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OPEN FILE

VOLUME 1

PROGRESS REPORT
QUEEN HILL JOINT VENTURE
E.L. 47/71 TASMANIA
QUARTER JUNE 21 1979.

MICROFILMED

This report covers the
Aberfoyle quarter
(to period 5) ending
May 7, 1979

C.H. Young
Project Geologist
Tasmania

June, 1979

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QH 132 (In text)	R.L. 100 Level Plan	1:2500
QH 134/00/12	Tin Geochemistry	1:2500
QH 134/00/00	Tin Geochemistry	1:2500
QH 134/80/00	Tin Geochemistry	1:2500
QH 134/80/12	Tin Geochemistry	1:2500
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These preliminary plans, cross sections, level plans and longitudinal projections will be substantially modified subsequent to the proposed ore-reserve and exploration drilling programme.

QH 24/04/15	Underground Workings	1:500
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INTRODUCTION

This report summarises work completed in the quarter ending May 7, 1979, and includes preparation and drafting through to June 21, 1979. Reported expenditure is for the Aberfoyle quarter ending May 7, 1979.

During the quarter, work continued on the re-evaluation of the Queen Hill deposit. Drafting of the complete set of cross-sections at 1:500 scale is complete as well as a surface geological compilation plan, level plans and a longitudinal projection, all at the same scale. Preliminary geological interpretation is also complete as well as an estimate of ore potential. A work proposal for ore reserve and exploration drilling was submitted.

Soil sampling of the new grid area is complete and the results are presented in this report.

Soil sampling of the grid lines north of Queen Hill in the Montana area was commenced.

Stream sediment sampling is in progress around the contact zone of the Heemskirk granite in the western part of the licence area.

Plan presentation at 1:2,500 scale of all I.P. data is presented for both frequency effect and resistivity.

QUEEN HILL ORE RESERVE ASSESSMENT

Assessment of the Ore Reserves by K.G. Palmer, Project Geologist Mines, showed there is only ore potential or inferred ore based on the equivalent of 6 drill intersections. The variation in grade and thickness render the number of "samples" inadequate for an ore reserve to be placed in the indicated category.

The inferred ore is:

Queen Hill Lens	148,000 Tonnes	The grade estimate is between 1% and 1.5% Snt.
Stormsdown Lens	717,000 Tonnes	
TOTAL	865,000 Tonnes	

GEOLOGICAL INTERPRETATION

Preliminary geological interpretation is now complete, potential for an increase in ore reserves from both ore-reserve and exploration drilling is recognised.

A work proposal for an ore reserve and exploration drilling programme was submitted.

The geological interpretation is based on the Queen Hill drill data with support from petrology and geochemistry. It should be stressed that as the majority of the data comes from a limited area the addition of new data may radically alter the interpretation. The interpretation has provided the basis for the proposed ore-reserve and exploration drilling.

To provide a framework for the geological interpretation a brief summary of the geology is given below.

Geological Setting

The Queen Hill area lies in the south-east corner of a block of the Upper Proterozoic to Lower Cambrian Oonah Quartzite and Slate. Basic volcanics are present in the same area. The Oonah quartzites and slates are fault bounded and abut Silurian and Devonian sediments near Zeehan. The Heemskirk granite of Devonian age is situated some 6 km west of Queen Hill and is the supposed source of the silver-lead hydrothermal fissure vein fillings of the Zeehan mineral field and may also be the source of tin mineralisation at Queen Hill and Oonah.

Local Geology

Rock units observed at Queen Hill include basic to acid volcanics, siltstones, slates and quartzites and massive quartzite.

Basic volcanics termed spilites, consist predominately of fragmentals or lava breccias characterised by the abundance of amygdaloidal fragments in the average size range 1 - 3 cm. Lavas are not common. The presence of siliceous pumiceous tuff (CMS 1971), chert and dolomitic siltstone has been noted near the upper contact of the spilites with overlying quartzites and slates. It is probable, these more acidic volcanic components represent the later phase of a volcanic cycle.

A stratiform sulphide lens named the Queen Hill lens, hosted by the acid volcanic components noted above, occurs within the uppermost level of the volcanics. This lens is in part, clearly syngenetic, Figs. 1, 2 and 3 show views of the Queen Hill lens.

Fig. 1 View looking north Queen Hill lens showing volcanics both above and below. Note: bedded syngenetic pyrite near hammer.

Fig. 2 Part of Queen Hill lens. Bedded syngenetic pyrite.

Fig. 3 Part of Queen Hill lens. Close up delicately bedded syngenetic pyrite.

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Adjacent to the volcanics is a siltstone-slate unit of variable thickness (2-30 metres). The rock is dark-brown to grey in colour, fine grained and is carbonaceous. The shales locally contain framboidal pyrite. There is an occassional effervescence with warm acid indicating a calcareous or dolomitic component. The rock is often quite hard due to abundant silica. This unit appears to have a close stratigraphic relationship to the upper-most and largest of the stratiform sulphide lenses, the massive pyrite-siderite-cassiterite and pyrite-quartz-cassiterite Stormsdown lens. So named because current interpretation connects this lens with the Stormsdown mineralisation. (Previously considered as separate to the main stratiform mineralisation). Figures 4, 5 and 6 show views of the Stormsdown open-cut and illustrate both massive replaceive and semi-massive syngenetic pyrite.

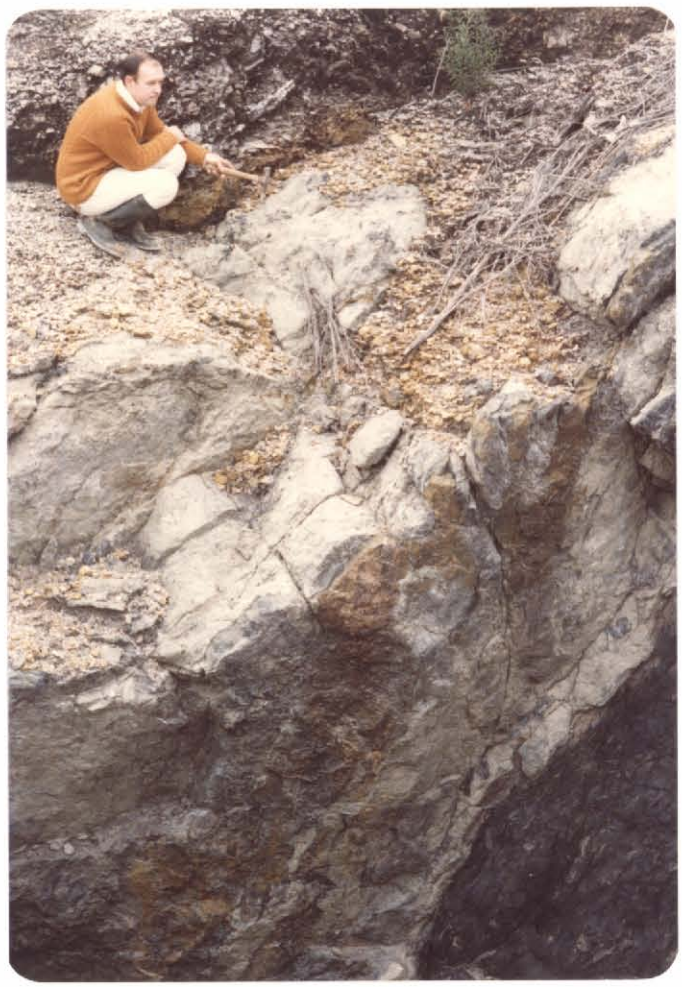

Fig. 4 Stormsdown Open-pit. View looking N at part of Stormsdown lens massive pyrite, on the north wall of the pit. Note contact with black slate on RHS, i.e. E side.

Fig. 5 Stormsdown Open-pit. View looking N at part of N and E walls of the pit. Note quartz-siderite veined pyrite and syngenetic pyrite-rich siltstones on RHS.

Fig. 6 Stormsdown Open-pit. View looking N at part of E wall of pit. Note syngenetic pyrite-rich siltstones.

A sequence of slates, shales and quartzites with an average width >100 metres occurs adjacent to the Stormsdown lens. Lithologically typical of the Oonah Series in the Zeehan-Heemskirk area, the sequence consists of slates with quartzite beds from 3 mm to >1 metre. Where cleavage is not strongly developed, shales predominate. The slates and shales are often pyritic (syngenetic) and frequently carbonaceous. In the vicinity of shear zones the rock is black and graphitic. Depositional, soft sediment slumping and brecciation is typical. As well the rocks are strongly folded. There are no recognisable marker units. Fig. 7 illustrates folding in the slate-quartzite sequence.

Fig. 7 Exposure on track west of Stormsdown Open-pit. View looking NW showing strongly folded slate-quartzite sequence.

Massive quartzites up to 100 metres thick overly the slate-quartzite sequence. The quartzite unit is atypical for the Oonah series being relatively massive with only minor shale horizons. The quartzite is pale-grey, fine to medium grained and muscovite rich.

East of the quartzite; siltstones and dolomites are well developed, as illustrated in drill core from the Montana and Severn areas.

Interpretation

On completion of re-logging the Queen Hill diamond drill core a set of new cross-sections was drafted at 1:500 scale. The discovery section (G1, 2, 3, 4 etc.) was termed 3000 and other sections were established at 40 metre intervals along the original reference plane. The cross-sections show all rock units, alteration, sulphide type, texture, veins and all faults and shear zones. All available information is also plotted on surface geological plan, level plan and longitudinal projection at 1:500 scale (separate attachment).

There are no recognisable marker units. The slate-quartzite sequence in particular is both slumped, brecciated and strongly folded. Shear zones are very common, in some cases more than 70% of a drill hole is in a shear zone.

The established location and dip of Clarkes and Taylors lodes (mineralised shears) allowed initial correlation between a number of the drill intersected shear zones. This establishes one of the prominent shear directions in the Queen Hill area , Fig. 8, Plate QH 130.

A major shear zone is noted associated with the eastern side of the Stormsdown lens on section 3040. Shear zones in a similar position are seen on section 2920 and 3000. The angle to core axis measured for some of these shear zones and the lack of similar zones in any attitude other than vertical, required the interpretation of a vertically orientated shear zone, Fig. 8. This zone is named the Stormsdown Fault.

North of section 3080 previous interpretation shows the strike of Clarkes lode to swing to the north-west. There is no evidence for a change in strike, however there is strong evidence for a linear structure with a similar dip to Clarkes and Taylors lodes. This structure has been named Dunkleys lode after the adit which intersects the lode, Fig. 9, Plate QH 132. This structure can be projected to the northernmost section 3240 (G33, 34, 35, 36), and in fact represents the intersections achieved by the above holes.

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Drawn: R.J.E.	NORTH WEST TASMANIA	Location code:
Traced: R.J.E.	QUEEN HILL	Date: May, 1979
Checked:	CROSS SECTION 3040	Scale: 1 2,500
Revised by: Date:		Plate No QH 130/3040

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Aberfoyle Exploration Pty Ltd

Drawn: C.H.Y.	NORTH WEST TASMANIA QUEEN HILL R.L. 100 - LEVEL PLAN	Location code:
Traced: R.J.E.		Date: JUNE, 1979
Checked:		Scale: 1: 2500
Revised by: Date:		Plate No QH 132

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The following is the interpreted order of formation of the mineralisation at Queen Hill:

- Syngenetic, probably volcanogenic deposition of very fine grained pyrite associated with siliceous pumiceous tuff, chert and dolomitic siltstone related to a phase of acid volcanism. Cassiterite may or may not have been present.

- Vertical faulting (Stormsdown Fault) with an apparent downthrow on the western side. This shear zone appears to have been active over a long period, as much of the sulphide in the Stormsdown lens is brecciated, strained and coarse-grained (recrystallised).

- Epigenetic hydrothermal solution passing through the Stormsdown shear zone forming large amounts of pyrite. The occurrence of most cassiterite associated with quartz, siderite and fluorite gangue and localised in minute fractures in pyrite is in accord with emplacement from a hydrothermal solution.

- Subsequent replacement of siliceous pumiceous tuff, chert and dolomitic siltstone appears to have occurred in both the Queen Hill and Stormsdown lenses, with the formation of massive pyrite/pyrrhotite-quartz-cassiterite and pyrite/pyrrhotite-siderite-cassiterite mineralisation.

- Parts of the Queen Hill and Stormsdown lenses which now include the replacive minerals pyrite, pyrrhotite, quartz, siderite and cassiterite were then moved to the north by strike-slip movement on Dunkleys and Clarkes faults.

- Other shear zones, for example Taylors lode, were then formed with probable strike - slip movement. Subsequent hydrothermal vein filling formed the pyrite-quartz-galena-stannite mineralisation common to the fissure lodes. Figs. 10, 11 and 12 illustrate features of Clarkes lode.

Fig. 10 Slickensides on Clarkes lode indicating movement parallel to the dip of the lode.

On Section 3000 the intersection of the Queen Hill lens and Clarkes lode is exposed.

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Fig. 11 View looking south at the contact between the Queen Hill lens and Clarkes lode.

Fig. 12 Close up, showing syngenetic pyrite of the Queen Hill lens and epigenetic pyrite of Clarkes lode.

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Conclusion

Re-interpretation of the Queen Hill drill hole data has been achieved with support from petrological and geochemical data.

Pyrite-cassiterite mineralisation is considered to have been formed by epigenetic hydrothermal solutions introduced along a shear zone (c.f. Bassett-Federal Fault at Renison). Replacement of apparently acid volcanogenic components has given rise to massive pyrite-pyrrhotite-cassiterite mineralisation at almost the same stratigraphic position as the pre-existing syngenetic pyrite lenses to form the present Queen Hill and Stormsdown lenses. Subsequently, further shearing offset the lenses to the north and also truncated the lenses near surface. The last phase of mineralisation was the hydrothermal introduction of pyrite-galena-stannite along the younger shear zones.

The main implication arising from the above interpretation is the confirmation that further pyrite-pyrrhotite-cassiterite mineralisation of the Queen Hill type should be located at or near the contact of the volcanic suite with the slate quartzite unit. The importance of suitable "feeder" structures is obvious.

It is also clear that extensions of the Queen Hill mineralisation may exist both along strike and down dip, subject to modification by structure.

SOIL SAMPLING PROGRAMME

Orientation sampling previously conducted in the Severn area and surrounding Queen Hill showed hand auger sampling to be an effective technique for the detection of Sn mineralisation.

The aim of this years programme was to explore for further occurrences of Sn mineralisation in the area of the S-W grid extension and aid in the evaluation of I.P. and UTEM anomalies.

700 C-horizon soil samples were collected at 25 metre intervals from depths of up to 1 metre using a hand auger. Samples were not collected from obvious dump material, swamps or culturally disturbed areas. The nature of the sample, location, number and assay values are recorded in a sample ledger kept at the Wynyard Office.

Only Sn analyses by XRF of the -80# fraction have been completed, other elements will be assayed as required.

The data is plotted on 1:2500 working scale plans together with the Severn data and the orientation data from the Queen Hill area (Plate QH 134) and is summarised on Plate QH 127 in text. Sn values are contoured above 50 ppm.

The main trend of I.P. and UTEM response extending south-west from Queen Hill does not enjoy a coincident Sn geochemical anomaly. This suggests the geophysical response represents some feature other than massive pyrite-cassiterite mineralisation such as, carbonaceous and/or pyritic black slates - or massive sulphide-cassiterite mineralisation that does not outcrop. Further analysis for Cu, Pb, Zn is warranted to determine whether a base metal geochemical halo exists which may indicate the location of "blind" sulphide mineralisation.

C-horizon Sn geochemistry clearly outlines the area of known mineralisation at Queen Hill, Severn and in the vicinity of Paynes lode.

A discontinuous geochemical trend is outlined near the Queen No. 2 shaft and coincides with an also discontinuous I.P. and UTEM trend. The shaft is situated near the lower contact of the volcanic unit. Geochemical response, apparently from spoil dump material makes correlation between geochemistry and geophysics difficult in this area.

Strong I.P. anomalies were recorded on lines 2100N to 2550N. Further soil sampling is to be conducted on these lines to aid assessment of the I.P. data.

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Drawn: C.H.Y	NORTH WEST TASMANIA	Location code:
Traced: R.J.E	QUEEN HILL E.L. 47/71	Date: April, 1979
Checked:	SUMMARY PLAN	Scale: 1 : 10,000
Revised by: Date:		Plate No: QH 127

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STREAM SEDIMENT SAMPLING

A regional stream sediment programme designed to assess the prospective catchment of the Heemskirk granite, which includes the St. Dizier area, in the western part of the licence area is now complete. 106 samples were collected, the -80# fraction of the sediments will be analysed by XRF for Sn and W and by AAS for Cu, Pb, Zn and Ag. Presentation of the results should be achieved by next quarter.

GEOLOGICAL MAPPING

Detailed geological mapping at 1:2500 scale has commenced on the Queen Hill area and the S-W grid extension. Familiarisation with lithological and structural trends is in hand. Mapping will continue with particular attention to establishing spatial and temporal relationships between deformation and mineralisation events.

I.P. GEOPHYSICS

Plan presentation of both percentage frequency effect and resistivity was accomplished by averaging the data for the first three dipole separations at each receiver position. Three dipole separations were averaged to remove noise often evident in n = 1 data plus obtaining some response from "topped-off" anomalies (Plates, QH 136/00/12, 80/12 etc).

A qualitative interpretation of these results clearly shows a coincident p.f.e. and resistivity anomaly about the Queen Hill mineralisation.

A p.f.e. and resistivity trend extends to the south-west of Queen Hill following the quartzite-slate unit immediately above the volcanics. Although the anomalies are of lower magnitude, similar mineralisation to that at Queen Hill could occur at depth.

To the north of Queen Hill the geophysical trend is dislocated, possibly by faulting.

On line 2400N a p.f.e. and resistivity response similar to that at Queen Hill is recorded. Evaluation of this anomaly is proposed.

WORK PLANNED

The following summarises the work proposed for the licence area.

- Geological mapping of the Queen Hill grid extensions.
- Presentation of results of the current stream sediment survey and follow-up of anomalies indicated in the survey and the 1978 survey.
- Follow-up ground magnetics over the north west anomaly and rock chip sampling of the Silver Stream area.
- Reconnaissance evaluation of the airborne magnetic anomaly near Rocky Creek, north of St. Dizier.
- Regional geological mapping of the western part of the licence area, in particular the contact zone of the Heemskirk Granite.

EXPENDITURE

In the quarter ending June 4, 1979 (Aberfoyle Period 6, June 4, 1979) the following expenditure was incurred:

Geology	9,869
Survey	577
Geophysics	6,713
Geochemistry	4,482
Tenure	1,221
Miscellaneous	45
	$22,907

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These costs may be redissected as follows:

Salaries	9.432
Contractors	5,349
Materials	388
Accommodation & Travel	2,543
Vehicles	1,001
Tenure	1,062
Equipment rent	23
Sundries	121
	19,919
Overhead @ 15%	2,988
	$22,907

REFERENCES

Fander, H.W.	(1971)	Reports CMS 71/4/4 and 71/4/13 Summary of Investigations, Leighton Mining Zeehan Tin Project.
Lutley, W.	(1974)	Mineralogy of Cassiterite Sulphide Mineralisation in the Queen Hill area. (Draft Notes for Hons. Thesis).
Williams, K.L.	Circa 1968	Geochemical Studies of the Zeehan Ores.
Young, C.H. and Webster, S.S.	(1979)	Progress Report Queen Hill Joint Venture E.L. 47/71, Tasmania. Quarter to March 31, 1979.
Young, C.H. and Sale, R.V.	(1978)	Progress Report Queen Hill Joint Venture E.L. 47/71, Tasmania. Quarter to December 15, 1978.
Young, C.H. and Sale, R.V.	(1978)	Progress Report Queen Hill Joint Venture E.L. 47/71, Tasmania. Quarter to September 30, 1978.

SIGNED: C.H. Young

C. H. Young - Project Geologist.

ENDORSED: K.R. Yates

K.R. Yates - Manager - Outside Exploration.

Oonah Hill

Montana N°2 Plant Dam

ML 52M 76

ML 47M 76

Minops ML 35M 72

Consolidated Lease 43M 73

ML 48M 76

ML 51M 76

N°2 Montana Shaft

Queen N°2 shaft

Queen N°4 shaft

Queen Hill

cemetery

Tullah Hobbs Road

Corinna Road

ADAMS STREET

TARLETON STREET

MAIN STREET

SEVERN STREET

TRENT STREET

EMMA STREET

WILSON STREET

Sn soil values in ppm, -80# fraction, analysis by XRF

·20 Samples taken by hand auger up to 1m in depth

°8 Samples taken by hand at depths between 5-15cm

Magnetic north correct 1978 annual change easterly by 0·4'

SCALE

metres 0 20 40 60 80 100 metres

5 cm

80/25	00/25	20/25
80/12	00/12	20/12
80/00	00/00	20/00

Index to adjoining sheets

158023 79-13624

Aberfoyle Exploration Pty Ltd 2699

Geology	NORTH WEST TASMANIA	Location code
Drawn	QUEEN HILL	Date June, 1979
Traced RKY	TIN GEOCHEMISTRY	Scale 1 2,500
Checked		Plate N° -
Revised Date		OH 134/00/12

360 000 E | 250 E | 500 E | 750 E | 1000 E | 1250 E | 1500 E | 1750 E | 360 000 E

5361250 N

1000 N

750 N

500 N

250 N

5360 000 N

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8	.24	50 .63	.4	.6	8		
<4	.30	.22	.12		16		
<4	.4	.34	150 .250		12		
<4	<4	.10	50	.12			

ML 43 M 76

ML 48 M 76

ML 50 M 76

ML 49 M 76

80/12	00/12	20/12
80/00	00/00	20/00
80/97	00/97	20/97

Index to adjoining sheets

5 cm

158024 79-1362

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code
Drawn R.J.E	QUEEN HILL	Date June, 1979
Traced	TIN GEOCHEMISTRY	Scale 1 2,500
Checked	2700	Plate No QH 134/00/00
Revised by Date		

359000 E	250 E	500E	750 E	1000 E	1250E	1500 E	1750 E	360000 E
5361250 N				6				<4	5361250 N
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1000 N			<4	<4	<4	6	8	44	8	1000 N
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750 N											750 N
500 N											500 N
250 N											250 N
5360000 N											5360000 N
358000 E	250 E	500 E	750 E	1000 E	1250 E	1500 E	1750 E	360000 E

ML50 M76

60/12	80/12	00/12
60/00	80/00	00/00
60/97	80/97	00/97

Index to adjoining sheets

5 cm

158025 79-1362

Aberfoyle Exploration Pty Ltd

Geology	
Drawn	R J E
Traced	
Checked	
Revised by	Date

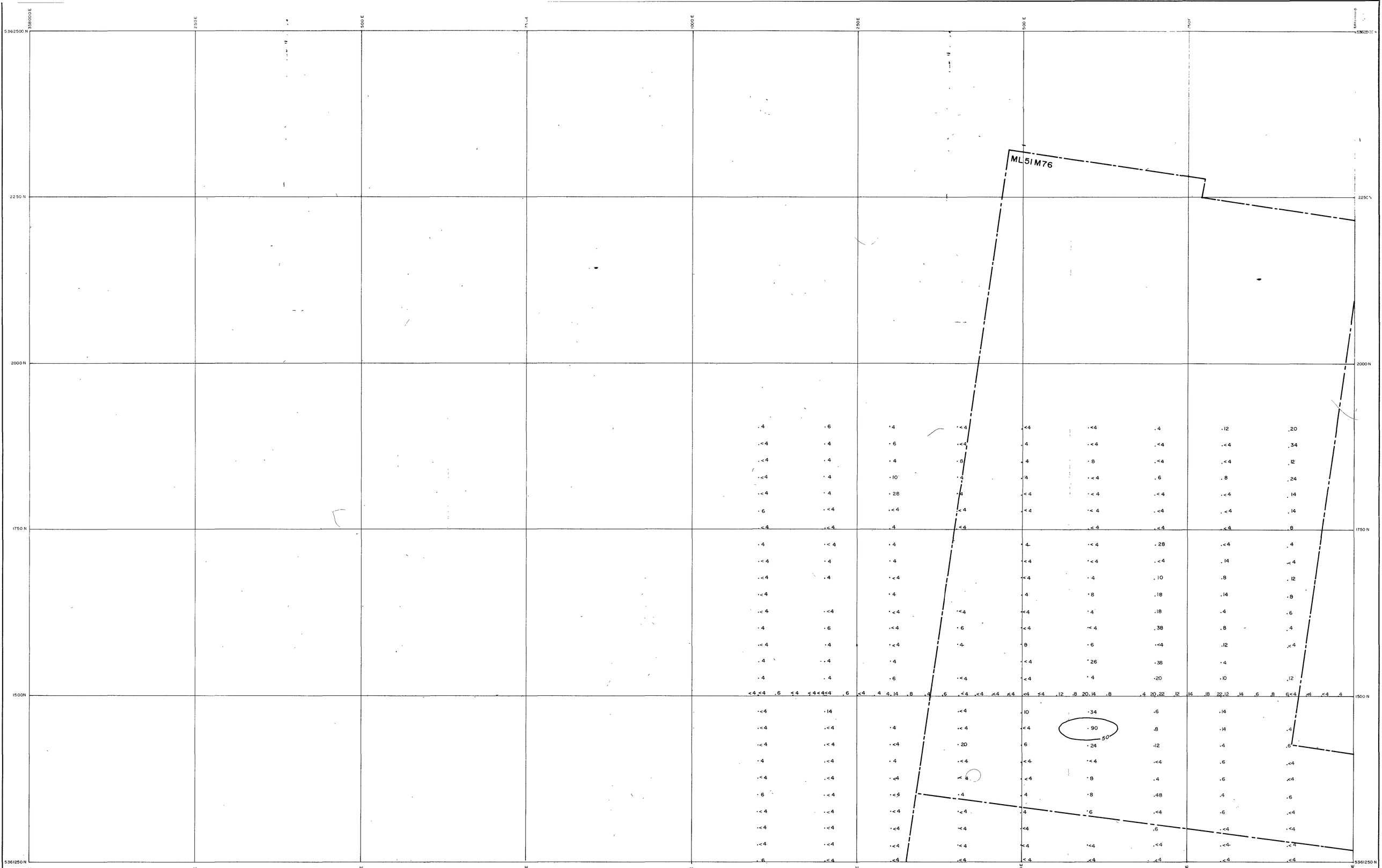
NORTH WEST TASMANIA

QUEEN HILL

TIN GEOCHEMISTRY

2701

Location code	
Date	June , 1976
Scale	1 2,500
Plate Nº	QH 134/80/00



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60/25	80/25	00/25
60/12	80/12	00/12
60/00	80/00	00/00

Index to adjoining sheets

5 cm

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code
Drawn: R J E	QUEEN HILL	Date: June, 1979
Traced:	TIN GEOCHEMISTRY	Scale. 1 2,500
Checked:	2702	Plate N° QH 134 /80/12
Revised by: Date:		

Oonah Hill

Montana No 2 Plant Dam

ML 52M 76

ML 47M 76

Minops ML 35M 72

Consolidated Lease 43M 73

ML 48M 76

ML 51M 76

No 2 Montana Shaft

Queen No 2 shaft

Queen No 4 shaft

Queen Hill

Cemetery

Tram Haulage Road

Corinna Road

ADAMS STREET

TARLETON STREET

MAIN STREET

STORYS CREEK STREET

SEVEN STREET

TRENT STREET

EMMA STREET

WILSON STREET

5362500N

5361250N

2250 N

2000 N

1750 N

1500 N

2550 N

2400 N

2100 N

1950 N

1800 N

1650 N

360000 E

250 E

500 E

750 E

1000 E

1250 E

1500 E

1750 E

362000 E

GN MN

11° 14' 00"

Magnetic north correct 1978 annual change easterly by 04'

SCALE

metres 0 20 40 60 80 100 metres

5 cm

80/25	00/25	20/25
80/12	00/12	20/12
80/00	00/00	20/00

Index to adjoining sheets

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79-1362.

Aberfoyle Exploration Pty Ltd

Geology	
Drawn	WEM RJE
Traced	RKY RJE
Checked	
Revised	Date

NORTH WEST TASMANIA

QUEEN HILL AREA.

APPARENT RESISTIVITY

2703

Location code	
Date	June, 1979
Scale	1 2,500
Plate No	QH135/00/12

5362500 N
2250 N
2000N
1750 N
1500N
5361250 N
358000E
250E
500E
750E
1000E
1250E
1500E
1750E
360000E

ML 5IM76

200
300
750
500
300
300
500
300
750
500
300
200

454 323 481 446 473 305 197 335 552 793 854 604 552 782 643 239 175 261 273
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365 312 363 472 379 237 274 226
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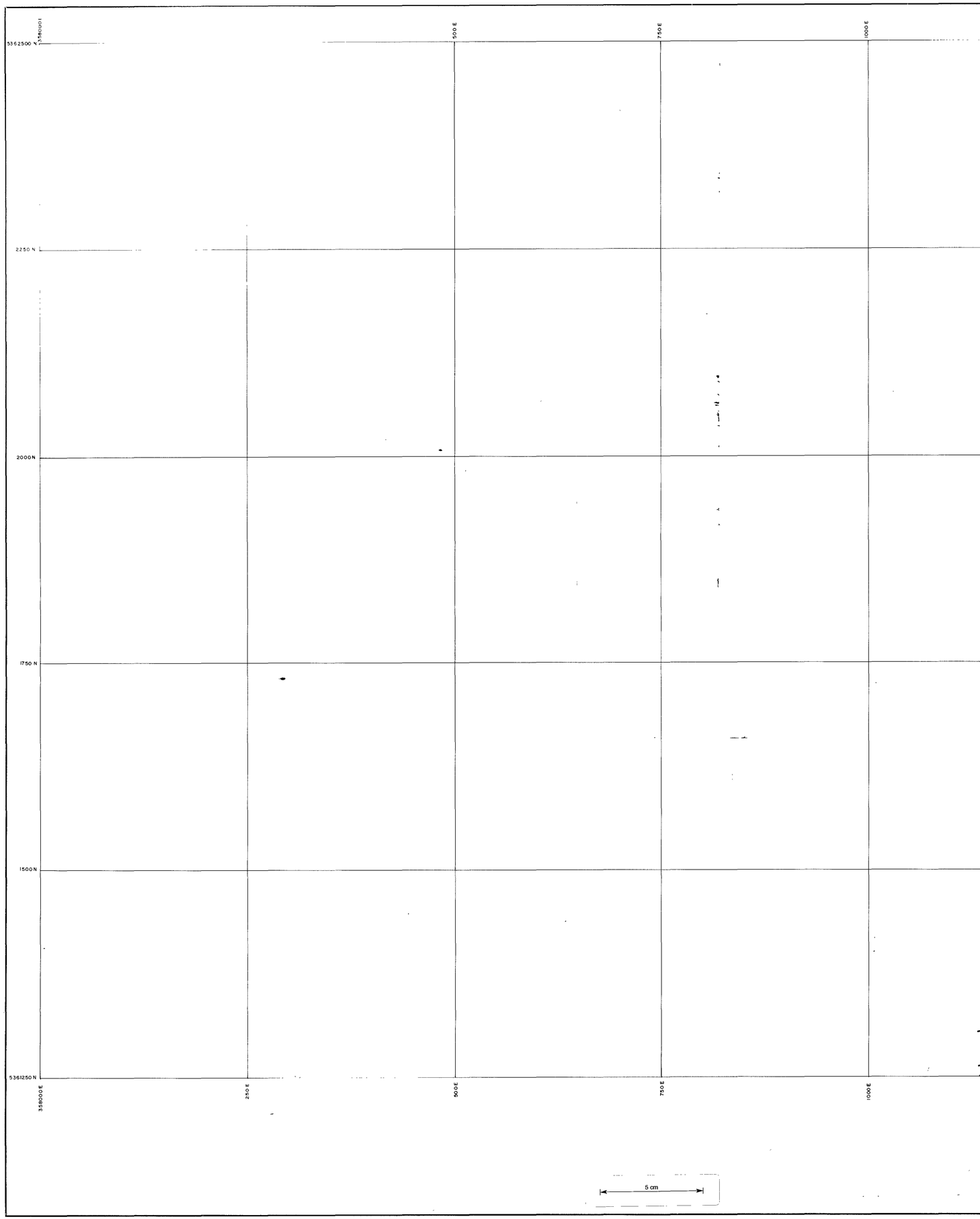

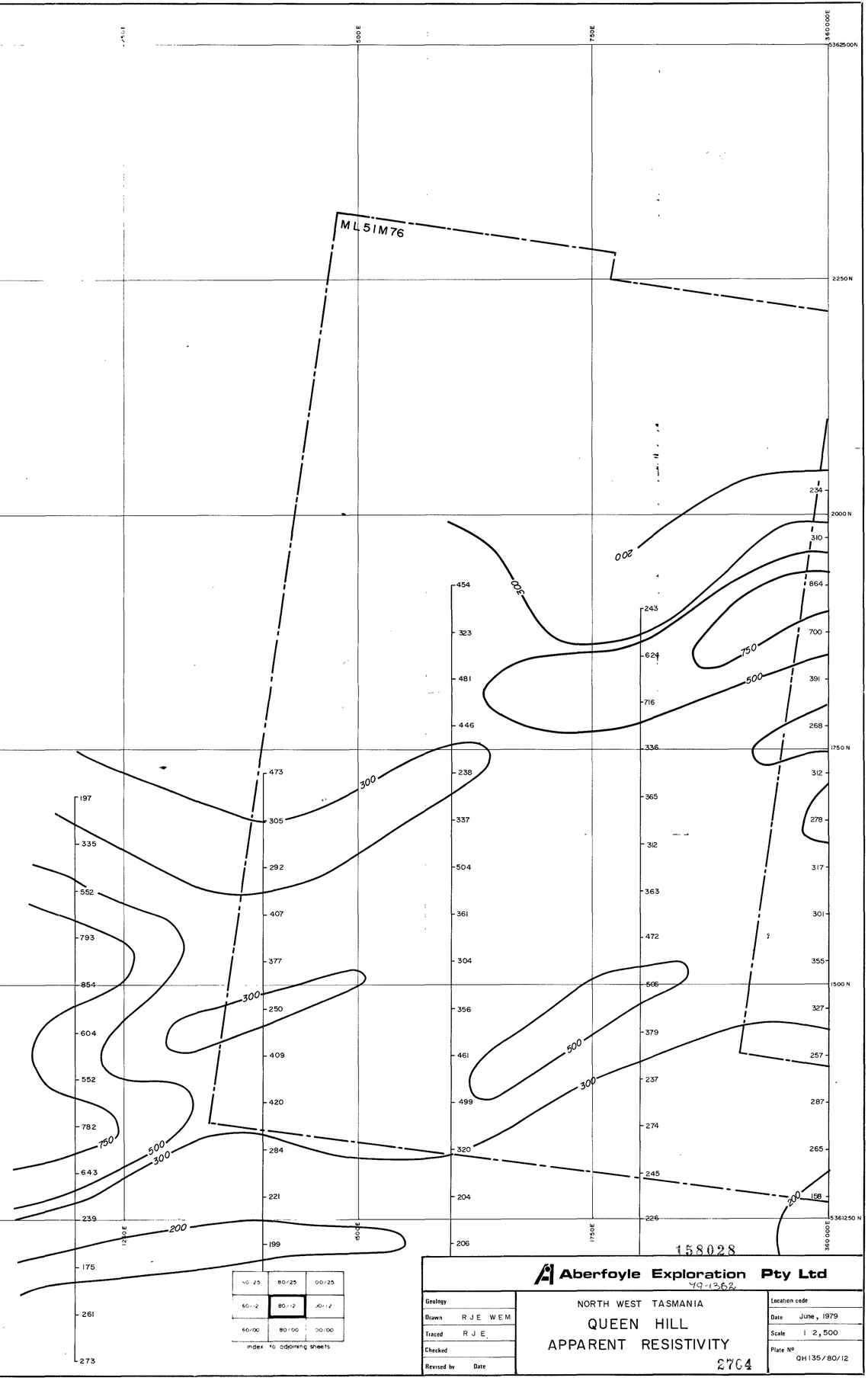

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80/12	80/12	00/12
80/00	80/00	00/00

Index to adjoining sheets

5 cm

158028

49-1362

Aberfoyle Exploration Pty Ltd

Geology	
Drawn	R J E W E M
Traced	R J E.
Checked	
Revised by	Date

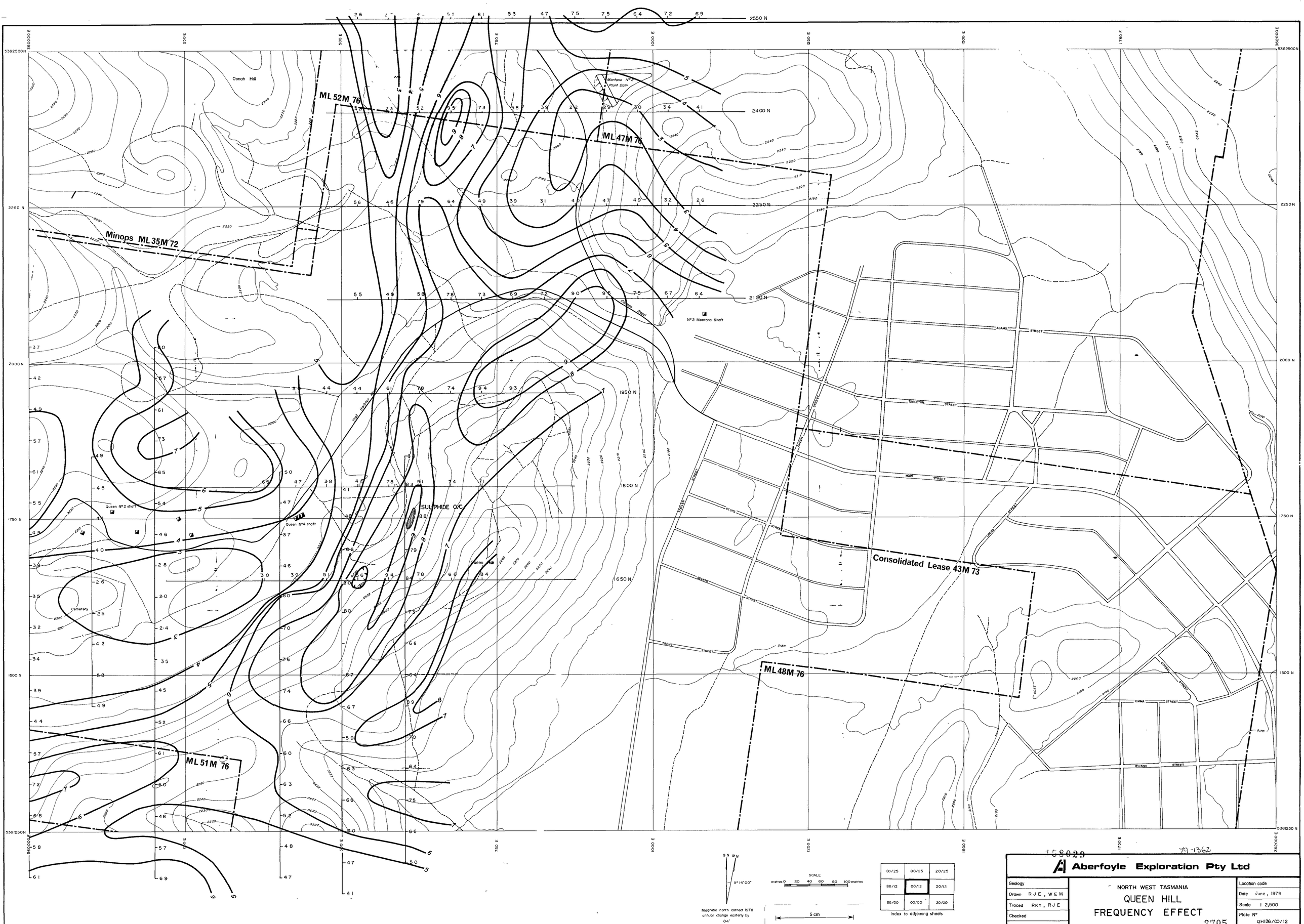
NORTH WEST TASMANIA

QUEEN HILL

APPARENT RESISTIVITY

2764

Location code	
Date	June, 1979
Scale	1 2,500
Plate No	QH135/80/12



GN MN

11° 14' 00"

Magnetic north correct 1978 annual change easterly by 0.4'

SCALE

metres 0 20 40 60 80 100 metres

5 cm

80/25	00/25	20/25
80/12	00/12	20/12
80/00	00/00	20/00

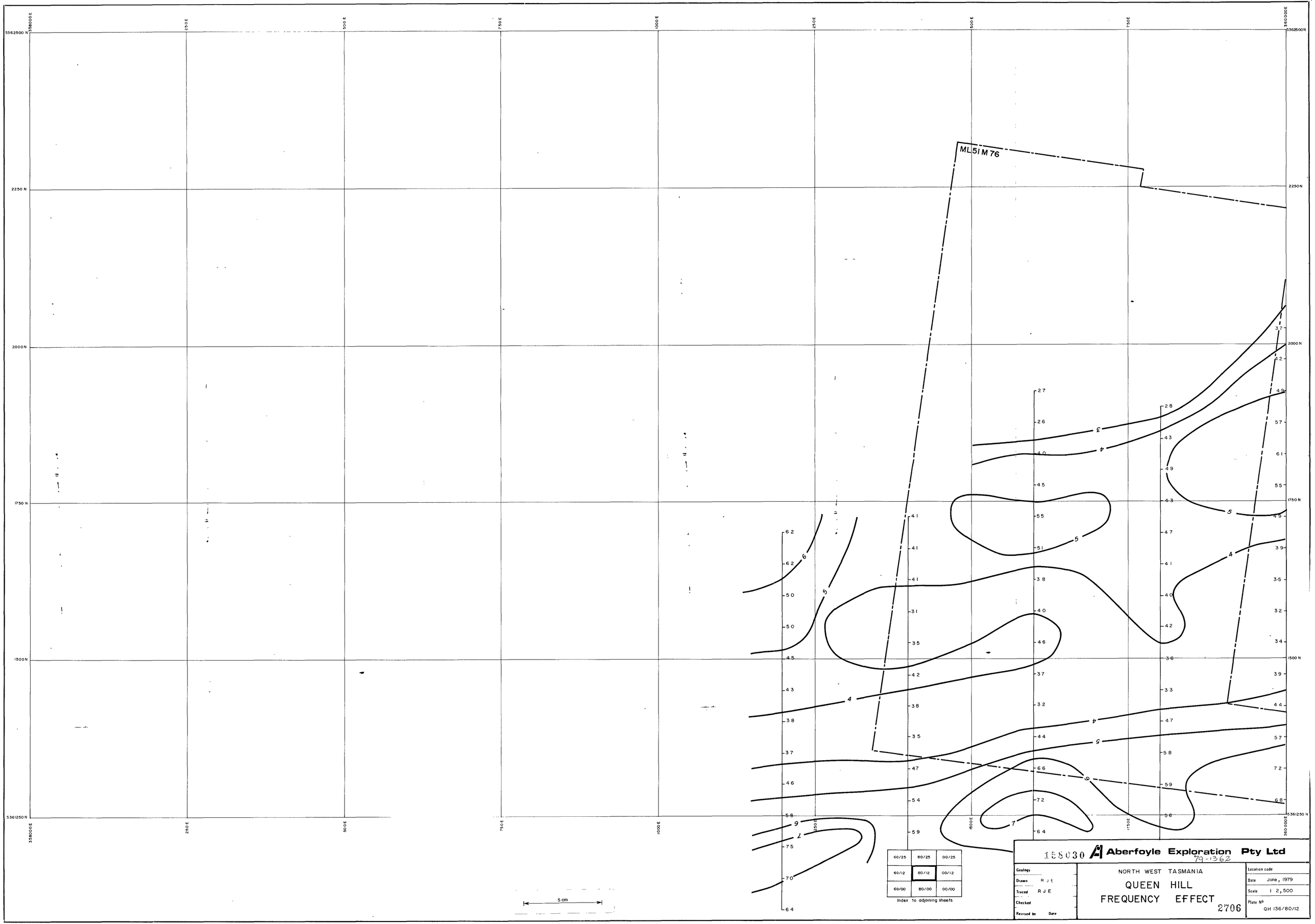
Index to adjoining sheets

158029

79-1362

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code
Drawn R J E , W E M	QUEEN HILL	Date June , 1979
Traced R K Y , R J E	FREQUENCY EFFECT	Scale 1 2,500
Checked	2705	Plate N° QH136/00/12
Revised Date		


358000E
250E
500E
750E
1000E
250E
500E
750E
360000E
5362500N
2250N
2000N
1750N
1500N
5361250N
ML 51 M 76
27
26
43
40
49
45
55
43
41
41
55
51
41
41
38
40
31
35
40
42
46
36
37
39
32
33
44
38
35
47
44
57
58
47
46
54
66
72
59
58
72
68
56
64
62
62
50
50
45
43
38
37
47
46
58
75
70
64
3
4
5
6
7
9
Index to adjoining sheets
5 cm
158030 Aberfoyle Exploration Pty Ltd
79-1362
Geology
Drawn R J E
Traced R J E
Checked
Revised by Date
NORTH WEST TASMANIA
QUEEN HILL
FREQUENCY EFFECT
2706
Location code
Date June, 1979
Scale 1 2,500
Plate No QH 136/80/12

158031

OPEN FILE

VOLUME 2

PROGRESS REPORT

QUEEN HILL JOINT VENTURE

E.L. 47/71 TASMANIA

QUARTER JUNE 21, 1979

MICROFILMED

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VOLUME 1

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QUEEN HILL ORE RESERVE ASSESSMENT	1
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SOIL SAMPLING PROGRAMME	13
STREAM SEDIMENT SAMPLING	15
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I.P. GEOPHYSICS	15
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LIST OF PLATES

Plate No.	Title	Scale
QH 127 (In text)	Queen Hill E.L. 47/71 Summary Plan	1:10,000
QH 130 (In text)	Cross Section 3040	1:2500
QH 131 (In text)	Longitudinal Projection showing Inferred Ore Outlines	1:2500
QH 132 (In text)	R.L. 100 Level Plan	1:2500
QH 134/00/12	Tin Geochemistry	1:2500
QH 134/00/00	Tin Geochemistry	1:2500
QH 134/80/00	Tin Geochemistry	1:2500
QH 134/80/12	Tin Geochemistry	1:2500
QH 135/00/12	Apparent Resistivity	1:2500
QH 135/80/12	Apparent Resistivity	1:2500
QH 136/00/12	Frequency Effect	1:2500
QH 136/80/12	Frequency Effect	1:2500

VOLUME 11

These preliminary plans, cross sections, level plans and longitudinal projections will be substantially modified subsequent to the proposed ore-reserve and exploration drilling programme.

QH 24/04/15	Underground Workings	1:500
QH 24/04/17	Underground Workings	1:500
QH 128 (2 sheets)	Longitudinal Projection	1:500
QH 129	Cross Sections 2920 - 3360	1:500

VOLUME 111

QH 137 (18 sheets)	Surface Outcrop Geology	1:500
QH 138	Geological Legend.	

---oOo---

QUEEN No 4
Main Shaft
RL 196 3 m

QUEEN No 4
WORKINGS

QUEEN No 2

QUEEN No 1

QUEEN INTERMEDIATE LEVEL

QUEEN 44 L

QUEEN No 1 L

QUEEN No 2 L

RL 190 8m

RL 184 8m

RL 136 0m

RL 140 2m

RL 137 0m

No 1
RL 210 0m

WARD & FAIRFIELDS

2920

2980

No 3
Approx position only
RL 213 0m

Winze

RL 204 2m

No 9
RL 232 9m

Winzes

DELAINIES LODE

Rise to surface
RL 209 4m

Reference Plane

— LEVELS —

QUEEN INTERMEDIATE

QUEEN 44 L

QUEEN No 1 L

QUEEN No 2 L

5 cm

Index to sheets

04/17

04/15

158033

79-1362 vol 2

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code
Drawn R J E	QUEEN HILL E.L 47/71	Date April, 1979
Traced	UNDERGROUND WORKINGS	Scale 1 500
Checked	2707	Plate No QH 24 - 04/15
Revised by Date		

360400E 450E 500E 550E 600E 650E 700E 750E 360800E

5362000N 950N 900N 850N 800N 5361750N

DUNNS
No 7
RL 199 3m
Dunns Tunnel
Stope
€bs + €v
Reference Plane
3240
3200
3180
3160
3155
3150
3120
3080
3040
3000
RL 201 9m
RL 197 8m
RL 203 3m
RL 210 0m
Py stoped
DUNKLEYS
No 5
RL 210 0m
No 6
RL 194 8m
(ROAD) ADIT
RL 202 4m
Stoped in €bs + €v
RL 231 6m
Raise Queen No 1 Level to surface
RL 172 5m
CLARKS
No 4
RL 213 7m
RL 195 7m
RL 214 6m
RL 216 4m
No 8
RL 248 1m
Py in €bs
No 2
RL 202 4m
chert

Index to sheets
04/17
04/15

5 cm

158034 79-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology	
Drawn	R J E
Traced	
Checked	
Revised by	Date

NORTH WEST TASMANIA
QUEEN HILL E L 47/71
UNDERGROUND WORKINGS
2708

Location code	K55/5/50
Date	April, 1979
Scale	1 500
Plate No	QH 24-04/17

2920 2980 3000 3040 3080 3120 3150 3155 3160 3180 3200 3240

SURFACE ON REFERENCE PLANE

RL 200

RL 100

RL 00

QUEEN 44 LEVEL

QUEEN No 1 LEVEL

QUEEN No 2 LEVEL

Ward & Fairfields No 1

No 3

Clarks No 4

No 2 ?

(assay data is uncertain for old)

? 3 46 / 60, 5 5

Int of Clarkes and Stormsdown

Int of Stormsdown and Dunkley's

OPEN CUT

STORMSDOWN OPEN CUT

Rose QUEEN No 1 Level 10 surface

Road No 6

Dune's No 7

G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11, G12 G13 G14 G15 G16 G18 G22 G23 G24 G25 G26 G28 G30 G31 G32 G33 G34B G35 G36 G38

0 35 / 4 57, 5 5

1 06 (Uncut) / 7 30, 5 0

1 23 / 70, 7 0

0 85 / 5 79, 5 0

0 79 / 5 18, 2 5

3 15 / 17 68, 10 0

2 54 / 14 93, 10 0

1 97 / 12 20, 10 2

1 74 / 3 15, 2 0

0 31 / 4 88 Portion

0 18 / 9 45, 7 0

1 08 / 3 96, 1 5

0 41 / 61 26, 320 (Some assays missing)

1 16 / 56 70, 14 5 (G12 Part assays missing)

1 73 / 27 5, 22 0

0 52 / 10 06, 10 0

(Gil Wedge) 1 08 / 7 0, 7 0

0 20 / 10 06, 10 0

1 1 / 6 0 9, 7 0

0 33 / 2 75, 2 5

0 37 / 3 66, 3 4

0 38 / 2 75, 2 5

0 68 / 7 93, 10 0

0 4 / 8 53, 110

0 65 / 6 4, 5 0

0 18 / 3 61, 5 0

(Port assayed) 15

0 80 / 12 81

0 73 / 2 97, 2 0

(Port assayed, inc 1 5m of 0 76)

(Port not assayed, inc 5 1m of 0 82)

(Most not assayed)

(Port not assayed)

QUEEN HILL BODY

STORMSDOWN

CLARKES

DUNKLEYS

5 cm

158035

70-1362, vol 2

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA QUEEN HILL EL 47/71 LONGITUDINAL PROJECTION LOOKING WEST ALONG REFERENCE PLANE Sheet A	Location code
Drawn R J E		Date MAY, 1979
Traced R J E		Scale 1 500
Checked		Plate No QH 128 - A
Revised by Date		

2769

2960
2980
3000
3040
3080
3120
3150
3155
3160
3180
3200
3240

RL 00

04
304.8m

2987m

026
346.8m

012
265.0m

128
353.3m

112
263.4m

108
302.6m

291.08
0.80
17.99
303.89

(Not assayed)

(Not assayed)

139.9m

038
362.7m

Part assayed, inc
2.75m at 1.73
w/out

RL -100

0148
377.75m

350.20
0.56
3.03, 4.0
353.23

RL -200

033
475.45m

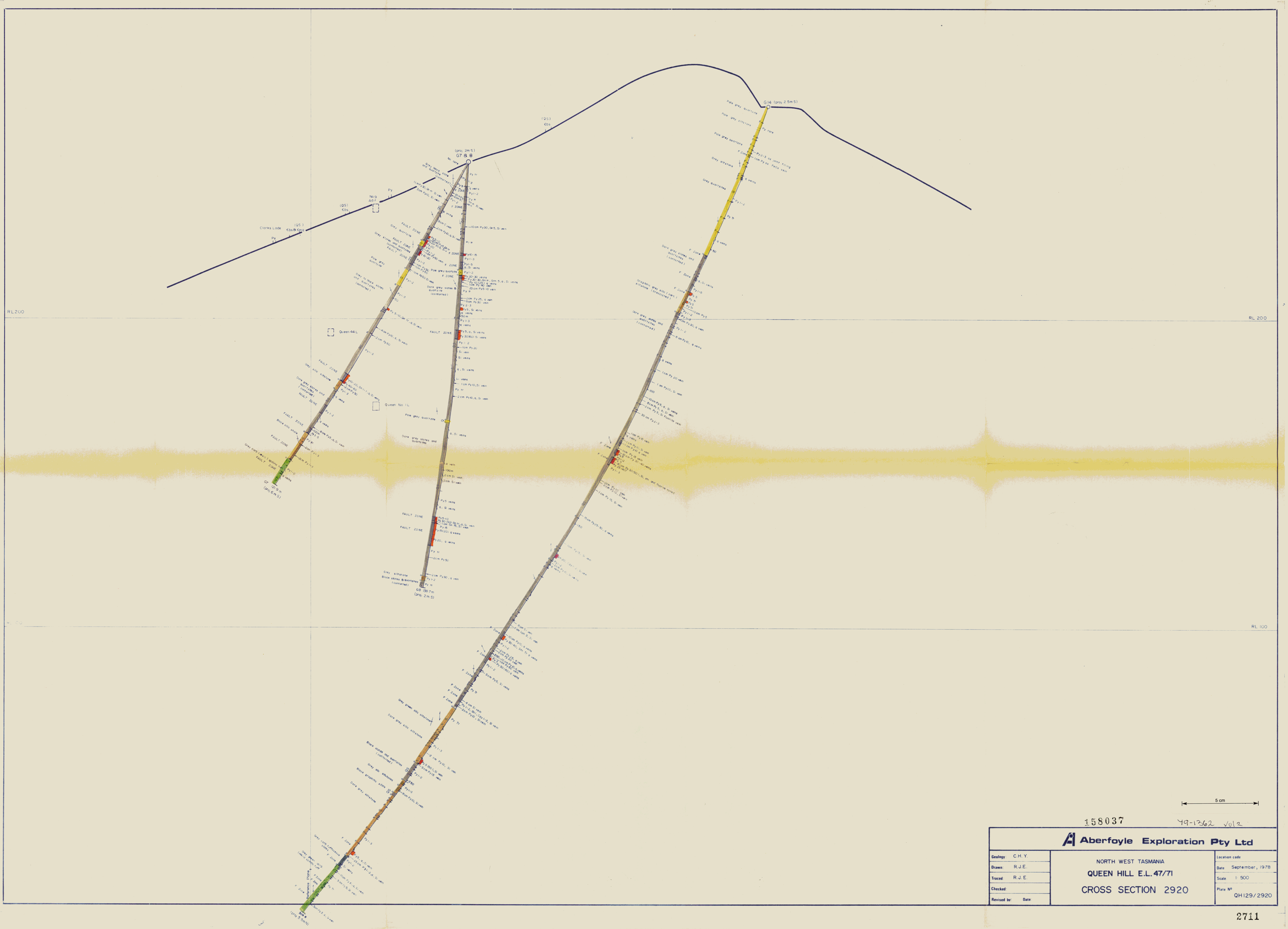
5 cm

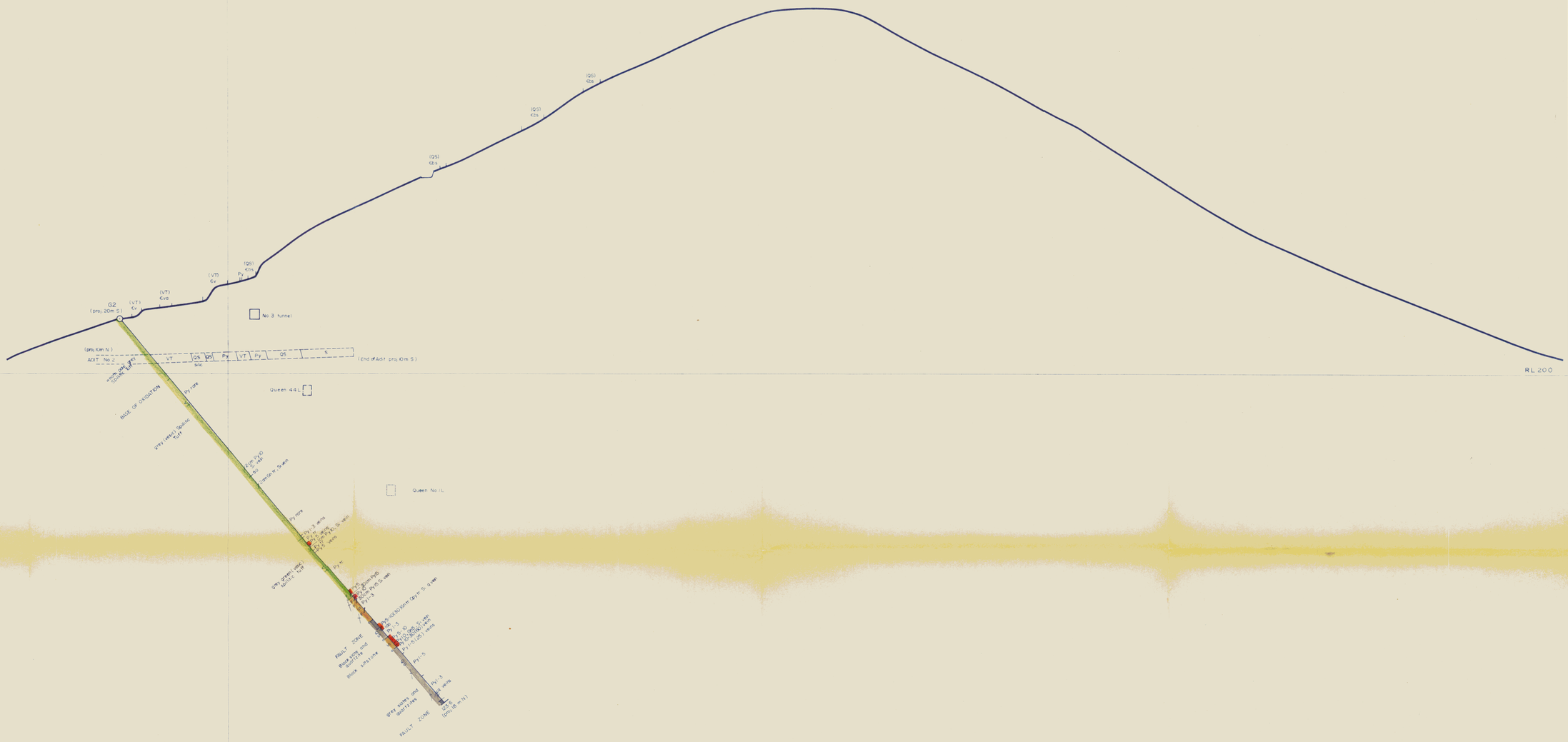
158036 79-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA QUEEN HILL E.L. 47/71	Location code
Drawn R.J.E.	**LONGITUDINAL PROJECTION**	Date: MAY, 1979
Traced R.J.E.	LOOKING WEST ALONG REFERENCE PLANE	Scale: 1:500
Checked	Sheet B	Plate No QH 128-B
Revised by Date		

2710


RL 200
RL 100
(QS) Cbs
(QS) Cbs
(QS) Cbs Cgcp
Clarks Lode
Py
No.9 Adit
Py
Queen 44 L
Queen No. 1 L
(pro; 2m S)
G7 8 8
G7 9 m (pro; 6m S)
GB 13 6 m (pro; 2m S)
GB 15 7 m (pro; 2m S)
G14 (pro; 2.5m S)
FAULT ZONE
F. ZONE
Pale grey quartzite
Dark grey slates and quartzites (contorted)
Grey siltstone
Grey quartzites
Dark grey slates and quartzites
Grey green talc siltstone
Dark grey silty siltstone
Grey silty siltstone
Dark grey siltstone
Grey talc siltstone
Dark grey slates and quartzites (contorted)
Grey green talc siltstone
Dark grey slates and quartzites (contorted)



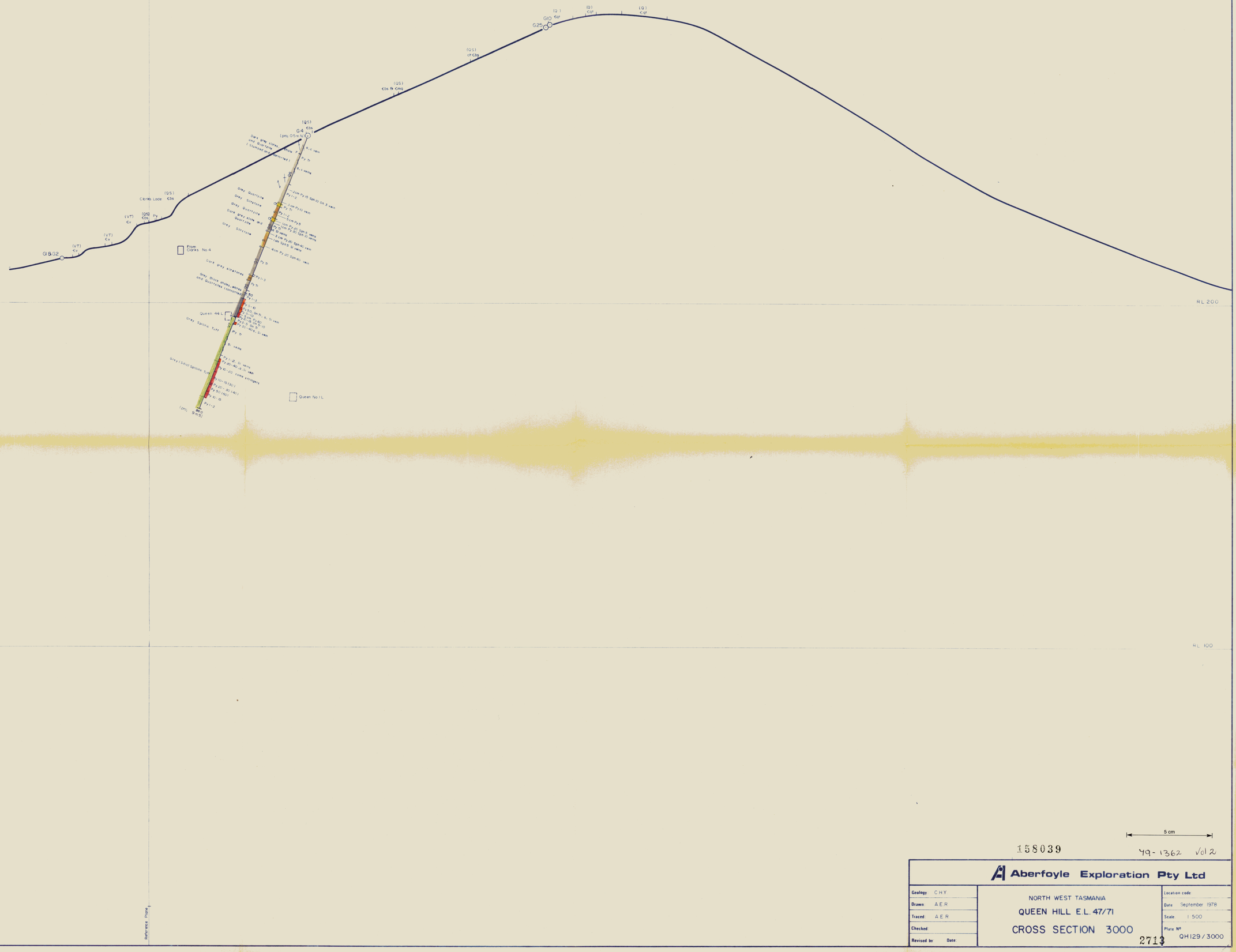
5 cm

158038 79-1362 Vol. 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: R.J.E.	CROSS SECTION 2980	Scale: 1:500
Checked:		Plate No. QH129/2980
Revised by: Date:		

2712



5 cm

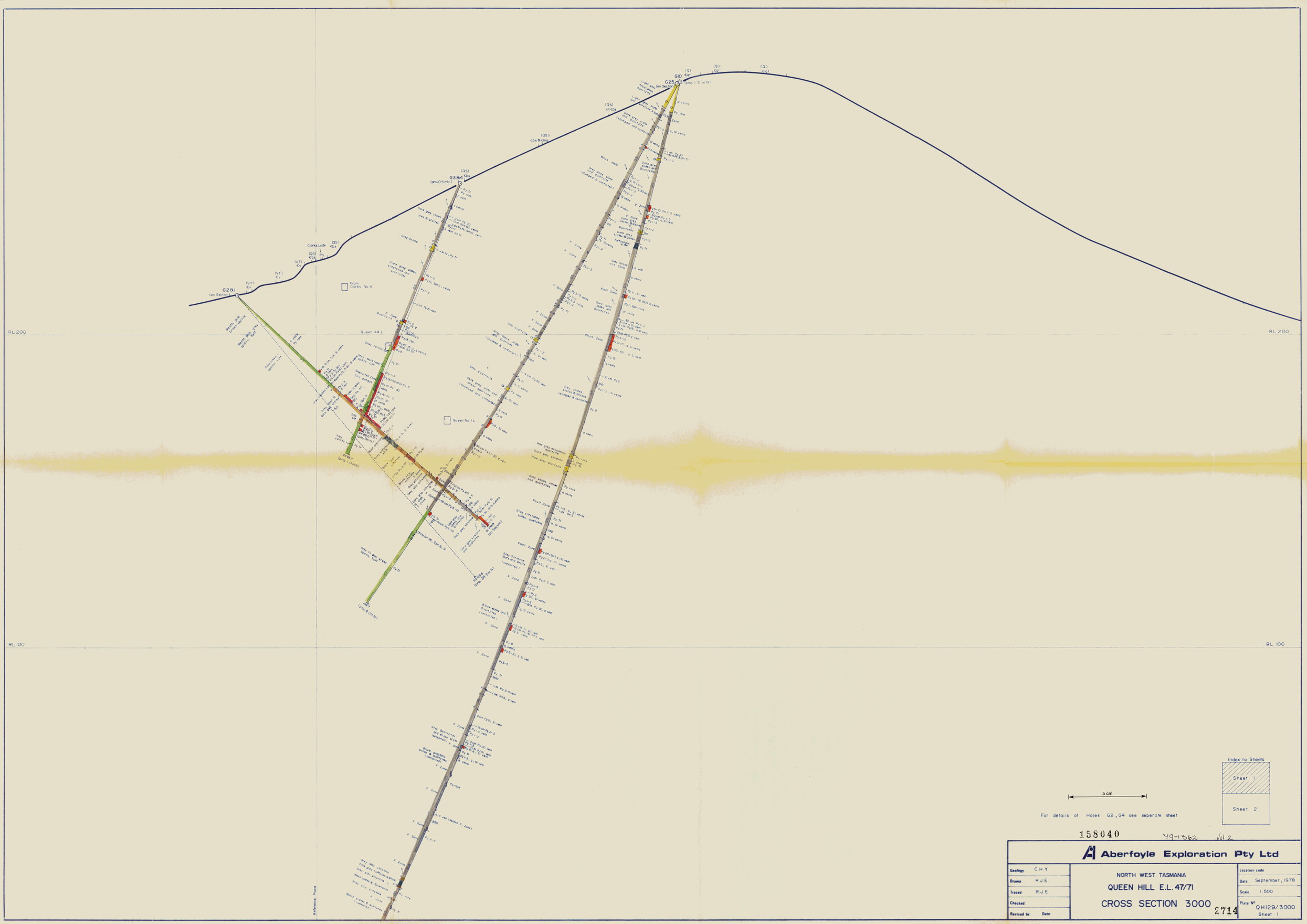
158039

49-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: A.E.R.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: A.E.R.	CROSS SECTION 3000	Scale: 1:500
Checked:		Plate No: QH129/3000
Revised by: Date:		

2713



Index to Sheets

Sheet 1

Sheet 2

5 cm

For details of Holes G2, G4 see seperate sheet

158040 49-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:	
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978	
Traced: R.J.E.	CROSS SECTION 3000	Scale: 1:500	
Checked:		Plate No: QH129/3000 Sheet 1	
Revised by: Date:	2714		

RL 00

RL 00

RL - 100

RL - 100

RL - 200

RL - 200

Reference Plane

158041

5 cm

Index to Sheets

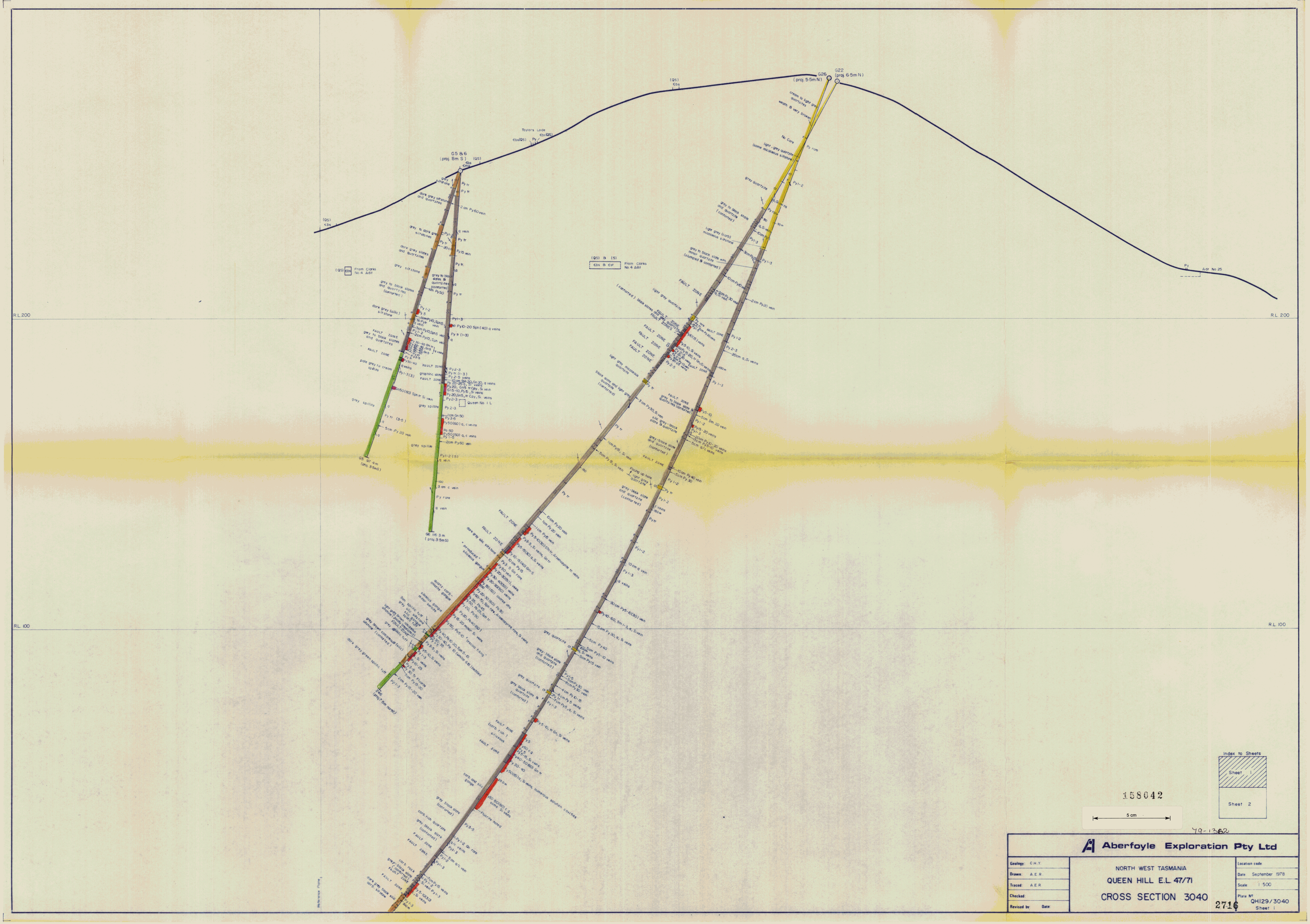
Sheet 1

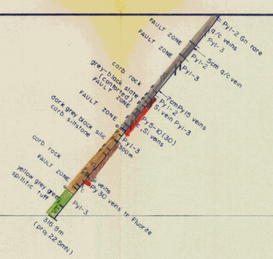
Sheet 2

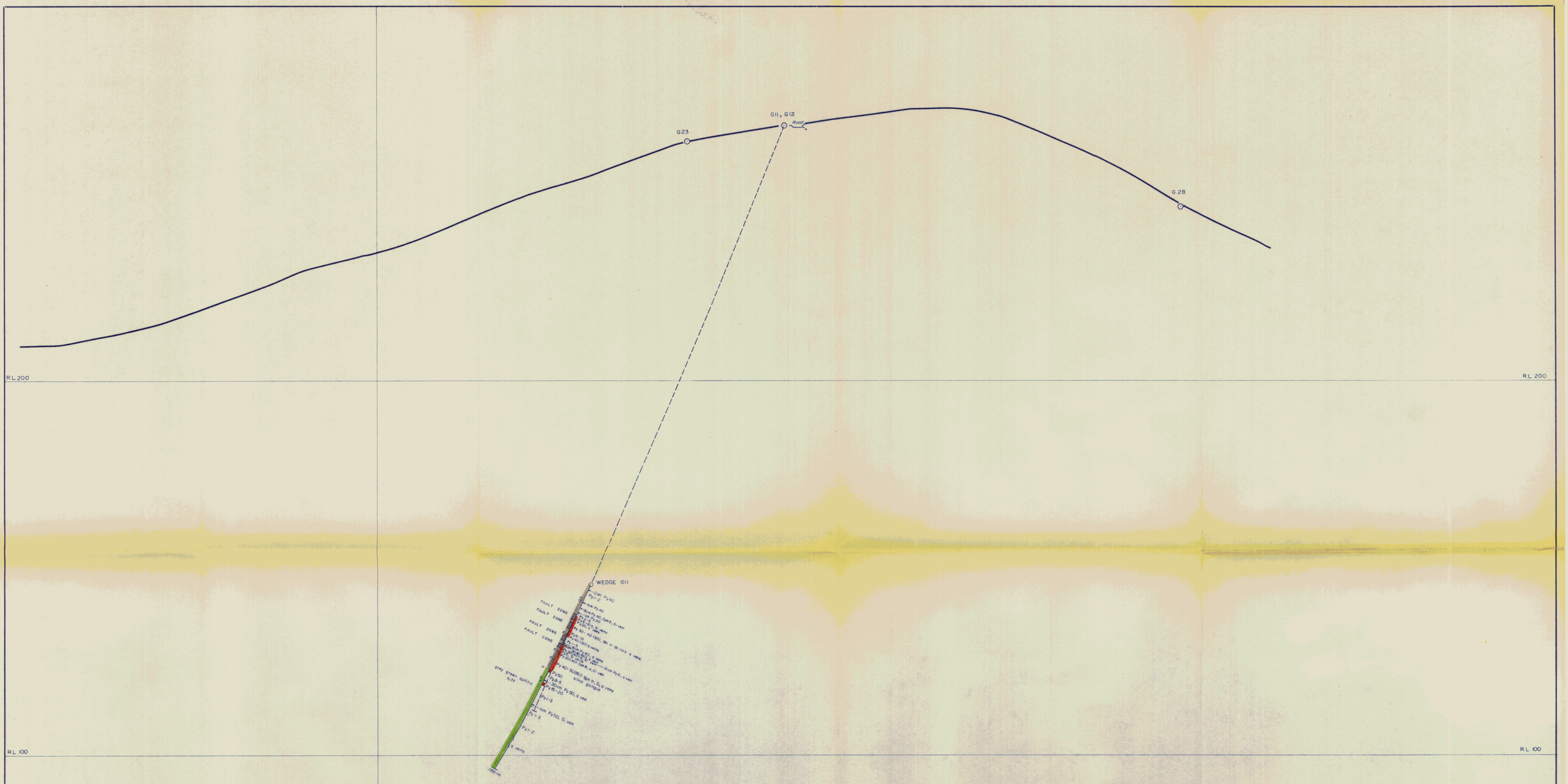
79-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:	
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978	
Traced: R.J.E.	CROSS SECTION 3000	Scale: 1:500	
Checked:		Plate No QH129/3000 Sheet 2	
Revised by: Date:	2715		


G5 8 6
(proj. 8m S.)
G26
(proj. 5.5m N.)
G22
(proj. 6.5m N.)
Taylors Lode
Adit No 25
R.L. 200
R.L. 100
From Clarks No. 4 Adit
FAULT ZONE
Queen No. 1 L
G5 97.4m
(proj. 3.5mS.)
G5 116.3m
(proj. 3.5mS.)
No Core
light grey quartzite (some calcareous siltstone)
grey quartzite
light grey (carb) micaceous siltstone
light grey quartzite
pale grey to cream spilite
grey spilite
dark grey (pyritic) siltstone
grey siltstone
dark grey slates and quartzites
grey to dark grey siltstones
grey to black slates and quartzites (contorted)
grey to black slates & quartzites (contorted)
dark grey slates and quartzites
dark grey, sericitic, carbonaceous siltstone
dark grey green spilitic rock
grey to black slate with minor quartzite (slumped & contorted)
light grey quartzite
light grey micaceous quartzite
grey quartzite
grey to black slate with minor quartzite (contorted)
grey quartzite
grey to black slate with minor quartzite (contorted)
grey quartzite
grey to black slate with minor quartzite (contorted)


Py1-2 Gr rare
FAULT ZONE
Py1-3
Py1-5 Com Qtz vein
Py1-3
Py1-3
Py1-3



158044

5 cm

79-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978
Traced: R.J.E.	CROSS SECTION 3080 (G11 WEDGE)	Scale: 1:500
Checked:		Plate No: QH129/3080
Revised by: Date:		

2718

Dunkleys
ADIT No.5

(VT)
Cu

Clarks Lode
(QS) (QSPy)
€qt (Q)

(QS)
€bs

(QS)
€mu B €bs

R.L. 200

R.L. 100

Toylors Lode
Py, Cu, Au
No core

G23 (proj. 3.5mS)

G11 G12 (proj. 1m S)
No core
Bond

G 28 (proj. 1.5 North)
No core

light grey quartzite with minor siltstone units (similar to base of G43 "SEVERN")

quartz healed fault breccia
FAULT ZONE

dark grey slate and grey quartzite (comorted)

grey quartzite

grey to black siltstone

black slate and grey quartzite (comorted)

dark grey to black slate and grey quartzite (comorted)

dark grey, slate and grey quartzite (comorted)

black slate and grey quartzite (comorted)

dark grey to black slate and grey quartzite (comorted)

dark grey slate and grey quartzite (comorted)

grey quartzite

FAULT ZONE

Index to Sheets
Sheet 1
Sheet 2

5 cm

158045

79-1362 Vol 2

Aberfoyle Exploration Pty Ltd			
Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:	
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978	
Traced: R.J.E.	CROSS SECTION 3080	Scale: 1:500	
Checked:		Plate No: QH129/3080	
Revised by: Date:	2719	Sheet 1	

R.L. 00

R.L. -100

R.L. -200

Reference Point

Index to Sheets

Sheet 1

Sheet 2

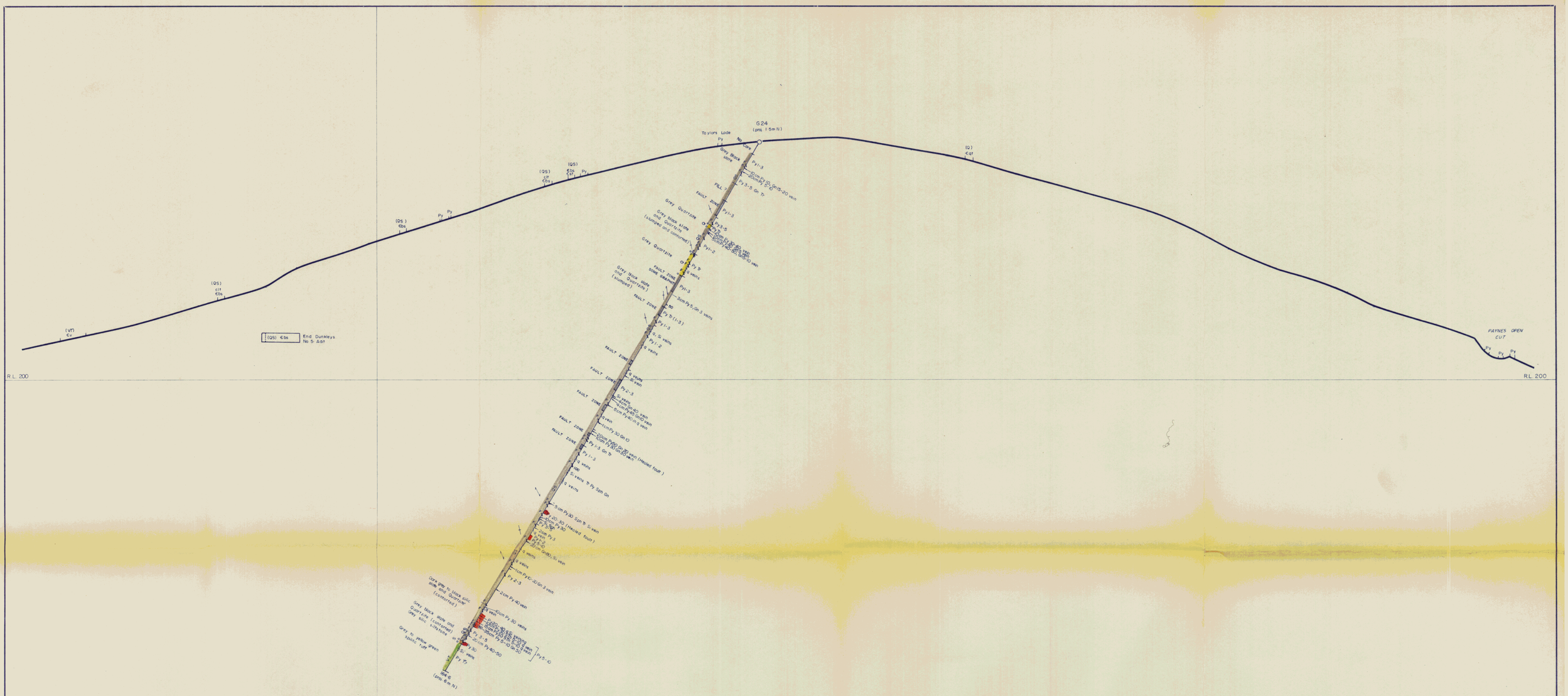
158046

5 cm

79-1362 v.1/2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978
Traced: R.J.E.	CROSS SECTION 3080	Scale: 1:500
Checked:	2720	Plate No QH129/3080 Sheet 2
Revised by: Date:		



158047

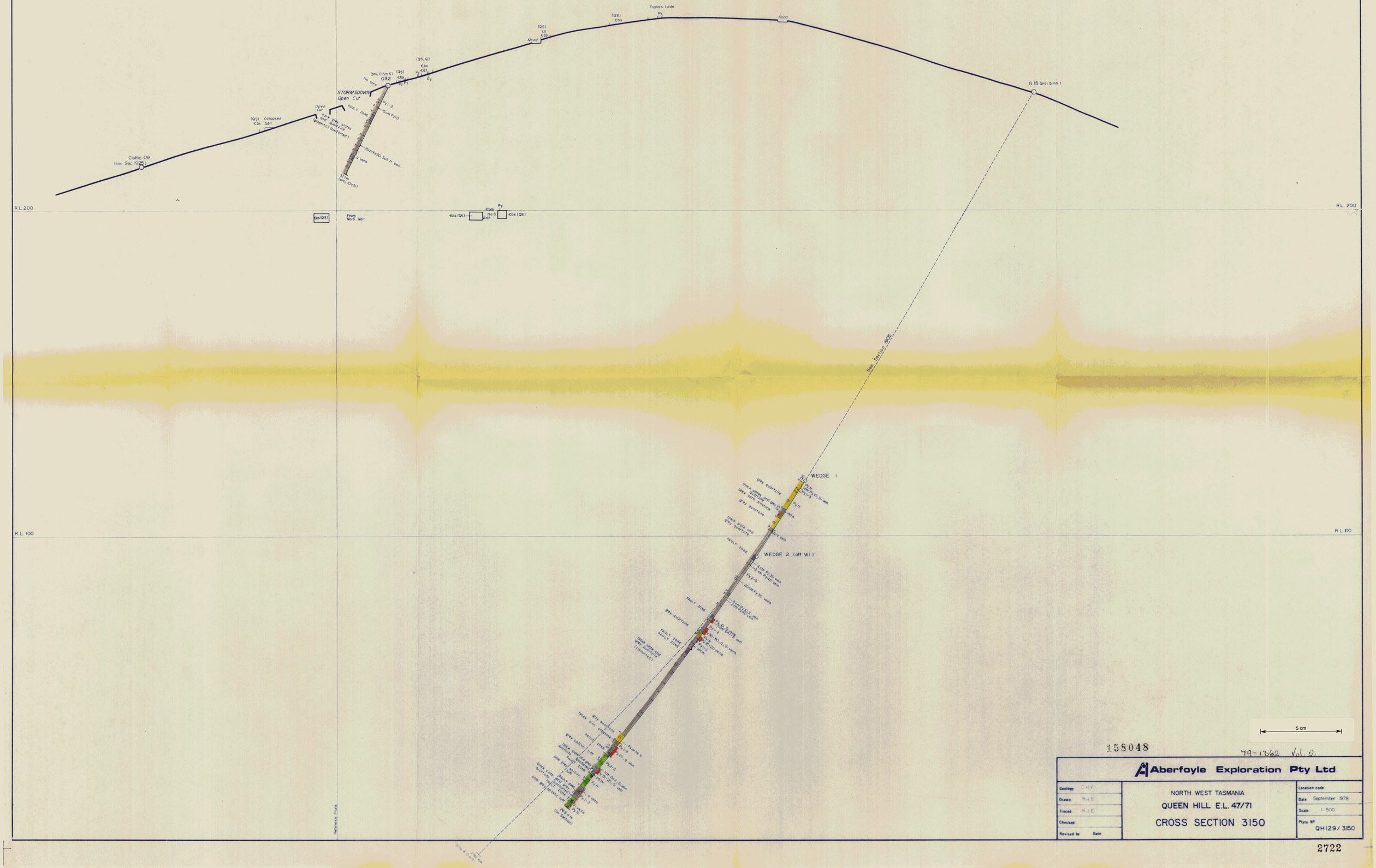
79-1362 Vol 2

2721

5 cm

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: A.E.R.	QUEEN HILL E.L.47/71	Date: September 1978
Traced: A.E.R.	CROSS SECTION 3120	Scale: 1:500
Checked:		Plate No: QH129/3120
Revised by: Date:		


Taylors Lode
Road
(QS) Collapsed
Adit
Clutha 09
(see Sec. 1925)
Open Cut
STORMSDOWN
Open Cut
G32
(pro. 0.5mN)
No Core
(QS)
(QS, Q)
G 15 (pro. 5 mN)
FAULT ZONE
Py 1-5
Py 1-3
Py 1-2
Py 2-3
Py 2-5
WEDGE 1
WEDGE 2 (off W1)
grey quartzite
black slate and grey quartzite
black slate and grey quartzite (coarse)
black slate and grey quartzite (fine)

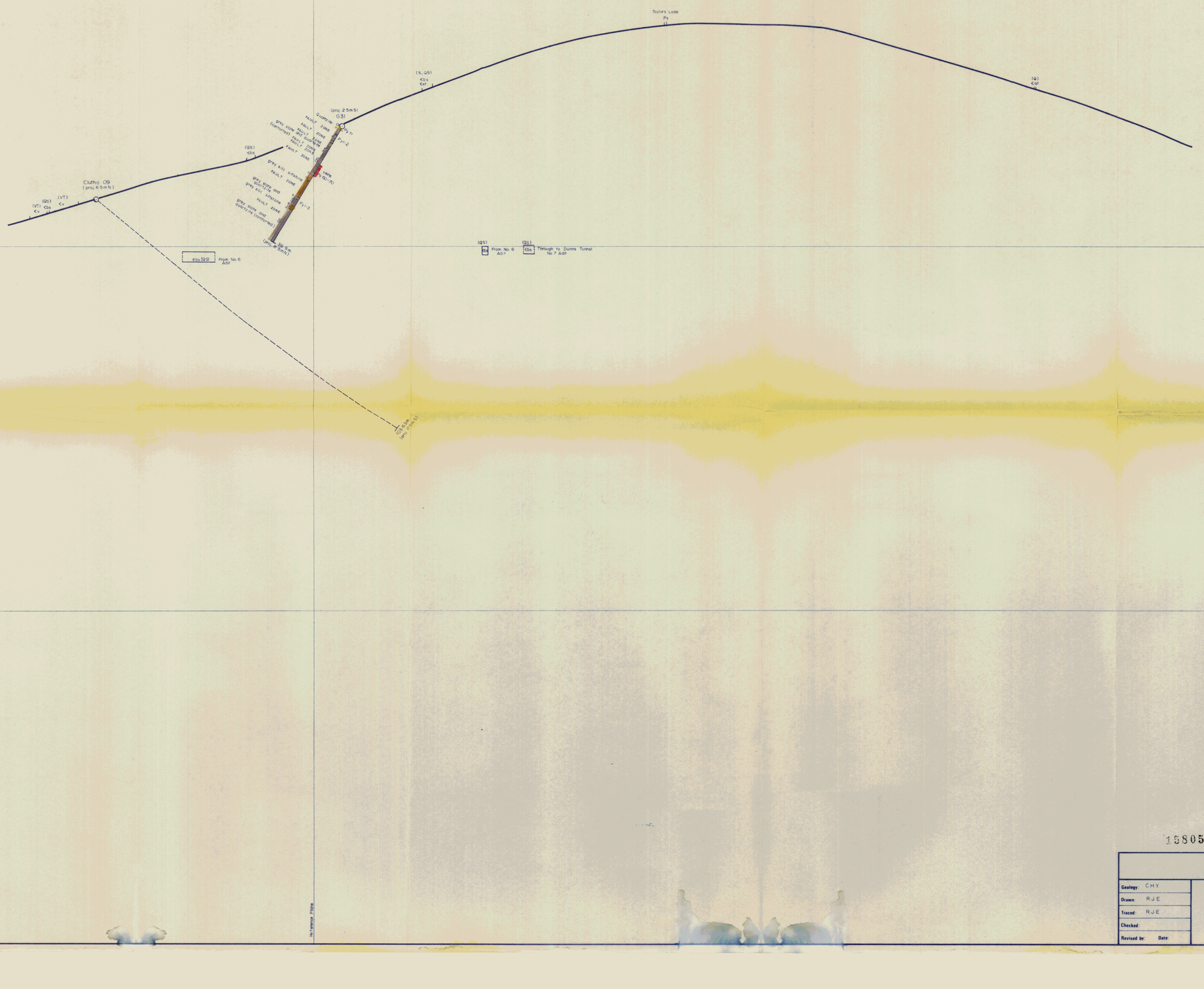
158049

79-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: A.E.R.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: A.E.R.	CROSS SECTION 3155	Scale: 1:500
Checked:		Plate No: QH 129/3155
Revised by: Date:		

2723



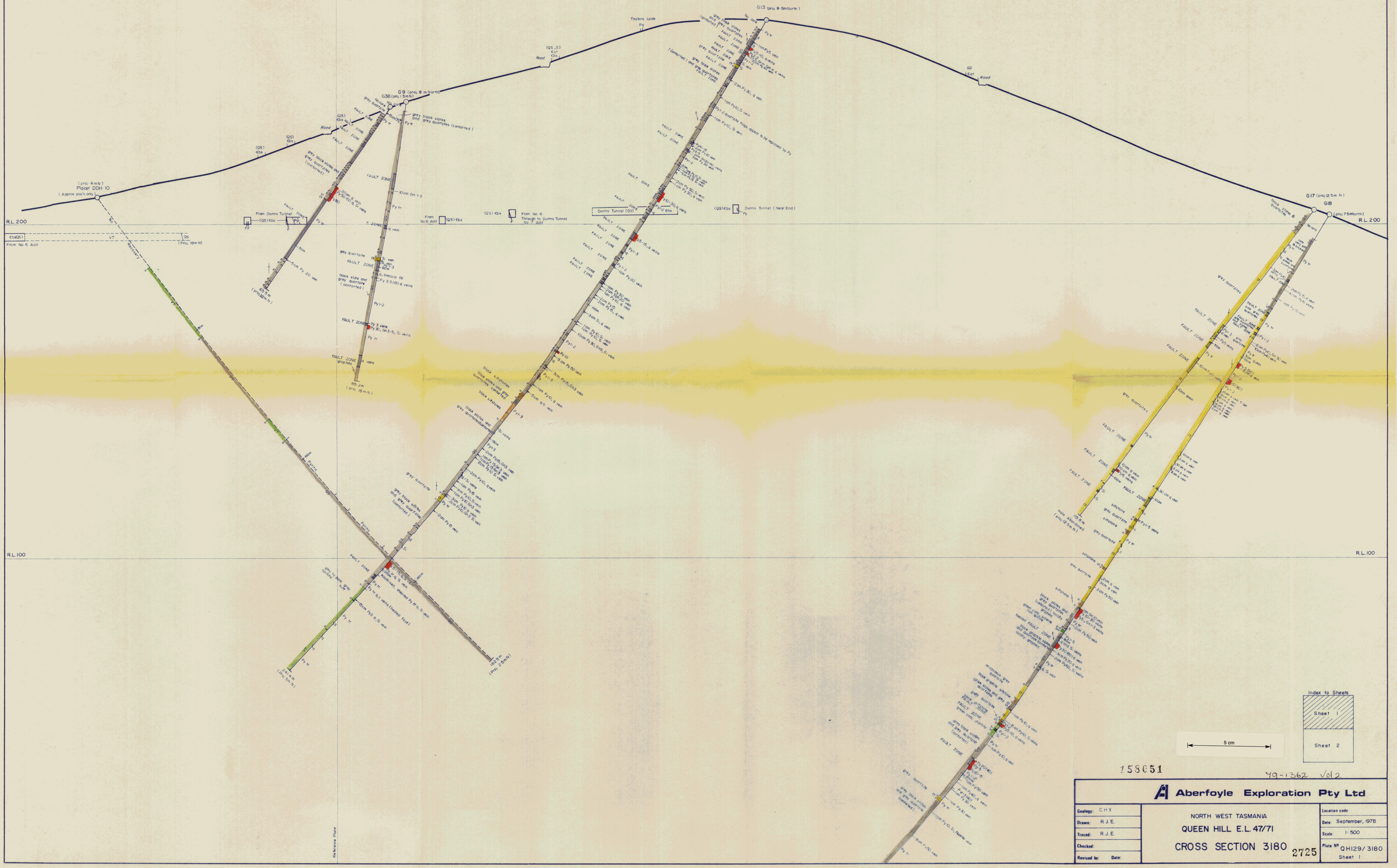
5 cm

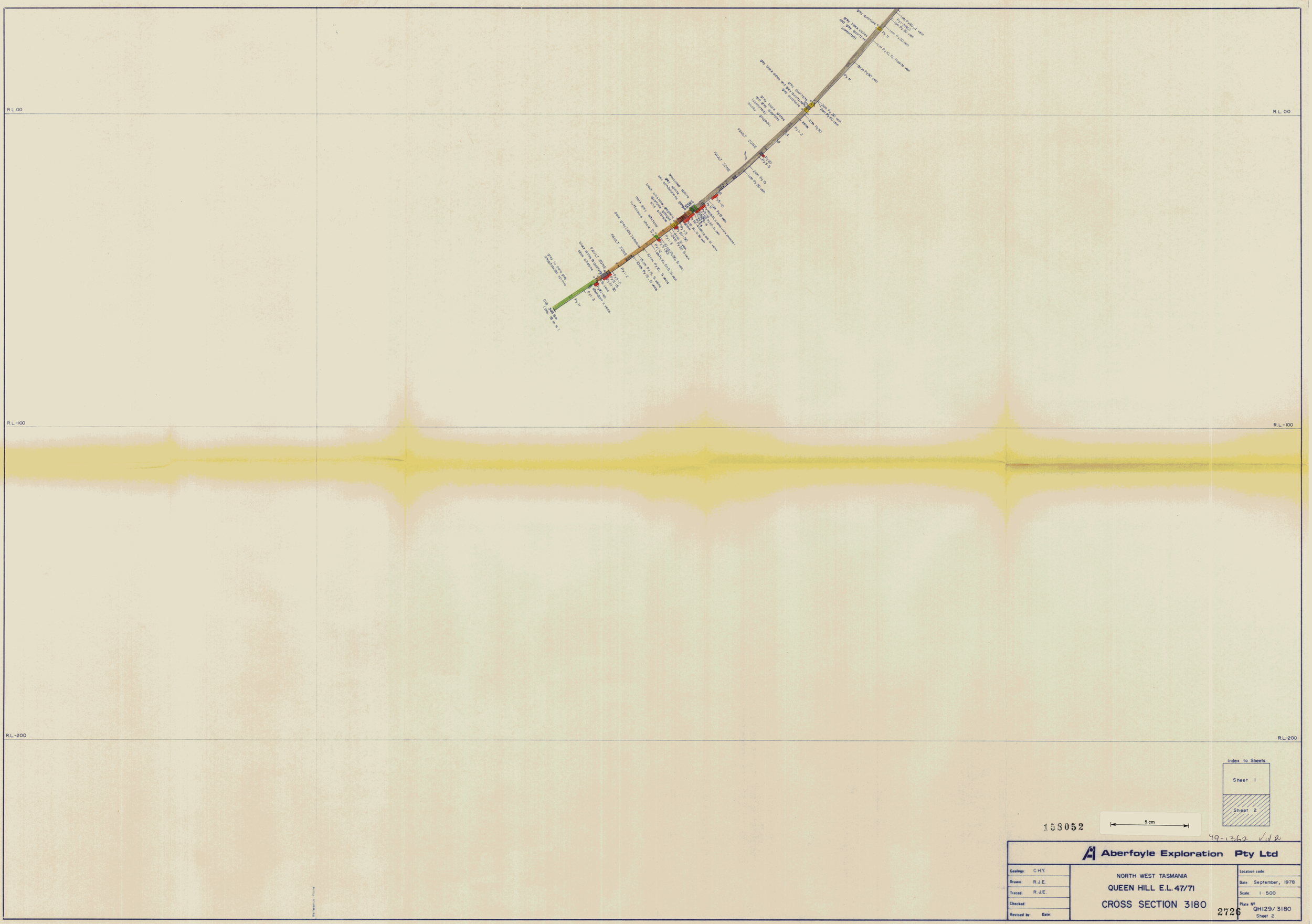
158050

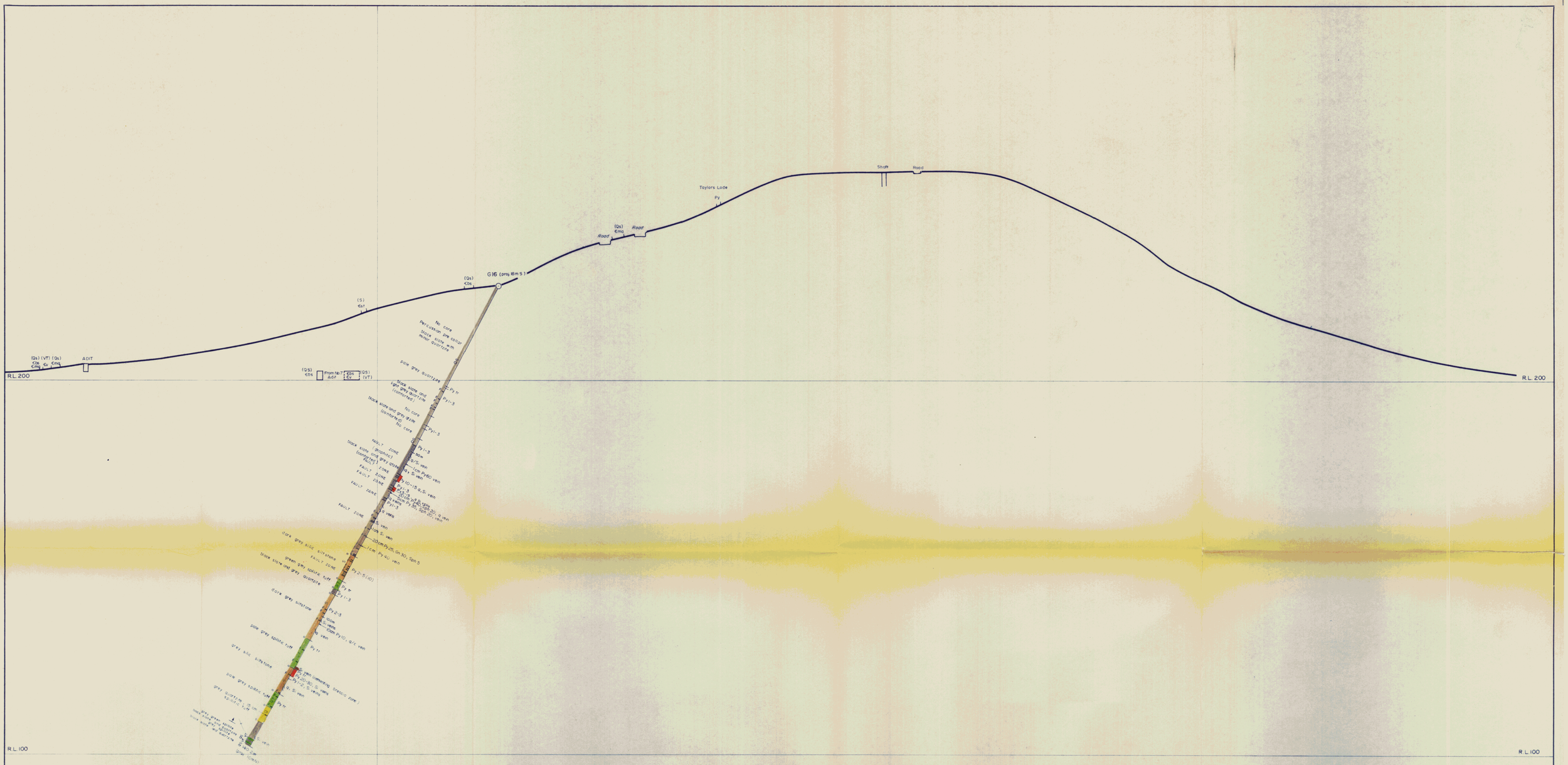
49-1362 Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978
Traced: R.J.E.	CROSS SECTION 3160	Scale: 1:500
Checked:	2724	Plate No. QH129/3160
Revised by: Date:		


Taylors Lode
Py
(QS,S) Cst Cbs
Road
101 Cst
Road
G13 (proj. 9.5m North)
G9 (proj. 8 m North)
G38 (proj. 1.5m N)
(proj. 4m N)
Placer DDH 10
(Approx. posn only)
R.L. 200
R.L. 100
(QS) Cbs
From Dunns Tunnel
From No. 6 Adit
From No. 6 Through to Dunns Tunnel No. 7 Adit
Dunns Tunnel (QS)
Dunns Tunnel (Near End)
G17 (proj. 12.5m N)
G18
(proj. 7.5m North)
FAULT ZONE
grey black slates and grey quartzites (contorted)
grey quartzite
black slate and grey quartzite (contorted)
Py tr
Py 1-2
Py 1-3
E ZONE
Py 3 veins
Py 10, Gn 3-5, Si veins
Py 3-5 (15) q veins
Q, breccia fill
Py 20 vein
Py 30 vein
Py 50 vein
Py 10, Gn 3, Si vein
Py 10, Gn 5, Si vein
Py 10, Si vein
Py 10, Si, fluorite vein
Py 5 vein
Py 10, Gn 3 vein
Py 10, Gn 5 vein
Py 10, Gn 10, Si vein
Py 10, Gn 10, Si, fluorite vein
Py 30, Gn 5, Si vein
Py 30, Gn 10, Si vein
Py 30, Gn 10, Si, fluorite vein
Py 50, Gn 5, Si vein
Py 50, Gn 10, Si vein
Py 50, Gn 10, Si, fluorite vein
Py 50, Gn 10, Si, fluorite, sph vein
Py 50, Gn 10, Si, sph vein
Py 50, Gn 10, sph vein
Py 50, Gn 5, Si, fluorite vein
Py 50, Gn 5, Si, sph vein
Py 50, Gn 5, sph vein
Py 50, Gn 10, Si, fluorite vein
Py 50, Gn 10, Si, sph vein
Py 50, Gn 10, sph vein
Py 50, Si vein
Py 50, Si, fluorite vein
Py 50, Si, sph vein
Py 50, sph vein
Py 50, Si, fluorite, sph vein
Py 50, Si, fluorite, sph vein
Py 50, Si, fluorite vein
Py 50, Si, sph vein
Py 50


R.L. 00
R.L. -100
R.L. -200
FAULT ZONE
Py 1-2
Py 1-7
Py 7
Py 5
Py 5-10
Py 10
Py 30
Py 1-30
Py 1-5
Py 5-10
Py 10-30
Py 30
Py 1-30 vein
Py 5-10 vein
Py 10-30 vein
Py 30 vein
Py 1-5 vein
Py 1-30 vein
Py 1-30 veinlets
Py 1-30 veinlets
Py 1-30 veinlets



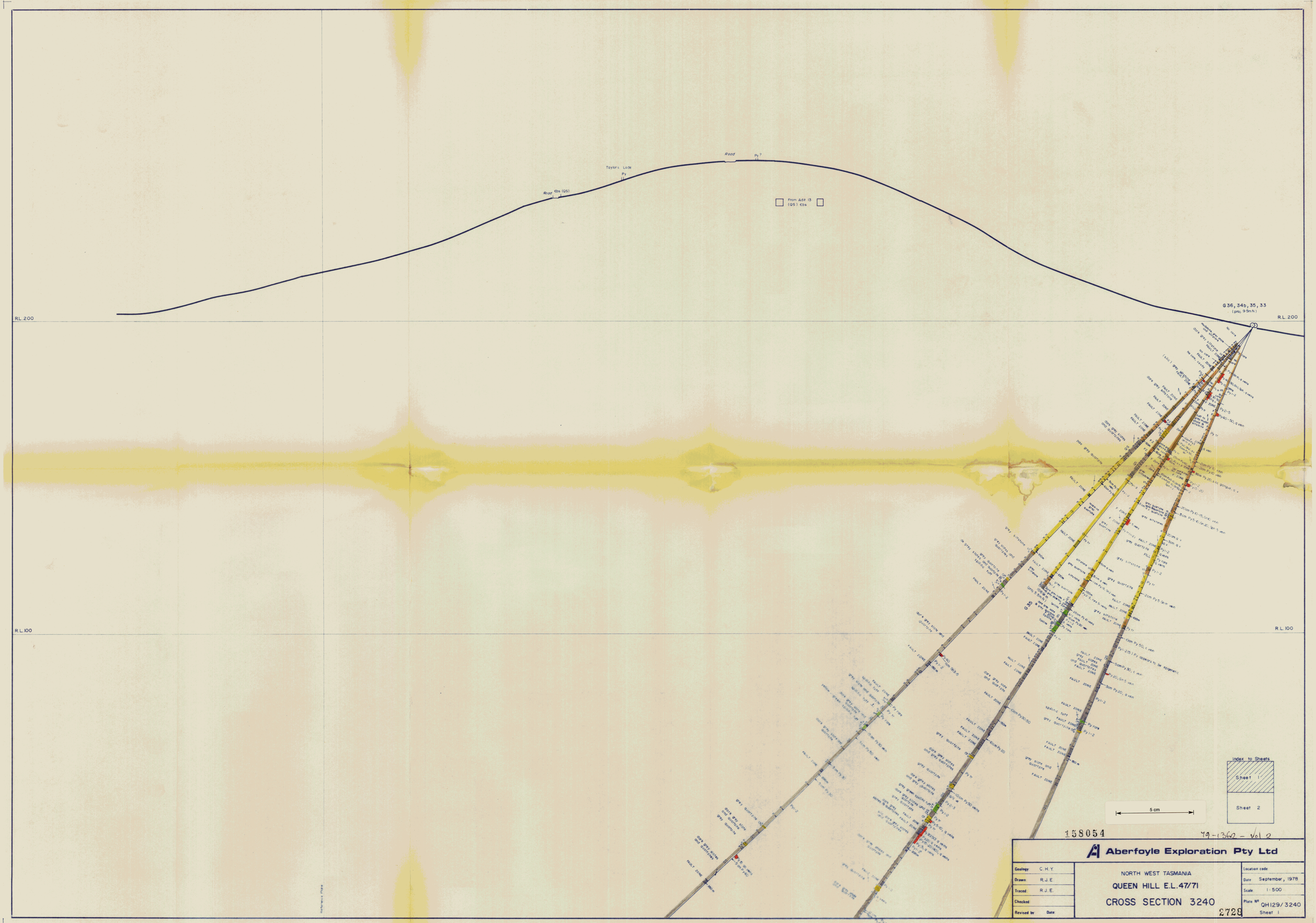
5 cm

158053

79-1362 - Vol 2

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: R.J.E.	CROSS SECTION 3200	Scale: 1:500
Checked:	2727	Plate No: QH129/3200
Revised by: Date:		



158054

79-1362 - Vol 2

Aberfoyle Exploration Pty Ltd

Geology	C. H. Y.	NORTH WEST TASMANIA	Location code
Drawn	R. J. E.	QUEEN HILL E.L. 47/71	Date September, 1978
Traced	R. J. E.	CROSS SECTION 3240	Scale 1:500
Checked			Plate No QH129/3240
Revised by	Date		Sheet 1

2728

R.L.00

R.L.-100

R.L.-200

Reference Plane

Index to Sheets

Sheet 1

Sheet 2

5 cm

158055 79-1362 Vol 2

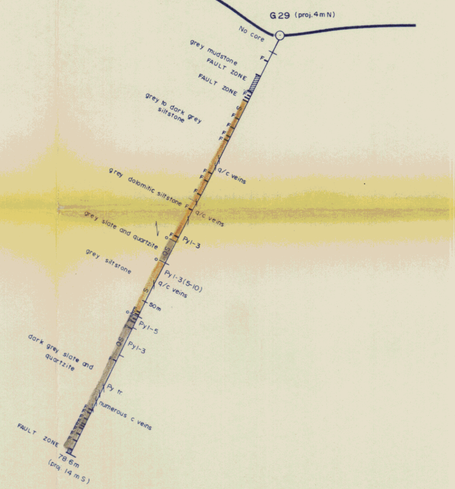
2729

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September, 1978
Traced: R.J.E.	CROSS SECTION 3240	Scale: 1:500
Checked:		Plate No. QH129/3240 Sheet 2
Revised by: Date:		

R.L. 200

R.L. 200



R.L. 100

R.L. 100

5 cm

158056

79-1362 Vol 2.

Aberfoyle Exploration Pty Ltd

Geology: C.H.Y.	NORTH WEST TASMANIA	Location code:
Drawn: A.E.R.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: A.E.R.	CROSS SECTION 3360	Scale: 1:500
Checked:	2730	Plate No: QH129/3360
Revised by: Date:		

Reference Plane

158057

OPEN FILE

VOLUME 3

PROGRESS REPORT

QUEEN HILL JOINT VENTURE

E.L. 47/71 TASMANIA

QUARTER JUNE 21, 1979

MICROFILMED

158058

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SOIL SAMPLING PROGRAMME	13
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GEOLOGICAL MAPPING	15
I.P. GEOPHYSICS	15
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QH 131 (In text)	Longitudinal Projection showing Inferred Ore Outlines	1:2500
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QH 134/00/12	Tin Geochemistry	1:2500
QH 134/00/00	Tin Geochemistry	1:2500
QH 134/80/00	Tin Geochemistry	1:2500
QH 134/80/12	Tin Geochemistry	1:2500
QH 135/00/12	Apparent Resistivity	1:2500
QH 135/80/12	Apparent Resistivity	1:2500
QH 136/00/12	Frequency Effect	1:2500
QH 136/80/12	Frequency Effect	1:2500

VOLUME 11

These preliminary plans, cross sections, level plans and longitudinal projections will be substantially modified subsequent to the proposed ore-reserve and exploration drilling programme.

QH 24/04/15	Underground Workings	1:500
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VOLUME 111

QH 137 (18 sheets)	Surface Outcrop Geology	1:500
QH 138	Geological Legend.	

---oOo---

360 000E | 050 E | 100 E | 150 E | 200 E | 250 E | 300 E | 350 E | 360 400E

536 750 N

700 N

650 N

600 N

550 N

536 1500 N

QUEEN No. 2 SHAFT

ZEEHAN CEMETRY

6v

60s

70

75

80

5 cm

96/17	00/17	04/17
96/15	00/15	04/15
96/12	00/12	04/12

158059

79-1362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R. J. E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY 2731	Scale: 1:500
Checked:		Plate No: QH137-00/15
Revised by: Date:		

360000E 050E 100E 150E 200E 250E 300E 350E 360400E

5362000N

950N

900N

850N

800N

5361750N

80 70 80 75 €Ds 85 60 80 €Ds 80 60 €Ds 90 40 €Ds 80 €Ds & €mq 70 €Ds

ADIT No.13

75 €Ds 60 €Ds €Ds €Ds 60 €v €v

€v €v €v €

360000E
050E
100E
150E
200E
250E
300E
350E
360400E

5362250N

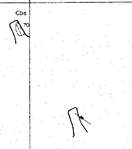
200N

150N

100N

050N

5362000N



96/22	50/72	04/22
96/21	51/20	04/20
95/17	05/17	04/17

5 cm

158061 79-1962 V013

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E	QUEEN HILL E.L 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2733	Plate No QH 137-00/20
Revised by: Date:		

360 400 E | 450 E | 500 E | 550 E | 600 E | 650 E | 700 E | 750 E | 360 800 E

5361250 N

200 N

150 N

100 N

50 N

5361000 N

Argent No. 4
Shaft

5 cm

00/12	04/12	08/12
00/10	04/10	08/10
00/08	04/08	08/08

index to adjoining sheets

158062

49-1362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code K55/5/50
Drawn	QUEEN HILL E.L. 47/71	Date September 1978
Traced	SURFACE OUTCROP GEOLOGY	Scale 1:500
Checked	2734	Plate No QH137-04/10
Revised by Date		

360400 E 450 E 500 E 550 E 600 E 650 E 700 E 750 E 360800 E

5361500 N

450 N

400 N

350 N

300 N

5361250 N

265 260 255 250 245 240 235 230 225 220 215 210 205 200 195 190

Qal Qbs

Sideritic lode

white crystalline qtz

Fe S2 siderite may be in situ.

Air shaft

G21

5 cm

00/15	04/15	08/15
00/12	04/12	08/12
00/10	04/10	08/10

Index to adjoining sheets

158063

79-1362 R018

Aberfoyle Exploration Pty Ltd

Geology	
Drawn: RKY	
Traced	
Checked	
Revised by: Date:	

NORTH WEST TASMANIA

QUEEN HILL E.L. 47/71

SURFACE OUTCROP GEOLOGY

2735

Location code: K55/5/50	
Date: August 1978	
Scale: 1:500	
Plate No: QH137-04/12	

QUEEN NO.4
MAIN SHAFT

WARD AND FAIRFIELDS

No 1

No 9

Lode

Clarkes

Reference Plane

DDH G7
G8

DDH G14

DDH G10

DDH G25

G26
G22

G4,3

No.3 Adit

Collapsed

Collapsed Slope
Dips 55RE

75° minor folds

60° minor folding

OPEN CUT

Cbs, much Qv

Overgrown

ADIT No.29

COSTEAN

Numerous minor

DAM

Cbs bleached

c/f Cbs

Cbs & Cmq

Cmq & Cst

Cst & Cbs

Cqt minor Cbs

Cbs, bleached

Cbs & Cst

Py in Cbs

Cqt

Cv

Index to adjoining sheets

00/17	04/17	08/17
00/15	04/15	08/15
00/12	04/12	08/12

5 cm

158064

79-1362 1/213

Aberfoyle Exploration Pty Ltd

Geology	
Drawn A E R	
Traced	
Checked	
Revised by Date	

NORTH WEST TASMANIA

QUEEN HILL E.L. 47/71

SURFACE OUTCROP GEOLOGY

2736

Location code	
Date August 1978	
Scale 1:500	
Plate No	QH137/04/15

360400E 450E 500E 550E 600E 650E 700E 750E 360800E

5362000N 950N 900N 850N 800N 5361750N

No.7 Dunns Tunnel

Reference Plane 3240 3200 3180 3160 3140 3120 3100 3080 3060 3040

Placer DDH (Approx.)

Clutha 09 (Approx.)

OLD MILL

SHED

No 6 ROAD ADIT

DUNKLEYS No.5

OLD MILL SITE (approx.)

CLARKS No 4 ADIT

No.8

No.2

TO TRIAL HARBOUR

Dunkleys Lode

Taylors Lode

Section 3600

DDH G16 (-80°)

DDH G 38 (-86°)

DDH G9 (-80°)

G31 (-90°)

G30 (-55°)

G32 (-90°)

DDH G 24 (-60°)

DDH 23

DDH G11 (-68°) G12 (-63°)

DDH G6 (-72°) G7 (-85°)

G1, G2 (-63°/61-67°)

Collapsed Adit Portal

OPEN CUT

Cbs bleached

Cbs B Cmq

Cbs B Cst

Cst B Cmq

Cmq B Cst

Cv

Cv1 Chert bedded (D) massive minor (D) Cbs

Cbs (D) veins

Cbs (D) in Cbs

Cbs B Qv

Cbs B Cst stringers

Cbs B Cmq stringers

Logging stops in Cmq

Bleached Cbs with Qv

Cbs B Cst in cm Cbs

Cbs (D) clots

Cbs B Q

Cbs B Cst

Cbs B Cmq

Cbs B Cst B Cmq

Cbs B Cst B Cmq

Cbs B Cst

360 400E | 450E | 500E | 550E | 600E | 650E | 700E | 750E | 360800E

5362250N

200N

150N

100N

050N

5362000N

Cbs grey chert band

Cbs B Cst

Cbs

Cbs B Cvt

Cbs B Cmq

Cv

pyritic shales

Cst

Cbs B Cst

Reference Plane

ROAD

HARBOUR

TRIAL

3360

190

195

200

061

161

205

012

212

220

225

5 cm

00/22	04/22	08/22
00/20	04/20	08/20
00/17	04/17	08/17

Index to adjoining sheets

158066

49-1362 No 3

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code: K55/5/50
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2708	Plate No QH 137-04/20
Revised by: Date:		

QUEEN No.5 Shaft

ADIT No. 26

5 cm

00/25	04/25	08/25
00/22	04/22	08/22
00/20	04/20	08/20

158067

79-1362 V018

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:		Scale: 1:500
Checked:	SURFACE OUTCROP GEOLOGY	Plate No: QH137-04/22
Revised by: Date:	2709	

360400E 450E 500E 550E 600E 650E 700E 750E 360800E

5362750N

700 N

650 N

600 N

550 N

5362500 N

Inclined Shaft

Graphic €bs minor brecciated chert

ADIT caved in

€bs minor grey cherts

Cut & €qt

ADIT No 27

FAULT Channel 6"-10" wide

ADIT No 28

2200

2205

2220

2225

5 cm

00/27	04/27	08/27
00/25	04/25	08/25
00/22	04/22	08/22

158068

79-1362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:		Scale: 1:500
Checked:	SURFACE OUTCROP GEOLOGY	Plate No: QH 137-04/25
Revised by: Date:	2740	

360 800 E
850 E
900 E
950 E
361000E
050 E
100 E
150 E
361200E

5361500N

450 N

400 N

350 N

300N

5361250 N

G42

185

Ebs 65 60 80 60

Ebs 70 100 60

Ebs

70 Ebs

5 cm

04/15	08/15	12/15
04/12	08/12	12/12
04/10	08/10	12/10

Index to adjoining sheets

158069

79-1362 V613

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code: K55/5/50
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: September 1978
Traced: R.J.E.	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2741	Plate No: QH 137 - 08/12
Revised by: Date:		

360 800E 850 E 900E 950 E 361000E 050 E 100 E 150E 361200E

536175 0N 536175 0N

700 N 700 N

650N 650N

600N 600N

550N 550N

536 1500N 536 1500N

Clutha 08 (Approx.)

Adit No.19

Py veins

Py veins

Py in fault

ADIT No. 25

ADIT No. 15

Caldopened Shaft

Cbs

Cbs (py)

Cbs & Cst

Cvt

Cst

FOWLER ST.

SEVERN ST.

QUEEN ST.

TRENT ST.

LANE

G39

G40

G41

G43

389.5m

385.2m

364.2m

335.3m

275 270 265 260 255 250 245 240 235 230 225 220 215 210 205 200 195 190 185 180

04/17	08/17	12/17
04/15	08/15	12/15
04/12	08/12	12/12

5 cm

158070

79-1362

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code: K55/5/50
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2742	Plate No: QH 137-08/15
Revised by: Date:		

360800E 850E 900E 950E 361000E 050E 100E 150E 361200E

5362000N

950N

900N

850N

800N

5361750N

DDH GI3 (-59°)

DDH G15 (-60°)

DDH G28 (-69°)

DDH G18 (-59°)

DDH G17 (-52.5°)

DDH G33 (-66°)
DDH G35 (-68°)
G34B (-57°)
G36 (-45°)

G29 (-80°)

ADIT No.13

ADIT No.14

ADIT No.20

Start W1

0.6m wide Py massive in fault zug

PAYNE'S OPEN CUT

CENTRAL DR

LANE

MAIN ST

LANE

ST

FOWLER

STOPS ST

Eqt

Eds & Est

Edt

Edu

Est & Eqt

Evt & Est

Ev

Evt

Edt & Evt

Edt & Ev

Edt & Est

Edt & Py

Py

Est & Py

Edt & Py

360 800 E | 850 E | 900 E | 950 E | 361 000 E | 050 E | 100 E | 150 E | 361 200 E

5362250 N

200 N

150 N

100 N

050 N

5362000 N

Silver Lead Creek

Bridge

DEE ST

DDH G19

DDH 20

DDH G27

Montana No. 2 Shaft

PORTAL Caved in

ADIT No 23

ADIT Collapsed

Collapsed Pit

ADIT No 22

ADIT No 21

ADIT No 16

ADIT No 12

Overgrown ADIT No. 17

ADIT Caved in

Lode worked out in cuts

Crosscourse coincident with bedding

3' wide fault plane dry

At least 2' wide lode

Lode channel 3' wide

beds dry

ADIT blocked

wide F

225 220 215 210 205 200 195 190 185 180 175 170 165 160 155 150

5 cm

Index to adjoining sheets

04/22	08/22	
04/20	08/20	
04/17	08/17	

158072

79-13362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code: K55/5/50
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:		Plate No: QH137-08/20
Revised by: Date:	2754	

MONTANA No.2

PLANT DAM

MILL SITE

MILL SITE

CORINNA ROAD

ADIT No. 24

ADIT Blocked

FAULT ZONE

2200 2205 2210 2215 2220 2225 2230 2235 2240 2245

360800 E 850 E 900 E 950 E 361000 E 050 E 100 E 150 E 361200 E

5362500 N 450 N 400 N 350 N 300 N 5362250 N

04/25	08/25	12/25
04/22	08/22	12/22
04/20	08/20	12/20

5 cm

158073

79-1368 Vol 3.

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L 47/71	Date: February, 1979
Traced:		Scale: 1:500
Checked:	SURFACE OUTCROP GEOLOGY	Plate No:
Revised by: Date:	2745	OH137-08/22

360800 E
850 E
900 E
950 E
361000 E
050 E
100 E
150 E
361200 E
5362750N
700 N
650 N
600N
550 N
5362500N

75 / 70 Ebs

70 Ebs some brecciated chert bands

RISE FROM ADIT LEVEL

Ebs

DRIVE in 100'

60 Ebs

SHAFT 76' Deep

Leached Ebs 70 80

Leached Ebs B Emq 60 60 Eqt

Eqt 65 80

Leached Ebs B Emq 50 70

Leached Ebs B Emq 60 65

Leached Ebs

70 80 Ebs B Emq

Ebs

70 70 Ebs

Ebs 50 65

Eqt 70 68 Ebs 85

Ebs B Eqt 80

75 75 80 Ebs 80

Ebs B Est 80 45 Ev Ev

MONTANA No. 1 MINE

Eqt 70 75 3" wide fault channel Ev

Angular blocks of Grey Quartzite strewn over surface some A.sau.

2120 2215 2220 2225 2230 2235 2220 2210 2205 2200 2195 2220

5 cm

158074 79-1362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology	NORTH WEST TASMANIA	Location code:
Drawn: R J E	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2746	Plate No: QH137-08/25
Revised by: Date		

361200E 250E 300E 350E 400E 450E 500E 550E 361600E

5362500N

450N

400N

350N

300N

5362250N

Soft red gossanous clay

Soft red gossanous clay

ADIT caved in

ADIT caved in

ADIT caved in

Soft red gossanous clay

Soft red gossanous clay

Cos

2240 2235 2230 2225 2220 2215 2210 2205 2200 2195 2190 2185 2180

08/25	12/25	16/25
08/22	12/22	16/22
08/20	12/20	16/20

5 cm

158075

Y9-1362 Vol 3

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:	SURFACE OUTCROP GEOLOGY	Scale: 1:500
Checked:	2747	Plate No QH 137-12/22
Revised by: Date:		

08/27	12/27	16/27
08/25	12/25	16/25
08/22	12/22	16/22

5 cm

158076

49-1362 Vol2

Aberfoyle Exploration Pty Ltd

Geology:	NORTH WEST TASMANIA	Location code:
Drawn: R.J.E.	QUEEN HILL E.L. 47/71	Date: February, 1979
Traced:		Scale: 1:500
Checked:	SURFACE OUTCROP GEOLOGY	Plate No QH 137-12/25
Revised by: Date:		

2743

SURFACE GEOLOGY REFERENCE

Derwent Colour Pencil No.		
3	€qt	Massive light grey - buff quartzite
70	€mq	Flaggy micaceous quartzites in thin (< ½") beds
57	€st	Siltstones, carbonaceous in part
68	€bs	Black shales and slates
		} locally tuffaceous
	€vt	Spilitic tuff
47	€va	Spilitic agglomerate
	€v	Spilitic lavas

py — Quartz pyrite, massive pyrite lodes

(py) — Bedded, disseminated, stringers, veins and clots

Outcrop boundary

Fault (F)

Strike and dip

Schistosity with dip

Joint with dip

Minor folding showing plunge and trend

Fold axis showing plunge and trend

Diamond drill hole, collar location accurate

Diamond drill hole, collar location not accurate

Shaft

Pits or trenches

Adits

2200 — Topographical contours and interval

Road

Cleared area

DRILL HOLE REFERENCE

	Q	Massive quartzite
	Qs	Thinly bedded quartzites / shales and slates
	S	Siltstones (calcareous)
	Ts	Tuffaceous shale
	Vt	Spillitic tuff
	Vb	Spillitic lava
63	Sd	Siderite
12		Py ≥ 5% as veins
20		Py heavily disseminated to massive ≥ 10%
21		Po with or without Py, dissem to massive
22		Gn and/or Sph and/or Stn with or without Py as veins

ALTERATION

Sericite rich, locally sereotic	ser (ser)
Chlorite rich, locally chloritic	chlor (chlor)
Carbonate rich, locally carbonated	carb (carb)
Silicified, locally silicified	silic (silic)
Vesicular, amygdaloidal	vesic
Probable original character	siliceous
Bedding	
Cleavage, foliation	
Fault, unmeasured orientation	
Fault, measured orientation	
Fault Zone, unmeasured orientation	
Fault Zone, measured orientation	

Drill hole trace

Py 5(50)	Pyrite 5%, locally 50%
Py 5-10	Pyrite 5-10%
Gn 2	Galena 2%
Sph 5	Sphalerite 5%
Cpy 15	Chalcopyrite 15%
Ba 5	Barite 5%
q vein	quartz vein
c vein	carbonate vein

ROCK TYPES illustrated by code and colour on left side of drill hole plots

Contact shown thus

Internal variations shown

1:500 SURFACE GEOLOGY INDEX TO SHEETS

360000E

	04/25	08/25	12/25
	04/22	08/22	12/22
00/20	04/20	08/20	
00/17	04/17	08/17	
00/15	04/15	08/15	
	04/12	08/12	
	04/10		

5361000N

5 cm

Geology traced from early Cominco drawings 7A-H dated March, 1972

Topography was traced from enlarged 1:1000 sheets supplied by Renison Ltd

Geological data has been traced on a "best fit" basis

2749

158077

Aberfoyle Exploration Pty Ltd

79-1362 Vol 3.

Geology:	NORTH WEST TASMANIA	Location code
Drawn: R.J.E.	QUEEN HILL	Date: February, 1979
Traced:	Geological Legend	Scale:
Checked:	To accompany 1:500 Surface Geology & Cross Sections	Plate No: QH 138
Revised by: Date:		