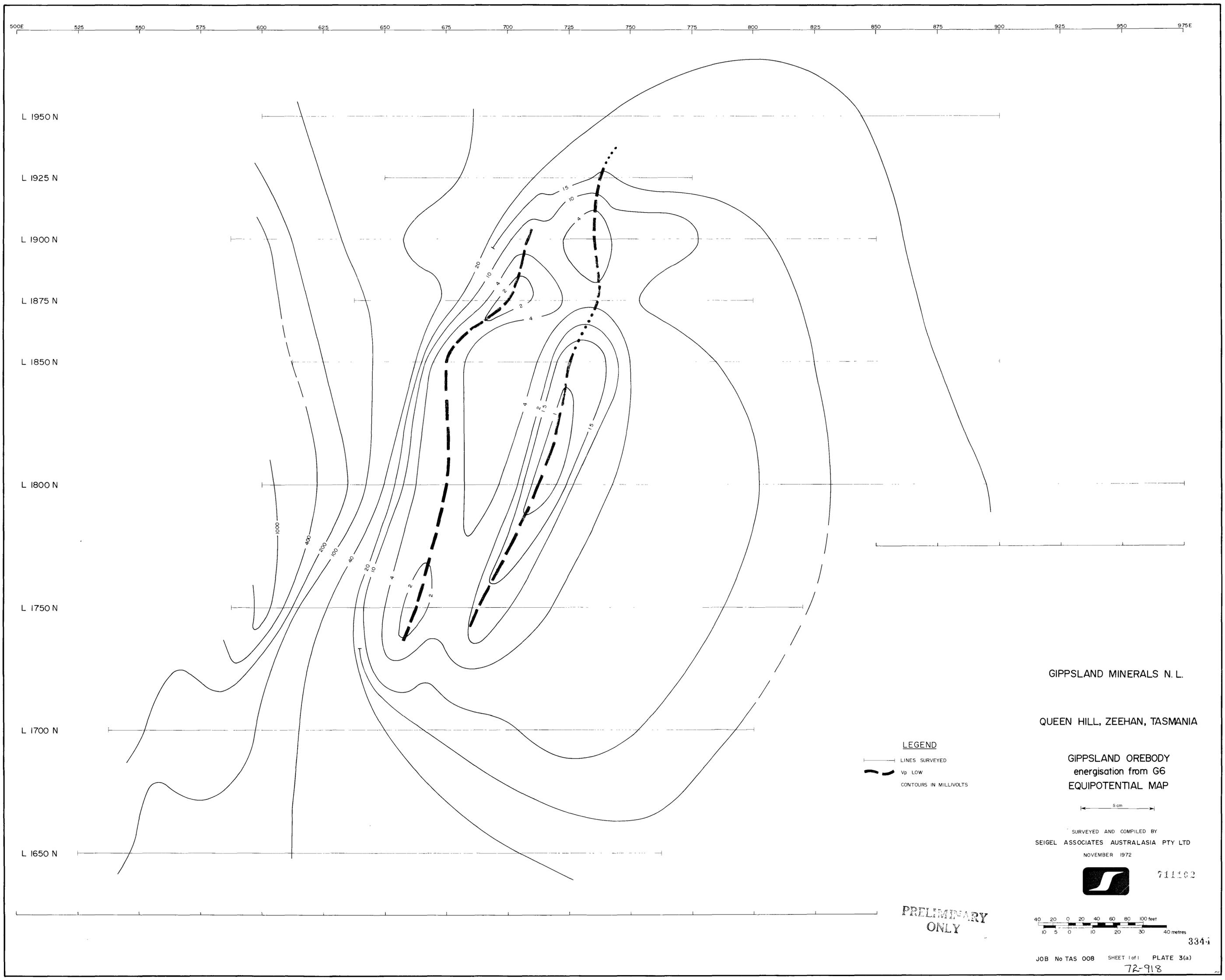
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ONLY





L 1950 N
 L 1925 N
 L 1900 N
 L 1875 N
 L 1850 N
 L 1800 N
 L 1750 N
 L 1700 N
 L 1650 N

GIPPSLAND MINERALS N. L.
 QUEEN HILL, ZEEHAN, TASMANIA

GIPPSLAND OREBODY
 energisation from G6
 EQUIPOTENTIAL MAP

LEGEND
 ——— LINES SURVEYED
 - - - Vp LOW
 _____ CONTOURS IN MILLIVOLTS

5 cm

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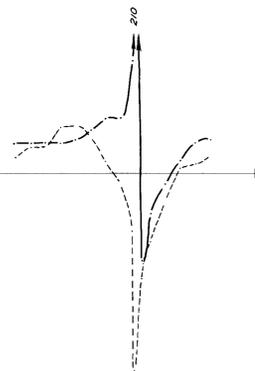
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**PRELIMINARY
 ONLY**

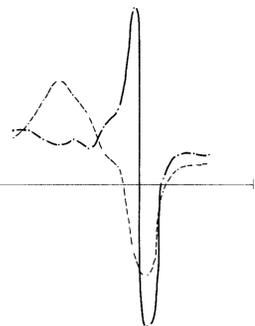
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 10 5 0 10 20 30 40 metres

600E 650 700 750 800 850E

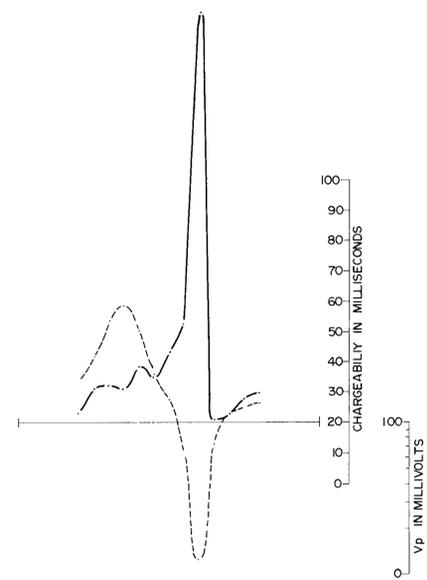
L 1950 N



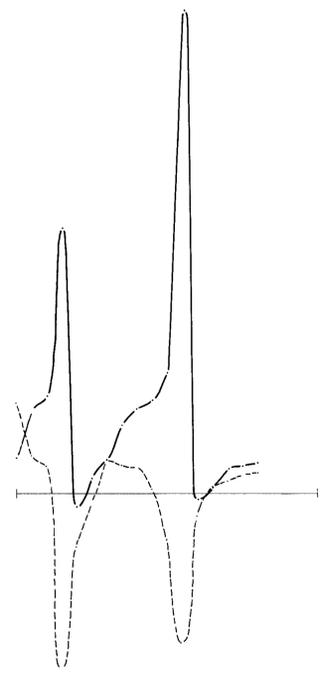
L 1925 N



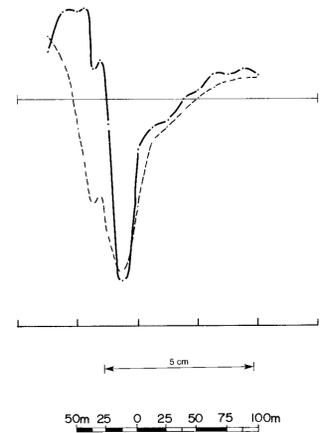
L 1900 N



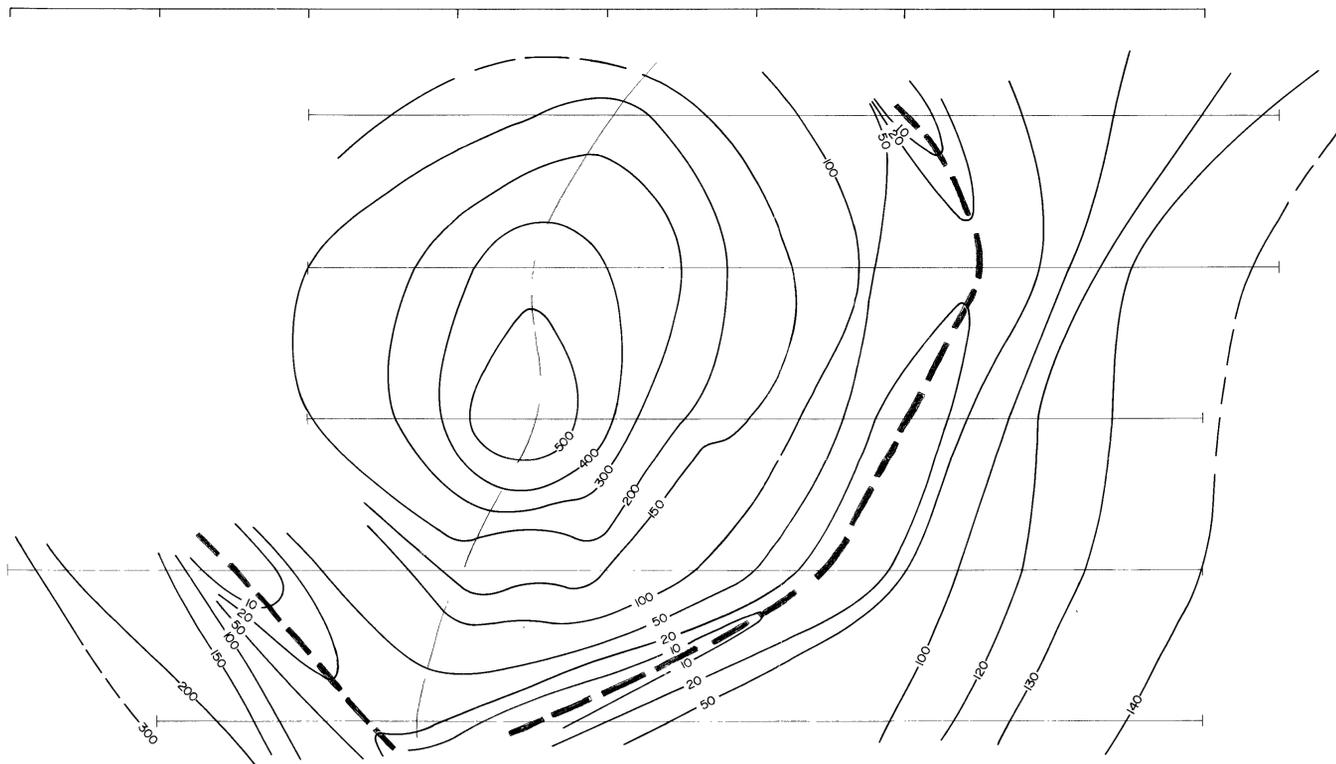
L 1875 N



L 1850 N

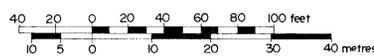


DATA PROFILES
SULPHIDE ENERGISATION FROM G9
@ 1:2500



L 1950 N
L 1925 N
L 1900 N
L 1875 N
L 1850 N

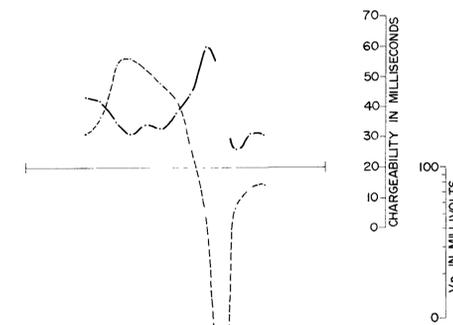
600E 625 650 675 700 725 750 775 800E



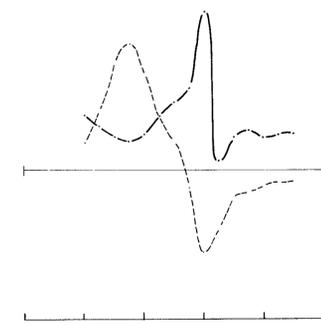
EQUIPOTENTIAL MAP
SULPHIDE ENERGISATION FROM G9
@ 1:500

600E 650 700 750 800 850E

L 1925 N ZONE 2



L 1900 N ZONE 2



50 25 0 25 50 75 100m

DATA PROFILES
GRAPHITE ENERGISATION FROM G9
@ 1:2500

LEGEND

- SURVEYED LINES
- Vp LOW
- CONTOURS IN MILLIVOLTS
- CHARGEABILITY SCALE: 1cm = 10 Milliseconds, Base Level = 20 Milliseconds, SYMBOL: [solid line]
- Vp SCALE: 5cm = 1 Logarithmic Cycle, Base Level = 100 Millivolts, SYMBOL: [dashed line]

PRELIMINARY ONLY

GIPPSLAND MINERALS N.L.

QUEEN HILL, ZEEHAN, TASMANIA

SULPHIDE & GRAPHITE SHEAR ZONE
energisation from G9
Vp & I.P. DATA PROFILES,
EQUIPOTENTIAL MAP

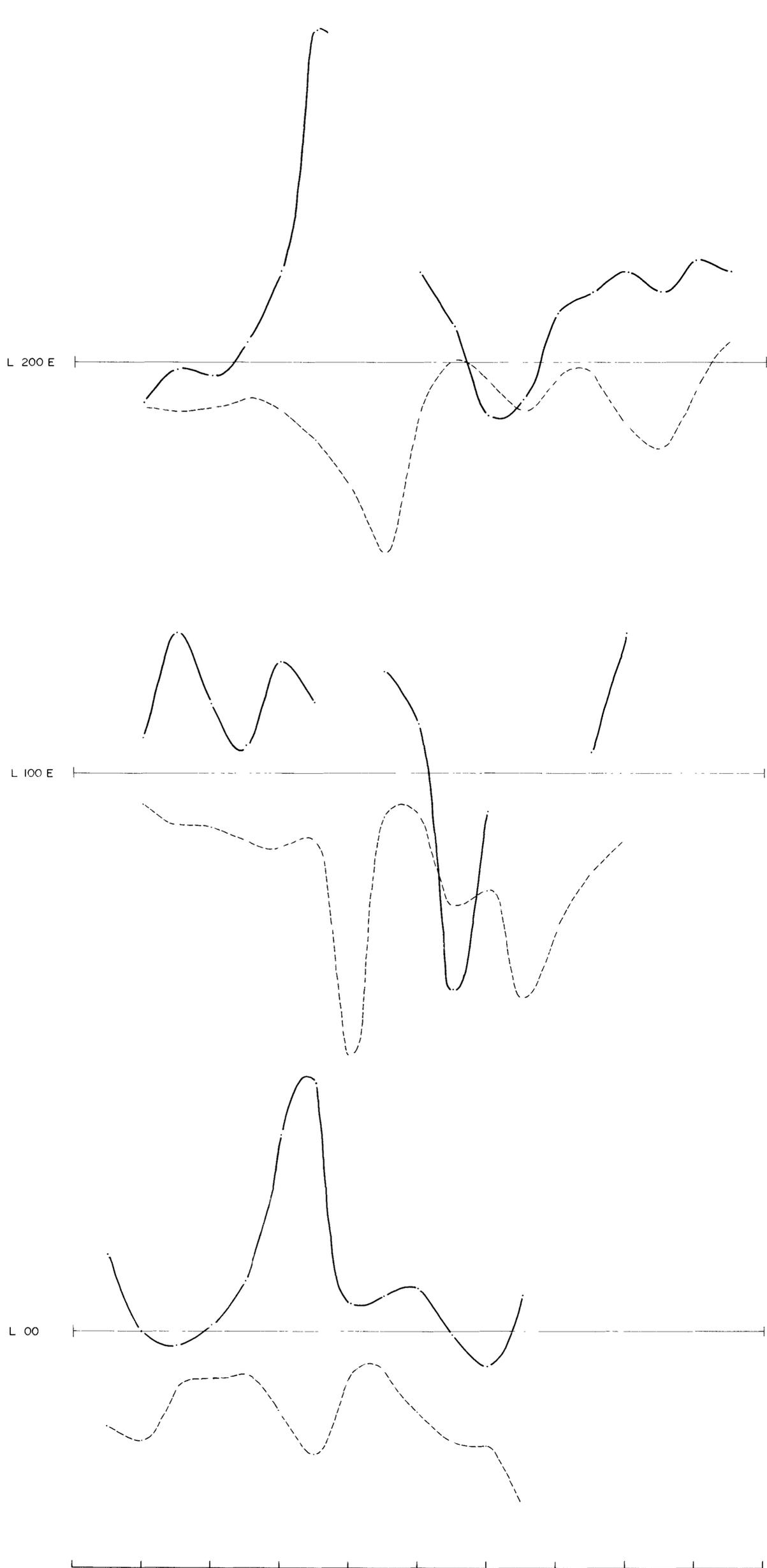
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NOVEMBER 1972

711103



100S 50 00 50 100 150 200 250 300 350 400N



70
60
50
40
30
20
10
0

CHARGEABILITY IN MILLISECONDS

100
10

RESISTIVITY IN OHM-METRES

LEGEND

CHARGEABILITY SCALE 1" = 10 Milliseconds
Base Level = 20 Milliseconds
SYMBOL = ————

RESISTIVITY SCALE 2" = 1 Logarithmic Cycle
Base Level = 100 Ohm-metres
SYMBOL = - - - - -

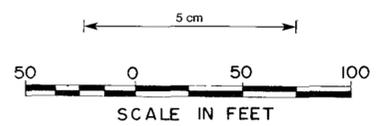
GIPPSLAND MINERALS N. L.

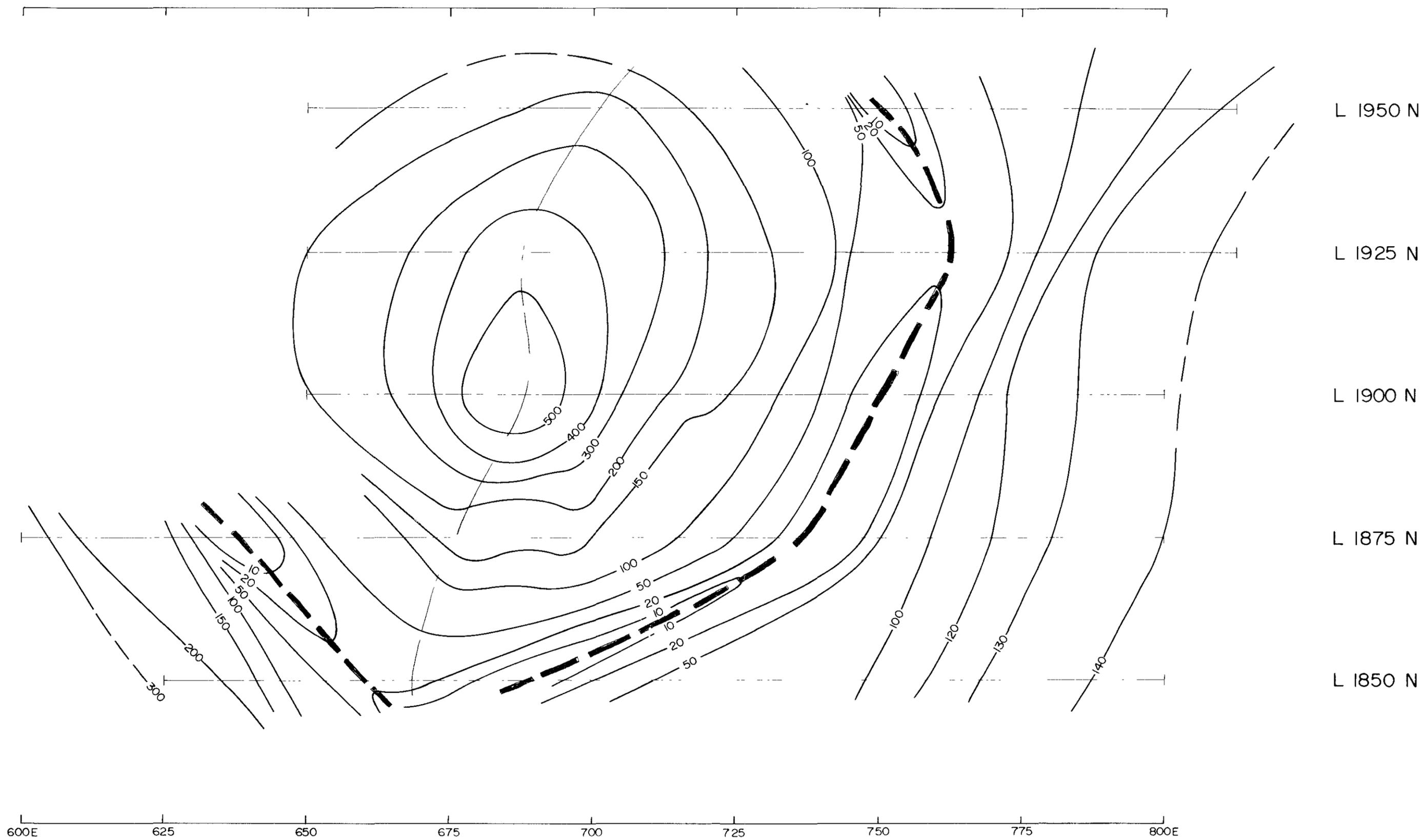
MONTANA, ZEEHAN, TASMANIA

**GRADIENT I.P. SURVEY
DATA PROFILES**

711104
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NOVEMBER 1972

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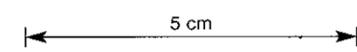




**PRELIMINARY
ONLY**

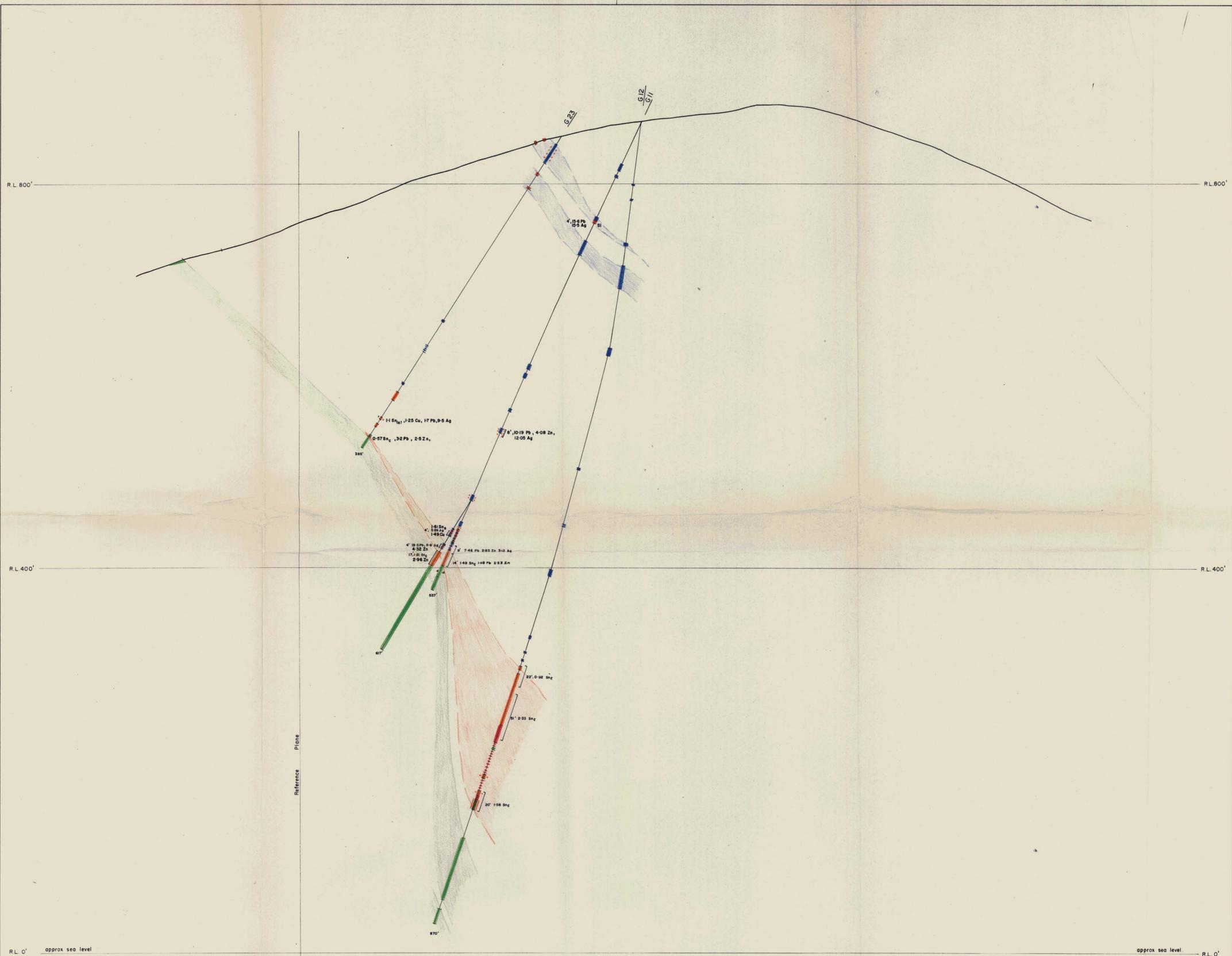


EQUIPOTENTIAL MAP
SULPHIDE ENERGISATION FROM G9
711105 @ 1:500



L 1950 N
L 1925 N
L 1900 N
L 1875 N
L 1850 N

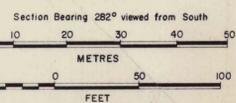
3347
72-918



LEGEND

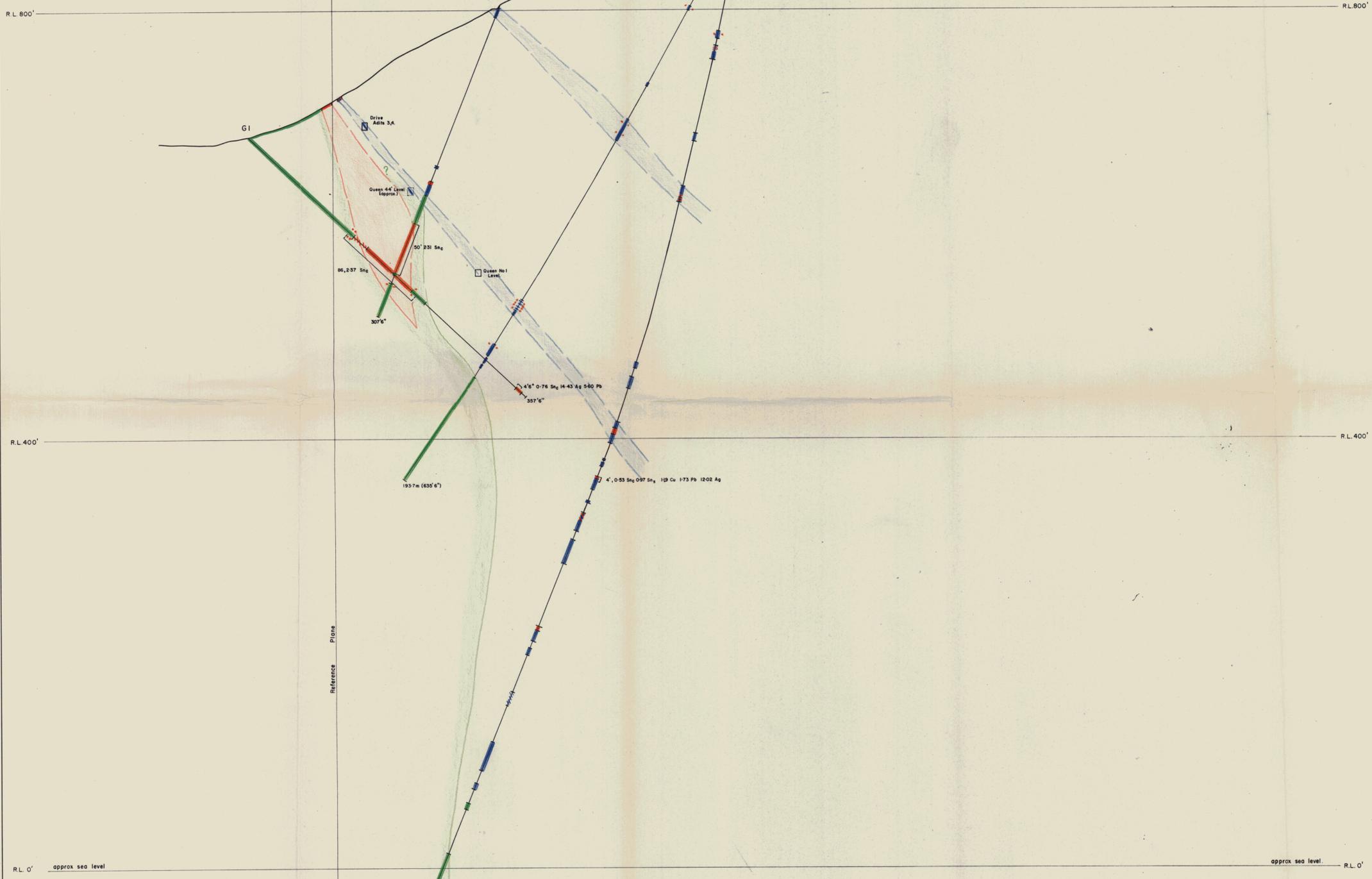
- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate
Siderite
- Breccia, ? Fault
- Splitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite ± Pyrrhoite — massive coarse grained
— disseminated coarse grained
- Pyrite massive bedded fine grained
disseminated bedded fine grained

ASSAYS:
 Sn %
 cassiterite Sn %
 stannite Sn %
 Cu %
 Pb given as % metal
 Zn %
 Ag given as oz/ton



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 CHECKED BY
 REVISED BY DATE
 L.V.B. 9.11.1972
 COMINCO EXPLORATION PTY LTD.
 NORTH WEST TIN FIELD TASMANIA
 QUEEN HILL, M.L. 35/M/62
 SECTION 11, 12 and 23
 COMINCO GIPPSLAND JOINT VENTURE
 Date APRIL 1972 Plate 1016 F/72
 Location code K55/5/50
 Scale 1:500
 3348

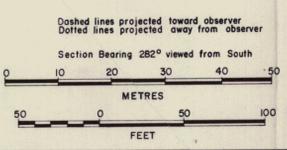
111106
 72-918



LEGEND

- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate Siderite
- Breccia, ? Fault
- Spilitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite : Pyrrhotite - massive coarse grained
- disseminated coarse grained
- Pyrite - massive bedded fine grained

ASSAYS: Sn, cassiterite Sn %
 Sn, stannite Sn %
 Cu
 Pb given as % metal
 Zn
 Ag given as oz/ton



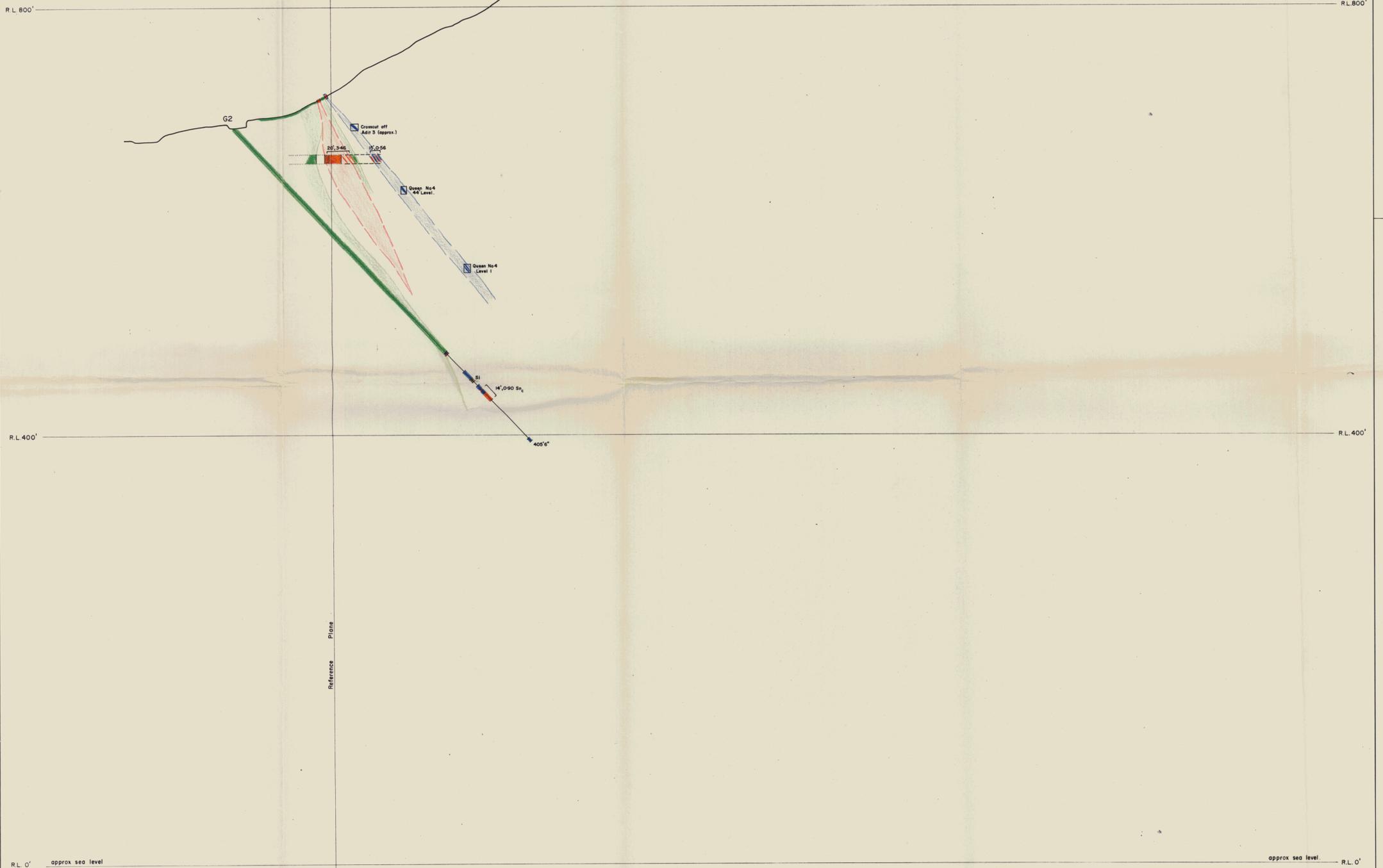
711107
 72-918

COMINCO EXPLORATION PTY LTD

NORTH WESTERN FIELD TASMANIA
 QUEEN HILL, M.L. 36M/62
 SECTION G1, G3 and G10
 COMINCO GIPPSLAND JOINT VENTURE

3349

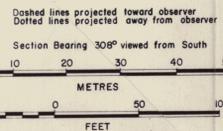
Scale 1:500
 Date APRIL 1972
 Plate 1016 G/72



LEGEND

- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate Siderite
- Breccia, ? Fault
- Spilitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite : Pyrrhotite - massive coarse grained
- disseminated coarse grained
- Pyrite - massive bedded fine grained

ASSAYS: Sn₂ cassiterite Sn %
 Sn₂ stannite Sn %
 Cu given as % metal
 Pb given as % metal
 Zn
 Ag given as oz/ton



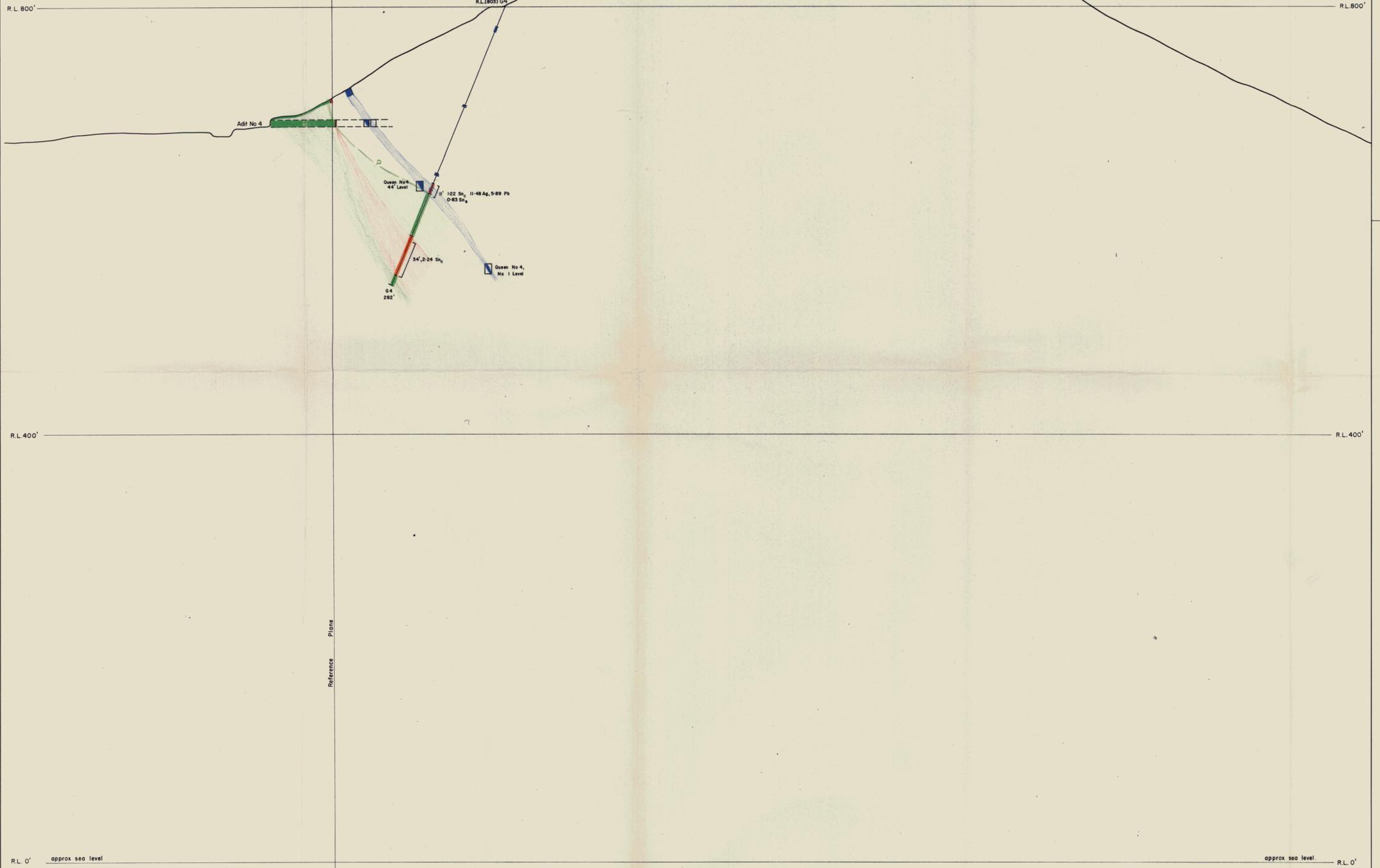
Location code K55/9/50
 Scale 1:600
 Date APRIL 1972
 Plate ORC/72

711108
 72-918

COMINCO EXPLORATION PTY LTD
 NORTH WEST TIN FIELD TASMANIA
 QUEEN HILL, ML 36/W/82
 SECTION G2
 COMINCO GIPPSLAND JOINT VENTURE
 3350

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 L.V.R.
 9/11/72

TRACED BY
 REVISED BY DATE



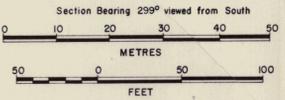
5 cm

LEGEND

- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate Siderite
- Breccia, ? Fault
- Spiilitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite - Pyrrhotite - massive coarse grained
- disseminated coarse grained
- Pyrite - massive bedded fine grained

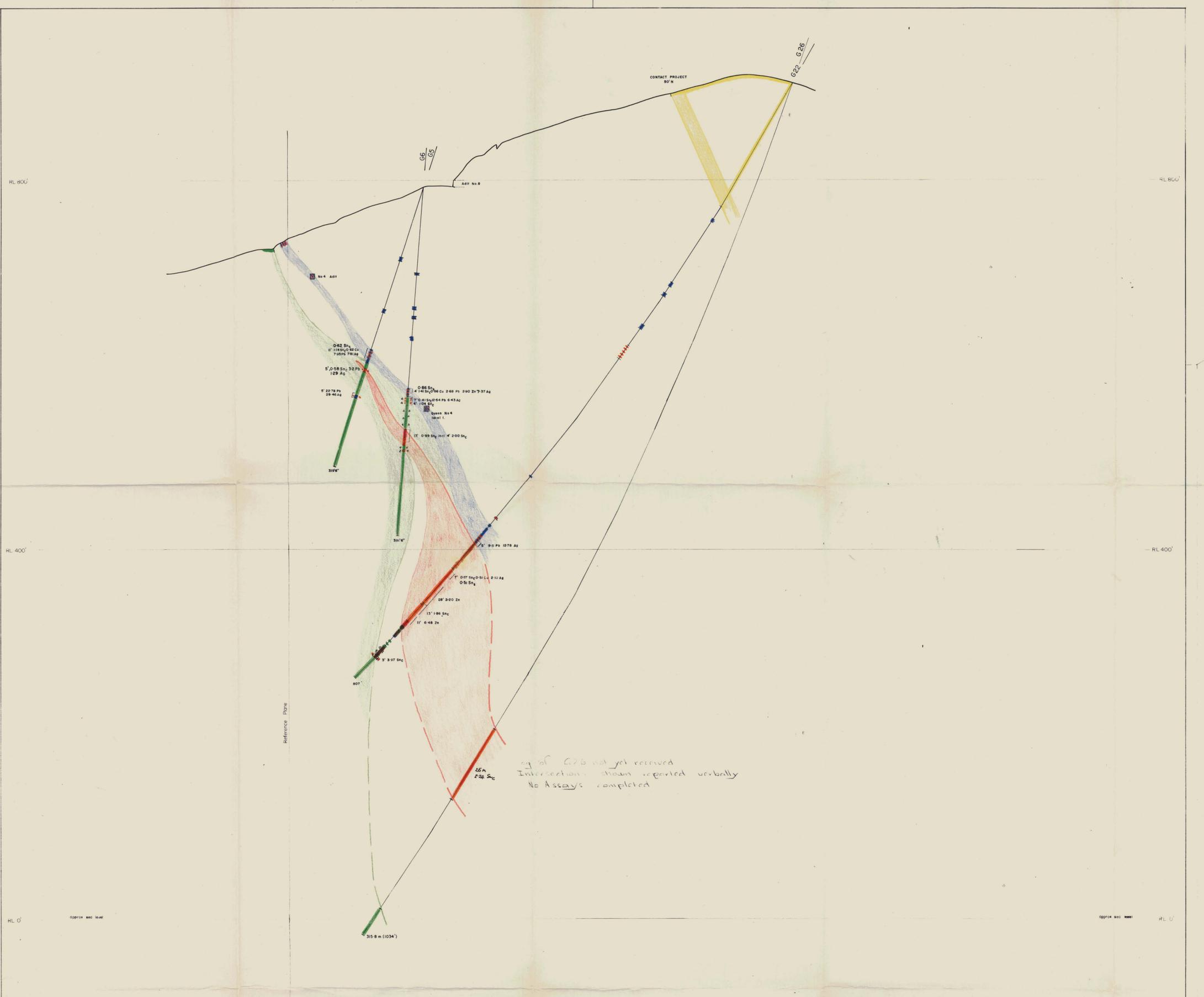
ASSAYS: Sn₂ cassiterite Sn %
 Sn stannite Sn %
 Cu
 Pb given as % metal
 Zn
 Ag given as oz/ton

Dashed lines projected toward observer
 Dotted lines projected away from observer



DRAWN BY: D.C.T.		TRACED BY:	
CHECKED BY:	DATE:	REVIEWED BY:	DATE:
COMINCO EXPLORATION PTY LTD			
NORTH WEST TIN FIELD TASMANIA			
QUEEN HILL, M. 36M/62			
SECTION 64			
COMINCO GIPPSLAND JOINT VENTURE			
Date: APRIL 1972			
Scale 1:600			
Plate 10/60 7/2			
3351			

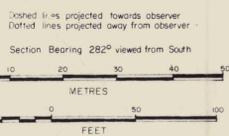
71109 72-918



5 cm

LEGEND

- Fault or Fault Zone
 - Massive Quartzite
 - Bedded Quartzite and/or Shale
 - Chert
 - Primary Carbonate Siderite
 - Breccia, ? Fault
 - Spilitic fragmentals: tuffite, tuff, lapilli tuff, agglomerate
 - Pyrite ± Pyrrhohite - massive coarse grained
 - disseminated coarse grained
 - Pyrite - massive bedded fine grained
- ASSAYS: Sn cassiterite Sn %
 Sn stannite Sn %
 Cu given as % metal
 Pb given as % metal
 Zn
 Ag given as oz/ton



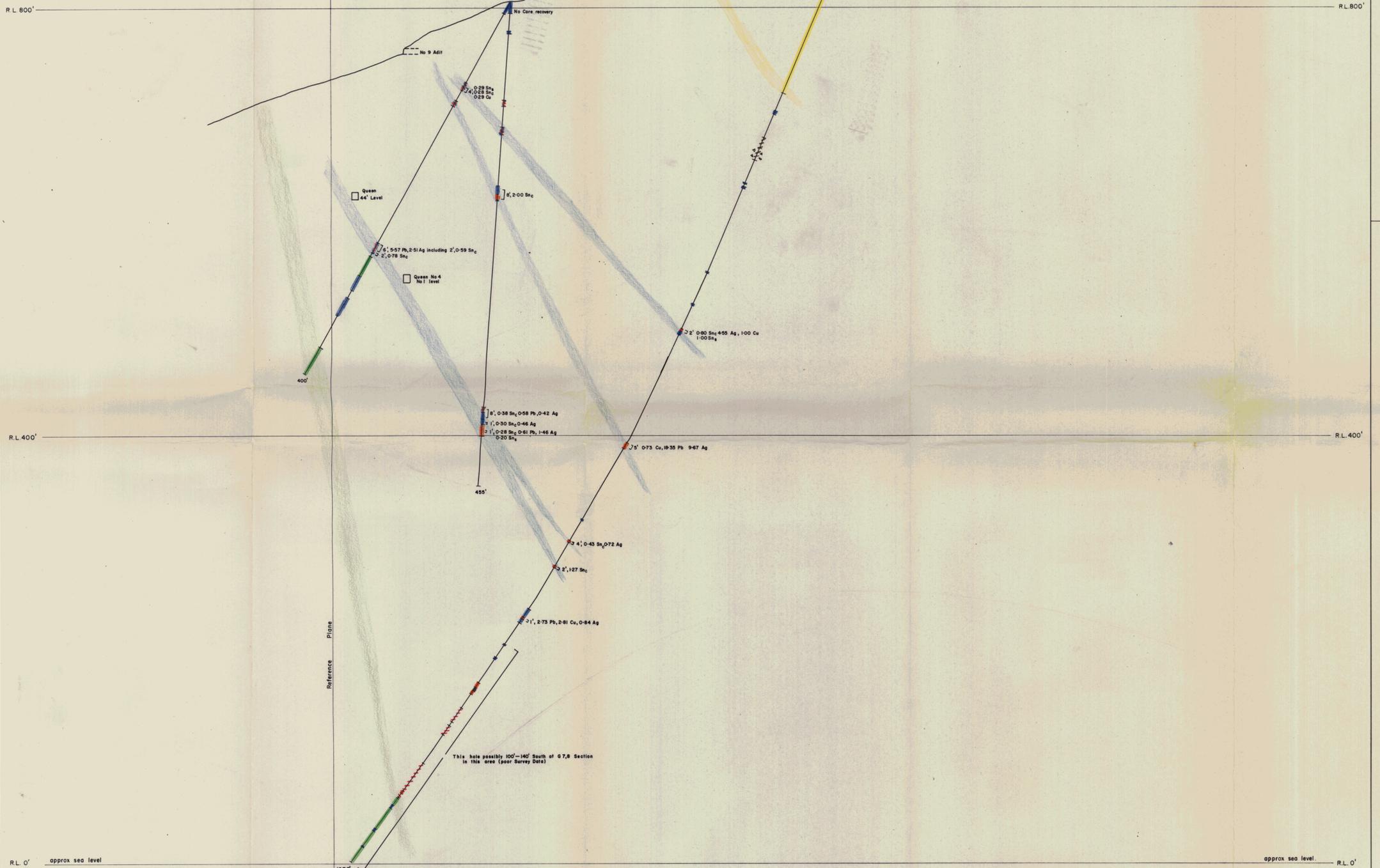
711110
 72-918

COMMINGO EXPLORATION PTY. LTD.

NORTH WEST TERN FIELD, TASMANIA
 QUEEN HILL, W.L. 36W/62
 SECTION G5 G6 and G22
 COMMINGO GIPPSLAND JOINT VENTURE

3352

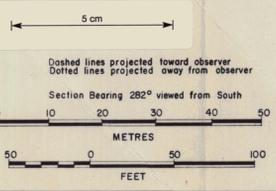
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 Date: April 1972
 File: J016E/72



LEGEND

- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate Siderite
- Breccia, ? Fault
- Sphilitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite: Pyrrhotite - massive coarse grained
- disseminated coarse grained
- Pyrite - massive bedded fine grained
- disseminated bedded fine grained

ASSAYS: Sn₂ cassiterite Sn %
 Sn₁ stannite Sn %
 Cu
 Pb given as % metal
 Zn
 Ag given as oz/ton



Location code K59/50

Scale 1:600

711111

72-918

COMINCO EXPLORATION PTY LTD

NORTH WEST TIN FIELD TASMANIA

QUEEN HILL, M.L. 36M/82

SECTION G 7, G 8 and G 14

COMINCO GIPPSLAND JOINT VENTURE

3353

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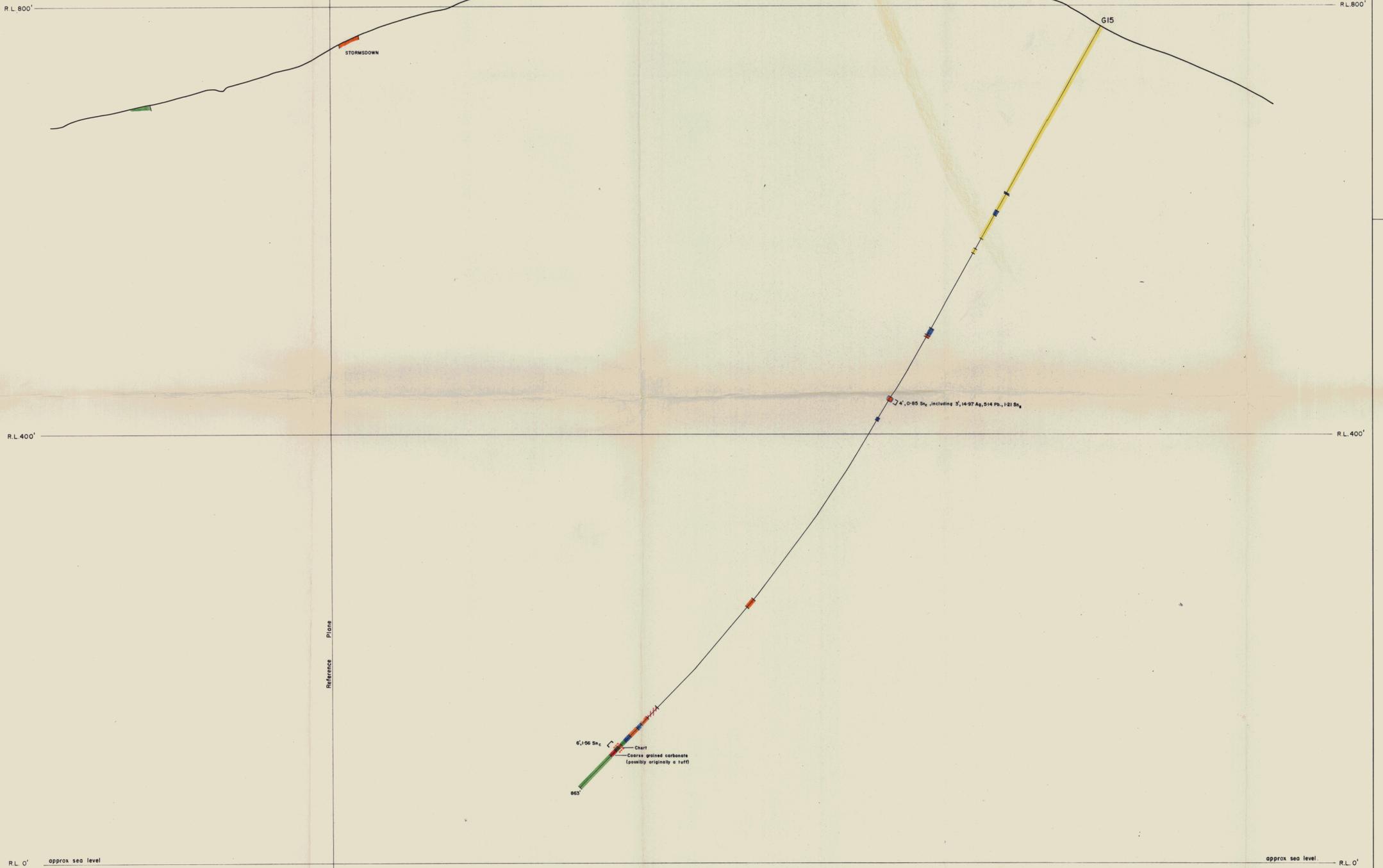
Checked by DATE

Revised by DATE

Revised by DATE

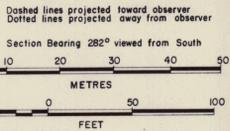
Date APRIL 1972

Plate 10/68/72



LEGEND

- Fault or Fault Zone
 - Massive Quartzite
 - Bedded Quartzite and/or Shale
 - Chert
 - Primary Carbonate Siderite
 - Breccia, ? Fault
 - Splittic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
 - Pyrite = Pyrrhohite - massive coarse grained
 - disseminated coarse grained
 - Pyrite - massive bedded fine grained
 - disseminated bedded fine grained.
- ASSAYS: Sn% cassiterite Sn%
 Sn% stannite Sn%
 Cu
 Pb given as % metal
 Zn
 Ag given as oz/ton



Location code K55/5/50

Scale 1:600

DATE: APRIL 1972

PAPER: 10/6 H/72

COMINCO GIPPSLAND JOINT VENTURE

SECTION G 15

QUEEN HILL, ML 36M/62

NORTH WEST TIN FIELD TASMANIA

3355

72-918

71113

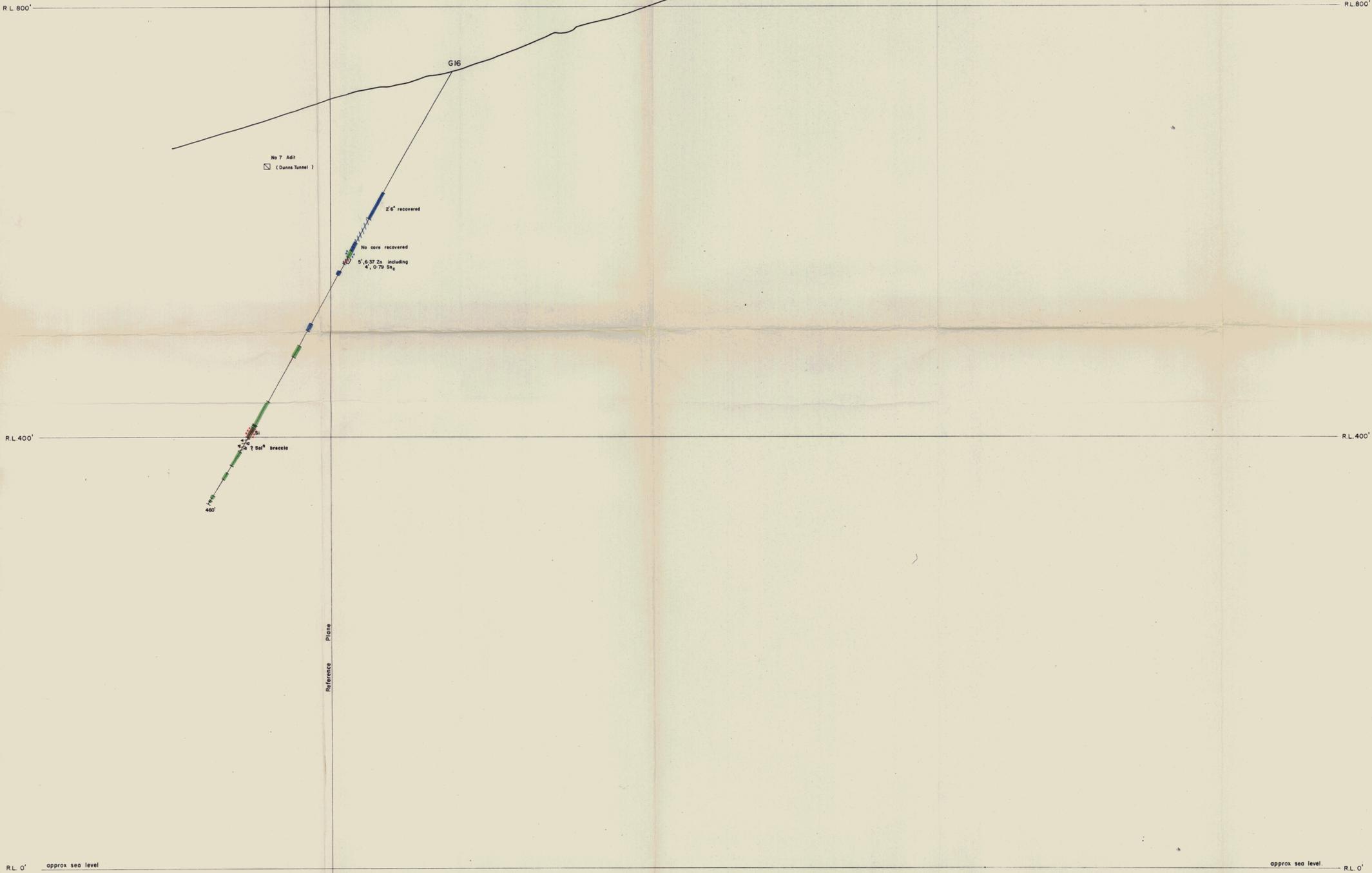
COMINCO EXPLORATION PTY LTD

DRAWN BY DCT TRACED BY

CHECKED BY DATE

REVISED BY DATE

L.V.R. 9/11/87Z



5 cm

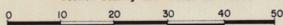
LEGEND

- Fault or Fault Zone
- Massive Quartzite
- Bedded Quartzite and/or Shale
- Chert
- Primary Carbonate Siderite
- Breccia, ? Fault
- Spilitic fragmentals:
 - tuffite
 - tuff
 - lapilli tuff
 - agglomerate
- Pyrite : Pyrrholite - massive coarse grained
- disseminated coarse grained
- Pyrite - massive bedded fine grained

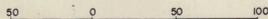
ASSAYS: Sn_2 cassiterite Sn %
 Sn_2 stannite Sn %
 Cu
 Pb given as % metal
 Zn
 Ag given as oz/ton

Dashed lines projected toward observer
 Dotted lines projected away from observer

Section Bearing 282° viewed from South



METRES



FEET

711114	72-918
COMINCO EXPLORATION PTY LTD	
NORTH WEST TIN FIELD TASMANIA	
QUEEN HILL, M.L. 36/M/62	
SECTION G16	
COMINCO GIPPSLAND JOINT VENTURE	
Location code K35/5/50	Date APRIL 1972
Scale 1:600	Plate 1016 I 7/2
DRAWN BY D.C.T. TRACED BY	
CHECKED BY DATE	3.3.56
REVISED BY DATE	
REVISED BY DATE	