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89-3066

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- 2 JAN 1990	
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LETTER	
22.12.'89	
REFERS	
Resubmit to	Date

EXPLORATION LICENCE 57/83

MOUNT DONALDSON

TASMANIA

REPORT ON EXPLORATION
TO 12TH JANUARY 1990

MICROFILMED

OPEN

Prepared By:

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December 1989

89-3066

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1. SUMMARY

This report summaries exploration activity on EL 57/83 Mount Donaldson by Aberfoyle Resources Limited for the twelve months to 12th January, 1990.

The main aim of exploration was to assess the potential of dolomite/mudstone contacts on the eastern slopes of Mount Donaldson for Brookside style Au mineralisation by stream sediment sampling and panned concentrate examination. Access to the majority of the licence, across a low-level bridge on the Savage River, was restricted to periods of low river flow. An aerial cableway over the Savage River allows year round access to the southern portion of the licence. Exploration for the year 1990 was conducted during the months of October and November.

Results from the stream sediment program were generally disappointing, apart from the presence of minor amounts of crystalline Au in panned concentrate samples taken from Guthries Creek.

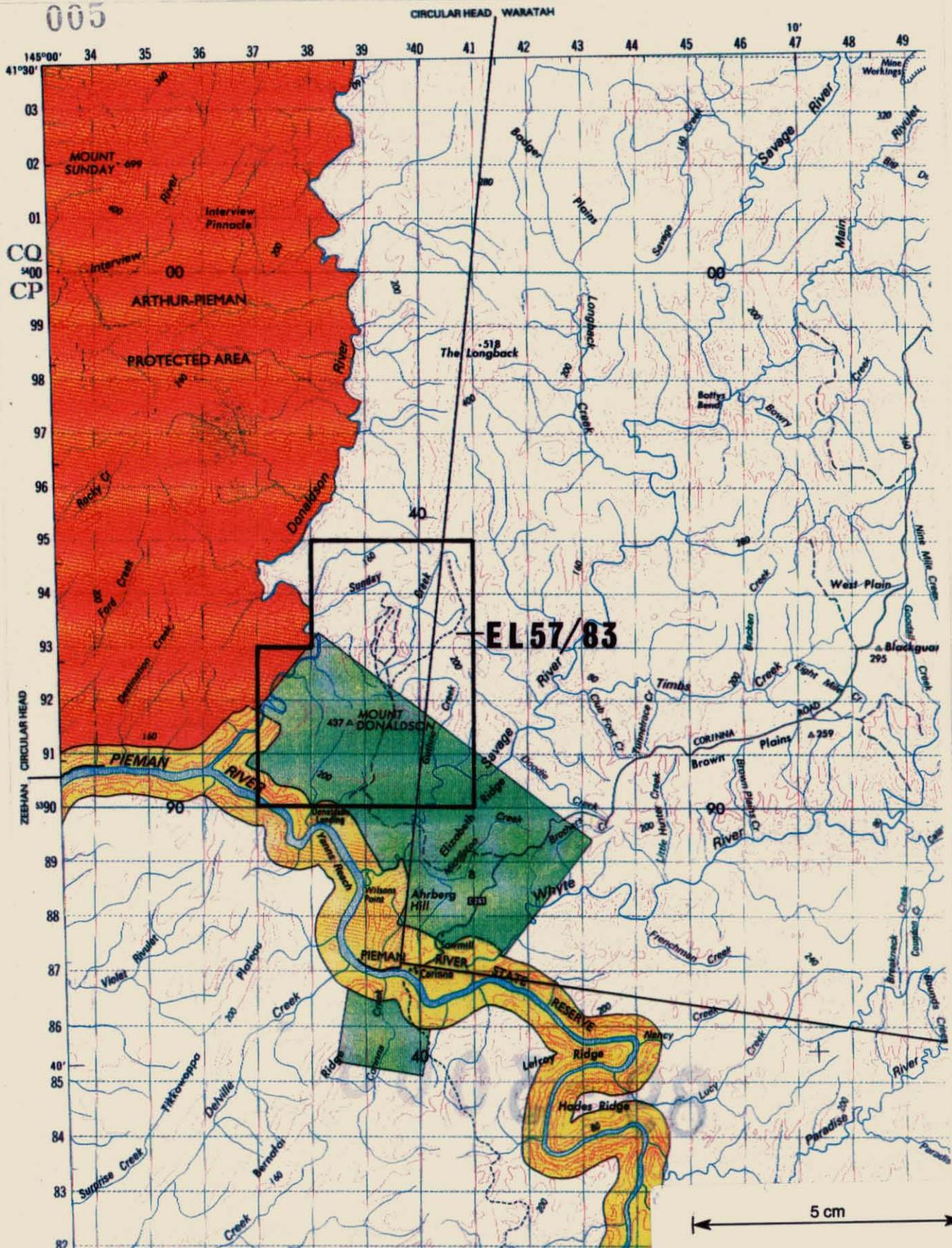
2. INTRODUCTION

Exploration licence 57/83 (Mount Donaldson) of 18 square kilometres is located between the Donaldson and Savage Rivers, and north of Corinna on the West Coast of Tasmania (see Plate MTD 5). The licence area is rugged and densely vegetated with rainforest species, tea tree and baura scrub with lesser button grass plains.

Access to the southern portion of the licence is via 4 wheel-drive logging tracks over the Savage River. Seasonal variation in the level of the Savage River restricts vehicle access to the licence to periods of low rainfall.

The area is being explored under the terms of the Brookside Joint Venture with H. D. & A. N. Nolan.

005



Aberfoyle Resources Limited
EXPLORATION DIVISION

NORTH WEST TASMANIA

MT. DONALDSON E.L. 57/83
LOCALITY MAP

Compiled : RJE

Drawn : Lands Dept.

Traced :

Checked :

Plate No. : Mt. D 5

REVISIONS			
Init.	Date	Init.	Date

Location Code :

Scale : 1 : 100,000

Date : December, 1989

1-5

3. EXPLORATION HISTORY

3.1 Pre 1983

Limited modern exploration was conducted on the EL 57/83 prior to 1983. Airborne magnetic surveys conducted by Rio Tinto (1956) and Mines Department (1982) formed much of the basis for target selection and ground investigation. As such, none of the geophysical anomalies investigated were contained within the current EL boundaries.

During the early 1980's the licence received minor attention from the Mount Lyell Mining & Railway Company in their search for alluvial diamonds. Most of this exploration however, was conducted outside the current licence boundaries.

3.2 Geopeko (1983-1988)

Exploration by Geopeko involved reconnaissance gridding and soil sampling over airborne magnetic highs east of Interview Pinnacle and west of The Longback for Sn and Pb, Zn mineralisation. Both anomalies lie outside the current licence boundary. No follow up work was recommended at either site.

3.3 Cominex (1985-1989)

The majority of exploration was targeted at recognition of commercial quality silica flour deposits in the Savage Dolomite similar to those occurring elsewhere in the district.

More recent work has been directed toward gold and base metal exploration with stream sediment sampling and geological mapping in the southeast portion of the licence.

4. REGIONAL GEOLOGY

The geology of the Mount Donaldson region is generally poorly documented. Much of the information mentioned below results from discussions with N. J. Turner of the Department of Mines, Tasmania who is currently preparing the 1:50,000 scale Geological Map of the Corinna District.

The geology of the licence area is dominated by Precambrian rocks. The oldest of which outcrop in the north western corner of the licence and appear as pale to medium green metasiltstones of the Rocky Cape Group.

To the east, in the vicinity of Mount Donaldson, and faulted against the Rocky Cape Group by the northeast trending Savage Fault are the sediments of the Donaldson Group, the oldest being a dark grey mudstone with quartzite interbeds. Conformably overlying these mudstones is a unit of essentially quartzarenite which is in turn unconformably overlain by a graded quartzose sandstone with occasional basal conglomerate lenses.

This unit is overlain by the lower most unit of the Sigma Group, a grey black cherty mudstone which passes upward into the locally silicified Savage Dolomite which contains rare ooliths and stromatolites. Overlying the dolomites in the vicinity of Elizabeth Ridge is the Bernafai Volcanics, a sequence of mafic lavas and shallow intrusives, schistose volcanoclastics and volcanogenic mudstones.

Throughout the entire area large deposits of Tertiary lead gravels appear. A wide range of composition variation indicate a number of sources for the alluvial material both local and from as far as the Cambro-Ordovician and Devonian rocks to the east and northeast. The recessive weathering characteristics of the dolomite units, forming depositional sub-basins, has allowed for the accumulation of several tens of metres of gravel in places.

5. EXPLORATION ACTIVITY - 1989

5.1 Regional Stream Sediment Survey

5.1.1 Introduction

A limited stream sediment survey was conducted over the dolomite/mudstone contact on the southeastern slopes of Mount Donaldson in search of Brookside style Au mineralisation. Both -80 mesh and panned concentrate samples were taken. The -80 mesh sieved samples of stream sediment were assayed for Cu, Au, As, Sb and Hg. Anomalism for these elements, coupled with the presence of primary crystalline Au in panned concentrate samples, is seen as a positive indicator for Au mineralisation similar to that at the Brookside Prospect.

5.1.2 Geology (see Plate MTD 4)

Geological mapping was undertaken in conjunction with stream sediment sampling in both Guthries and Unnamed Creeks. In both cases the geology traversed was almost identical.

Outcropping in close proximity to the Savage River is the Savage Dolomite, a white yellow to grey locally silicified massive dolomite. Poor outcrop of this unit in Unnamed Creek is most likely due to the lack of silicification in that area. Moving west the Savage Dolomite grades into a massive to strongly cleaved black meta siltstone with occasional graphitic interbeds and quartz stockworks. Thin section analysis suggest this siltstone to be a dolomitic sediment totally silicified during post-diagenetic alteration and is most probably a lateral facies variation of the Savage Dolomite. Thin, weakly brecciated, chert bands are also common with in the siltstone.

Further west the siltstones are in contact with strongly bedded, quartz-rich sediment of the Donaldson Group. Mostly sandstone and quartzites with occasional conglomerate units (seen only as float) this unit can be traced to the summit of Mount Donaldson. Bedding appears to strike essentially north east with moderate to shallow dips in a south easterly direction.

5.1.3 Alteration

No significant alteration was detected in outcrops examined with the exception of the post-diagenetic silicification of the Savage Dolomite and associated sediments. This silicification may have some implications to the possibility of silica flour in the area.

5.1.4 Mineralisation

Weak stratabound pyrite mineralisation was detected in samples of the graphitic mudstone within the Savage Dolomite.

A number of apparently gossaneous outcrops appear throughout the siltstone sequence of the Savage Dolomite. Close examination of these gossans indicate a botryoidal accretionary filling texture indicative of a pseudogossan, formed during precipitation of Fe-rich groundwaters. The absence of fresh sulphides or boxworks supports this conclusion.

5.1.5 Panned Concentrate Examination (see Appendix B)

A total of 10 panned concentrate samples were taken from Guthries, Unnamed and Non Such Creeks. Of interest was the presence of crystalline Au and both Fe and Cu sulphides in samples taken from Guthries Creek, close to the junction with the Savage River.

Anomalous amounts of crystalline cassiterite in None Such Creek is also considered worthy of further attention.

5.1.6 Geochemistry (see Appendix A)

Rockchips

A total of 9 rockchips were taken (see Plate MTD 4 for sample locations).

Results were generally disappointing with only the pseudogossan material considered interesting with anomalous Zn (max. 1850 ppm).

Stream Sediments

A total of 8, -80 mesh stream sediment samples were taken from Guthries and Unnamed Creeks (see Plates MTD 2 and 3).

Only sample number 513798 was considered weakly anomalous at 11 ppb Au. This sample coincides with the location of crystalline Au in panned concentrate samples.

210

6. CONCLUSIONS

1. The weakly anomalous Au (11 ppb) in a -80 mesh stream sediment sample from Guthries Creek is related to the crystalline Au in panned concentrate taken from the same area. The crystalline nature of the gold grains indicates close proximity to bedrock source.
2. Anomalous Zn in psuedogossans from Unnamed Creek is most likely the result of secondary enrichment or supergene leaching. The actual primary source of base metals remains undetected but may be much lower in Zn than the material sampled.
3. Anomalous amounts of crystalline cassiterite in panned concentrate samples taken from None Such Creek remain unexplained.

7. RECOMMENDATIONS

1. Further stream sediment sampling be undertaken over the prospective dolomite/mudstone lithologies further north of the area sampled, and east of the Savage River for Brookside style Au mineralisation.
2. The anomalous Sn in panned concentrate samples from Non Such Creek should be followed up with further stream sediment and rockchip sampling in an attempt to locate the source of crystalline cassiterite.
3. A small grid should be cut over the dolomite/mudstone contact in the vicinity of the Guthries Creek Au stream sediment anomaly. This would facilitate detailed geological mapping and some soil sampling.
4. The Bernafai volcanics should be subjected to reconnaissance stream sediment sampling for Pb, Zn anomalism given the presence of anomalous Zn in psuedogossans from Guthries Creek.

8. REFERENCES

BURRETT, C. F. and MARTIN, E. L. eds. (1989)

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LARGE, R. R. (1987)

A study on the Genesis of Silica Flour and its Exploration
Potential in the Corinna District, Western Tasmania
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TURNER, N. J. & WILLIAMS, E. (1973)

Geological Atlas 1:250,000 Series Sheet No. SK-55/3 Burnie
Geological Survey Explanatory Report
Department Mines, Tasmania

544014

APPENDIX A
ASSAY RESULTS

014

APPENDIX A1

ROCK CHIPS

013

PROJECT MT DONALDSON EL 57183		LOSS SILT (%)	SIZE CODE	MESH NUMBER	SAMPLE TYPE CODE	<input type="checkbox"/> WEATHERED BEDROCK W	CARD PUNCH PRINT		VERIFY	DATE	SHEET	
		A 200	0 00	0 50	<input type="checkbox"/> OXIDIZED PRODUCTS O	<input type="checkbox"/> AIRFALL TRANSPORTED T	YES	NO	YES	NO	30/3/89	#1
		B 100	2 00	11 20	<input type="checkbox"/> FRESH ROCK R	<input checked="" type="checkbox"/> RESIDUAL SOIL V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		C 100	7 00		<input type="checkbox"/> FRESH SEDIMENTS S	<input type="checkbox"/> LIME ROCK M						

EASTINGS										NORTHERNS										DEPTH	SITE	TYPE	METAL VALUES PPM	GEOLOGICAL LOG																																																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
3403405391150516104																					Soil		<u>Cu, Pb, Zn, Au, Ag, As, Ba.</u>	or-br Soil & local Agate & Sil Dbl mine																																																							

544016

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

23.3.08.06105

11/04/89

6251

1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	Ba	As		
2	516104	170	50	180	<0.5	<0.005	30	10		

544017

MT DONALDSON
EL 51193

Billings #2

O.I. (AMG)

(AMG)

CRUISE CRACK

3400005390950513885

UNNAMED CRACK

3397405390230513886

3397205390240513887

3397005390240513888*

3396955390240513889

3396355390230513890

3396105390230513891

— " — 513892*

Cu, Pb, Zn, Au, Ag, Ar, Bi, Sn, Sb, Hg

alc

n.

alc (sol)

alc

n.

alc

alc

alc

gy-lak sil & str fact staining

or-br goss Se/Ox S

or-ym sil & lac ch silbacte

bc-gy meta sil & v.

or-br limonite gossam

or-br " — " gossam

or-br Q/Limonite gossam

gy-br chert b.

*denotes Petrological Description Available

544018

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		23.3.08.06651				24/11/89		7366		1 OF 2	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	AuChk	Ba	Sb	Sn	
1	513885	<5	15	60	1.0	<0.008	-	30	<3	<3	
2	513886	200	25	1150	<0.5	<0.008	<0.008	<10	10	4	
3	513887	70	5	50	0.5	<0.008	-	20	7	<3	
4	513888	15	<5	35	1.0	<0.008	-	<10	<3	<3	
5	513889	195	25	1850	<0.5	<0.008	-	<10	7	4	
6	513890	20	20	670	<0.5	<0.008	-	<10	<3	<3	
7	513891	15	10	320	0.5	<0.008	-	<10	<3	<3	
8	513892	15	5	145	0.5	<0.008	-	45	4	4	
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23	DETECTION	5	5	5	0.5	0.008	0.008	10	3	3	
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
25	METHOD	101	101	101	101	309	309	401	401	401	

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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544019

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

23.3.08.06651

24/11/89

7366

2 OF 2

TUBE No.	SAMPLE No.	Hg							
1	513885	0.020							
2	513886	0.045							
3	513887	0.030							
4	513888	0.030							
5	513889	0.020							
6	513890	0.055							
7	513891	0.020							
8	513892	0.020							
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23	DETECTION	0.005							
24	UNITS	ppm							
25	METHOD	122							

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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544020

APPENDIX A2
STREAM SEDIMENTS

MT DONALDSON

EL 57183

02 (1/16)

(ANIG)

stream sed

01/18/80 #1

TRAPPIE DESCRIPTIONS

QUINCES CREEK

3402805390990513789

3402605390960513790

UNNAMED CREEK

3399505390290513791

3395505390210513792

3393705390360513793

-20#

Cu, Pb, Zn, Au, Ag, As, Ba, Sr, Sb, Hg

✓
✓
✓
✓
✓

Flow

Incision

Major Flood Types

S
S
M
M
M

M
M
W
M
M

silt, dm, vQ & midst.
" " "
Ss, vQ, carb Sh & Gnl
Qtz, vQ & mala Sst.
Qtz & mmr vQ.

544022

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

022

23.3.08.06642

17/11/89

7362

1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	AuChk	Ba	As	Sn
1	513789	30	15	75	0.5	<0.008	-	310	2	6
2	513790	10	20	30	<0.5	<0.008	<0.008	240	4	6
3	513791	10	<5	5	<0.5	<0.008	-	25	<2	10
4	513792	10	<5	10	1.0	<0.008	-	120	<2	<3
5	513793	15	10	5	<0.5	<0.008	-	75	<2	4
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	0.008	10	2	3
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
25	METHOD	101	101	101	101	309	309	401	401	401

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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544023

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SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

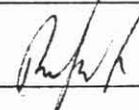
CLIENT ORDER No.

PAGE

TUBE No.	SAMPLE No.	Sb	Hg	Wt						
023		23.3.08.06642			17/11/89		7362		2 OF 2	
1	513789	<3	0.055	56.7						
2	513790	<3	0.010	87.1						
3	513791	5	0.020	81.9						
4	513792	<3	0.010	66.3						
5	513793	<3	0.005	54.1						
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	3	0.005	0.1						
24	UNITS	ppm	ppm	gms						
25	METHOD	401	122	9807						

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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544024

MT DONALDSON

EL 5783

(Area)

(Area)

024

4/11/80 #2

TRAPS AND DESCRIPTIONS

GUMMICK CREEK

3402755390750513798

3403605391290513799

3403905391295513800

-80*

Cu, Pb, Zn, Au, Ag, As, Sb, Sn, Ba, Wt., Hg

✓

✓

✓

544025

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ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No

PAGE

025

23.3.08.06656

23/11/89

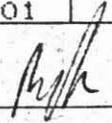
7382

1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	AuChk	Ra	As	Sb
1	513798	55	45	165	0.5	0.011	-	280	8	3
2	513799	35	25	140	0.5	<0.008	-	430	3	3
3	513800	10	15	85	0.5	<0.008	<0.008	50	<2	<3
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21	Weight of sample 513798 for Au/309 was 22.59gms									
22	Weight of sample 513799 for Au/309 was 13.87gms									
23	DETECTION	5	5	5	0.5	0.008	0.008	10	2	3
24	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
25	METHOD	101	101	101	101	309	309	401	401	401

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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SAMPLE PREFIX

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CLIENT ORDER No.

PAGE

026

23.3.08.06656

23/11/89

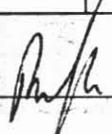
7382

2 OF 2

TUBE No.	SAMPLE No.	Sn	Hg	Wt				
1	513798	3	0.040	52.3				
2	513799	10	0.050	45.8				
3	513800	<3	0.050	144.0				
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21	Weight of sample 513798 for Au/309 was 22.59gms							
22	Weight of sample 513799 for Au/309 was 13.87gms							
23	DETECTION	3	0.005	0.1				
24	UNITS	ppm	ppm	-gms				
25	METHOD	401	122	9807				

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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544027

544028

APPENDIX B

PANNED CONCENTRATE EXAMINATION-COMINEX

028

TO: Rod Henham - Aberfoyle Resources
FROM: Hugh Nolan - Cominex
DATE: December 1989
RE: E.L. 57/83 Mt. Donaldson
SUBJECT: MICROSCOPE EXAMINATION
PANNED CONCENTRATE SAMPLES
DPC 101 - DPC 110

Examination Procedure

Bulk samples of approximately 20 kg (two laden dishes) were taken from a drainage course. This material was panned down to a concentrate of approximately 10 grams in the field. After scanning by microscope this concentrate was further reduced by panning to approximately 2 grams and dried for more detailed examination.

Examination was carried out using an Olympus 10-40X zoom binocular microscope.

Panned Concentrate Descriptions

SAMPLE - DPC101

Predominantly Tertiary gravel heavy mineral suite accompanied by locally derived magnetite, haematite, epidote, fine silica and minor, although above average quantity of iron, chalco and arsenopyrite.

Four grains of gold, one grain being well water worn, flattened and rich in colour consistent with Tertiary gravel gold. The other three grains less rich in colour and less water worn. Their original angular form still evident although rounded on external exposed surfaces. Whilst not chrystalline, their form and colour and the accompanying sulphides suggest these grains may be of local derivation.

SAMPLE - DPC 102

Predominantly Tertiary gravel heavy mineral suite accompanied by a minor quantity of very fine iron pyrite.

Three grains of gold, two being of Tertiary gravel style, the third being very fine, slightly less rich in colour displaying angular form where intergrown with small quartz particle and water worn on exposed surfaces.

SAMPLE - DPC 103

Predominantly Tertiary gravel heavy mineral suite accompanied by minor quantities of fine magnetite, haematite and epidote of local derivation.

Seven very fine grains of gold. Each being flattened, water worn and rich in colour. Consistent with tertiary gravel gold.

SAMPLE - DPC 104

Predominantly Tertiary gravel heavy mineral suite accompanied by magnetite, haematite and epidote of local derivation.

Two grains of Tertiary gravel type gold.

SAMPLE - DPC 105

Predominantly Tertiary gravel heavy mineral suite accompanied by magnetite, haematite, and epidote of local derivation.

Four fine grains of Tertiary gravel type gold.

SAMPLE - DPC 106

Note: This sample taken as follow up subsequent to results of DPC 101.

Predominantly Tertiary gravel heavy mineral suite accompanied by locally derived magnetite, haematite, green epidote, fine silica and minor, although anomalous quantities of fresh pyrite, chalcopyrite and arsenopyrite.

Ten grains of gold observed. Three grains being consistent in colour and form with Tertiary gravel gold. Three grains displayed angular form with rounding on exposed surfaces and were pale in colour. Four grains, very pale in colour, displayed little or no travel damage and displayed excellent crystalline form.

Of the ten grains of gold observed in this sample, seven grains are from a nearly primary source.

SAMPLE - DPC 107

Predominantly green to yellow granular epidote accompanied by magnetite and haematite. Minor Tertiary heavy mineral suite.

No gold observed.

SAMPLE - DPC 108

Predominantly Tertiary gravel heavy mineral suite accompanied by fine angular silica.

One grain of Tertiary gravel style gold observed.

SAMPLE - DPC 109

Predominantly Tertiary gravel heavy mineral suite.

Fine grains of tertiary gravel style gold observed.

SAMPLE - DPC 110

Predominantly fresh mascasite accompanied by pyrite and Tertiary gravel heavy mineral suite. Anomalous quantities of water worn and undamaged chrystalline cassiterite.

Fifty six grains of Tertiary gravel gold were present in this sample. (20 kg wash material proceeded 0.1 grams Au, equivalent to 5 g/t).

544032

APPENDIX C

PETROLOGICAL REPORTS - DR. A. CRAWFORD

032

SAMPLE: 513888**SUMMARY:**

This sample is probably a thoroughly silicified former dolomitic sandstone or micrite.

HAND SPECIMEN

This is a dark grey to black, extremely fine-grained massive, hard mudstone or siltstone with mottled black patches and fractures, and no visible sedimentary structures.

THIN SECTION DESCRIPTION:

In thin section, this sample is seen to be composed almost completely of a very fine-grained intergrowth of blebby secondary quartz. The only remnant of original structure or texture is a faint ghost outline of former larger grains to around 1mm long, giving in plane polarized light the impression of an open-framework sandstone precursor, although this is by no means certain. Several fractures through the sample are highly irregular and convoluted, and give the impression of being former stylolites. Supporting this is the observation that abundant fine-grained (insoluble?) Fe oxides are concentrated along these fractures.

This sample is exceptionally difficult to diagnose. My best bet is that it was a dolomitic sandstone or micrite/packstone of some type that was totally silicified during a post-diagenetic alteration phase or event.

SAMPLE: 513892

SUMMARY:

This is a chert cut by an intense fracture network, with dilational fractures being infilled an amorphous quartz-limonite (or goethite?) material.

HAND SPECIMEN

This is a grey-brown very siliceous, cherty, fractured fine-grained sedimentary rock.

THIN SECTION DESCRIPTION:

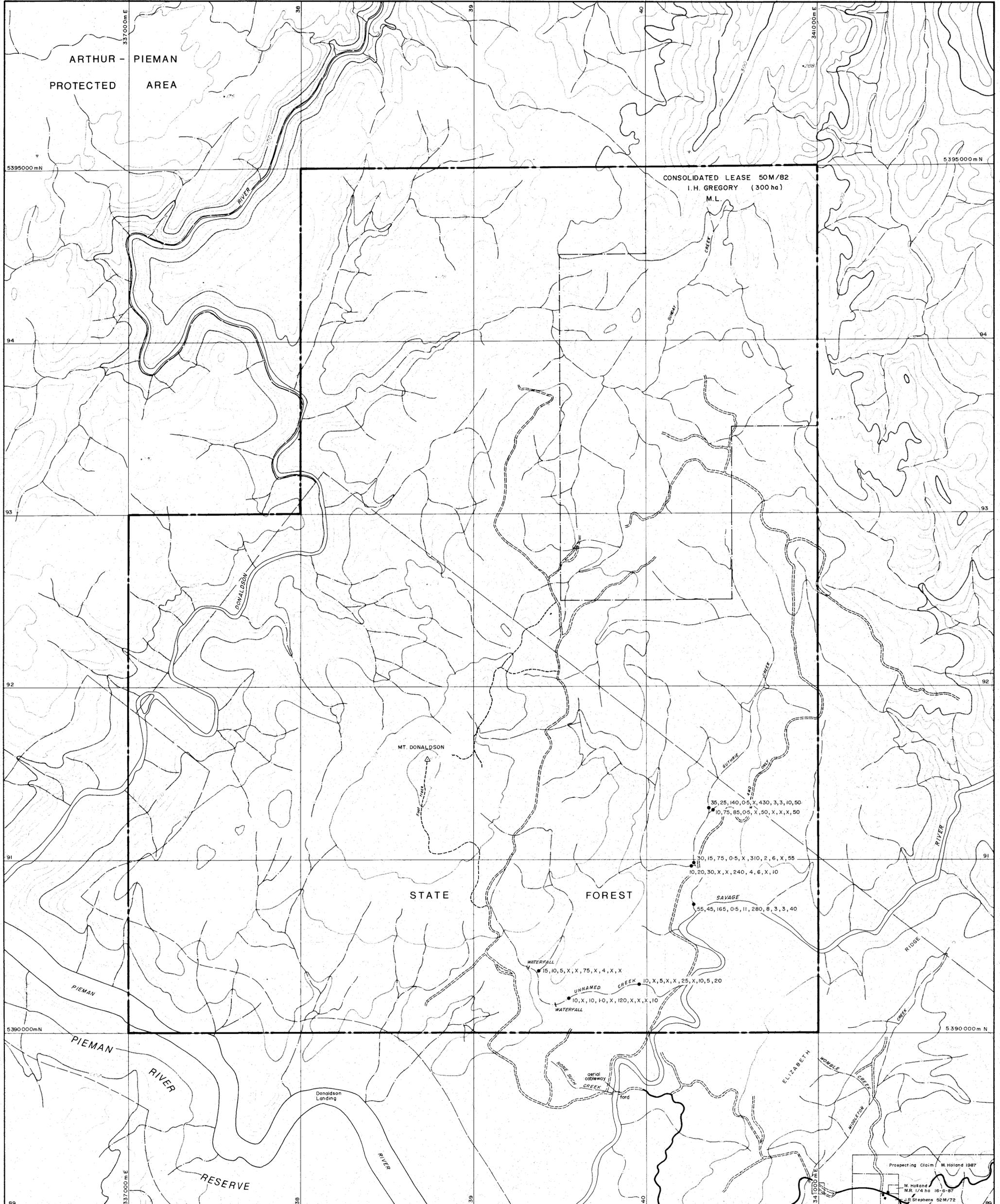
This is a fine-grained cherty rock with a remarkably even texture, that is criss-crossed by a fairly intense fracture network. The rock is composed essentially of microcrystalline silica. Occasionally, quartz grains of somewhat larger size are crystallizing from high strain zones where fractures terminate or begin. Many of the fractures are dilational, and have filled with a brown material composed of microcrystalline quartz embedded in limonite or goethite, and possibly some dark manganese oxide. In a few places, this amorphous brown material invades the chert adjacent to the fracture fillings, producing a diffuse mottling of the chert.

I have no evidence from this thin section that this sample was anything other than a chert. It may have had a dolomite precursor, but if it did, any trace of former texture and mineralogy has been obliterated by silicification.

APPENDIX D

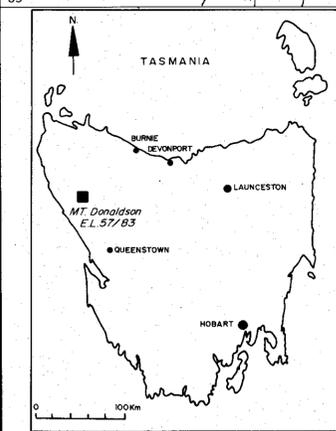
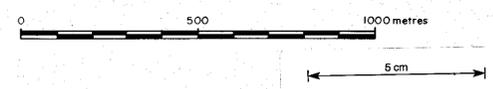
TABLE OF GEOLOGICAL ABBREVIATIONS

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

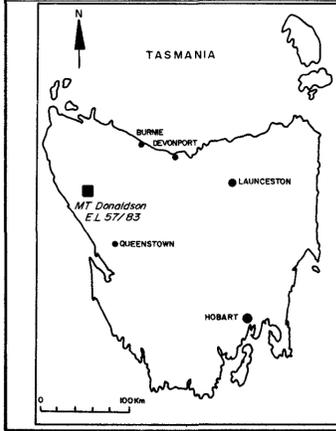
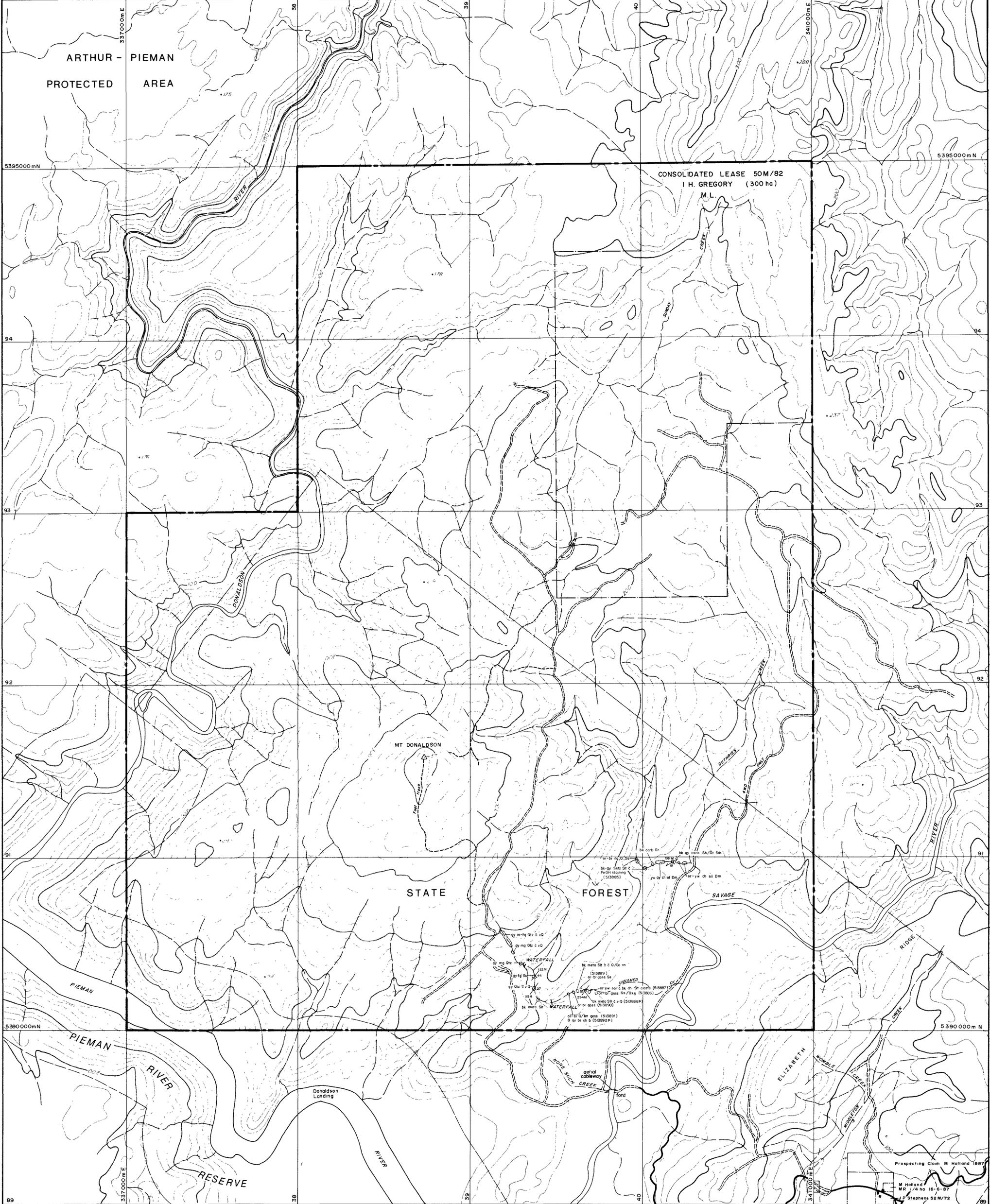


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NOTE
Cu, Pb, Zn, Ag, Au, Ba, As, Sn, Sb, Hg. All results in ppm except Au and Hg which are in ppb.



Aberfoyle Resources Limited EXPLORATION DIVISION				NORTH WEST TASMANIA MT. DONALDSON E.L. 57/83		Compiled: R J H Drawn: R J E Traced: J M S Checked:																																					
STREAM SEDIMENT SAMPLE RESULTS				Location Code:		Scale: 1:10,000 Date: December 1989 Plate No: MT. D. 3																																					
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NB For all geological abbreviations see Appendix D
 Sample numbers with P suffix denotes petrological description available (see Appendix C)

544039



89-3066

Aberfoyle Resources Limited
 EXPLORATION DIVISION
 NORTH WEST TASMANIA
MT. DONALDSON E.L. 57/83
 OUTCROP GEOLOGY

REVISIONS			
Int	Date	Int	Date

Location Code: _____ Scale: 1:10,000 Date: December, 1989

Compiled: R.J.H.
 Drawn: R.J.E. R.J.H.
 Traced: R.J.E.
 Checked: R.J.H.
 Plate No: MT D 4