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13.6.89

EXPLORATION LICENCE 89/87

BACK PEAK

TASMANIA

REPORT ON EXPLORATION ACTIVITY

12 MONTHS TO 10TH APRIL, 1989

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1. SUMMARY

This report summaries the exploration activity on E.L. 89/87 (Back Peak) conducted by Aberfoyle Resources Limited for the 12 months to 10th April, 1989.

During the summer field season from January to March 1989, gridding followed by geological mapping, rock chip and soil geochemistry was conducted northeast of Ten Mile Creek.

Regional mapping and stream sediment sampling was also undertaken in the southeastern catchment of the Vale River between Ten Mile Creek and Tumbling Creek, and off the Cradle Mountain Link Road at Etchells Creek.

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2. INTRODUCTION

Exploration Licence 89/87 (Back Peak) of 31 square kilometres is situated essentially southeast of the Cradle Mountain Link Road in the Vale of Belvoir region and west of Pencil Pine. The licence is comprised of Parts 1 and 2 of 19 and 12 kilometres respectively (see plate BP 15)

The majority of Part 1 is rugged and heavily forested with the only road access being to the northeast on the Cradle Mountain Link Road. Part 2 is serviced by a number of 4WD and walking tracks and is dominated by typically alpine button grass and scrub.

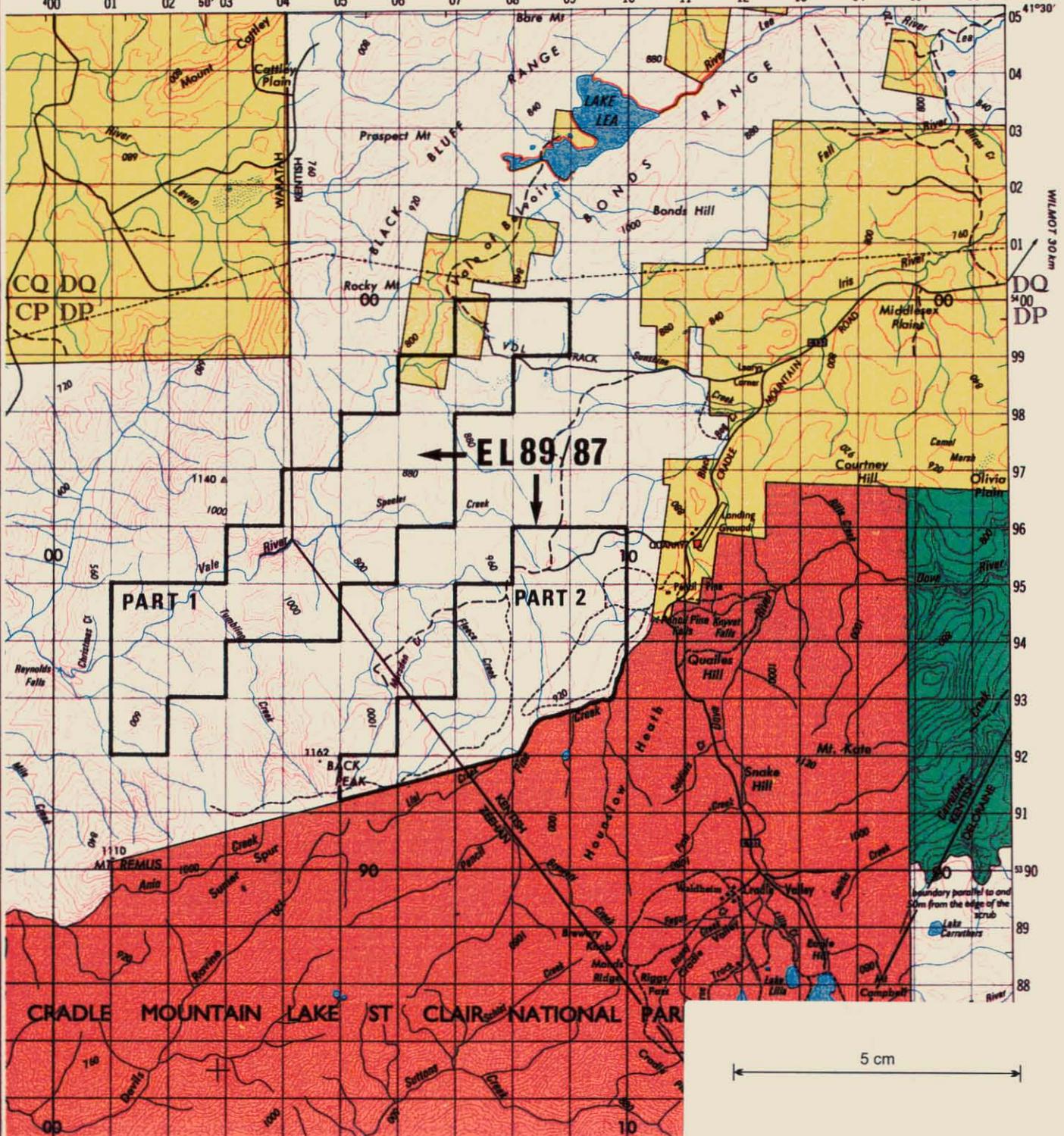
Exploration activity for the most part was conducted in the southwestern portion of Part 1 on an extension of the Ten Mile Creek grid from E.L. 24/84 (Mount Romulus). All exploration work in this region was helicopter supported. The remaining work was also conducted in Part 1, in the Vale of Belvoir - Etchells Creek region accessed from the Cradle Mountain Link Road.

Since the 28th April, 1988, the area has been explored by Aberfoyle Resources Limited under the terms of the Mount Read Volcanics Joint Venture with CRA Exploration Pty. Ltd.

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CQ DQ



0 5 Kilometres

Aberfoyle Resources Limited

EXPLORATION DIVISION

NORTH WEST TASMANIA

BACK PEAK E.L. 89/87 CRA J.V.

LOCALITY MAP

Compiled :

Drawn : Dept. Lands

Traced :

Checked :

Plate No. : BP 15

REVISIONS

Init.	Date	Init.	Date

Location Code :

Scale : 1 : 100,000

Date : May, 1989

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3. EXPLORATION HISTORY

With the exception of regional stream sediment sampling and airborne geophysics, exploration in the Back Peak region since 1969 has been limited to the area between Parts 1 and 2 of E.L. 89/87 in ground now held by Billiton Australia as E.L. 90/87. The only exploration conducted within E.L. 89/87 is described as follows:

3.1 Paringa Mining & Exploration Co. Ltd. (1969-1971)

Stream sediment sampling program in the region north of the Cradle Mountain - Lake St. Clair National Park. No significant base metal anomalies generated. No Au assays undertaken.

3.2 Cominco Exploration (1971-1978)

Continuation of regional stream sediment sampling (no Au assays). No significant base metal anomalies generated.

Airborne EM (HEM 400) and magnetics in 1972 over Mackintosh-Back Peak region. No geophysical targets generated in E.L. 89/87.

3.3 Geopeko (1979-1983)

Regional mapping and stream sediment sampling program in 1979. No anomalies detected in E.L. 89/87. Only every 4th stream sediment sample assayed for Au.

Helicopter borne DIGHEM in the Mackintosh east region. No obvious strong conductors.

3.4 CRA Exploration Limited (1987)

Limited stream sediment sampling (4 samples). No anomalies generated.

4. REGIONAL GEOLOGY

The oldest rocks in the E.L. are Precambrian in age and appear in the southeast portion of the E.L. They consist of laminated to massive quartzites, pelitic sediments and mica schists which may be strongly deformed and metamorphosed to greenschist facies.

The western margin of the Precambrian is unconformably overlain by the Cambrian sequence of fine grained crystal tuffs, interbedded vitric tuffs, tuffaceous siltstones, cherts and porphyritic lavas of essentially rhyolitic composition, referred to as the Back Peak Beds (Vicary & Pemberton, 1988).

This pyroclastic unit is structurally overlain to the west by a coarse-grained, quartz-feldspar-biotite porphyry thought to a synvolcanic intrusive of Cambrian age known as the Bond Range Porphyry.

Dykes of similar composition to Bond Range Porphyry intrude the Cambrian pyroclastics and Precambrian sediments to the east in thin belts trending parallel to the northeast-southwest contact between the Back Peak Beds and the Bond Range Porphyry.

Unconformably overlying the Bond Range Porphyry to the west is a sequence of Cambro-Ordovician siliclastics ranging from coarse-grained sandstone to siliceous conglomerate. Local variations in grain size and composition are present throughout the sequence.

Tertiary basalt flows appear as flat lying units in the northeast of the E.L.

Quaternary alluvium appears in isolated areas throughout the E.L..

5. EXPLORATION ACTIVITY 1988-89

5.1 Ten Mile Creek Grid

5.1.1 Introduction

Exploration on the Ten Mile Creek Prospect by CRA Exploration and later Aberfoyle Resources in E.L. 24/84 (Mount Romulus) indicated a gold anomalous haematite stockwork within the Bond Range Porphyry to be extending into the southwest corner of Part 1, E.L. 89/87.

Extension of the Ten Mile Creek grid followed by geological mapping, rock chip and soil sampling was conducted by Aberfoyle in the 1988-89 summer field season over a possible extension of the haematized volcanics.

5.1.2 Geology (Refer plates BP 7A, 7B, 11A and 11B)

The geology over the extension of the Ten Mile Creek grid is dominated by a thick (2000-3000m) porphyritic rhyolite of Cambrian age unconformably overlain to the east of Cambro-Ordovician siliclastics.

The porphyritic rhyolite, known as the Bond Range Porphyry outcrops as a northeast-southwest trending unit of most likely intrusive origin. In hand specimen it appears as a pink brown quartz-feldspar-biotite porphyritic rhyolite with quartz and plagioclase phenocrysts ranging up to approximately 1cm in diameter in a quartz, plagioclase and K-feldspar matrix with occasional magnetite disseminations. In most cases the biotite and plagioclase exhibit moderate to strong alteration.

The Cambro-Ordovician siliclastics occur as two discrete units most likely from the Upper and Middle Owen Conglomerate sequence. The older unit of the two consists of a coarse-grained pebble conglomerate with minor pink to red chert clasts, a correlate of the Middle Owen Conglomerate. Conformably overlying the conglomerate is a medium to coarse-grained, grey quartz sandstone with occasional silt interbeds. An outcrop of calcareous siltstone breccia sampled from a creek bed northeast of the grid is most likely a local variation of this unit.

5.1.3 Alteration

Argillic alteration of the plagioclase phenocrysts and groundmass occurs throughout the porphyry. Biotite phenocrysts may be altered to chlorite-illite, muscovite-sericite or limonitic pseudomorphs with chlorite-illite being most common.

A northeast-southwest trending zone of chlorite/haematite alteration occurs as a halo to the specular haematite stockwork mineralisation.

Patchy haematite alteration of the groundmass occurs as a result of martitized magnetite disseminations.

5.1.4 Mineralisation

Specular haematite occurs as irregular branched stockwork and vein systems. Vein thicknesses range up to 5mm in places. Although the stockwork appears to weaken as it trends northeast, float samples taken from a creek almost 1km away indicates the mineralisation persists further northeast of its last known outcrop position.

No other mineralisation was detected from within the Cambrian porphyry or overlying sediments.

5.1.5 Geochemistry

5.1.5.1 Soils (Refer plates BP 12B, 13B and 14B)

A total of 50 'C' horizon soil samples were taken with a hand operated power auger. All samples were assayed for Cu, Pb, Zn, Au, Ag, As and Fe.

Weak to moderate Cu, Pb and Au anomalies occur on lines 11000N and 11200N.

On line 11000N a maximum of 0.068 ppm Au appears to be related to strong pervasive chlorite alteration of the Cambrian porphyry at approximately 10480E. This is also reflected in the high Fe value of 9.10%. A moderate Cu/Zn anomaly immediately downslope of the Au anomaly is most likely a result of geochemical dispersion.

On line 11200N both Au anomalies 0.052 and 0.152 do not appear to be related to any haematite/chlorite alteration or stockworks. A moderate Cu/Zn anomaly (max. 535/120 ppm) is related to a zone of haematite stockwork at approximately 10530E, which is also reflected by an elevation in Fe (max. 6.60%).

In summation it would appear that the haematite stockwork and its surrounding halo of pervasive haematite/chlorite alteration is anomalous in Cu and Zn and to a lesser extent Au.

5.1.5.2 Rock Chips

A total of 3 rock chips were submitted for analysis for Cu, Pb, Zn, Au, Ag, As and Fe. None appeared anomalous for these elements.

5.2 Vale River Drainage

5.2.1 Introduction

Regional mapping and stream sediment sampling was conducted in the southeast drainage of the Vale River between Ten Mile Creek and Tumbling Creek. A total of 6 -80 mesh and 1 BCL sample were taken and analysed for Cu, Pb, Zn, Au, Ag, As Ba and Fe.

5.2.2 Geology (Refer plates 7A, 7B, 11A and 11B)

Lithologies mapped during creek traverses were consistent with those mapped on the extension of the Ten Mile Creek grid with only local variations in the Cambro-Ordovician siliclastics. No haematite stockwork was detected except in a creek float sample in the vicinity of stream sediment sample numbers 431618/619.

5.2.3 Geochemistry

5.2.3.1 Stream Sediments (Refer plates BP 5A and 8A)

Only two of the 6 -80 mesh samples were anomalous. Sample number 431613 with 140 ppm Cu, 85 ppm Pb and 295 ppm Zn, appears to be related to the haematite chlorite alteration mapped on line 11000N. Sample number 431618 with 220 ppm Cu and 290 ppm Zn may be related to haematite stockwork found in creek float nearby.

The result of 950 ppt for the BCL sample is regarded as well below anomalous.

5.3 Vale of Belvoir-Cradle Mountain Link Road

5.3.1 Introduction

Limited mapping and stream sediment sampling was conducted in the area. A total of 3 -80 mesh and 1 BCL sample were taken and analysed for Cu, Pb, Zn, Ag, Au, As, Ba and Fe.

5.3.2 Geology (Refer plates BP 9B and 10B)

Geology in both creeks traversed is entirely consistent with mapping by the Mines Department, (Vicary & Pemberton, 1988). The same Cambro-Ordovician siliclastic units unconformably overly the Cambrian Bond Range Porphyry as mapped on the Ten Mile Creek grid.

5.3.3 Geochemistry (Refer plates BP 5B and 8B)

5.3.3.1 Stream Sediments

None of the samples taken were considered anomalous.

6. CONCLUSIONS

1. Moderate Cu/Zn/Au soil anomalies from the Ten Mile Creek grid appear related to the haematite stockwork and its pervasive chlorite/haematite alteration halo.
2. Weak Cu/Zn stream sediment anomalies in the -80 mesh fraction taken from streams southeast of the Vale River may be related to a northeast extension of the Ten Mile Creek haematite stockwork.
3. Moderate Au soil anomalies generated from outside the zones of haematite stockwork are of unknown origin.
4. Limited stream sediment sampling in the Vale of Belvoir-Cradle Mountain Link Road area, although disappointing, has not sufficiently tested the possibility of Au anomalous haematite stockwork in the area.

7. RECOMMENDATIONS

1. The moderate Au soil anomalies (max. 0.152 ppm) of unknown source should be followed up by further bedrock sampling. Small hand-dug trenches would be sufficient to obtain both a good bedrock sample and give an indication of any alteration or mineralisation.
2. Examination of Airborne E.M., Magnetics and DIGHEM data should be undertaken to outline areas for future on-ground investigation. Any prospective geophysical targets should be followed up by creek traverse mapping and sampling.
3. Further stream sediment sampling should be undertaken in the Vale of Belvoir-Cradle Mountain Link Road area to outline possible occurrences of Au anomalous haematite stockworks.

8. REFERENCES

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1970-1971

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Map 7. Geology of the Back Peak-Cradle Mountain Link Road Area

Mount Read Volcanics Project 1:25,000

Geological Survey of Tasmania - Department of Mines, Hobart

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APPENDIX A1

ASSAY RESULTS - SOILS

ANALABS

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Fe		
----------	------------	----	----	----	----	----	----	----	--	--

LINK 10000N

4	516016	370	25	115	<0.5	<0.008	3	5.65		
5	516017	20	20	100	<0.5	<0.008	2	3.80		
6	516018	20	25	100	<0.5	<0.008	2	3.40		
7	516019	15	25	70	<0.5	<0.008	3	3.35		

LINK 11000J

20	516035	130	155	75	0.5	<0.008	7	4.15		
21	516036	55	25	190	<0.5	<0.008	2	6.30		
22	516037	630	60	110	0.5	<0.008	3	4.00		
23	516038	135	20	185	<0.5	<0.008	4	5.20		
24	516039	55	20	140	<0.5	<0.008	2	3.90		
25	516040	260	240	210	<0.5	<0.008	7	7.60		

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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ANALYTICAL DATA

SAMPLE PREFIX

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REPORT DATE

CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE		CLIENT ORDER No.		PAGE	
		23.3.08.06151				11/05/89		7515		14 OF 15	
BE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Fe			
1	516041	495	15	170	<0.5	0.068	2	9.10			
2	516042	165	15	130	<0.5	<0.008	1	5.35			
3	516043	75	5	135	<0.5	<0.008	2	4.85			
4	516044	100	10	100	<0.5	<0.008	3	4.40			
5	516045	15	15	115	<0.5	<0.008	4	4.05			
6	516046	15	<5	125	<0.5	<0.008	3	4.05			

LINE 11200N

14	516062	45	30	65	<0.5	<0.008	3	3.65		
15	516063	25	20	30	<0.5	<0.008	1	1.25		
16	516064	10	20	15	<0.5	<0.008	<1	0.39		
17	516065	10	10	15	<0.5	<0.008	1	0.33		
18	516066	10	5	15	0.5	<0.008	<1	0.27		
19	516067	10	10	20	<0.5	<0.008	<1	0.29		
20	516068	10	75	15	<0.5	<0.008	1	0.45		
21	516069	130	20	70	<0.5	<0.008	2	3.80		
22	516070	245	10	110	<0.5	<0.008	4	5.15		
23	516071	170	20	70	<0.5	0.052	3	4.40		
24	516072	75	20	80	<0.5	<0.008	3	3.95		
25	516073	105	25	115	<0.5	<0.008	3	4.10		

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

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TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Fe		
1	516074	65	20	60	<0.5	<0.008	2	3.05		
2	516075	305	20	65	<0.5	<0.008	3	5.00		
3	516076	35	20	160	<0.5	<0.008	2	5.45		
4	516077	535	15	120	<0.5	<0.008	1	4.70		
5	516078	320	20	70	<0.5	<0.008	4	6.60		
6	516079	130	15	85	<0.5	<0.008	2	4.35		
7	516080	110	10	130	<0.5	<0.008	2	4.30		
8	516081	90	15	105	<0.5	<0.008	3	5.80		
9	516082	85	20	120	<0.5	<0.008	2	4.95		
10	516083	45	20	45	<0.5	<0.008	1	3.20		
11	516084	75	15	60	<0.5	<0.008	2	3.85		
12	516085	55	15	45	<0.5	0.152	1	2.70		
13	516086	110	10	105	<0.5	<0.008	<1	3.25		
14	516087	95	20	55	<0.5	<0.008	2	3.35		
15	516088	60	20	70	<0.5	<0.008	2	3.90		
16	516089	65	20	135	<0.5	<0.008	4	3.95		
17	516090	35	20	95	<0.5	<0.008	3	3.70		
18	516091	15	15	80	<0.5	<0.008	1	3.45		
19	516092	15	20	70	<0.5	<0.008	3	3.30		
20	516093	15	15	85	<0.5	<0.008	1	3.75		
21	516094	10	<5	125	<0.5	<0.008	1	3.15		
22	516095	15	40	95	<0.5	<0.008	2	3.25		
23	DETECTION	5	5	5	0.5	0.008	1	0.05		
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	%		
25	METHOD	101	101	101	101	309	114	101		

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 -- = element not determined

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APPENDIX A2

ASSAY RESULTS - ROCK CHIPS

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ANALYTICAL DATA

SAMPLE PREFIX

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1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As	Fe
1	431540	25	45	70	<0.5	<0.008	210	6	1.70
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	5	5	5	0.5	0.008	10	1	0.05
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%
25	METHOD	101	101	101	101	309	401	114	101

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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1 OF 1

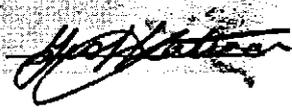
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As		
----------	------------	----	----	----	----	----	----	----	--	--

14	431514	5	5	90	<0.5	<0.008	950	2		
----	--------	---	---	----	------	--------	-----	---	--	--

22										
23	DETECTION	5	5	5	0.5	0.008	10	1		
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM		
25	METHOD	101	101	101	101	309	401	114		

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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REPORT NUMBER

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1 OF 1

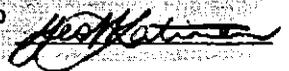
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As	Fe
----------	------------	----	----	----	----	----	----	----	----

8	431530	65	<5	135	<0.5	<0.008	660	4	5.45
---	--------	----	----	-----	------	--------	-----	---	------

18									
19									
20									
21									
22									
23	DETECTION	5	5	5	0.5	0.008	10	1	0.05
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%
25	METHOD	101	101	101	101	309	401	114	101

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

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APPENDIX A3

ASSAY RESULTS - STREAM SEDIMENTS

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

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TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As		
----------	------------	----	----	----	----	----	----	----	--	--

6	431612	60	20	95	<0.5	<0.003	690	<1		
8	431613	220	30	290	<0.5	<0.003	IS	4		
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	5	5	5	0.5	0.003	10	1		
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM		
25	METHOD	101	101	101	101	309	401	114		

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED OFFICER



PROJECT BACK PGM 6/20/91	BSS SIEVE SIZE CODE - MESH NUMBER A 200 D 80 G 30 B 150 E 60 H 20 C 100 F 40 T = TOTAL	SAMPLE TYPE CODE <input type="checkbox"/> OXIDIZED PRODUCTS O <input type="checkbox"/> FRESH ROCK R <input checked="" type="checkbox"/> STREAM SEDIMENTS S	<input type="checkbox"/> WEATHERED BEDROCK W <input type="checkbox"/> SURFACE TRANSPORTED T <input type="checkbox"/> RESIDUAL SOIL E <input type="checkbox"/> MINE DUMP M	CARD PUNCH PRINT YES <input type="checkbox"/> NO <input type="checkbox"/>	VERIFY YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE 1/4/90	SHEET #2
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EASTINGS														NORTHINGS														SAMPLE NUMBER		DEPTH in CMS		SIZE FRACTION		Sample Type		METAL VALUES PPM																														TRAPSTONE DESCRIPTIONS																													
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NAME RIVER														ORCHARD																		-80#				Cu, Pb, Zn, Ag, Au, As, Ba, Fe																																																											
																												4010505392300431613				✓																																		Flow M Incision M Major Fluct Rint.																													
																												4008805392100431614				✓																																		Flow M Incision W Major Fluct Rint, Q & Mic Sch (m)																													
																												4013505393615431621				✓																																		Flow W Incision W Major Fluct Q & Sil G																													
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																												4017055393305431637				✓																																		Flow W Incision W-M Major Fluct Qtz/S																													

627029

ANALABS

A Division of Macdonald Hamilton & Co. Pty Ltd.

627030

ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

23.3.08.06135

28/04/89

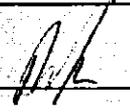
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1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As	Fe	
1	431613	140	85	295	<0.5	<0.008	IS	6	3.00	
2	431614	125	105	225	<0.5	<0.008	IS	10	2.25	
3	431621	15	10	50	<0.5	<0.008	410	4	0.90	
4	431622	30	20	75	<0.5	<0.008	560	4	1.50	
5	431637	35	10	90	<0.5	<0.008	600	3	1.75	
6										
7										
8										
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11										
12										
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16										
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20										
21										
22										
23	DETECTION	5	5	5	0.5	0.008	10	1	0.05	
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	
25	METHOD	101	101	101	101	309	401	114	101	

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 - = element not determined

AUTHORISED OFFICER



PROJECT RACK PEAK KA 89187	BSS SIEVE SIZE CODE - MESH NUMBER A 200 D 80 G 30 B 150 E 60 H 20 C 100 F 40 T: TOTAL	SAMPLE TYPE CODE <input type="checkbox"/> OXIDIZED PRODUCTS O <input type="checkbox"/> FRESH ROCK R <input checked="" type="checkbox"/> STREAM SEDIMENTS S	<input type="checkbox"/> WEATHERED BEDROCK W <input type="checkbox"/> SURFACE TRANSPORTED T <input type="checkbox"/> RESIDUAL SOIL E <input type="checkbox"/> MINE DUMP M	CARD PUNCH PRINT YES <input type="checkbox"/> NO <input type="checkbox"/>	VERIFY YES <input type="checkbox"/> NO <input type="checkbox"/>	DATE 22/1/89	SHEET #3
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EASTINGS														NORTHINGS														SAMPLE NUMBER				DEPTH IN CMS				SIZE FRACTION		Sample Type		METAL VALUES PPM																				TRAPSTK DESCRIPTIONS																																							
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LINK ROAD AREA																																-80#				RCL																						Flow Incision Major Flood																																									
																																																										M W S S																																									
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A Division of Macdonald Hamilton & Co. Pty Ltd.

627032

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SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

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24/05/89

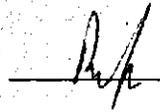
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1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As	Fe	
1	431615	70	60	100	<0.5	<0.008	120	9	1.70	
2	431627	40	130	205	<0.5	<0.008	1250	8	4.25	
3	431628	65	200	155	0.5	<0.008	15	37	6.80	
4										
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23	DETECTION	5	5	5	0.5	0.008	10	1	0.05	
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	
25	METHOD	101	101	101	101	309	401	114	101	

Results in ppm unless otherwise specified
 T = element present; but concentration too low to measure
 X = element concentration is below detection limit
 -- = element not determined

AUTHORISED OFFICER



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627034

APPENDIX B

PETROLOGICAL REPORTS - CENTRAL MINERALOGICAL SERVICES

SAMPLE NO.:

431530

(T.S. 61501)

6.

CLASSIFICATION:Altered, Fractured Hornblende-Biotite RhyoliteCOMPOSITION:

Relatively conspicuous stressed to granulated relict corroded phenocrystal quartz, disseminated sericitised plagioclase and variably sericitised K-feldspar phenocrysts, chlorite-pseudomorphed biotite- and subordinate similarly altered amphibole phenocrysts in an altered groundmass of fine anhedral quartz (mean 75 μ m) and feldspar-replacive sericitic quartz and sericite clots. Sporadic networks of sericite veinlets. Crosscutting sericitic-chloritic fracture zones (1-5 mm wide), "studded" with fine sericite-stained quartz crystals.

FABRIC:

Variable. Stressed strongly/coarsely porphyritic, with a granular groundmass where relatively fresh. Marginally brecciated/sericite-veined to mylonitised in sericitic fracture zones.

ACCESSORIES:

Disseminated relict primary magnetite, relatively minor leucoxenised opaques, rare zircons and apatite. Secondary ultrafine leucoxenic semi-opaques in chloritised biotite flakes.

COMMENTS:

Primarily a relatively coarse-grained sodi-potassic hornblende-biotite rhyolite with typical minor intrusive textural characteristics. Exhibits a sericite-chlorite-quartz alteration assemblage essentially typical, but complexed by partial silicification of the groundmass and by networks of sericitic veinlets "grading" into mylonitic sericitic fractures with accessory proportions of chlorite and quartz (as distinct from altered host rock clasts).

SAMPLE NO.: 431540 (T.S. 61576)

CLASSIFICATION: Dolomitic Siltstone Breccia

COMPOSITION: Dominantly fine (mean 50 um) anhedral/semi-interlocking quartz with subordinate to minor partly degraded/illitised semi-sericitic white mica concentrated in discontinuous contorted and segmented bands (to 2 mm wide, typically < 1 mm) and lenses. Quartz aggregates exhibit thinly/semi-pervasively disseminated limonitic pseudomorphs and limonite-fringed cavities (mean 50 um) after carbonate rhombs. Pelitic "partings" carry thinly disseminated relict detrital silt-sized quartz grains.

FABRIC: Essentially well-sorted silty clastic in units 1 mm to 1 cm in width, with interspersed slightly silty sericitic pelite bands and lenses. These bedding structures are deformed into soft pebble conglomerate-like slump structures, the rock locally "grading" into a pelite-matrixed breccia. Mild subsequent shearing effects defined by a weak slaty cleavage in the pelite.

ACCESSORIES: Degraded/ferruginised clastic opaques, minor leucoxenitic semi-opaques, minor traces of tourmaline and rare zircons. Minor traces of carbonaceous matter. Traces of oxidised fine-grained pyrite, poorly resolved from the similarly degraded carbonate rhombs. Thinly disseminated relict detrital muscovite flakes, traces of sericitic poorly determinate detrital plagioclase.

COMMENTS: A slumped intercalation of quartzose/weakly feldspathic, weakly dolomitic siltstone and silty shale. Clastic quartz grains exhibit overgrowth quartz cement and partial recrystallisation, and the rock no approximates to a slate-parted fine-grained metaquartzite. No tangible strictly volcanomict or tuffaceous features.

D. Cowan, B. Sc.

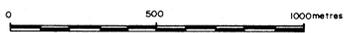
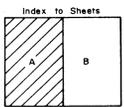
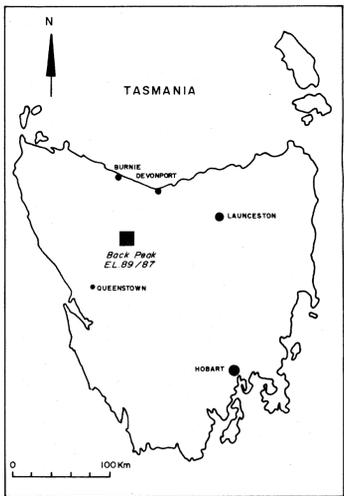
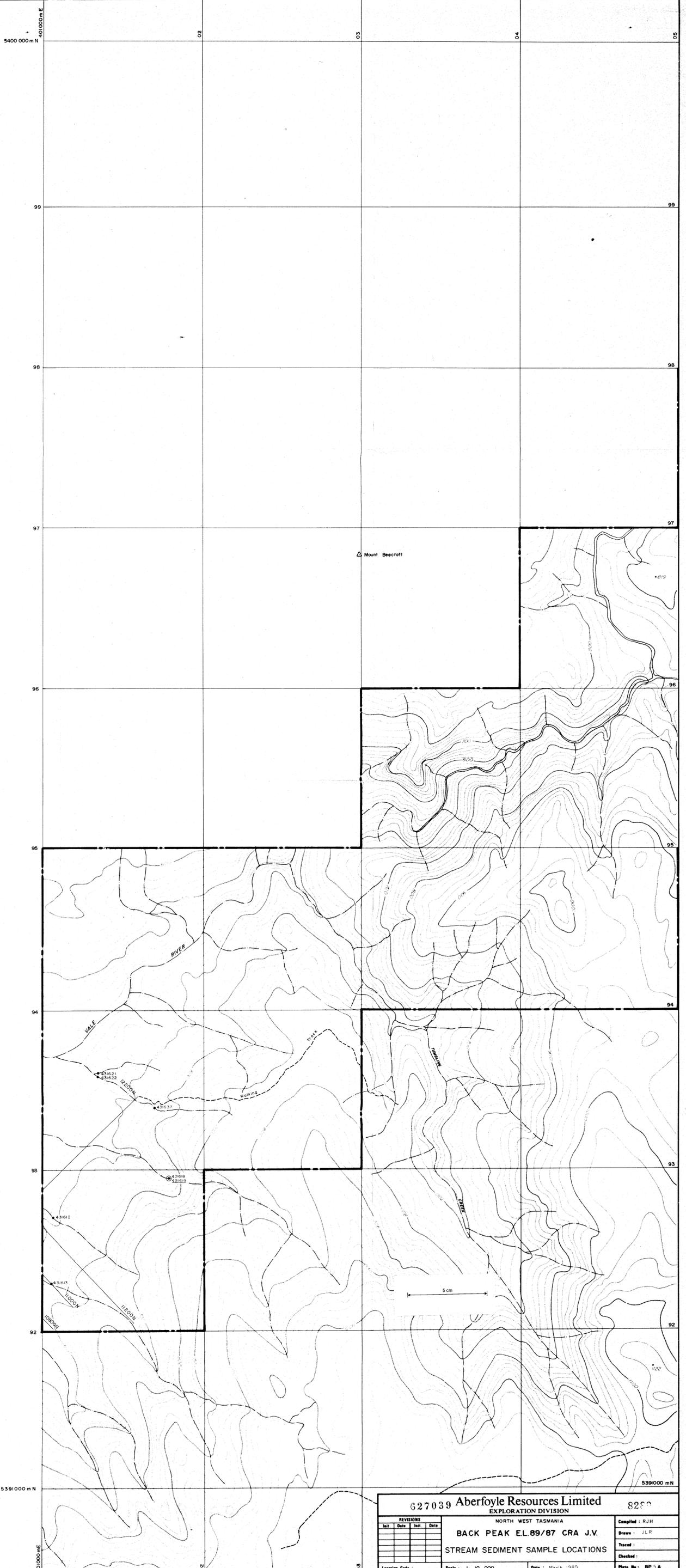
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APPENDIX C

TABLE OF GEOLOGICAL ABBREVIATIONS

Common	Col	Common	Col	Lava breccia	l		
Abundant	abn	Conglomerate	Cg	Leached	lch		
Adularia	Adl	Conglomeratic	cg	Limonic	Lim		
Agglomerate	agg	Crystal	x	Light	lgt		
Albite	Ab	Crystal volcanoclastic	xv	Lithic	lh		
Alkali feldspar	Afd	Dacite	D	Magnetite	Mt		
Altered	alt	Dark	dk	Massive	mas		
Amphibole	Amb	Dense	dns	Matrix	mtx		
Amygdaloidal	amg	Devitrification	dv	Matrix dominated	md		
Andesite	A	Diorite	Di	Medium	med		
Angular	ang	Disseminated	dis	Medium grained	mg	Sediment	sed
Aplite	Ap	Dolerite	Do	Mica	Mic	Selected fragments	sfr
Approximate	apx	Dolomite	Dm	Micaceous	mic	Sericite	Se
Arcuate	ar	Dyke	dy	Minor	mnr	Serpentine	Srp
Arenaceous	arn	Elongated	el	Mixed	mx	Shale	Sh
Argillaceous	arg	Emphasised	emp	Mottled	mtl	Shared	shd
Argillite	Arg	Epiclastic (adj.)	e	Mudstone	Mst	Siderite	Sid
Arkose	Ak	Epiclastic (noun)	E	Nodule	nd	Silica	Si
Arkosic	ak	Epidote	Ep	Off white	ow	Siliceous	sil
Arsenopyrite	Ap	Euhedral	euh	Olivine	Ol	Siltstone	Slt
Ash volcanoclastic	av	Eutaxitic	eux	Orange	or	Slickenside	slk
Autobrecciated	aub	Fabric	fab	Ordovician	O	Sphalerite	Sp
Average	ave	Fault	F	Oxidised	ox	Spotted	spt
Banded	bnd	Fault zone	FZ	Patchy	pat	Spotty	spt
Barite	Ba	Feldspar	Fd	Peperitic	pep	Stockwork	stw
Basalt	B	Feldspar phyric	fp	Perlitic	pri	Strong	str
Bedded	bd	Felspathic	fel	Pervasive	per	Structure controlled	stc
Black	bk	Ferruginous	fer	Phenocrysts	phn	Talc	Tc
Black shale	Bsh	Fibrous	fb	Phyllite	phyl	Tertiary	T
Blue	bl	Fine	f	Picrite	Pic	Trace	tr
Boulder	bld	Fine grained	fg	Pillow lava	pl	Trachyte	Tr
Breccia	b	Fissile	fis	Pink	pk	Tuff	Tf
Breccia volcanoclastic	bv	Flowbanded	fbn	Polymict	Y	Tuffaceous	tf
Bright	brt	Fragments	fr	Porphyritic	por	Variolitic	vr
Brown	br	Fuchsite	Fu	Pumice	Pu	Vein	vn
Calcareous	cc	Galena	Gn	Pumaceous	pu	Vein concordant to bedd	cV
Calcite	Cc	Glass	Gl	Purple	pp	Vein discordant to bedd	dV
Carbonaceous	g	Glassy	gl	Pyrite	Py	Very	v
Carbonate	Co	Granular	glr	Pyritic	py	Vesicular	ves
Cavernous	cav	Graphite	Gt	Pyroxene	Px	Vitric	vtr
Chalcopyrite	Cp	Graphitic	gt	Quartz	Q	Volcanic	vlc
Chert	Ch	Green	gn	Quartzite	Qtz	Volcanoclastic	vlcl
Chlorite	Cl	Grey	gy	Quellite	Qll	Weak	wk
Chromite	Cr	Greywacke	Gw	Questionable	?	Weathered	wth
Chromiferous	cr	Haematite	Hmt	Recrystallised	rx	White	wh
Clay	cy	Hornblende	Hb	Red	rd	Yellow	yw
Coarse	c	Ignimbrite	Ig	Rehealed	rhd		
Coarse grained	cg	Illite	Ill	Reworked	rw		
		Interbedded	ibd	Rhyodacite	RD		
		Intercalated	icl	Rhyolite	R		
		Intrusive	int	Ripple marks	rmk		
		Jurassic	Ju	Round	rnd		
		K-Feldspar	Kfd	Rubble	rbb		
		Khaki	kh	Sandstone	Ss		
		Laminated	lm	Schist	Sch		
		Lapilli volcanoclastic	lv	Schistose	sch		

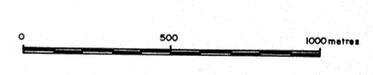
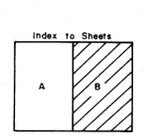
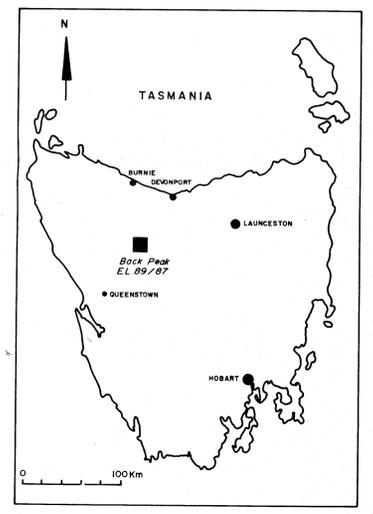
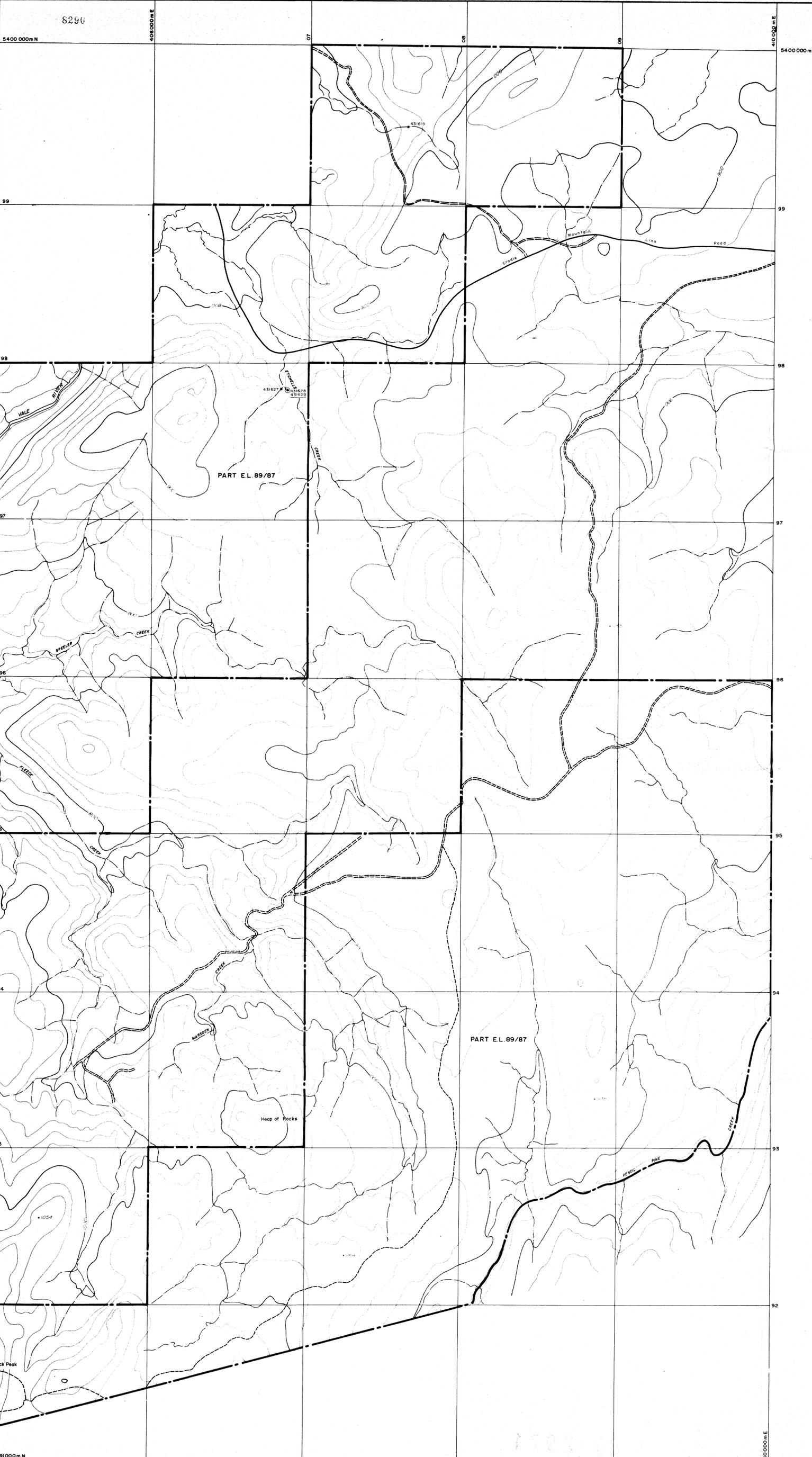


- - 80 # Sample location & sample No.
- ⊙ - 80 # BCL sample

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BACK PEAK EL.89/87 CRA J.V.
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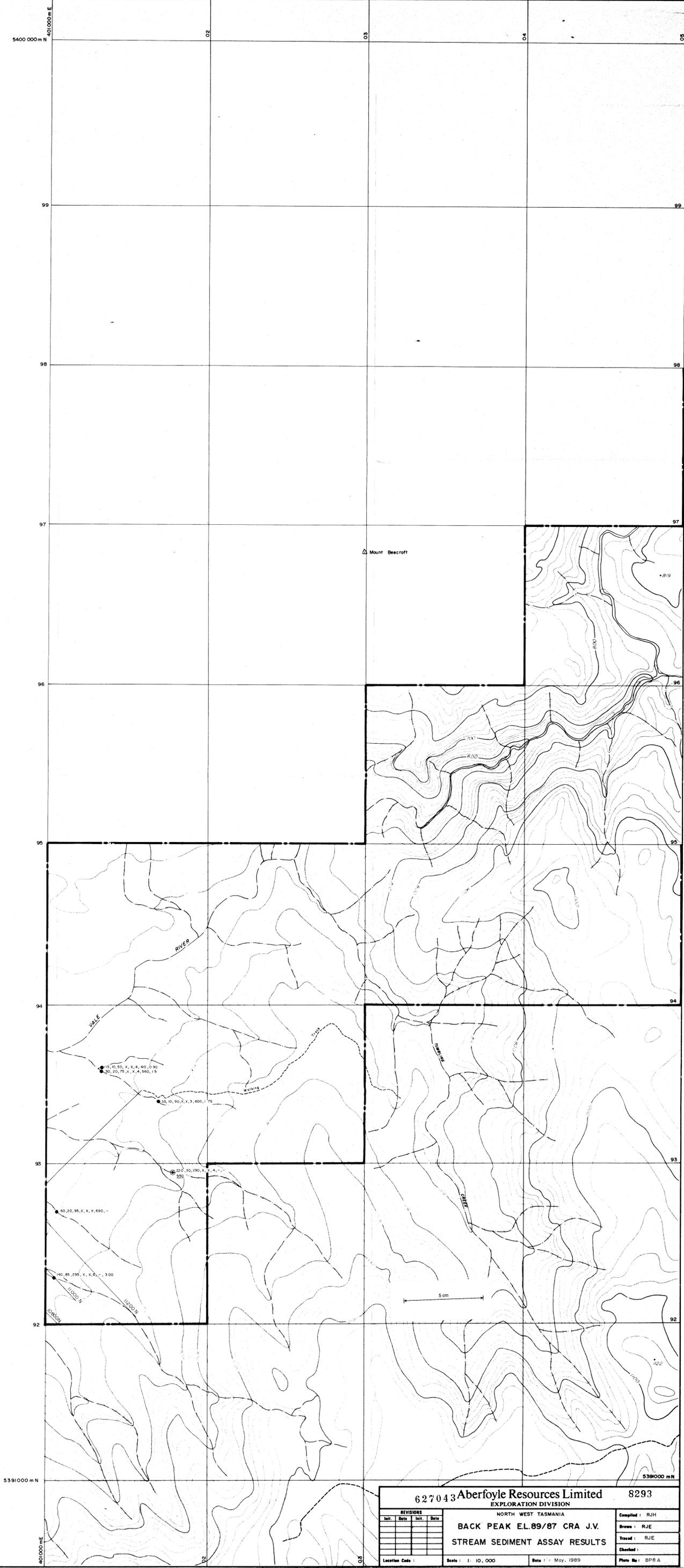
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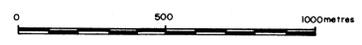
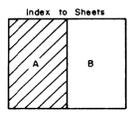
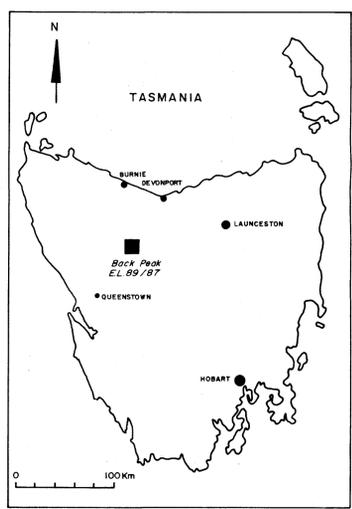
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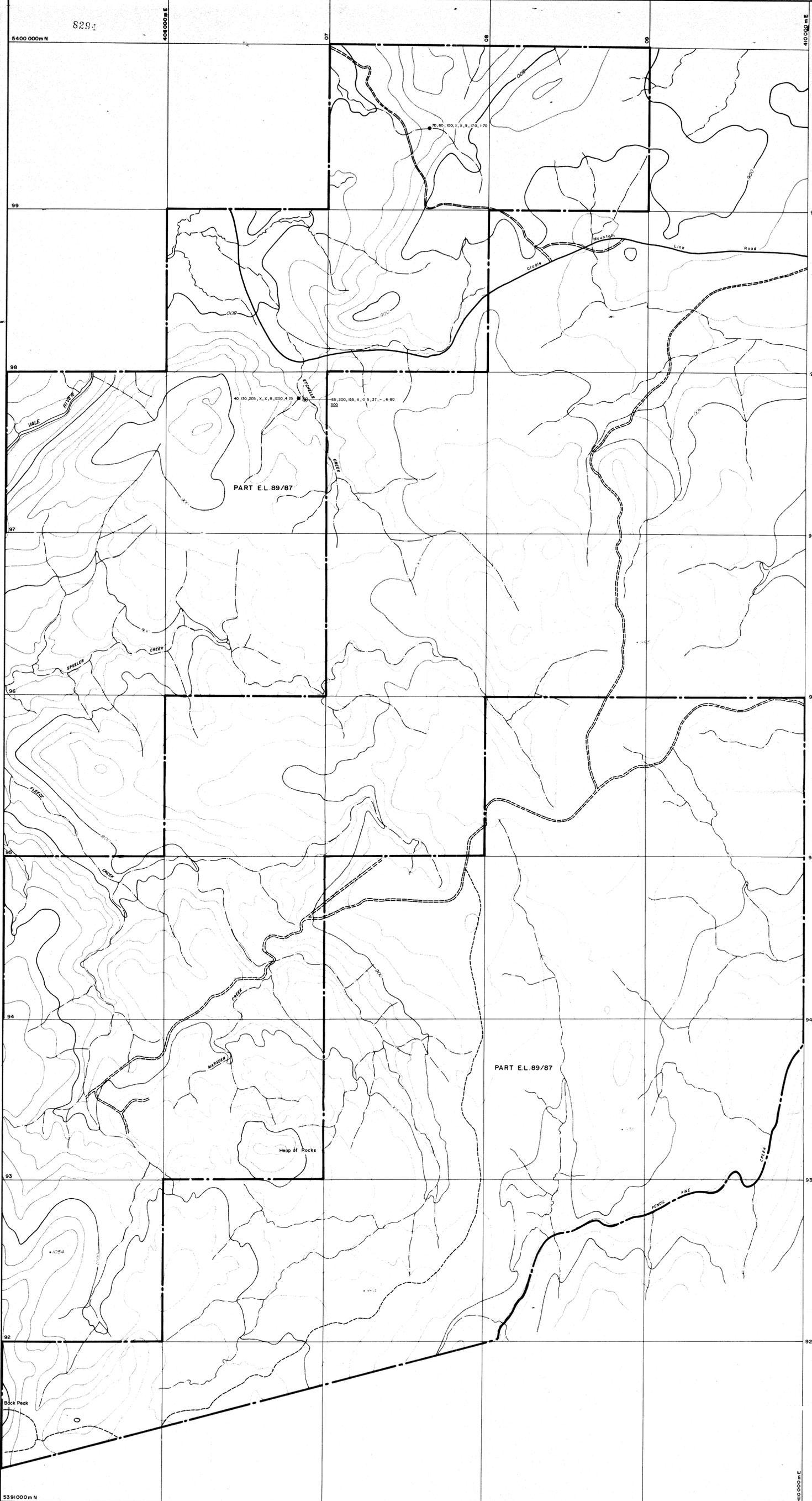
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- -80# Sample location
- ⊙ -80 BCL Sample location

All results in ppm except for Fe % & BCL Au ppt
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 Au (BCL)
 X denotes below the level of detection



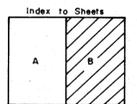
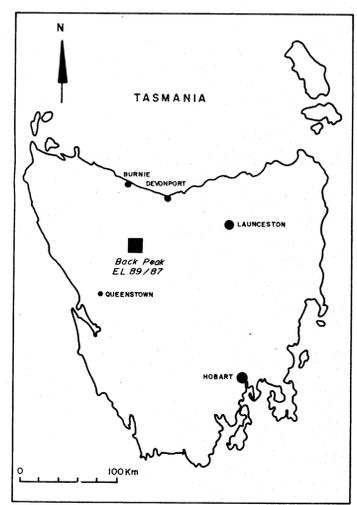
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		Plate No: BPA



- LEGEND -

- - BOM sample location
- ⊙ - BOM & BCL sample location

All results in ppm except for Fe % & BCL Au in ppt
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Au (BCL)
 X denotes below the level of detection



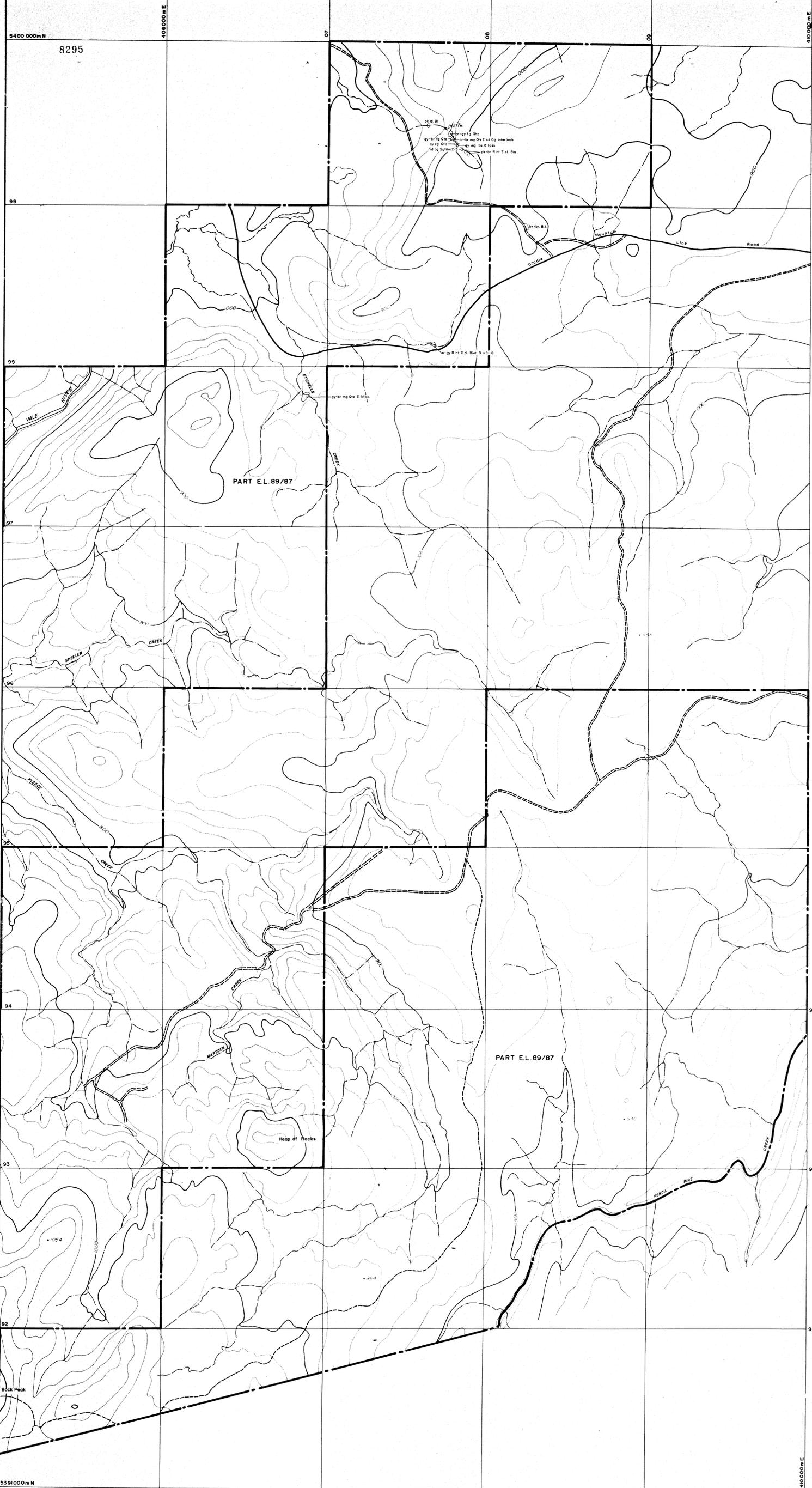
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 EXPLORATION DIVISION

NORTH WEST TASMANIA

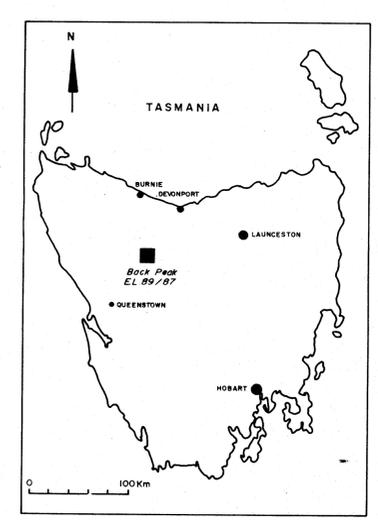
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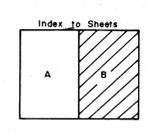
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Note:
For Geological Abbreviations see Appendix C
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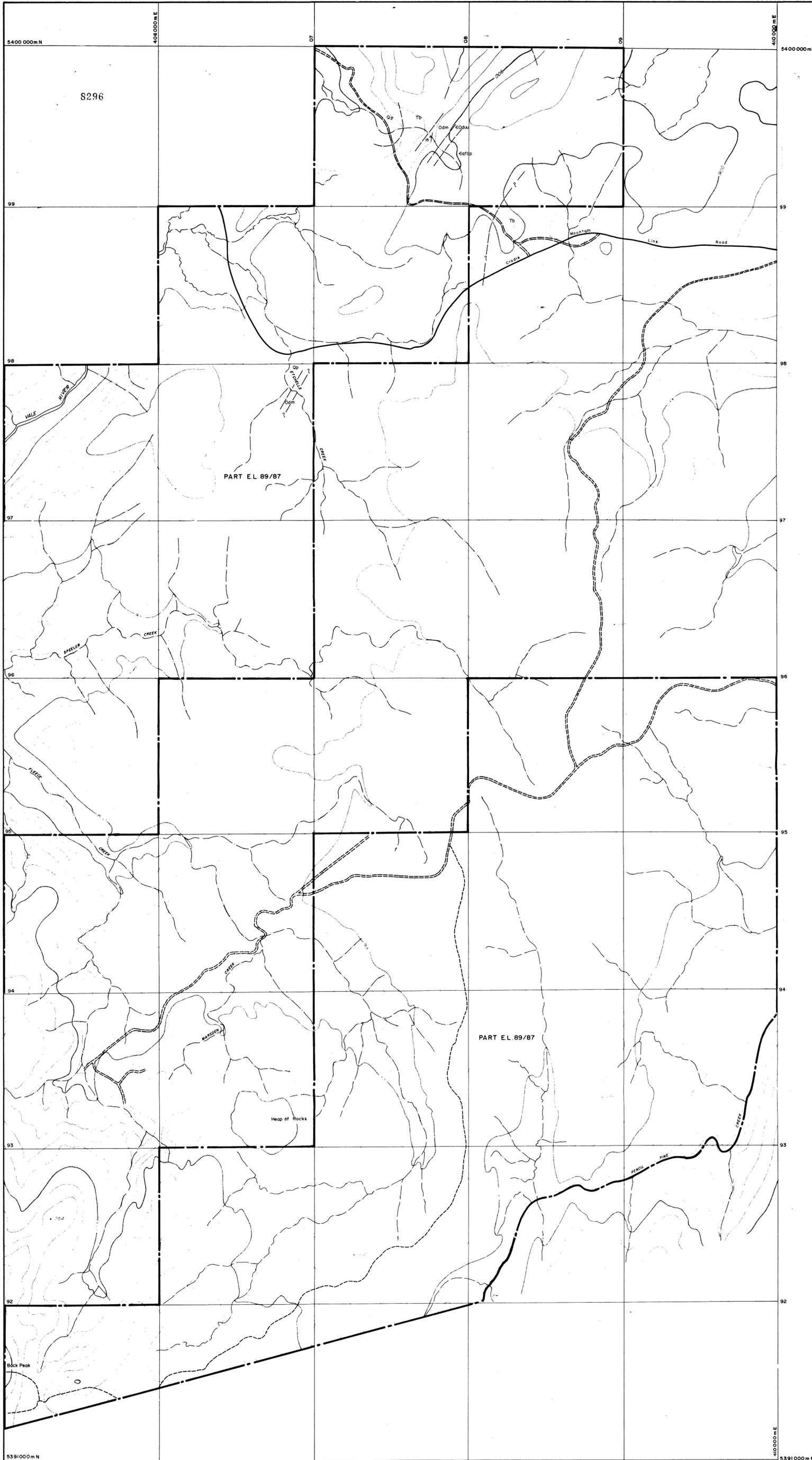


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EXPLORATION DIVISION

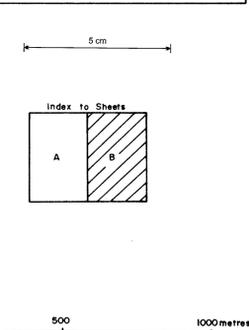
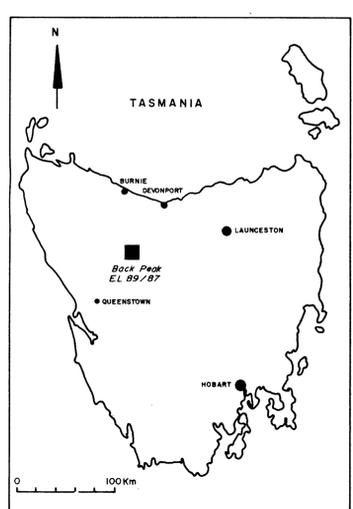
NORTH WEST TASMANIA
BACK PEAK E.L. 89/87 CRA JV
REGIONAL MAPPING
OUTCROP GEOLOGY

REVISIONS				Compiled: R/JH
Init.	Date	Init.	Date	Drawn: R/JE
				Traced: R/JE
				Checked:

Location Code: Scale: 1:10,000 Date: May, 1989 Photo No: BP98



- LEGEND —
- QUATERNARY**
- Qp Glacial gravels
- TERTIARY**
- Tb Basalt
- CAMBRO - ORDOVICIAN - Owen Conglomerate Sequence**
- Odm Grey siliclastic sandstone B abundant microfossils - Moira Sandstone correlate
 - Oduu Pink coarse sandstone B basal conglomerate
- CAMBRIAN**
- Eafbp Quartz - feldspar biotite porphyry - Bond Range Porphyry



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EXPLORATION DIVISION																																															
NORTH WEST TASMANIA																																															
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8297

40 0000 E

402 0000 E

403 0000 E

5394 0000 N

VALE

RIVER

Track

Walking

To Small Pools

60duu

60dul

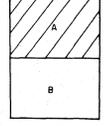
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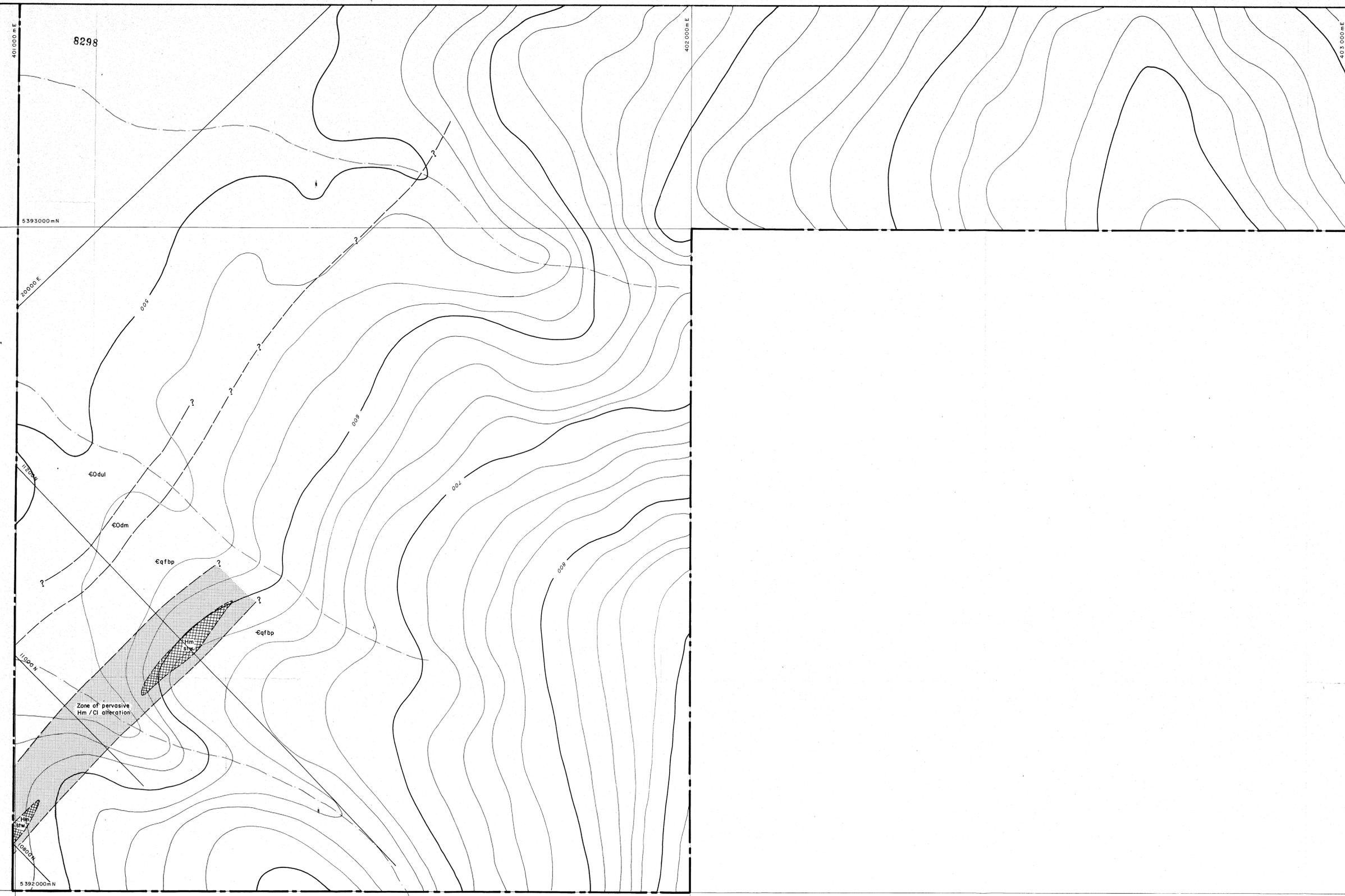
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627047 Aberfoyle Resources Limited 8297
 EXPLORATION DIVISION
 NORTH WEST TASMANIA
 BACK PEAK E.L.89/87
 10 MILE CREEK GRID
 GEOLOGICAL INTERPRETATION

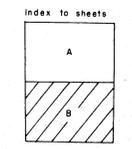
REVISIONS			
Init.	Date	Init.	Date

Compiled: RJH
 Drawn: JLR
 Traced: RJE
 Checked:
 Plate No: BP11A

Location Code: Scale: 1:2500 Date: May, 1989

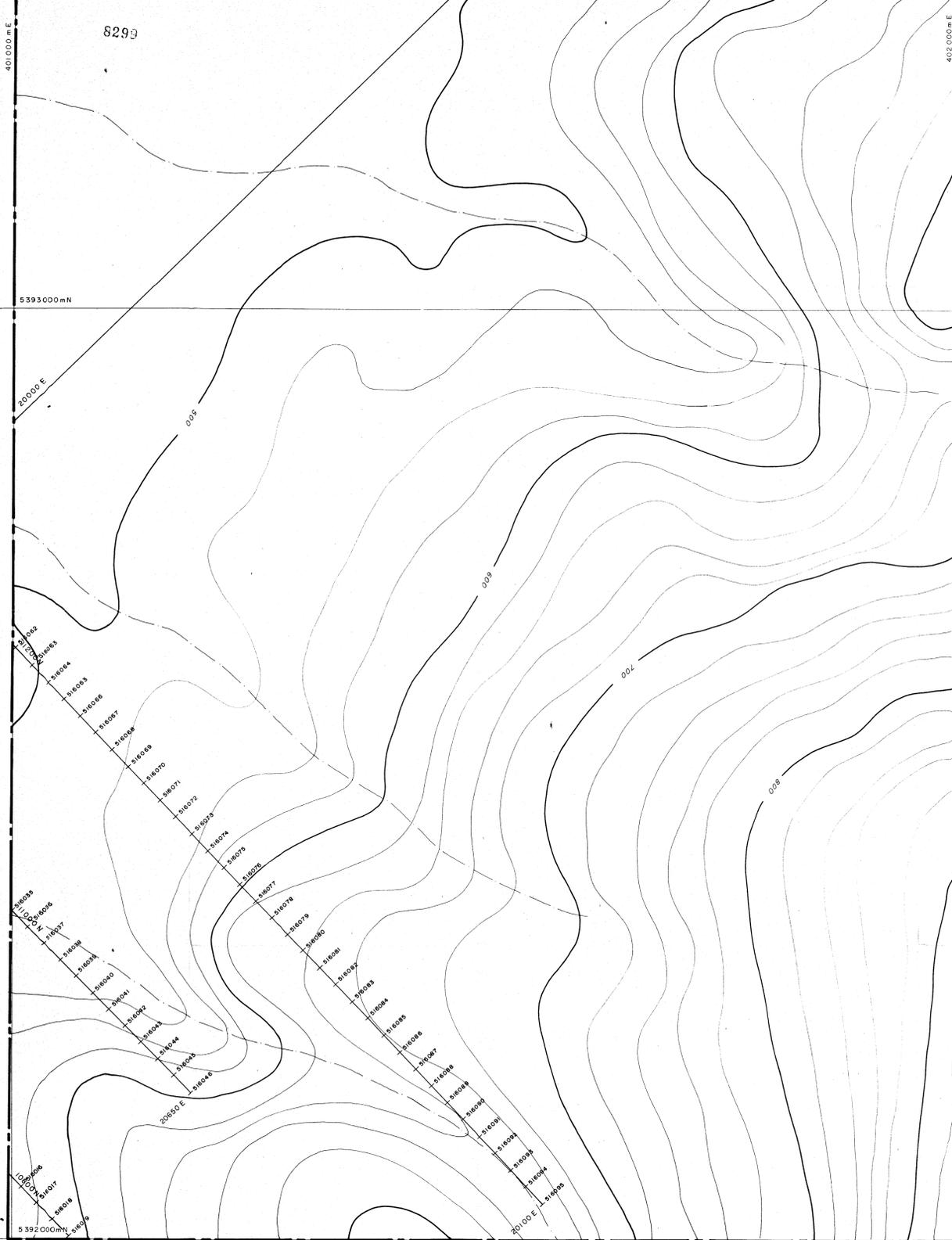


- LEGEND -
- CAMBRO - ORDOVICIAN - Owen Conglomerate Sequence**
- E0duu Pink-grey conglomerate & occasional pink chert clasts
 - E0dul Grey sandstone with occasional calcareous siltstone interbeds
 - E0dm Pink pebble conglomerate
- CAMBRIAN**
- E0fbp Quartz - feldspar - biotite porphyry - Bond Range Porphyry

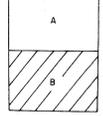


627048 Aberfoyle Resources Limited 8298	
EXPLORATION DIVISION	
NORTH WEST TASMANIA	
BACK PEAK E.L. 89/87	
10 MILE CREEK GRID	
GEOLOGICAL INTERPRETATION	
REVISIONS	Compiled: R/JH
Init. Date Init. Date	Drawn: J/LR
	Traced: R/JE
	Checked:
Location Code	Scale: 1:2500 Date: May, 1989 Plate No: BP 11B

8299



Index to sheets



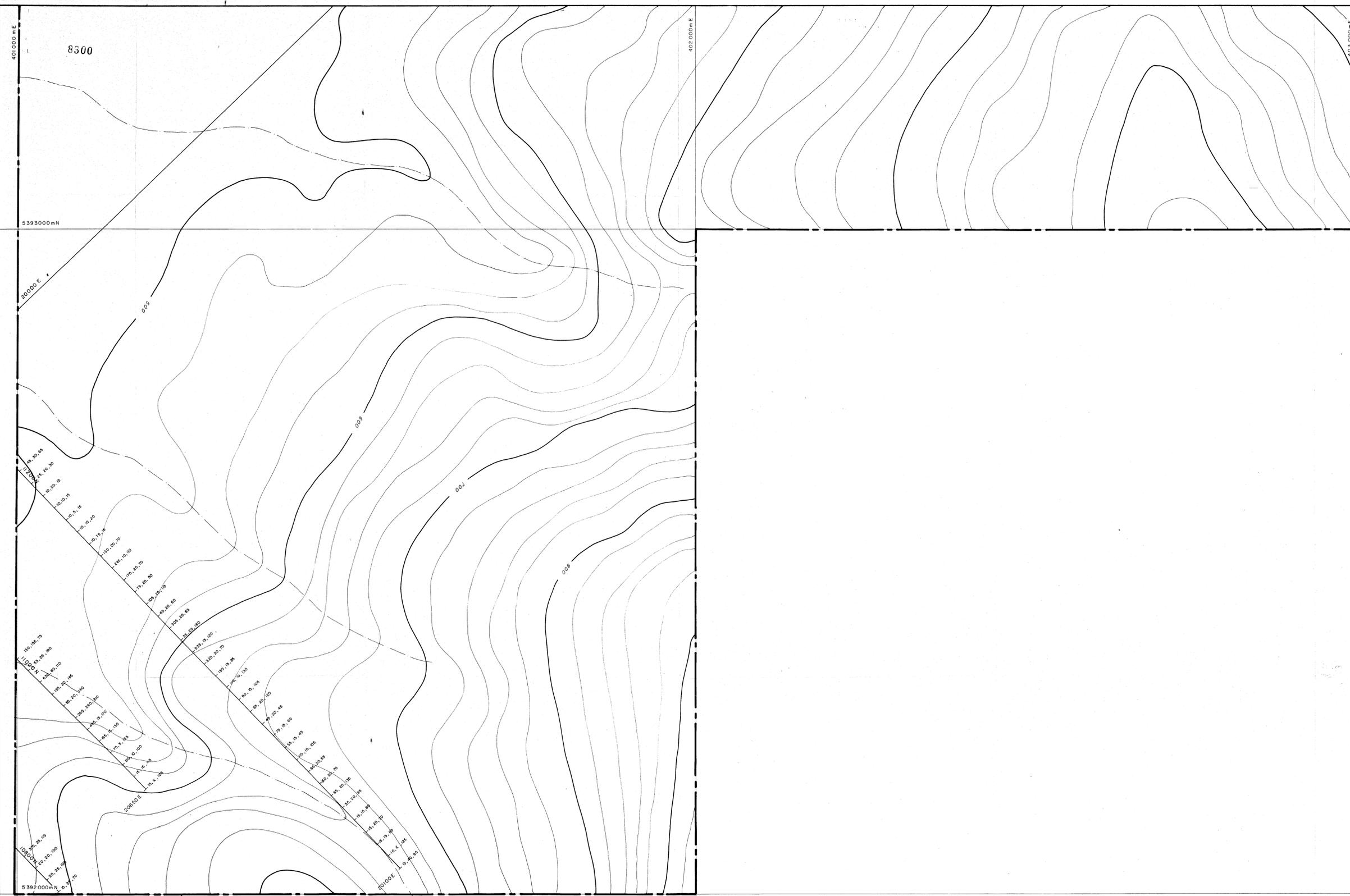
627049 Aberfoyle Resources Limited 8299
 EXPLORATION DIVISION

REVISIONS			
Rev	Date	Rev	Date

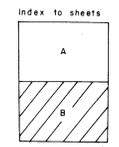
NORTH WEST TASMANIA
 BACK PEAK E.L. 89/87
 10 MILE CREEK GRID
 SOIL SAMPLE LOCATIONS

Compiled: R.J.H.
 Drawn: J.L.R.
 Traced: J.L.R.
 Checked: J.L.R.

Location Code: Scale: 1:2500 Date: May, 1989 Plate No: BP12B

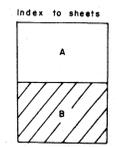


5 cm



All results in ppm.
X denotes below level of detection

627050		Aberfoyle Resources Limited		8300																							
EXPLORATION DIVISION																											
NORTH WEST TASMANIA																											
BACK PEAK E.L. 89/87																											
10 MILE CREEK GRID																											
SOIL GEOCHEMISTRY - Cu, Pb, Zn																											
Location Code		Scale: 1:2500	Date: May, 1989	Plate No: BP 13B																							
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REVISIONS																											
Int	Date	Int	Date																								
		Traced: RJE	Checked:																								



All results in ppm except for Fe %
 X denotes below level of detection

627051				Aberfoyle Resources Limited				8301	
EXPLORATION DIVISION				NORTH WEST TASMANIA					
BACK PEAK E.L. 89/87				10 MILE CREEK GRID				Compiled: RJH	
SOIL GEOCHEMISTRY - Au, Ag, As, Fe								Drawn: JLR	
								Traced: RJE	
								Checked:	
Location Code				Scale: 1:2500				Date: May, 1989	
								Plate No: BP 14B	