

89-3015

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<u>15. 9. '89</u>	
<u>REFERS</u>	
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EXPLORATION LICENCE 22/88

NEWDEGATE CREEK

TASMANIA

REPORT ON EXPLORATION

TO 14th OCTOBER 1989

89 - 3015

**MICROFILMED**

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SEPTEMBER 1989.

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- A. ASSAY RESULTS
- A.1 ROCKCHIPS
- A.2 STREAM SEDIMENTS
- B. TABLE OF GEOLOGICAL ABBREVIATIONS
- C. ADDITIONAL ASSAY RESULTS (SEE LAST PARAGRAPH PAGE 1) AND REVISED PLATES NC 3/2, NC 5/2 - IN ENVELOPE AT BACK OF REPORT.

**PLATES**

- NC 2/2 NEWDEGATE CREEK EL 22/88 STREAM SEDIMENT LOCATIONS  
NC 3/2 NEWDEGATE CREEK EL 22/88 OUTCROP GEOLOGY  
NC 4 NEWDEGATE CREEK EL 22/88 LOCATION PLAN  
NC 5/2 NEWDEGATE CREEK EL 22/88 STREAM SEDIMENT ASSAY RESULTS

## 1. SUMMARY

This Report summarises exploration activity on EL 22/88 Newdegate Creek by Aberfoyle Resources Limited for the 12 months to the 14th of October, 1989.

The main aim of exploration was to assess the potential of dolomite/mudstone contacts in the vicinity of Bernafai Ridge and the western slopes of Tikkawoppa Plateau for Brookside style Au mineralization. A stream sediment program was planned for these regions. Extremely dense vegetation precluded much of the area of interest from exploration. An access grid or helicopter will be required for efficient exploration in these areas.

Exploration was therefore restricted to the southern portion of the EL and undertaken during the months of August and September, 1989.

Results from this program were generally disappointing with the exception of anomalous Sn in a number of the stream sediment samples from the Newdegate Creek watershed.

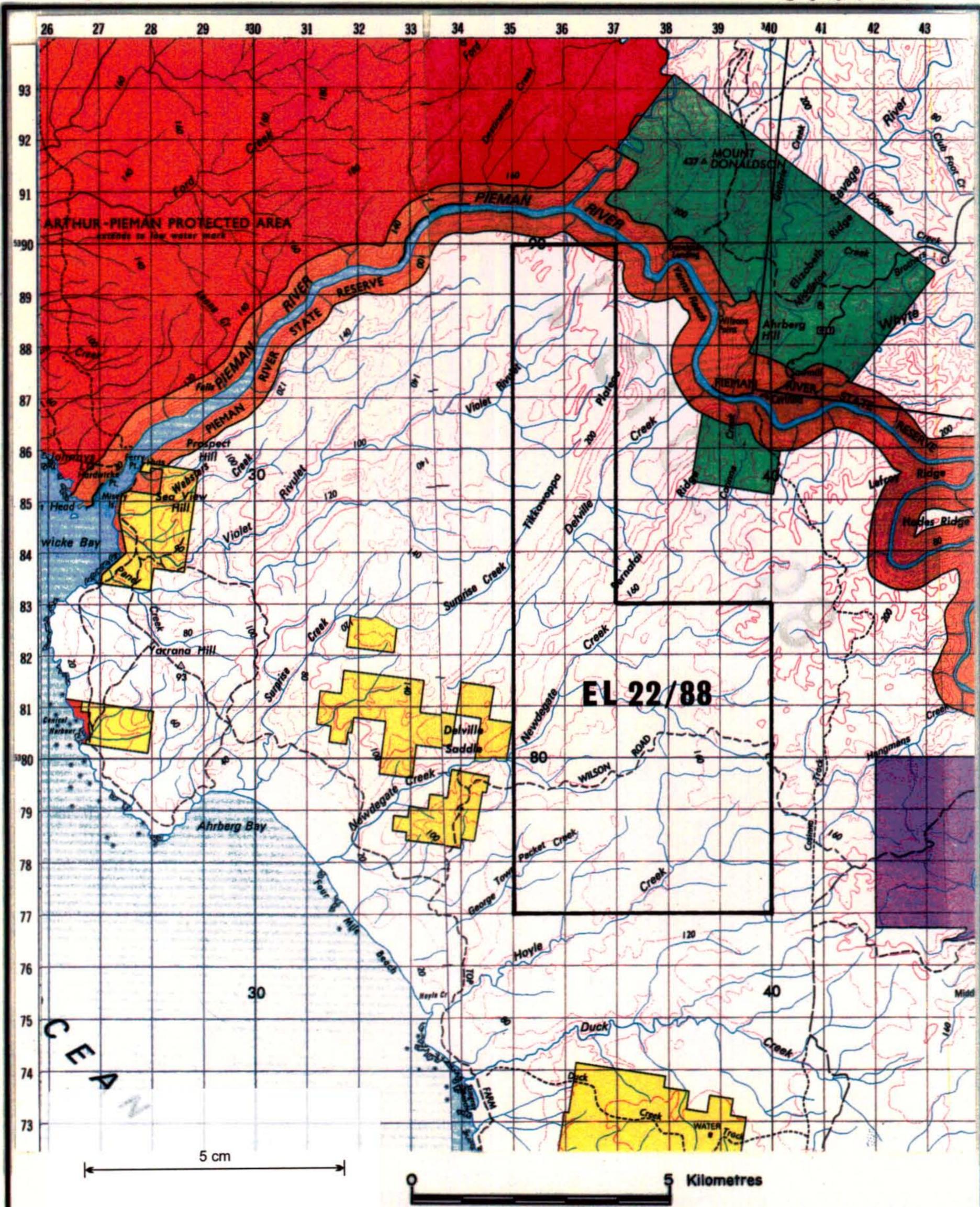
A number of assay results are awaited and will be included in future reports. These include As for stream sediments taken from the Newdegate Creek watershed and Au,As and Hg for the 3 rockchips taken from the southern portion of the licence.

## 2. INTRODUCTION

Exploration Licence 22/88 (Newdegate Creek) of 44 square kilometres is located between the Pieman River to the north and Granville Harbour to the south and west of Heemskirk Road (see plate NC 4). The majority of the licence is flat lying and densely vegetated with tea tree, horizontal and baura scrub with occasional stands of rainforest species.

Exploration in 1989 was conducted in the southern portion of the licence where access was limited to a single forestry track from the Heemskirk Road.

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



**Aberfoyle Resources Limited**  
EXPLORATION DIVISION

NORTH WEST TASMANIA

**NEWDEGATE CREEK E.L.22/88**  
**LOCALITY MAP**

Compiled : RJE

Drawn : Dept. Lands

Traced :

Checked :

Plate No. : NC 4

REVISIONS			
Init.	Date	Init.	Date

Location Code :

Scale : 1 : 100,000

Date : September, 1989

### 3. EXPLORATION HISTORY

#### 3.1 CRA Exploration Pty. Ltd. (1977-1986)

Ground investigations were limited to follow-up of anomalies generated by examination of the Rio Tinto (1956) and Mines Department (1982) airborne magnetic surveys.

On this basis no modern ground investigations were conducted within the boundaries of EL 22/88.

The Alpine and Gourlays Creek Prospects lie south-east and south of the licence boundary. Drilling at both prospects intersected low grade base-metal mineralization.

A limited stream sediment survey was conducted west of the licence boundary on the western slopes of Tikkawoppa Plateau with no significant anomalies generated.

Approximately 3.7km of gridding was cut on the southern portion of the licence in the vicinity of Hoyle Creek as an extension to the Alpine Prospect grid. Although the grid lies over a significant magnetic high, no ground investigations appear to have been done.

#### 3.2 Kingston Minerals (1986-1987)

Mines Department research indicates no exploration was carried out by Kingston Minerals for the period the licence was held.

#### 4.0 REGIONAL GEOLOGY

The geology of the Newdegate Creek licence is dominated by an essentially north-south trending sequence of Precambrian volcanics and sediments.

In the eastern portion of the licence the Precambrian is known as the Arthur Lineament Complex and consists of pelitic schists, metaquartzites and amphibolites that have been metamorphosed to upper greenschist facies in places.

West of the Arthur Lineament is a younger sequence of north-south trending basaltic lavas and dolerite intrusives, flanked either side by interbedded pelitic and volcanic derived siltstones and shales. These facies are collectively known as the Bernafai Volcanics. Overlying the Bernafai Volcanics in the vicinity of Newdegate Creek is a thick unit of locally silicified stromatolitic dolomites known as the Corinna Dolomite. A repetition of these same lithologies occurs further west where the dolomite of the sequence is known as the Savage Dolomite.

Further west at Tikkawoppa Plateau a mudstone/chert unit is underlain by orthoquartzite with a basal conglomerate unit.

Resting unconformably on these sediments to the west are further units of Precambrian quartzites.

Structural relationships between the various units of the Precambrian are poorly understood. Distinct similarities between separate units of the Bernafai Volcanics, and their associated sediments, gives rise to the theory of faulted or folded repetitions of the same sequence. Given the magnitude of displacement required for a faulted repetition of the sequence, the folded model is favoured.

Overlying the Precambrian, north-west of Tikkawoppa Plateau, and in the southern portion of the licence, southeast of Hoyle Creek, is an unconformable unit of Tertiary non-marine sediments ranging from mudstones to quartz sands and gravels.

Tertiary flows of a glassy basaltic lava overlie the Precambrian in the southwest portion of licence.

## 5.0 EXPLORATION ACTIVITY - 1989

### 5.1 Regional Stream Sediment Survey

#### 5.1.1 Introduction

A stream sediment survey was to be conducted over the mudstone/dolomite contacts at Bernafai Ridge and west of Tikkawoppa Plateau in search of Brookside style Au mineralization. It was intended that -80 mesh sieved samples of stream sediment should be assayed for Cu, Au and As. Anomalous values for any of these three elements would be followed up with a pan concentrate sample which would be microscopically examined for the presence of primary crystalline Au, indicating proximity to bedrock source.

Unfortunately thick vegetation and poor access limited exploration to the southern portion of the licence via Mines Department cut tracks from Wilson Road. Sediment sampling and creek traverse mapping was undertaken on the drainage systems of Newdegate and Hoyle Creeks (see Plate NC 2/2). In conjunction with the stream sediment program part of the western extension of CRAE's Alpine Grid was mapped.

#### 5.1.2 Geology (see Plate NC 3/2)

The majority of the southern portion of the licence explored is covered by a layer of Tertiary gravel and basalt. For this reason outcrop is extremely poor with only some creek sections having exposed the sub-Tertiary geology. The recessive weathering characteristics of the Corinna and Savage Dolomites precludes the possibility of outcrop except in deeply incised creek sections.

The youngest rocks on the licence are Tertiary in age and appear as black-grey, weakly vesicular, glassy basalts outcropping as sheet flows south and east of Bernafai Ridge. Subsequent erosion has left these basalts occupying weakly elevated areas of the licence.

Creek mapping along Newdegate Creek traversed a section of the Precambrian Bernafai Volcanics which occur as fine grained dolerites and basaltic to andesitic lavas with occasional volcanoclastic interbeds.

The only other rocks mapped during exploration appeared in sections of Hoyle Creek and on parts of the CRAE grid nearby. Ranging from micaceous and graphitic schists and mudstones to weakly schistose fine to medium-grained quartzites, sandstones and volcanomict greywackes, these rocks are most likely from the Precambrian Aurthur Lineament Complex. Measurements of cleavage strike essentially to the west with steep dips.

#### 5.1.3 Alteration

No significant alteration occurred in any of the outcrops examined except for minor chlorite alteration in some of the Precambrian volcanoclastic facies. Pervasive oxidation of the Tertiary basalts as a result of weathering occurs throughout the licence.

#### 5.1.4 Mineralization

The only mineralization encountered appeared as stratabound pyrite and arsenopyrite in a structurally deformed sample of graphitic shale from the Precambrian Aurthur Lineament Complex in Hoyle Creek.

#### 5.1.5 Geochemistry (see Appendix A)

##### Rockchips

Only 3 rockchips were taken (see Plate NC 3/2 for sample locations). This is a reflection of both their abundance and economic interest.

Although results for Au, As and Hg are awaited none of these samples are anomalous for the results to hand.

##### Stream Sediments

A total of 21, -80 mesh stream sediment samples were taken from the drainage systems of Newdegate and Hoyle Creeks (see Plate NC 3/2 for sample locations & NC 5/2 for assay results).

Results for As in samples from the Newdegate Creek drainage system are awaited.

In general results from both creek systems were disappointing. Anomalous Sn (>300 ppm, max 1750 ppm) occurs in 3 samples from the Newdegate Creek watershed. Only one of these samples is supported by anomalies in either Cu or Au (0.021 ppm Au).

The source of this anomalism is possibly the Tertiary lead system of gravels, which is present as a high percentage of the sediment load in the majority of the Newdegate Creek system, and has been worked for alluvial Sn throughout the region for well over 100 years.

6.0 CONCLUSIONS

1. The source of anomalous Sn in -80 mesh stream sediments from the Newdegate Creek system is unknown. It is possibly related to Tertiary gravels known to host alluvial Sn elsewhere in the region. Outcrop of a prospective bedrock host for Sn mineralization is unlikely due to the thickness of Tertiary cover.
2. Lack of significant Au anomalies in the stream sediments sampled to date is most likely a result of sample location. That is, access to the most prospective areas in the licence for Brookside style Au mineralization was restricted due to the thickness of vegetation and their distance from Wilson Road and the Pieman River.

## 7.0 RECOMMENDATIONS

1. The anomalous Sn encountered in samples from the Newdegate Creek drainage system be follow-up by pan concentrate sampling and microscopic analysis of the heavy mineral suite. Some of the more incised creek sections should be traversed for the presence of outcrop.
2. A regional access track be cut from Wilson Road to Bernafai Ridge to facilitate access to prospective areas for Brookside style Au mineralization. Further access tracks may be required from Bernafai Ridge for both access to creek systems and geological mapping. Any exploration in the vicinity of Tikkawoppa Plateau would require helicopter support.
3. The area south of Wilson Road is dominated by deformed schistose rocks of the Precambrian Arthur Lineament Complex which are considered unprospective for Au mineralization. The amphibolites of this sequence may however warrant exploration for base metal mineralization given the fact they host the Savage River Magnetite/Pyrite Deposits which are thought to be exhalative in origin. The limited exploration done in this region to date has not yet tested the potential of the amphibolite horizon.

8.0 REFERENCES

**TURNER, N.J. & WILLIAMS, E. (1973)**

Geological Atlas 1:250000 Series Sheet No. SK-55/3 BURNIE.  
Geological Survey Explanatory Report.  
Dept. Mines Tasmania.

**WEIR, D.J. (1985)**

Rocky Cape EL 1/77.  
Progress Report on the Alpine Prospect for the Period 1st  
February, 1984 to 31st January, 1985.  
CRA Exploration Pty. Ltd. - Company Report.

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APPENDIX A  
ASSAY RESULTS

**APPENDIX A1**  
**ROCKCHIPS**



015

# ANALABS

Phone (09) 532 1111

52 Murray Road, Welshpool, W.A. 6106

**ANALYTICAL REPORT No.** 23.3.08.06499

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYSIS

Aberfoyle Resources Limited  
Exploration Division  
P.O. Box 952  
Burnie Tasmania 7320

8454

DATE RECEIVED

RESULTS REQUIRED

07/09/89

ASAP

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

1

19/09/89

1

3

STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT						ANALYSIS					
			DRY	CRUSH	SPLIT	PUL-VERSE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD		
		516926/928	RC									Cu, Pb, Zn, Ag/101, As/114		
		516926/928	RC									Au, AuChk/309		
		516926/928	RC									Hg/122		

RESULTS TO

R. de Bamford  
Aberfoyle Resources Limited  
Exploration Division  
P.O. Box 952  
Burnie Tasmania 7320

RESULTS TO

REMARKS

*ROUDEGARE  
CK  
Rockcamps*

STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorption	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemical means	CHEM
tissue	TL	fusion	AB	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

AUTHORISED OFFICER

592017

0017

# ANALABS ANALYTICAL DATA

SAMPLE NO.

23.3.08.06499

19/09/89

8454

1 OF 1

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Hg		
1	516926	90	15	100	<0.5	<0.008	5	0.055		
2	516927	230	15	135	<0.5	<0.008	<2	0.010		
3	516928	115	25	45	<0.5	0.028	30	0.025		
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	2	0.005		
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM		
25	METHOD	101	101	101	101	309	401	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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**APPENDIX A2**  
**STREAM SEDIMENTS**



ANALABS TASMANIA

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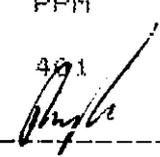
PRELIMINARY ANALYTICAL DATA

SAMPLE	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE					
	23.3.08.06446	08/09/89	8415	1 OF 1					
	Cu	Pb	Zn	Ag	WT	Au	Hg	Sn	Sb
516202	30	<5	65	<0.5	67.7	<0.008	0.020	470	<3
516205	10	<5	45	<0.5	239.2	<0.008	0.010	140	<3
516207	35	<5	85	<0.5	66.0	<0.008	0.010	1750	<3
516209	35	<5	55	<0.5	51.9	<0.008	0.045	15	<3
516222	15	<5	90	<0.5	116.3	<0.008	0.020	50	<3
516224	10	<5	75	<0.5	178.3	<0.008	0.010	140	<3
516226	35	<5	50	<0.5	75.2	0.012	<0.005	45	<3
516247	20	<5	55	<0.5	100.2	<0.008	0.010	60	<3
516249	65	<5	105	<0.5	55.1	<0.008	0.010	250	<3
516251	30	<5	40	<0.5	48.1	<0.008	0.010	60	<3
516253	45	<5	65	<0.5	59.0	<0.008	0.010	70	<3
516255	30	<5	300	<0.5	52.0	0.021	<0.005	1450	<3
516257	10	<5	60	<0.5	94.8	<0.008	<0.005	140	<3

N.B. Waiting on As results by XRF from Perth

DETECTION	5	5	5	0.5	0.1	0.008	0.005	3	3
UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
METHOD	101	101	101	101	199	309	122	401	401

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022

# ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

592023

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

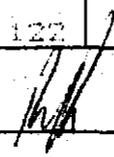
CLIENT ORDER No.

PAGE

SAMPLE PREFIX		REPORT NUMBER				REPORT DATE		CLIENT ORDER No.		PAGE	
		23.3.08.06478				12/09/89		8444		1 OF 2	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Wt	Hg	Sn	
1	516220	15	10	35	<0.5	<0.008	3	101.85	0.040	15	
2	516259	10	15	40	<0.5	<0.008	1	50.94	0.040	45	
3	516261	15	<5	40	<0.5	18	1	33.40	15	35	
4	516263	15	5	35	<0.5	<0.008	1	38.70	0.025	40	
5	516295	35	<5	45	<0.5	<0.008	9	38.49	0.040	40	
6	516298	15	<5	30	<0.5	<0.008	1	36.70	0.025	40	
7	516299	15	5	30	<0.5	<0.008	1	45.86	0.025	10	
8	516300	10	<5	25	<0.5	<0.008	<1	75.65	0.025	10	
9											
10											
11											
12											
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14											
15											
16											
17											
18											
19											
20											
21											
22	IS = Insufficient Sample										
23	DETECTION	5	5	5	0.5	0.008	1	0.01	0.005		
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	GRAINS	PPM	PPM	
25	METHOD	101	101	101	101	309	114	199	122	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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023

## ANALABS

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## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

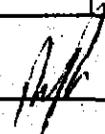
			23.3.08.06476	12/09/89	3444	2 OF 2	
TUBE No.	SAMPLE No.	Sb					
1	516220	<3					
2	516259	<3					
3	516261	<3					
4	516265	<3					
5	516295	<3					
6	516298	<3					
7	516299	<3					
8	516300	<3					
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22	IS = Insufficient Sample						
23	DETECTION	<3					
24	UNITS	PPM					
25	METHOD	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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**APPENDIX B**  
**TABLE OF GEOLOGICAL ABBREVIATIONS**

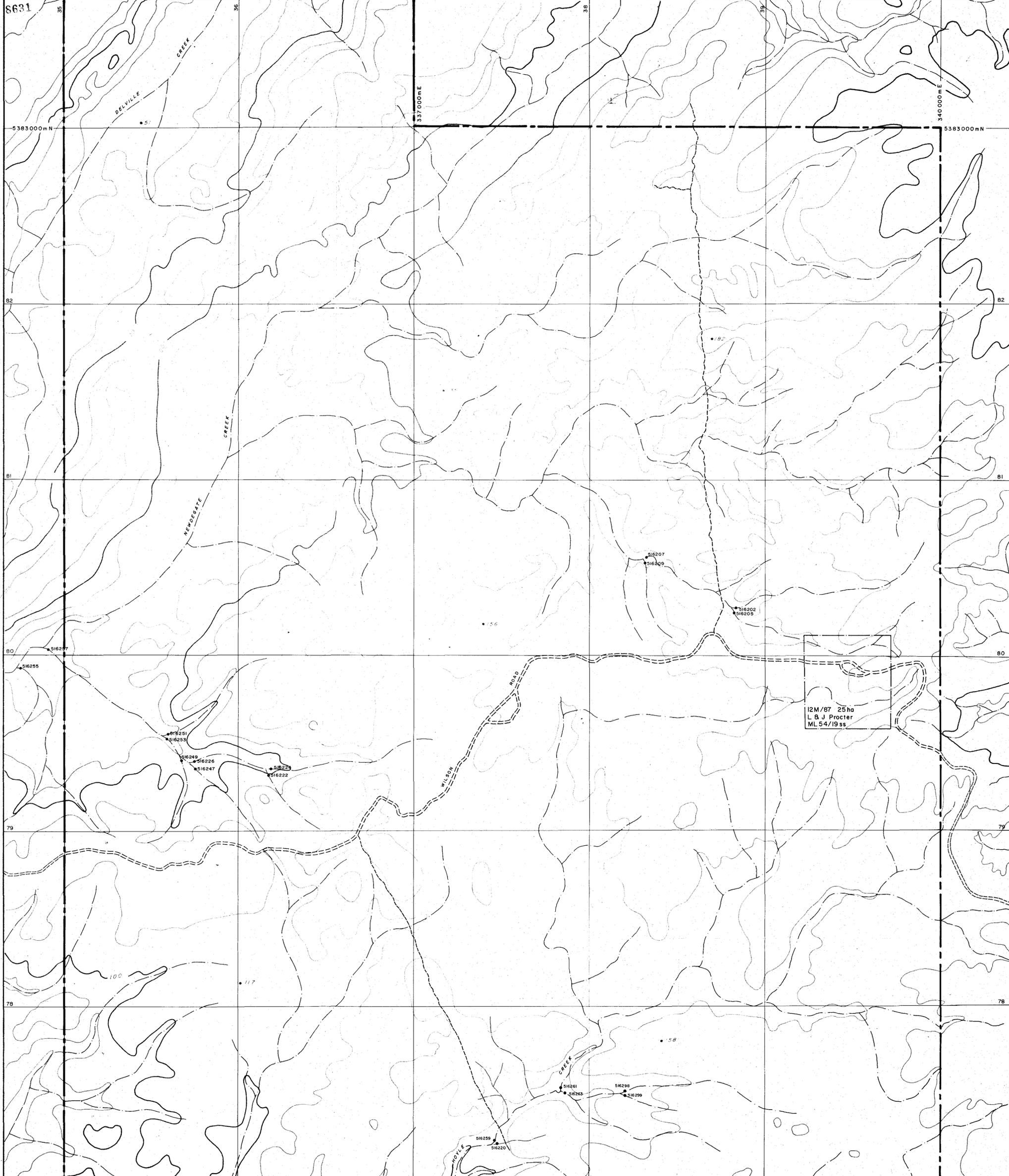
## GEOLOGICAL ABBREVIATIONS

Abundant	abn
Adularia	Adl
Agglomerate	agg
Albite	Ab
Alkali feldspar	Afd
Altered	alt
Amphibolitic	amb
Amphibole	Amb
Amygdaloidal	amg
Andalusite	An
Andesite	A
Angular	ang
Aplite	Ap
Approximate	apx
Arcuate	ar
Arenaceous	arn
Argillaceous	arg
Argillite	Arg
Arkose	Ak
Arkosic	ak
Arsenopyrite	Ap
Ash volcanoclastic	av
Autobrecciated	aub
Average	ave
Banded	bnd
Barite	Ba
Basalt	B
Bedded	bd
Biotite	Bio
Black	bk
Black shale	Bsh
Blue	bl
Boulder	bld
Breccia	b
Breccia volcanoclastic	bv
Bright	brt
Brown	br
Calcareous	cc
Calcite	Cc
Carbonaceous	carb
Carbonate	Co
Cavernous	cav
Chalcopyrite	Cp
Chert	Ch
Chlorite	Cl
Chromite	Cr
Chromitiferous	cr
Clay	cy
Coarse	c
Coarse grained	cg
Colloform	coll
Colour	col
Common	com
Conglomerate	Cg
Conglomeratic	cg
Crystal	x
Crystal volcanoclastic	xv
Dacite	D
Dark	dk
Dense	dns
Devitrification	dv

Diorite	Di
Disseminated	dis
Dolerite	Dol
Dolomite	Dm
Dyke	dy
Elongated	el
Emphasised	emp
Epiclastic (adj.)	e
Epiclastic (noun)	E
Epidote	Ep
Euhedral	euh
Eutaxitic	eux
Fabric	fab
Fault	F
Fault zone	FZ
Feldspar	Fd
Feldspar phyrlic	fp
Felspathic	fel
Ferruginous	fer
Fibrous	fb
Fine	f
Fine grained	fg
Fissile	fis
Flowbanded	fbn
Foliated	fo
Fragments	fr
Fuchsite	Fu
Galena	Gn
Glass	Gl
Glassy	gl
Gossan	Gos
Granular	glr
Graphite	Gt
Graphitic	gt
Green	gn
Grey	gy
Greywacke	Gw
Haematite	Hmt
Hornblende	Hb
Ignimbrite	Ig
Illite	Ill
Interbedded	ibd
Intercalated	icl
Intrusive	int
Jurassic	Ju
K-Feldspar	Kfd
Khaki	kh
Laminated	lm
Lapilli volcanoclastic	lv
Lava	l
Lava breccia	lb
Leached	lch
Limonitic	Lim
Light	lgt
Limestone	Lst
Lithic	lh
Magnetite	Mt
Massive	mas
Matrix	mtx
Matrix dominated	md
Medium	med
Medium grained	mg
Metamorphosed	meta
Mica	Mic
Micaceous	mic
Mineralised	min

Minor	mnr
Mixed	mxd
Bottled	mtl
Mudstone	Mst
Nodule	nd
Off white	ow
Olivine	Ol
Oolitic	oo
Orange	or
Ordovician	O
Oxidised	ox
Patchy	pat
Peperitic	pep
Perlitic	prl
Pervasive	per
Phenocrysts	phn
Phyllite	phyl
Phyric	p
Picrite	Pic
Pillow lava	pl
Pink	pk
Polymict	Y
Porphyritic	por
Predominantly	pred
Pumice	Pu
Pumiceous	pu
Purple	pp
Pyrite	Py
Pyritic	py
Pyroxene	Px
Pyrrhotite	Po
Quartz	Q
Quartzite	Qtz
Quellite	Qll
Questionable	?
Recrystallised	rx
Red	rd
Rehealed	rhd
Reworked	rw
Rhyodacite	RD
Rhyolite	R
Ripple marks	rmk
Round	rnd
Rubble	rbb
Sandstone	Ss
Schist	Sch
Schistose	sch
Sediment	sed
Selected fragments	sfr
Sericite	Se
Serpentine	Srp
Shale	Sh
Sheared	shd
Sheeted	sht
Siderite	Sid
Silica	Si
Siliceous	sil
Siltstone	slt
Slickenside	slk
Sphalerite	Sp
Spotted	spt
Spotty	spt
Stockwork	stw
Stratabound	stb
Strong	str
Structure controlled	stc

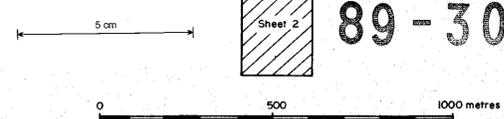
Talc	Tc
Tertiary	T
Tourmaline	Tm
Trace	tr
Trachyte	Tr
Tuff	Tf
Tuffaceous	tf
Variable	var
Variolitic	vr
Vein	vn
Vein concordant to bedd	cV
Vein discordant to bedd	dV
Very	v
Vesicular	ves
Vitric	vtr
Volcanic	vlc
Volcaniclastic	vlcl
Weak	wk
Weathered	wth
White	wh
Yellow	yw



12M/87 25 ha  
L & J Procter  
ML 54/19 ss

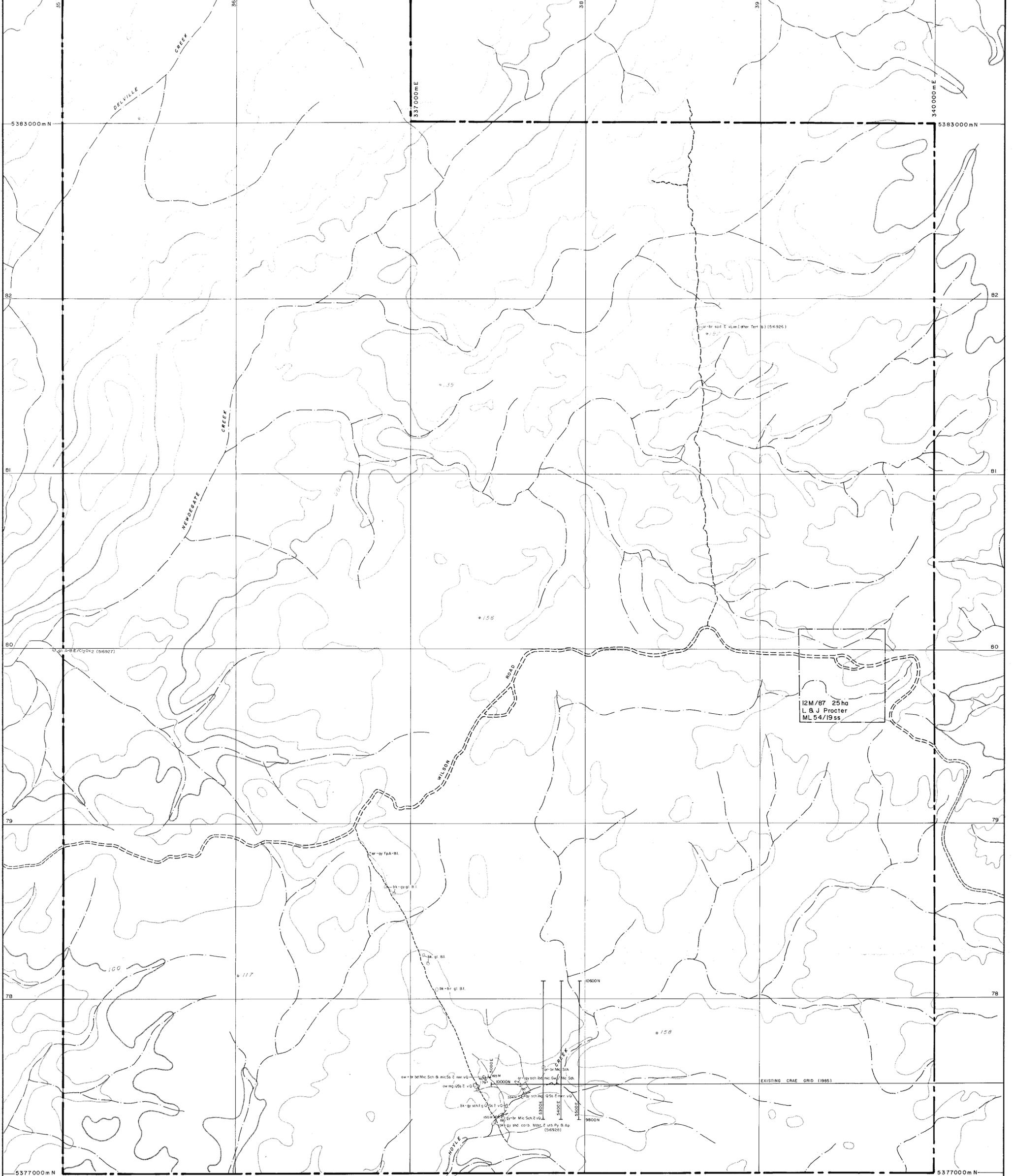


592030  
**89-3015**



<b>Aberfoyle Resources Limited</b>																					
EXPLORATION DIVISION																					
NORTH WEST TASMANIA																					
NEWGATE CREEK E.L.22/88																					
<b>STREAM SEDIMENT SAMPLE LOCATIONS</b>																					
<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>Init.</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>RJH/rj</td> <td>7-9-89</td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS		Init.	Date	RJH/rj	7-9-89									<table border="1"> <tr> <td>Compiled: RJH</td> </tr> <tr> <td>Drawn: JLR</td> </tr> <tr> <td>Traced:</td> </tr> <tr> <td>Checked:</td> </tr> </table>		Compiled: RJH	Drawn: JLR	Traced:	Checked:
REVISIONS																					
Init.	Date																				
RJH/rj	7-9-89																				
Compiled: RJH																					
Drawn: JLR																					
Traced:																					
Checked:																					
Location Code:	Scale: 1:10,000	Date: August, 1989	Plate No: NC 2/2																		

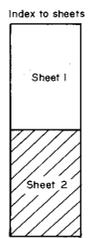




12M/87 25 ha  
L & J Procter  
ML 54/19 ss

EXISTING CRAE GRID (1985)

5 cm

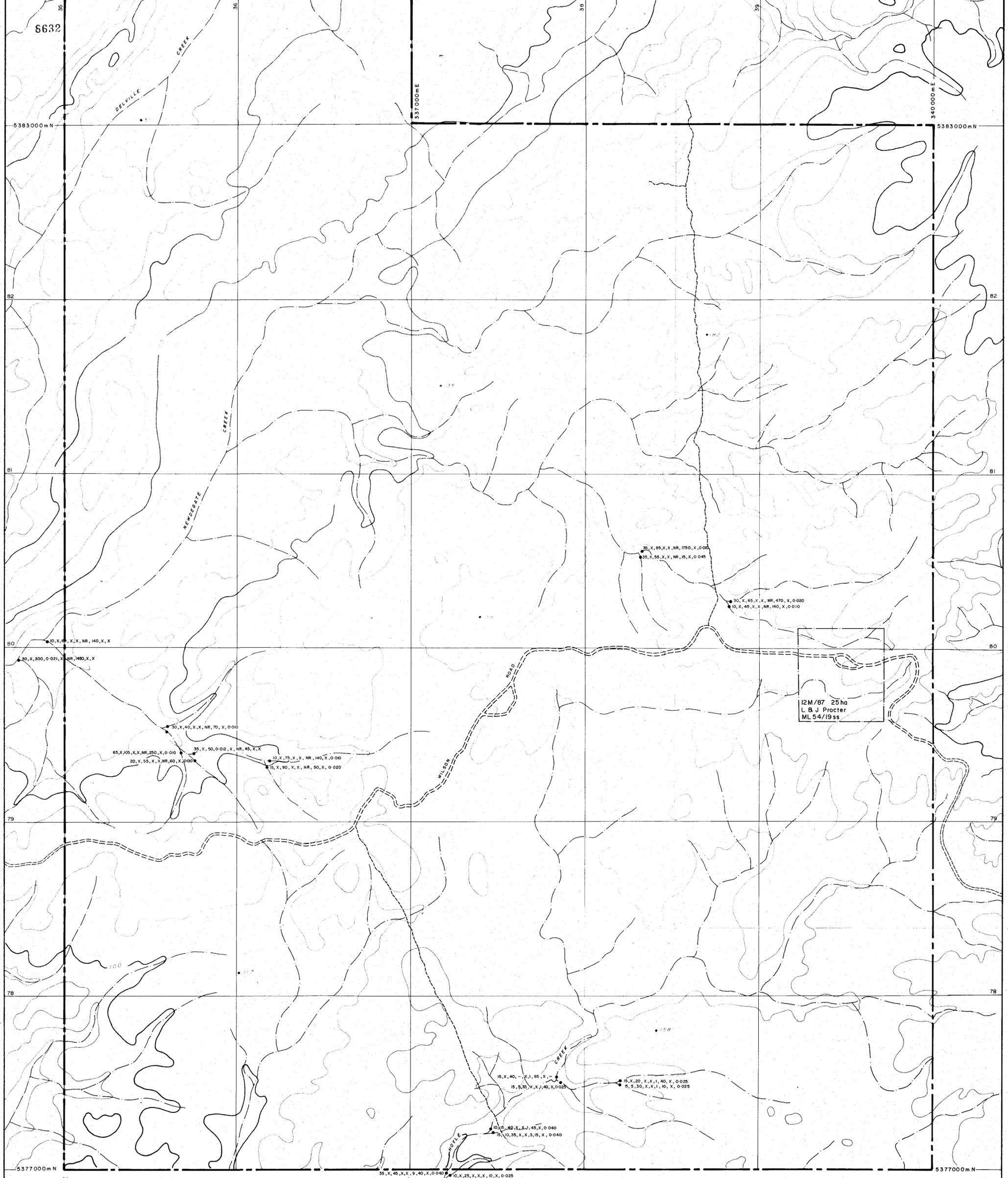


592032  
**89-3015.**

0 500 1000 metres

<b>Aberfoyle Resources Limited</b>																																					
EXPLORATION DIVISION																																					
NORTH WEST TASMANIA																																					
NEWDEGATE CREEK EL.22/88																																					
OUTCROP GEOLOGY																																					
<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>Init.</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> </tbody> </table>		REVISIONS		Init.	Date																					<table border="1"> <tr><td>Compiled:</td><td>RJH</td></tr> <tr><td>Drawn:</td><td>JLR RJE</td></tr> <tr><td>Traced:</td><td>RJE</td></tr> <tr><td>Checked:</td><td>RJH</td></tr> <tr><td>Plate No:</td><td>NC 3/2</td></tr> </table>		Compiled:	RJH	Drawn:	JLR RJE	Traced:	RJE	Checked:	RJH	Plate No:	NC 3/2
REVISIONS																																					
Init.	Date																																				
Compiled:	RJH																																				
Drawn:	JLR RJE																																				
Traced:	RJE																																				
Checked:	RJH																																				
Plate No:	NC 3/2																																				
Location Code:		Scale: 1:10,000		Date: September, 1989																																	

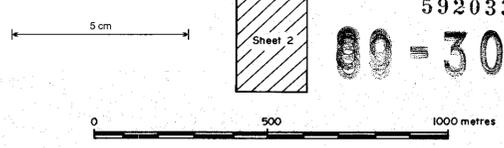
Revised



12M/87 25ha  
L & J Procter  
ML 54/19ss

All assay results are in ppm : Cu, Pb, Zn, Au, As, Ag, Sn, Sb, Hg  
X denotes below limit of detection  
NR denotes results not yet available

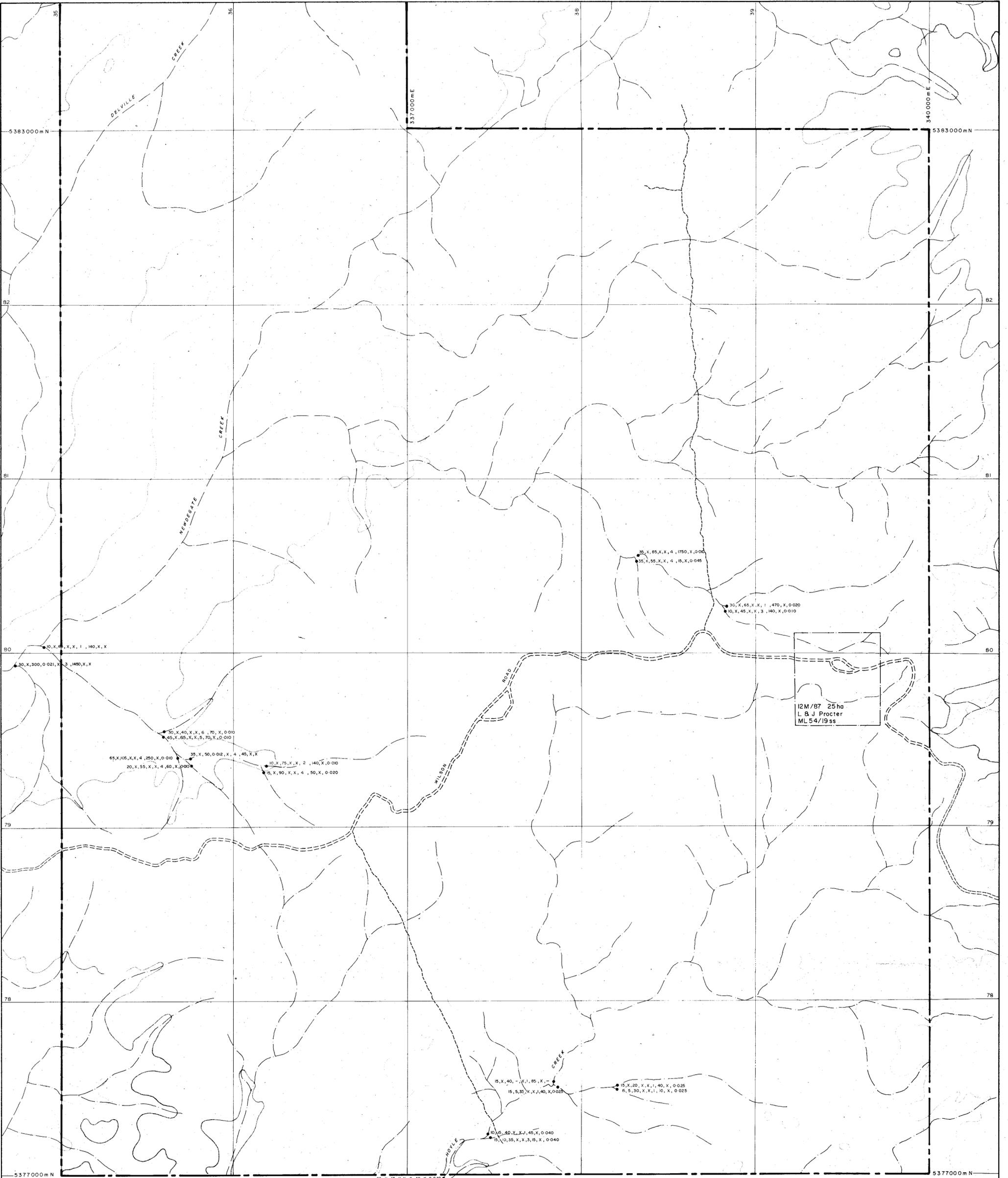
See notification of this transposition  
in letter from Aberfoyle (Folio 60 of EL22/88)  
Order has been corrected in the  
revised copy of MCS/2 enclosed in this  
report. - Appendix C



592033  
80-3015

REVISIONS				Compiled: RJH	
Init.	Date	Init.	Date	Drawn: JLR	
				Traced: RJE	
				Checked: RJH	
Location Code:		Scale: 1:10,000		Date: Sept., 1989	
				Plate No: NC 5/2	

**Aberfoyle Resources Limited**  
EXPLORATION DIVISION  
NORTH WEST TASMANIA  
NEWDEGATE CREEK E.L.22/88  
**STREAM SEDIMENT ASSAY RESULTS**



All assay results are in ppm : Cu, Pb, Zn, Au, Ag, As, Sn, Sb, Hg  
 X denotes below limit of detection

Index to sheets

Sheet 1	592034
Sheet 2	89-3015

5 cm

0 500 1000 metres

**Aberfoyle Resources Limited**  
 EXPLORATION DIVISION

NORTH WEST TASMANIA  
 NEWGATE CREEK E.L. 22/88

**STREAM SEDIMENT ASSAY RESULTS**

REVISIONS				Compiled: RJH	
Init	Date	Init	Date		
RJE	23/05			Drawn: JLR	
				Traced: RJE	
				Checked: RJH	

Location Code: \_\_\_\_\_ Scale: 1:10,000 Date: Sept, 1989 Plate No: NC 5/2

*Revised*

592035

**ANALABS**

A Division of MacDonal Hamilton &amp; Co. Pty. Ltd.

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

FAX: 004 31 8890

**ANALYTICAL REPORT No.** 23.3.08.06478**THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA**

ORDER No.

PROJECT

Aberfoyle Resources Exp. Division  
P.O. Box 952  
Burnie  
Tasmania 7320

B444

Newdegate

DATE RECEIVED

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ASAP

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OF COPIES

TOTAL No. OF SAMPLES

2

12/09/89

1

8

STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT						ANALYSIS				
			DRY	CRUSH	SPLIT	PUL- VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD	
	Various		So	Prep: 005,008,016							Cu, Pb, Zn, Ag/101, As/114		
	Various		Pu								Sn, Sb/401		
	Various		Pu								Hg/122		
	Various		Pu								Su/309		
	Various		So	Prep: 005,008,016							Wt/199		

RESULTS

TO

R. de Bomford  
Aberfoyle Resources Exp. Division  
P.O. Box 952  
Burnie  
Tasmania 7320

RESULTS

TO

REMARKS

NEWDEGATE CK.  
S/SEDS.

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration ITN
water WA	HF under pressure A7	other chemical means CHEM
tissue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		inductively coupled plasma ICP

AUTHORISED OFFICER

## ANALABS

A Division of Macdonald Hamilton &amp; Co. Pty. Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

23.3.08.06478

12/09/89

8444

1 OF 2

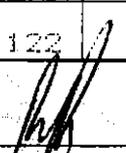
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1	516220	15	10	35	<0.5	<0.008	3	101.85	0.040	15
2	516259	10	15	40	<0.5	<0.008	1	50.94	0.040	40
3	516261	15	<5	40	<0.5	15	1	33.40	15	85
4	516263	15	5	35	<0.5	<0.008	1	38.70	0.025	40
5	516295	35	<5	45	<0.5	<0.008	9	38.49	0.040	40
6	516298	15	<5	30	<0.5	<0.008	1	36.70	0.025	40
7	516299	15	5	30	<0.5	<0.008	1	45.86	0.025	10
8	516300	10	<5	25	<0.5	<0.008	<1	75.85	0.025	10
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22	IS = Insufficient Sample									
23	DETECTION	5	5	5	0.5	0.008	1	0.01	0.005	5
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	grams	PPM	PPM
25	METHOD	101	101	101	101	309	114	199	122	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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OFFICER


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A Division of Macdonald Hamilton & Co. Pty. Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

23.3.08.06478

12/09/89

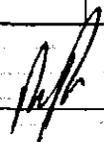
8444

2 OF 2

TUBE No.	SAMPLE No.	Sb							
1	516220	<3							
2	516259	<3							
3	516261	<3							
4	516263	<3							
5	516295	<3							
6	516298	<3							
7	516299	<3							
8	516300	<3							
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22	IS = Insufficient Sample								
23	DETECTION	3							
24	UNITS	PPM							
25	METHOD	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

AUTHORISED OFFICER



# ANALABS

A division of MacDonal Hamilton & Co. Pty. Ltd.

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

FAX: 004 31 8890

**ANALYTICAL REPORT No.** 23.3.08.06446

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

ORDER No.

PROJECT

Aberfoyle Resources Limited  
 Exploration Division  
 P.O. Box 952  
 Burnie Tasmania 7320

8415	Newdegate Ck
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23/08/89	ASAP

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2	28/09/89	1	13
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STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT						ANALYSIS				
			DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHC	
	Various		So	Prep: 097,018							Cu,Pb,Zn,Ag/101,As/114		
	Various		So								Sn,Sb/401		
	Various		So								Au,AuChk/309		
	Various		So								Hg/122		
	Various		So								WT/199		

RESULTS

TO

Aberfoyle Resources Limited  
 Exploration Division  
 P.O. Box 952  
 Burnie Tasmania 7320

RESULTS

TO

REMARKS

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core WC	perchloric acid A1	atomic absorption AAS
split core SC	hydrochloric acid A2	x-ray fluorescence XRF
cutting CU	nitric acid A3	spectrophotometry SPEC
rock Ro	aqua regia A4	colorimetry COL
soil SO	nitric-perchloric A5	chromatography CHR
pulp PU	HF mixture A6	titration IG
water WA	HF under pressure A7	other chemicals means CHEM
tissue TI	fusion A8	miscellaneous MISC
stream sediment SS		fluorescence FLUOR
heavy mineral HM		Inductively coupled plasma ICP

AUTHORISED OFFICER



# ANALABS

A Division of Inchcape Inspection and Testing Services Australia Pty Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

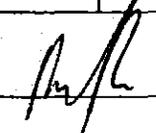
CLIENT ORDER No.

PAGE

		23.3.08.06446				28/09/89		9415		1 OF 2	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Hg	Sn	Sb	
1	516202	30	<5	65	<0.5	<0.008	1	0.020	470	<5	
2	516205	10	<5	45	<0.5	<0.008	3	0.010	140	<5	
3	516207	35	<5	85	<0.5	<0.008	4	0.010	1750	<5	
4	516209	35	<5	55	<0.5	<0.008	4	0.045	15	<5	
5	516222	15	<5	90	<0.5	<0.008	4	0.020	50	<5	
6	516224	10	<5	75	<0.5	<0.008	2	0.010	140	<5	
7	516226	35	<5	50	<0.5	0.012	4	<0.005	45	<5	
8	516247	20	<5	55	<0.5	<0.008	4	0.010	60	<5	
9	516249	65	<5	105	<0.5	<0.008	4	0.010	250	<5	
10	516251	30	<5	40	<0.5	<0.008	6	0.010	60	<5	
11	516253	45	<5	65	<0.5	<0.008	5	0.010	70	<5	
12	516255	30	<5	300	<0.5	0.021	3	<0.005	1450	<5	
13	516257	10	<5	60	<0.5	<0.008	1	<0.005	140	<5	
14											
15											
16											
17											
18											
19											
20											
21											
22											
23	DETECTION	5	5	5	0.5	0.008	1	0.005	3	3	
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	
25	METHOD	101	101	101	101	309	114	122	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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A Division of Inchcape Inspection and Testing Services Australia Pty. Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

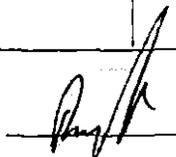
CLIENT ORDER No.

PAGE

			23.3.08.06446	28/09/89	8415	2 OF 2	
TUBE No.	SAMPLE No.	WT					
1	516202	67.7					
2	516205	239.2					
3	516207	66.0					
4	516209	51.9					
5	516222	116.3					
6	516224	178.3					
7	516226	75.2					
8	516247	100.2					
9	516249	55.1					
10	516251	48.1					
11	516253	59.0					
12	516255	52.0					
13	516257	94.8					
14							
15							
16							
17							
18							
19							
20							
21							
22							
23	DETECTION	0.1					
24	UNITS	PPM					
25	METHOD	199					

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



# ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

Phone (09) 458 7999

52 Murray Road, Welshpool, W.A. 6106

Telex AA92560

FAX: 004 31 8890

**ANALYTICAL REPORT No. 23.3.08.06479**

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

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3454

Aberfoyle Resources Limited  
Exploration Division  
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Burnie Tasmania 7320

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19/09/89

1

3

STATE OF SAMPLES	REFER BELOW	SAMPLE NUMBERS	PRE-TREATMENT							ANALYSIS				
			DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD		
		516926/928	RC	Prep: 005,009,016								Cu, Pb, Zn, Ag/101, As/114		
		516926/928	RC									Au, AuChk/309		
		516926/928	RC									Hg/122		

RESULTS

TO

R. de Bamford  
Aberfoyle Resources Limited  
Exploration Division  
P.O. Box 952  
Burnie Tasmania 7320

RESULTS

TO

REMARKS

*NEWDECIMATE CK.  
Rock chips*

STATE OF SAMPLES	ANALYSIS — PREPARATION	ANALYSIS — METHOD
whole core	perchloric acid A1	atomic absorption AAS
split core	hydrochloric acid A2	x-ray fluorescence XRF
cutting	nitric acid A3	spectrophotometry SPEC
rock	aqua regia A4	colorimetry COL
soil	nitric-perchloric A5	chromatography CHR
pulp	HF mixture A6	titration TTN
water	HF under pressure A7	other chemical means CHEM
tissue	fusion A8	miscellaneous MISC
stream sediment		fluorescence FLUOR
heavy mineral		inductively coupled plasma ICP

AUTHORISED OFFICER *[Signature]*

# ANALABS

A Division of Macdonald Hamilton & Co. Pty Ltd.

## ANALYTICAL DATA

SAMPLE PREFIX

REPORT NUMBER

REPORT DATE

CLIENT ORDER No.

PAGE

		23.3.08.06477				19/09/89		8454		1 OF 1	
TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	Au	As	Hg			
1	516926	50	15	100	<0.5	<0.005	5	0.055			
2	516927	230	15	135	<0.5	<0.005	42	0.010			
3	516928	115	25	45	<0.5	0.028	30	0.025			
4											
5											
6											
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8											
9											
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12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23	DETECTION	5	5	5	0.5	0.005	5	0.005			
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM			
25	METHOD	101	101	101	101	309	401	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

AUTHORISED OFFICER



Macdonald Hamilton & Co. Pty Ltd.