

Aberfoyle Resources Limited

EXPLORATION DIVISION

A.C.N. 004 664 108

MICROFILMED
FICHE No.011340 -

EXPLORATION LICENCE 14/91

MOUNT TOR

TASMANIA

Relinquishment Report

October 1996

Volume 1 of 1

EL14/91
See folio 5

96-3921

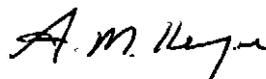
RELINQUISHMENT REPORT-MOUNT TOR
ABERFOYLE RESOURCES - EL 14/91
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- Aberfoyle - Burnie (1/3)
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1. SUMMARY:

Work on EL 14/91 has included a thorough review of open file geophysical data, a 600 line kilometre helimagnetic survey, and a minor research project with geochemical sampling.

The area was taken up on the basis that Southwell Subgroup Volcanics within the licence indicated prospectivity for both Hellyer and Rosebery style deposits in buried Que-Hellyer Volcanic equivalents and Rosebery host equivalents respectively.

The best target to emerge from exploration is in the Cattley North area, which may be interpreted as a hangingwall alteration (carbonate) plume related to an underlying VHMS system adjacent to a NW trending Cambrian transfer structure. Despite this untested potential, funding constraints and the presence of targets in areas of higher perceived prospectivity mean that no further expenditure is currently warranted on the Cattley North target, and the licence is therefore being relinquished.

2 INTRODUCTION:

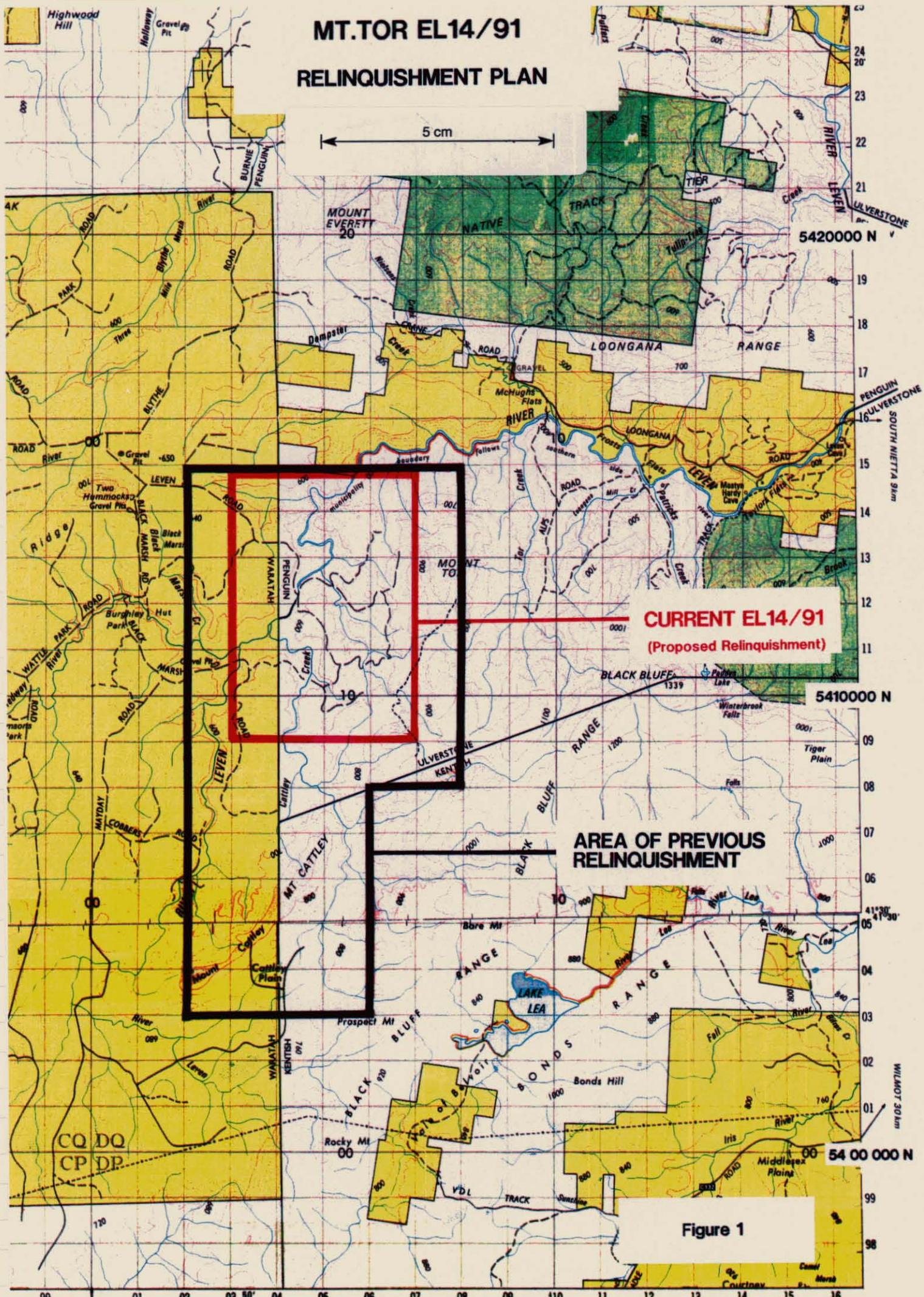
Exploration Licence 14/91 Mount Tor, covering 62 square kilometres, was granted to Aberfoyle Resources Ltd on October 18, 1991. The tenement is located approximately 15 kilometres northeast of the Hellyer mine in western Tasmania (see Figure 1). A partial relinquishment in October 1995 reduced the area of the tenement to 24 square kilometres.

The area is considered prospective for Volcanic Hosted Massive Sulphide (VHMS) mineralisation in outcropping felsic volcanoclastic sequences of the Southwell Subgroup and in possible Que-Hellyer Volcanic correlates that may underlie these rocks.

This report details all exploration completed within the Mount Tor licence prior to final relinquishment.

MT. TOR EL14/91 RELINQUISHMENT PLAN

5 cm



CURRENT EL14/91
(Proposed Relinquishment)

AREA OF PREVIOUS RELINQUISHMENT

Figure 1

342005

3. PREVIOUS EXPLORATION:

A useful summary of the work completed in the vicinity of EL 14/91 since the mid-1970's is contained in Wallace (1993) and will not be repeated in full here. This data is presented in tabular form below:

YEARS	E.L.	COMPANY	WORK	DETAILS
1974	10/74	Geopeko	Geophysics Geochemistry	DIGHEM II survey Regional stream sediment survey
1975-82	-	-	-	No work this period
1982-83	36/79, 39/83	Shell	Access, Geophysics, Geochemistry, Geology	Gridding INPUT, VLF, MaxMin, IP Stream sediments, grid soils Grid mapping
1984-85	39/83	Shell	Access Geophysics	42 kms of gridding EM-37 (121km), IP, ground mag
1985-86	39/83	Shell	Access Geophysics Geochemistry	28 kms of gridding 19 kms ground magnetics, 15 kms gEM, SIROTEM Auger sampling
1986-87	39/83	Shell	Geophysics Geology Drilling Geochemistry	MaxMin, DHEM Core logging, Grid mapping, petrology on core 1 DDH to 278 metres (EM target) 129 Auger samples, core assays, rockchips samples on grid
1987-88	39/83	Shell	Access Geochemistry Drilling Geology	5.6 lkms gridding, 3 costeans 923 soil samples, 80 trench samples and 214 core assays 1 DDH for 306 metres 10 petrology samples, data reviews
1988-89	39/83	Shell	Geochemistry Isotopes Drilling Geophysics	69 wholerock assays (core, rock) 6 Pb-isotopes, 7 O-isotopes 3 PDH's for 214 metres DHEM, MaxMin
1990	39/83	Shell	Tenure	EL relinquished Feb 1990

4. REGIONAL GEOLOGY:

An excellent summary of the regional and local geology of EL 14/91 has been compiled by Wallace (1993), and will not be repeated here.

5. WORK COMPLETED

Aberfoyle Resources has completed a moderate amount of exploration over the Mount Tor licence in the four years since granting. This work can be described in chronological order as follows:

In the first two years of the licence (**October 1992 - September 1993**) work was at a low level while conceptual methods for exploring beneath current EM penetration were developed. This exploration was encouraged by recognition of similarities between the stratigraphy in the Mount Tor licence area and that of the Mackintosh district, with the possibility of blind deposits of the Hellyer and Rosebery type occurring.

Data from previous explorers was reviewed, and although no responses which could be attributed to massive sulphide mineralisation were observed, EM effects due to variations in the basalt conductivity and base topography were noted. The EM data suggested that detection of conductive massive sulphide bodies of around 5 million tonnes or greater would have been possible down to depths of about 150 metres.

Further exploration of the Mount Tor licence would therefore need to be directed towards locating targets beyond this depth penetration of EM. The development of a structural model in the Mackintosh district allowed the prediction of Cambrian structures capable of focussing hydrothermal fluid flow. It was thought that this technique could define targets in prospective stratigraphy within the Mount Tor licence.

In the period **October 1993 - September 1994**, Aberfoyle commissioned a 600 line kilometre airborne (helicopter) magnetics survey over the Mount Tor licence. Full details of this survey are contained in Richardson (1994). Interpretations suggest most sources and breaks are shallow features reflected in the high frequency part of the data. Thus spatially persistent breaks may be shallow and probably Devonian or younger. However, work in the Mackintosh licence has shown some of these shallow features may be representing younger reactivation of deeper Cambrian structures. Within the licence area, the best inferred Cambrian structure lies in the Cattley North area. See Richardson (1994) for full details.

In the period **October 1994 - September 1995**, exploration activity declined. The main activity involved an Honours project on the volcanology of the Southwell Subgroup between Hellyer and Mount Tor. This research was undertaken at the University of Tasmania under the guidance of Dr J McPhie. During this period, ten rockchip samples were collected and assayed. Details of this work are contained in Richardson (1995) and in Appendix 1.

6. CONCLUSIONS:

Exploration Licence 14/91 has been explored by Aberfoyle since 1992. In that time a focussed program was developed based on the recognition that modern exploration needed to explore beneath the depth resolution of EM (150 metres). This limited the techniques available, and resulted in advances in conceptual targeting of critical Cambrian structures. An airborne magnetic survey of the licence was flown to test this concept, and identified one such structural target in the Cattley North area. To date however, this target has not been tested, and its perceived prospectivity is too low to warrant further work. The tenement is therefore to be relinquished.

7. REFERENCES:

Richardson, S. (1994): *Exploration Licence 14/91 Mount Tor, Tasmania. Progress Report for the Period October 1993 to September, 1994.* Unpublished Report for Aberfoyle Resources Ltd. 94-3645

Richardson, S. (1995): *Exploration Licence 14/91 Mount Tor, Tasmania. Progress Report for the Period October 1994 to October, 1995.* Unpublished Report for Aberfoyle Resources Ltd. 96-~~3788~~
3817

Wallace, D.B. (1993): *Annual Report 14/91 Mount Tor, Tasmania. Progress Report for the Period October 1992 to September, 1993.* Unpublished Report for Aberfoyle Resources Ltd. 93-3528

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APPENDIX I

622 752
53
54
55
56
58
761
6411
12
13

ABERFOYLE EXPLORATION

SURFACE GEOCHEMISTRY DATA LEDGER

LICENCE: EL14/91

TOTAL: 6 samples

CODE: 1491RC

PROSPECT:

SAMPLE#

622755 404420 5412010
 622756 401140 5404210
 622758 402450 5415000
 626411 405900 5410900
 626412 405900 5410900
 626413 405900 5410900

TYPE	COLLECTED	PREPS	ROCKTYPE	PET RE	ORE SUITE							TRACE SUITE				CALCULATED		
					Cu ppm GA101	Pb ppm GA101	Zn ppm GA101	Ag ppm GA101	Au ppm GG309	Ba ppm GX401	As ppm GX401	Cr ppm GX401	Zr ppm GX401	Ti ppm GX401	P2O5 wt% OX408	Ti/Zr	P2O5/TiO2	Al
RC	SR: 27/01/9	G			53	488	122	2	0.201	260	1595	32		2179	0.03	0.07	97.5	
RC	SR: 27/01/9	G			70	182	112	-1	-0.008	430	474	18		2367	0.09	0.23	86.4	
RC	SR: 27/01/9	G			17	12	151	-1	-0.008	2730	6	146		1978	0.06	0.18	36.8	
RC	AMcN: 3/05/	G			22	9	20	-2	-0.008	1762	3							
RC	AMcN: 3/05/	G			8	6	70	-2	-0.008	220	3							
RC	AMcN: 3/05/	G			18	65	69	-2	-0.008	299	-2							

342012

	WHOLEROCK											ISOTOPES							
	SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	S	LOI	TOTAL	Pb		STABLE				
	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	wt%	MIN	207/204	206/204	MIN	d34S	d13C	d18O
	OX408	OX408	OX408	OX408	OX408	OX408	OX408	OX408	OX408	OX408	OM615	OX408							
622755	70.60	0.36	8.52	9.80	0.01	0.59	0.02	0.07	2.86	1.98	5.13								
622756	59.50	0.39	16.00	10.52	0.03	1.27	0.04	0.70	3.45	0.24	6.95								
622758	49.20	0.33	5.40	9.27	0.66	4.81	10.85	0.18	1.62	0.18	17.08								
626411																			
626412																			
626413																			

ABERFOYLE EXPLORATION

DRILL CORE DATA LEDGER DEPTH SAMPLES

LICENCE: EL14/91

TOTAL: 3 samples

DRILLHOLE CRD86-001

PROSPECT:

DEPTH (m)	SAMPLE#	TYPE	COLLECTED	PREPS	ROCKTYPE	PET REF	ORE SUITE							TRACE SUITE				CALCULATED			
							Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppm	Ba ppm	As ppm	Cr ppm	Zr ppm	Ti ppm	P2O5 wt%	Ti/Zr	P2O5/TiO2	Al	
20.6	622752	RC	SR: 27/01/95	G			GA101	GA101	GA101	GA101	GG309	GX401	GX401	GX401	GX401	GX401	OX408	0.06	6.9	0.19	90.9
89.3	622753	RC	SR: 27/01/95	G			67	3164	1256	1		290	188	22	186	1867	0.09	10.0	0.24	45.2	
193.0	622761	RC	SR: 27/01/95	G			61	1032	1387	-1		285	23	101	103	3562	0.14	34.6	0.20	57.0	

342014

WHOLEROCK

SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O S LOI TOTAL
wt%
OX408 OM615 OX408

ISOTOPES

Pb STABLE
MIN 207/204 206/204 MIN d34S d13C d18O

622752	66.30	0.33	14.00	6.00	0.11	0.73	0.34	0.12	3.89	0.77	5.98											
622753	50.40	0.40	11.00	12.79	0.57	2.46	6.58	0.17	3.11	0.14	11.77											
622761	57.30	0.73	11.60	9.15	0.35	2.07	4.00	0.15	3.44	0.14	10.11											

ABERFOYLE EXPLORATION

**DRILL CORE DATA LEDGER
DEPTH SAMPLES**

LICENCE: EL14/91

TOTAL: 1 samples

DRILLHOLE CRD88-001

PROSPECT:

DEPTH (m)	SAMPLE#	TYPE	COLLECTED	PREPS	ROCKTYPE	PET REF	ORE SUITE						TRACE SUITE				CALCULATED				
							Cu ppm	Pb ppm	Zn ppm	Ag ppm	Au ppm	Ba ppm	As ppm	Cr ppm	Zr ppm	Ti ppm	P2O5 wt%	Ti/Zr	P2O5/TiO2	Al	
98.1	622754	RC	SR: 27/01/95	G			GA101	GA101	GA101	GA101	GG309	GX401	GX401	GX401	GX401	GX401	OX408	0.02	5.9	0.16	42.1

342016

WHOLEROCK

SiO2	TiO2	Al2O3	Fe2O3	MnO	MgO	CaO	Na2O	K2O	S	LOI	TOTAL
wt%											
OX408	OM615	OX408									

622754	66.90	0.11	5.56	6.37	0.47	2.37	5.87	0.44	2.21	0.04	9.12
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ISOTOPES

Pb	STABLE					
MIN	207/204	206/204	MIN	d34S	d13C	d18O