

Beaconsfield Gold NL
EL 30/1997 & part of EL 7/2000 - Beaconsfield
Relinquishment and Final Report

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TENEMENT INFORMATION

EL 30/1997 is a 5 km² tenement north of Beaconsfield (Figure 1). It was originally issued to Allstate Explorations NL for a 5 year term to 19 September 2002. The licence was voluntarily transferred from Allstate to Beaconsfield Gold NL on 18 January 2000 and was incorporated into the Cobblestone Creek exploration project, which also included parts of ELs 12/1999 and 7/2000 (Morrison, 2000). BGNL went into temporary receivership in 2001 and recommenced operations on 12 March 2004. During and after the three year period of receivership, extensions to EL 30/1997 were granted by Mineral Resources Tasmania so the licence expired on 19 September 2005. The small portion of EL 7/2000 to be relinquished concurrent with the EL 30/1997 expiry is also indicated on Figure 1. No exploration has been conducted on that part of EL 7/2000 so the remainder of this report relates entirely to EL 30/1997.

EXPLORATION AIMS

The primary aim was to find another gold ore deposit, in rocks which remain unexplored by both the early prospectors and modern companies because they are masked by younger cover.

The Cobblestone Creek fault block is in thrust contact with Ordovician shales located in the stratigraphic hanging wall of the Mine Sequence (Hills, 1998) only 250 metres NE of the Beaconsfield Mine and the large majority of the pre Permian rocks in the Cobblestone Creek block do not outcrop. Therefore new exploration targets in the area will be entirely blind at the surface and unexplored by prospectors.

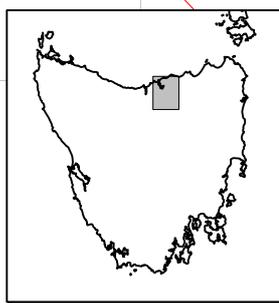
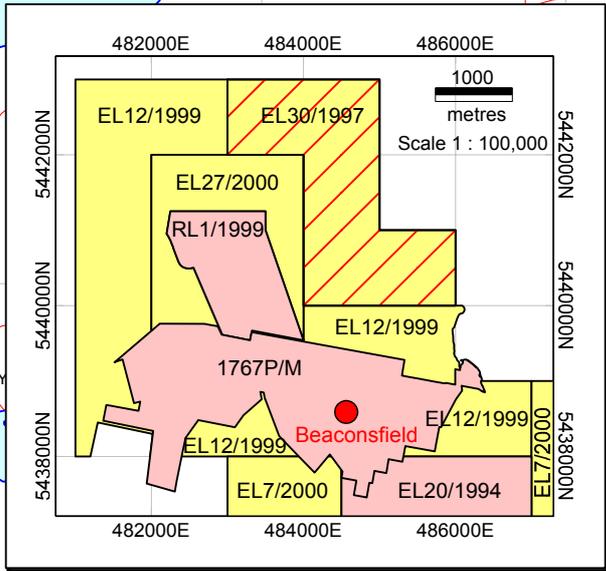
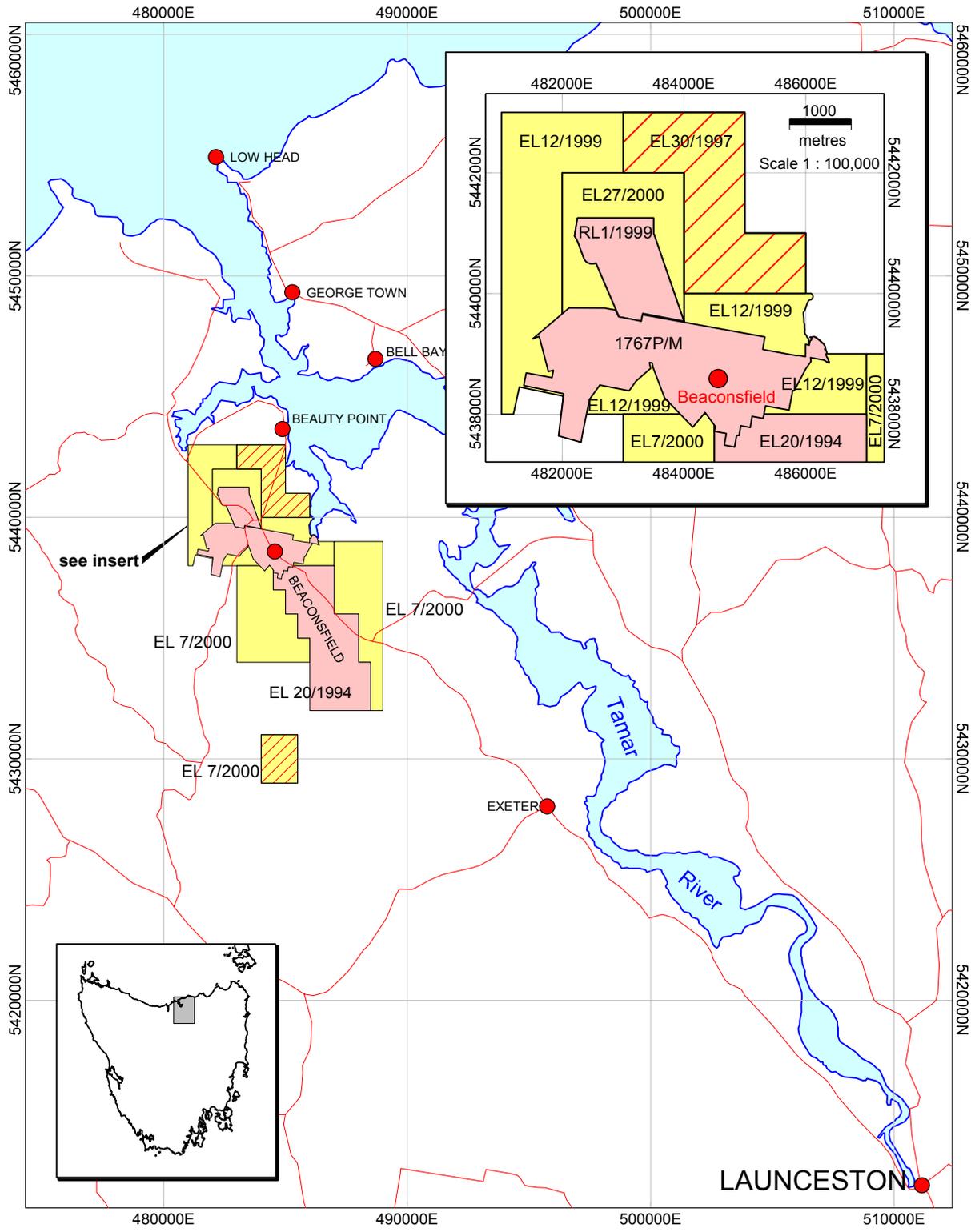
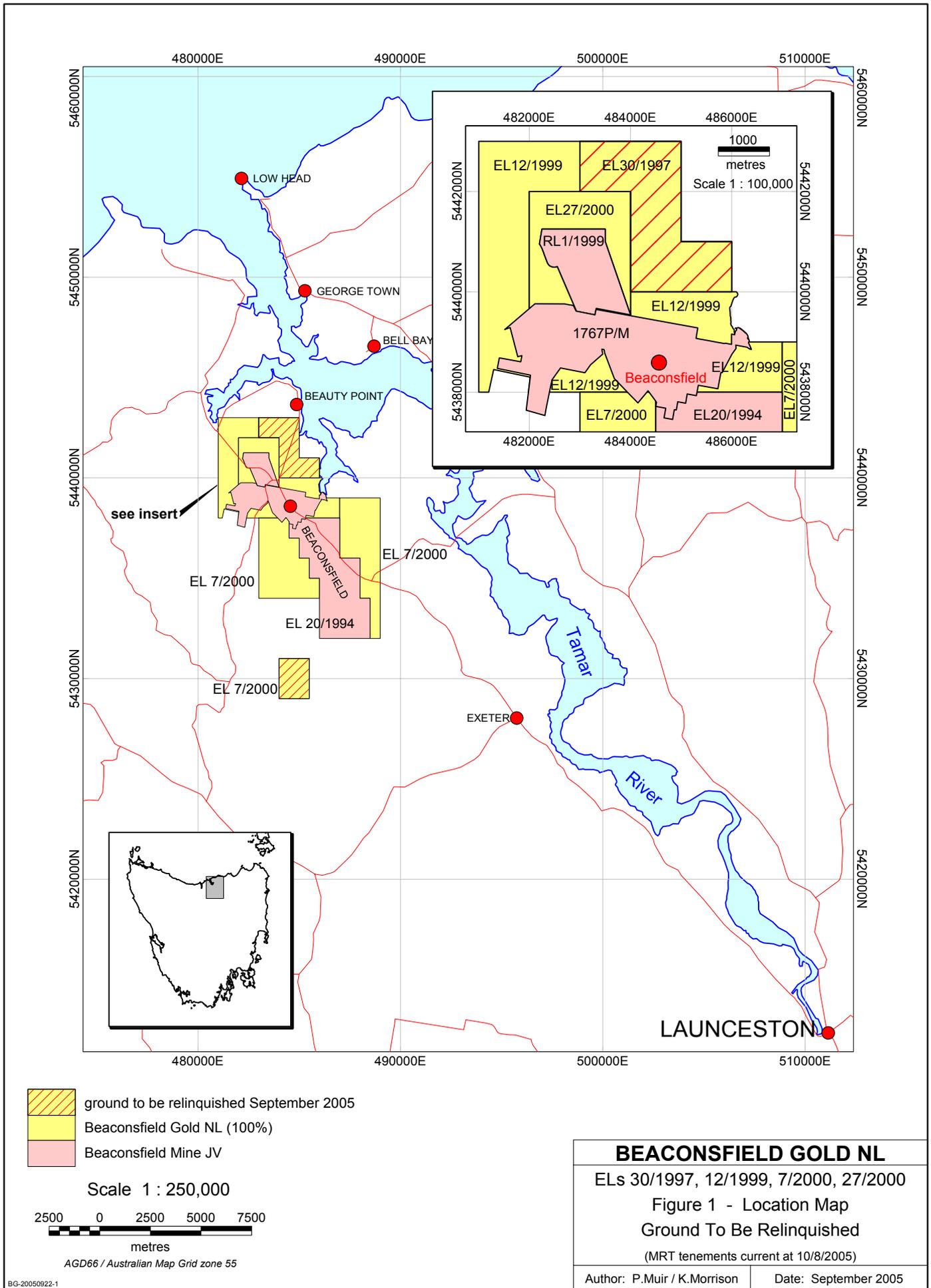
Progress in underground mapping at the Beaconsfield Mine (MacDonald, 2004) shows that the Devonian thrust emplacement of the Cabbage Tree and Cobblestone Creek blocks occurred prior to reef mineralisation and so fault structures similar to those hosting the Tasmania Reef may exist, under cover, in brittle lithologies juxtaposed by thrust, wrench or normal faults against rocks of contrasting ductility. In the eastern part of the Tasmania Reef there is evidence of dextral strike slip displacement so a prospective area for a replica of the Tasmania Reef in a Cabbage Tree Hill-Salisbury Hill trend may be east of the Cobblestone Creek Thrust, beneath Permian cover of unknown thickness.

EXPLORATION RESULTS

Interpretation of Airborne Geophysics

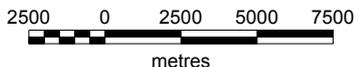
Data from two previous airborne surveys were reprocessed and reviewed with the aim to highlight linear structure with potential to define fault locations (Morrison and Muir, 2004). A third survey is available but was not used. The 1999 North Tasmania AGSO Project P699 is the most recent, however the survey is less detailed having a flightline separation of 200m and flying height of 126m.

The more recent of the surveys interpreted was an ultra-detail helicopter magnetic survey flown in June 1998 by UTS Geophysics (job A268). Survey specifications include flying height 40m, flightline separation 50m, flightline direction 060 degrees AMG.



- ground to be relinquished September 2005
- Beaconsfield Gold NL (100%)
- Beaconsfield Mine JV

Scale 1 : 250,000



AGD66 / Australian Map Grid zone 55

The earlier survey was a fixed-wing magnetic and radiometric survey flown in February-March 1988 by Austirex (job 2066). Survey specifications include flying height 112m, flightline separation 150m, flightline direction 090 degrees AMG.

Data were processed using Geosoft Oasis Montaj™ software. A strong magnetic response related to the Andersons Creek Ultramafic Complex is present to the west of the project area and this response adversely interferes with magnetic data processing when attempting to enhance much more subtle features further to the east. Consequently only a subset of magnetic data east of about AMG 483000E was processed.

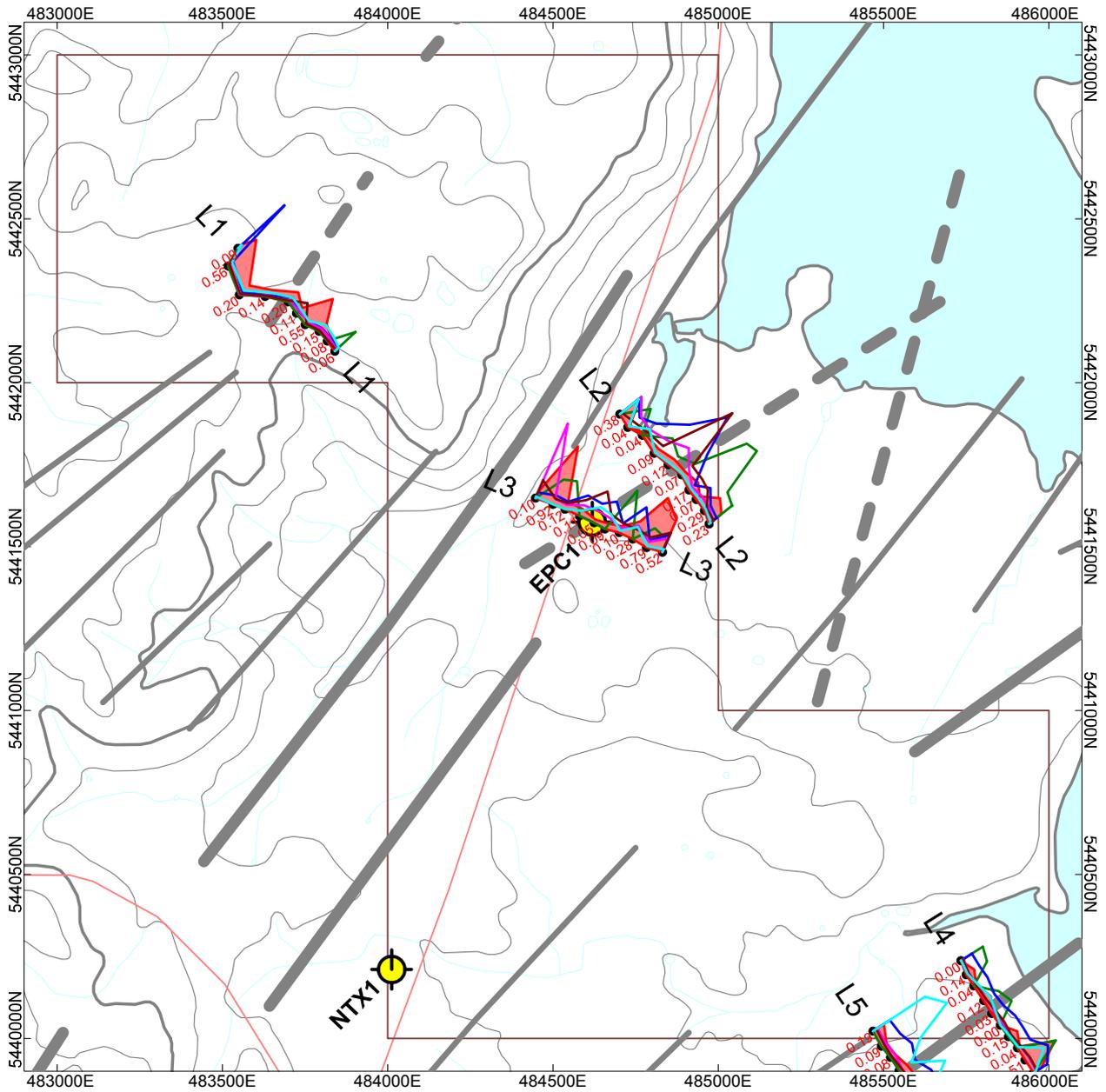
Various techniques were applied in an initial phase of processing to assess the usefulness of each. These included various convolution, filters and Fast Fourier Transform (FFT) filters, producing output such as sun angle, directional derivatives, analytic signal, and automatic gain (AGC) enhancement. From these the best techniques were selected and used in final data processing and presentation.

A thorough interpretation of the helicopter magnetic survey is available in an earlier report (White, 1998). The BGNL reprocessing of these data reaffirms a significant drawback of that survey, as noted by White; “Unfortunately this flying direction [060 degrees] is parallel to the structures carrying mineralisation. This makes it difficult to be certain if features seen in the data are due to structures or small pulls in the data”. There are indeed some ENE-trending features in the reprocessed data that at first seem interesting. However each is generally confined to a segment of only one flightline. Some attempts were made to see if these trends correlate with responses in the fixed-wing data. While corresponding features in the latter survey would be weaker and less well defined, nonetheless it could be expected that, given suitable flightline locations, there would be some supporting evidence. This was not the case and thus the uncertainty surrounding these 060 degree trends is strengthened. It was therefore considered that nothing new concerning likely mineralised structures could be gained with any degree of certainty from the helicopter magnetic survey.

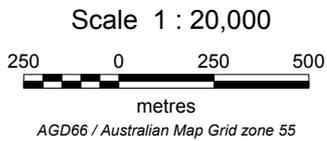
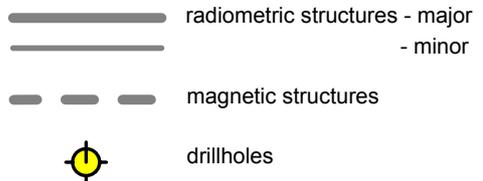
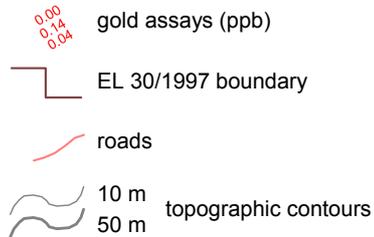
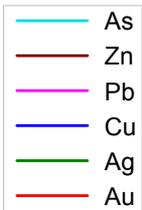
Radiometric data were also collected in the fixed-wing survey. Historically, radiometric data of this vintage (1988) were often given a cursory inspection and then put aside in favour of using magnetics for interpretation. The processed radiometric data reveals numerous ENE to NNE trends that could well be consistent with real crosscutting structural features. These trends provide targets or rating criteria for use in further exploration in the Beaconsfield area (Figure 2).

Soil Geochemistry Survey

An trial soil survey using the A-horizon Mobile Metal Ion partial digest method was tested on strong magnetic and radiometric linears which have locations and orientations compatible with their interpretation as northeasterly strike extensions of mineralised structures within the Cabbage Tree Thrust block. The structures were tested with 10 sample lines, with GPS-controlled sample spacing of approximately 50 metres and lines orientated approximately normal to the interpreted structures (the L3 orientation was restricted by a residential property boundary). Results are attached in Appendix A and summarised on Figure 2.



soil geochem profiles



BEACONSFIELD GOLD NL

Figure 2
EL 30 / 1997
Exploration Results

Author: P.Muir / K.Morrison

Date: September 2005

Line 1 is entirely in light forest and scrub on Tertiary sediments, exposed over at least 10 metres thickness in the adjacent Stornoway sand pits. Lines 4 and 5 are in lower quality pasture developed on Permian mudstone and Lines 2 to 3 are in mixed orchard/better quality pasture, developed on probable Permian rocks overlain by patchy Cainozoic sediments of unknown thickness. With no prior usage of the method in the Beaconsfield area, and as yet no coverage of ground between the interpreted structures, the approach to interpreting the soil data must be one of pattern recognition supported by follow-up work on any empirically assigned anomalies.

Lines 2 and 3 show broad multi element elevation, particularly for silver, lead and zinc, and with strong gold support on Line 3 and copper on Line 2. No antimony was detected in the survey. The subcrop lithologies hosting the magnetic linear tested by these lines is less well known than for the other lines outside EL 30/1997, however the soil data alone required some follow-up.

Drilling

Two vertical RC percussion holes were drilled to test the sub Permian geology at locations with potential to intersect the strike extension of structurally controlled mineralisation known within the Cabbage Tree fault block (Figure 2, Appendix A).

EPC-1 collared in and remained in Permian mudstone. The hole was abandoned at 150 metres due to heavy ground water flow, which was encountered at 118 metres and gradually reduced rate of penetration below that depth. NTX-1 was located in the SW corner of EL 30/1997, on trend with the North Tasmania Reef but east of the projected position of the Cobblestone Creek Thrust. It drilled a section comprising 66 metres of Permian overlying 88 metres of Blyths Creek Formation pyritic calcareous sandstone, grading through sandy limestone to pure limestone, with no gold mineralisation (Appendix A). Although these Blyths Creek Formation rocks do not correlate stratigraphically with the Ordovician Mine Sequence, they are heavily veined in part from regional deformation and appear to have sufficient brittle-ductile contrast to host a reef if they had been subjected to the appropriate faulting and mineralised fluid migration events.

CONCLUSIONS

Overall the results to date on this EL have been disappointing. The thickness of Permian cover rocks in the drill holes, together with the results from earlier holes in an adjacent EL (Morrison, 2000) indicates a consistent thickening in the thrust dip direction, with isopachs conformable to both the strike of the thrust and the pre Permian stratigraphy. This means that the majority of EL 30/1997 is blanketed with >100 metres of Permian cover. The application of geophysical techniques and deep leach soil geochemistry to generate drill targets has not been fully tested on this EL but sufficient work has been done to rate the ground unprospective with regard to current BGNL exploration criteria. No further application for extension will be made.

REFERENCES

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- Morrison, K. C. and Muir, P. M., 2004. Beaconsfield Gold NL, ELs 30/1997, 12/1999, 7/2000 & 27/2000, Cobblestone Creek & North Pease Creek Projects, Annual Exploration Report to 19 September 2004.
- White, R.M.S, 1998. Interpretation of a Helicopter Magnetic Survey Near Beaconsfield Mine Tasmania, Tooronga Resources Pty Ltd Report.

Appendix A

Drill Logs & Assay Results

**Beaconsfield Gold NL
RC Percussion Drill Hole Log**

Tenement: EL 30/1997
Prospect: North Tasmania Extended
Hole No: NTX-1
Date Drilled: 1 Aug 2005
Driller: Spaulding-L Ellings

Collar: 484012E, 5440210N AMG
RL:
AZM: N/A
Dip: -90
Hole Diam: 4 ½inch

Total Depth: 154 m
Water Table: 65, 114 m
Base of Oxid'n: 5 m
Sample No's: 67-68 to 153-154
Geologist: K Morrison

Depth (m)	Litho	Unit	Description
0-1	Regolith	Recent	Soil, mottled clay.
1-4	Regolith	Recent	Orange white damp mottled clay.
4-6	Mudstone	Permian	Grey-orange partly oxidised soft weathered mudstone, minor water at 5 m.
6-64	Mudstone	Permian	Medium grey uniform calcareous, slightly carbonaceous uncleaved marl/mudstone.
64-66	Tillite	Permian	Multi coloured polymict mainly siliceous pebble conglomerate in matrix of mudstone a/a, major water flow at 65 m.
66-95	Sandstone	Cbc	Greenish grey highly calcareous medium quartz sandstone grading in part to quartzite, incipient cleavage, common uniformly disseminated very fine-fine pyrite, less common disseminated very fine-fine black opaques.
95-102	Sandstone	Cbc	Dark grey calcareous fine quartz sandstone grading from poorly foliated very fine sandstone to more blocky quartzite, same disseminated pyrite, opaques a/a.
102-107	Limestone	Cbc	Medium grey foliated micritic limestone, minor patchy disseminated fine pyrite.
107-127	Limestone	Cbc	Dark and light grey and white banded pure crystalline limestone, blocky angular fragments, minor patchy fine pyrite blebs. major water flow at 114 m.
127-154	Sandstone/ limestone	Cbc	Interbedded sequence of pale grey calcareous quartz siltstone, greenish grey highly calcareous medium quartz sandstone and

Assays (ppm)		
Depth (m)	Au	As
67-154	≤0.01	

Depth (m)	Litho	Unit	Description
			pale grey microcrystalline limestone and sandy limestone, disseminated pyrite and opaques common in the sandstone with fuchsite haloes around some coarser spinel grains, laminae of greenish earthy mineral concentrated with fine pyrite on some sandstone bedding planes.
EOH			

Assays (ppm)		
Depth (m)	Au	As

Register of Soil Assay Data

*AGD66/Zone55 AMG - by GPS

BU019738 100 82										
Drop Off 25.2.04 25										
METHOD										
LDETECTION										
UDETECTION										
Sample ID	Easting*	Northing*		Au	Ag	Cu	Pb	Zn	As	Sb
				G143	I143	I143	I143	I143	I143	I143
				0.01	10	5	50	5	50	0.5
				0	0	0	0	0	0	0
				ppb	ppb	ppb	ppb	ppb	ppb	ppm
CCS001	483547	5442410	CCS001-L1	0.09	<	15333	3257	5428	904	<
CCS002	483517	5442410	CCS002-L1	0.56	<	1610	2705	3135	1027	<
CCS003	483551	5442268	CCS003-L1	0.2	<	1029	807	2273	1112	<
CCS004	483629	5442263	CCS004-L1	0.14	<	413	491	1078	1112	<
CCS005	483699	5442247	CCS005-L1	0.2	<	1485	1939	2649	1099	<
CCS006	483724	5442212	CCS006-L1	0.11	<	703	3401	23696	1097	<
CCS007	483750	5442177	CCS007-L1	0.55	<	1129	3664	2563	977	<
CCS008	483792	5442157	CCS008-L1	0.15	<	1018	3445	1640	1670	<
CCS009	483817	5442127	CCS009-L1	0.08	<	1063	3501	1524	1470	<
CCS010	483840	5442096	CCS010-L1	0.06	24	1254	2596	2843	971	<
CCS061	485951	5439895	CCS061-L4	0.13	<	3869	3251	6502	407	<
CCS062	485928	5439934	CCS062-L4	0.51	31	6598	4652	8609	4093	<
CCS063	485905	5439971	CCS063-L4	0.04	<	3678	3002	5741	231	<
CCS064	485878	5440005	CCS064-L4	0.15	<	4205	3176	5355	261	<
CCS065	485853	5440040	CCS065-L4	<	<	4313	3078	8224	70	<
CCS066	485827	5440076	CCS066-L4	0.03	20	3514	3304	7846	816	<
CCS067	485803	5440115	CCS067-L4	0.12	15	3041	3041	4239	1366	<
CCS068	485773	5440160	CCS068-L4	0.04	<	3939	2674	4226	730	<
CCS069	485750	5440194	CCS069-L4	0.14	21	3853	3182	4592	290	<
CCS070	485734	5440237	CCS070-L4	<	22	3164	2720	3506	61	<
CCS081	484657	5441554	CCS081-L3	0.09	<	7256	11767	25173	2886	<
CCS082	484700	5441543	CCS082-L3	0.1	39	2419	4621	16266	359	<
CCS083	484741	5441523	CCS083-L3	0.28	<	8433	14292	16631	2426	<

CCS084	484783	5441497	CCS084-L3	0.79	18	1956	6214	17845	298	<
CCS085	484831	5441483	CCS085-L3	0.52	11	4634	14533	33633	595	<
CCS086	484624	5441573	CCS086-L3	0.05	<	5049	11998	53794	3099	<
CCS087	484580	5441594	CCS087-L3	0.11	<	5382	11275	27036	1032	<
CCS088	484536	5441614	CCS088-L3	0.12	26	2004	4910	10667	58	<
CCS089	484500	5441629	CCS089-L3	0.92	23	2320	5922	9560	<	<
CCS090	484447	5441648	CCS090-L3	0.1	<	1543	78890	30742	292	<
CCS091	484889	5441719	CCS091-L2	0.07	15	8010	9103	22064	202	<
CCS092	484911	5441673	CCS092-L2	0.17	63	1812	4037	26908	455	<
CCS093	484933	5441644	CCS093-L2	0.07	66	4447	6310	23744	502	<
CCS094	484958	5441610	CCS094-L2	0.29	25	1926	5255	4629	331	<
CCS095	484972	5441569	CCS095-L2	0.23	25	2326	4897	9612	385	<
CCS096	484848	5441750	CCS096-L2	0.12	11	18410	25786	129890	376	<
CCS097	484806	5441785	CCS097-L2	0.09	20	11044	18568	17894	200	<
CCS098	484770	5441840	CCS098-L2	0.04	<	4486	9016	9201	1755	<
CCS099	484726	5441864	CCS099-L2	0.04	25	3740	16713	13416	282	<
CCS100	484702	5441904	CCS100-L2	0.38	<	5914	26782	3796	4402	<

Order No	Au	Au Rpt
IDENT	ppm	ppm
UNITS	FA1	FA1
SCHEME		
DETECTION LIMIT	0.01	0.01
NTX1 67-68 69-70	<0.01	--
NTX1 70-71 72-73	<0.01	--
NTX1 73-74 75-76	<0.01	--
NTX1 76-77 78-79	<0.01	--
NTX1 79-80 81-82	<0.01	<0.01
NTX1 82-83 84-85	<0.01	--
NTX1 85-86 87-88	<0.01	--
NTX1 88-89 90-91	<0.01	--
NTX1 91-92 93-94	<0.01	--
NTX1 94-95 96-97	<0.01	--
NTX1 97-98 99-100	<0.01	--
NTX1 100-101 102-103	<0.01	--
NTX1 103-104 105-106	<0.01	--
NTX1 106-107 108-109	<0.01	--
NTX1 109-110 111-112	<0.01	--
NTX1 112-113 114-115	<0.01	--
NTX1 115-116 117-118	0.01	<0.01
NTX1 118-119 120-121	<0.01	--
NTX1 121-122 123-124	0.01	--
NTX1 124-125 126-127	<0.01	--
NTX1 127-128 129-130	<0.01	--
NTX1 130-131 132-133	<0.01	--
NTX1 133-134 135-136	<0.01	--
NTX1 136-137 138-139	<0.01	--
NTX1 139-140 141-142	<0.01	--
NTX1 142-143 144-145	<0.01	--
NTX1 145-146 147-148	<0.01	--
NTX1 148-149 150-151	<0.01	--
NTX1 151-152 153-154	<0.01	--