

E.L. 13/2005 - LONE STAR CREEK

Technical Report on Exploration Work

Conducted November 2005 to November 2007.

P. Bardenhagen, F. Williams and C. Bennett

Author:

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1.0 Summary

EL 13/2005 - "Lone Star Creek" is located midway between Lilydale and Bridport in Tasmania's northeast and lies on the northern edge of the Denison goldfield.

The licence, held in the name of P. Bardenhagen, F. Williams and C. Bennett, has been worked by their father, Mr Frank Bardenhagen. Attention has focused on Cootes Reef Prospect with work over the last two years consisting of:

- ~80 metres excavator trenching
- 604.6 metres diamond drilling with 35 halfcore samples from DDH C1 assayed
- 44 rock and channel samples assayed for Au +/- Ag, As, Cu, Pb, Zn & Bi
- Rehabilitation of all worksites

Cootes Reef is a north-northeast striking, steeply north-northwest dipping quartz+arsenopyrite reef (consistent with a number of the other reefs of the Denison goldfield) formed by alteration (as opposed to dilational "infill"). The immediate wallrocks to the reef contain a conjugate set of quartz tension veins (sub-vertical and striking east-west and north-south) which indicate that Cootes Reef formed as a dextral strike-slip fault under a northeast/southwest oriented σ_1 stress field.

After the initial success in locating and exposing the reef over a strike length of ~80 metres the results of the subsequent rock/channel sampling and diamond drilling have been somewhat disappointing:

- Drilling did not intersect any strongly developed, mineralized reef structure
- Rock and channel sample results were with 1 exception (a single sample of very ferruginous reef assaying 4.73g/t Au) less than 1g/t Au

Recommendations for further work are twofold:

- The whole licence should be prospected using stream sediment and soil sampling methods
- Cootes Reef should be located and exposed by further trenching and/or drilling to the north-northeast and south-southwest of the trenching/drilling to date

2.0 Introduction

2.1 Location & Access

EL 13/2005 - "Lone Star Creek" is located in Tasmania's northeast, lying approximately midway between Lilydale and Bridport. The licence occupies 6 square kilometres centred on AGD66 5447500mN 526000mE. The licence is bounded roughly to the west by the Ferny Hill Road and to the east by Lisle Creek. It lies on the northern edge of the old Denison goldfield.

Access to the licence is by the Ferny Hill Road (gravel) which runs north-south between the Bridport and Golconda Roads (bitumen). Access within the licence is by a number of recently formed (gravel) logging roads. Access to the Cootes Reef Prospect is by such logging roads with the last few hundred metres across a roughly formed track.

2.2 Tenure

The title to EL 13/2005 - "Lone Star Creek" is held by P. Bardenhagen, F. Williams and C. Bennett, however, the exploration work detailed herein has been carried out and funded by their father, Frank Bardenhagen.

The licence was granted on 14th November, 2005.

2.3 Topography, Vegetation & Land Use

The licence covers an area of hilly country (to 154m above sea level) for its western 2/3 with the eastern 1/3 occupied by the flood plains of Lone Star and Lisle Creeks and the Denison River.

The hilly western 2/3 of the licence area is used for forestry and is covered by plantation timber. The eastern 1/3 is used for both farming and forestry.

Cootes Reef Prospect lies on a southeast facing slope a few hundred metres from the Denison River within an area recently logged and replanted with plantation timber.

Most of the licence area is classified as State Forest with some private landholdings in the eastern part of the licence.

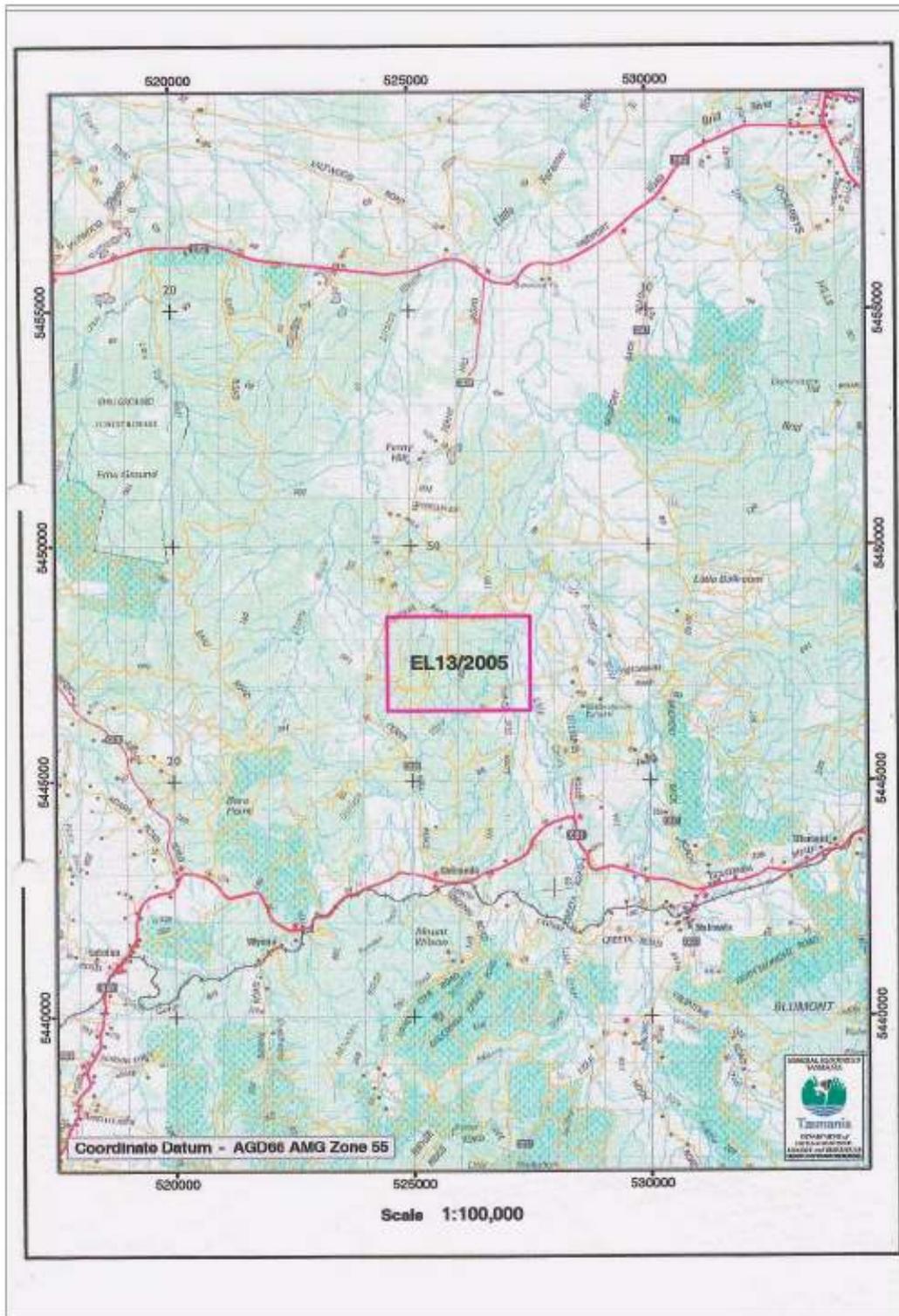


Figure 1 - E.L. 13/2005 "Lone Star Creek" location

3.0 Previous Exploration

The author has not conducted a comprehensive review of previous exploration over the licence area, and in particular the more regional surveys which have probably included the licence area in their coverage, but is aware of the more specific work which has been conducted recently on the licence and over the Cootes Reef Prospect specifically. This regional exploration is summarized in Komysan (2002 & 2004).

The Cootes Prospect was held as an ML(?) and worked intermittently by Mr Kevin Coote of Scottsdale until the early 1990's (when he let the lease lapse) who carried out some small scale trenching and sunk a small prospecting shaft on a reef known as Cootes Reef.

The ground was then held by Anglo Australian Resources N.L. (AAR) from 1994 to 2004 as part of their E.L. 38/1994 "Nabowla".

AAR carried out a small RC drilling programme to test the reef. The results of the drilling programme were apparently considered disappointing, however, it appears that the drillholes may not have extended sufficiently to adequately test the reef structure.

4.0 Geology

Mineral Resources Tasmania mapping (Marshall *et. al.* 1965) shows the bulk of the licence area to be underlain by Mathinna Beds of predominantly sandstone and siltstone with the rest of the licence area covered by quaternary alluvium (the river flats associated with the Lisle and Lone Star Creeks and the Denison River) and some small areas of Tertiary gravel and basalt.

The licence is prospective for mesothermal quartz+gold reefs of Middle Devonian age hosted in the Mathinna Beds, a sequence of Ordovician-Devonian turbiditic sandstones+siltstones+shales and it is this style of mineralization targeted in exploration.

The Mathinna Beds which were exposed in the trenching of Cootes Reef, and also outcrop in gutters, culverts and rare low road cuttings associated with the logging roads in the area, consist predominantly of siltstones with lesser sandstone and minor shale. Bedding in the walls of the trench strikes north-south and dips moderately to the east though regionally bedding strikes north-northwest. The discrepancy may be due to dragging of the immediate wallrocks by movement on the reef.

Cootes Reef strikes east-northeast, consistent with the orientation of a number of the other reefs of the Denison goldfield to the south, and dips steeply (~85°) to the west-northwest. The reef as exposed in the trenching ranges from 0.4m up to 1.2m wide. The reef is a bluish grey zone of silicification+arsenopyrite (or scorodite where oxidized) mineralization extending into wallrocks from a planar shear structure - i.e. the reef is a product of alteration rather than dilation+infilling.

Two sets (based on orientation) of quartz tension veins to ~30mm thick are common in the immediate (0-3m) wallrocks to the reef. Both sets of veins are subvertical with one set striking east-west (e.g. 90° to 170°, 85° to 180°, 80° to 000°, 85° to 340° and 80° to 345°) and the other north-south (e.g. 80° to 280°, 85° to 085°, 90° to 090° and 85° to 275°). Both sets are gold anomalous (composite of east-west set in "Leaders 1" assayed 0.11g/t Au and composite of north-south set in "Leaders 2" assayed 0.06g/t Au - see section 6.3).

The lack of any recognizable cross-cutting indicates that the two sets are probably a single conjugate set. The clear spatial relationship with the reef argues for coevality in which

case Cootes Reef formed as a dextral strike-slip fault (R shear) under a northeast-southwest oriented σ_1 stress regime.

5.0 Work Completed 2005 - 2007

5.1 Introduction

The focus of work in the first two years of the licence has been the Cootes Reef Prospect with a programme of trenching, diamond drilling and rock/channel sampling completed followed by rehabilitation.

5.2 Trenching

Frank Bardenhagen has been aware of the location of the reef for some time, however, its precise position was initially defined by a series of trenches perpendicular to its strike. Once its position was established the reef was trenched comprehensively over a strike length of over 50 metres to a depth of between 1.5m and 3.3m with some smaller trenches dug along strike to the south-southwest.

As part of the rock/channel sampling conducted by the author the ends of the main trench were surveyed using G.P.S.

5.3 Drilling

K M R Drilling drilled six (6) diamond drill holes totaling 604.6 metres between 10th January, 2006 and 31st March 2006.

The holes collar co-ordinates were surveyed using G.P.S. by Mark Kettle of Scottsdale. The holes were not downhole surveyed. Details of the holes are listed in Table 1 below.

Table 1 Cootes Reef Prospect Drilling - Details

<u>Drillhole</u>	<u>AGD66 Easting</u>	<u>AGD66 Northing</u>	<u>RL</u>	<u>Depth</u>	<u>Azi.</u>	<u>Dip</u>
C1	526010.5	5447165.7	102	137.7	270	-70
C2	526016.4	5447184.8	102	110.3	270	-80
C3	526027.2	5447175.9	101	77.8	270	-70
C4	526084.7	5447279.0	100	87.1	270	-70
C5	525999.2	5447146.5	101	101.6	270	-70
C6	526000.8	5447104.6	98	90.1	270	-60

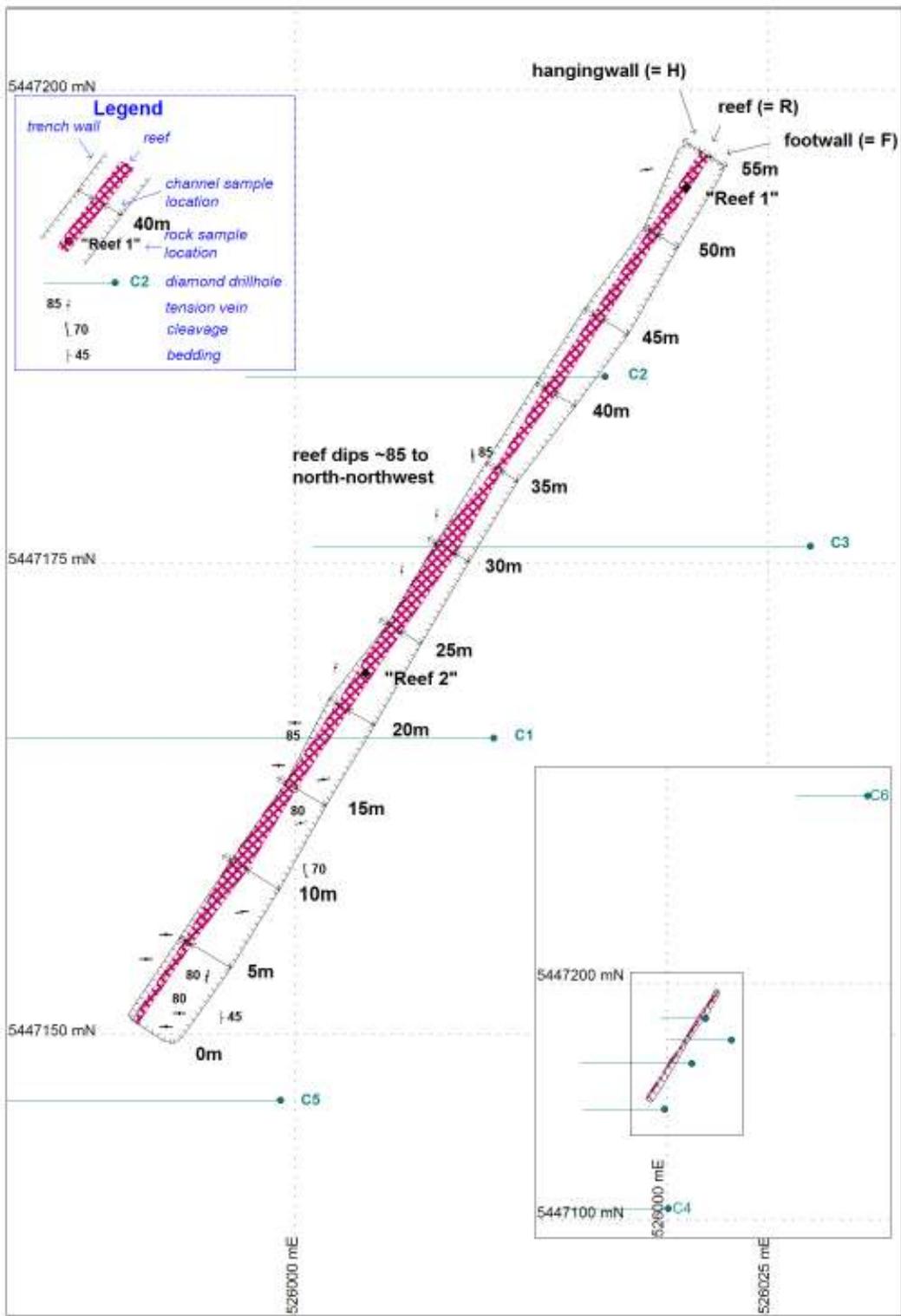


Figure 2 Cootes Reef Prospect summary plan

Initially the drilling programme was supervised by Mr John Carswell who organized the initial drillhole, made two site visits with Mineral Resources Tasmania in February and May 2006 and marked up and sampled the first hole, C1. The drillhole was halfcore sampled from 45m to 80m on 1 metre intervals with the 35 samples submitted to Burnie Research Laboratories for assaying for Au using fire assay.

Following this John was unable to continue with the work and so responsibility fell back onto Frank Bardenhagen.

Unfortunately the marker pens used to mark the core trays were not permanent such that by the time the author could inspect the core it was no longer possible to properly log the holes.

5.4 Rock/Channel Sampling

On 17th February 2007 the author visited the site and collected 11 samples which were submitted to Burnie Research Laboratories for assaying.

7 of the samples ("Grab 1" to "Grab 5", "Frank's Grab" and "Vuggy") were collected from loose reef material dug from the trench and 2 ("Reef 1" and "Reef 2") were samples of in-situ reef collected from the base of the trench.

Locations of "Reef 1" and "Reef 2" are shown on figure 2.

The remaining 2 samples ("Leaders 1" and "Leaders 2") were composites of the two sets of tension veins from the immediate wallrocks to the reef with "Leaders 1" a composite of the east-west striking set and "Leaders 2" a composite of the north-south striking set. These samples were composited from veins on both the hangingwall and footwall to the reef over the entire length of the trench.

All samples were assayed for Au (Fire Assay) and As, Ag, Cu, Pb, Zn and Bi (A.A.S.).

On 24th February the author revisited the site and channel sampled the floor of the trench every 5 metres with 3 samples collected from each channel, a footwall sample, reef sample and hangingwall sample. The 33 samples in total are called "H*", "R*" and "F*" where H = hangingwall, R = reef and F = footwall and * is 5, 10 ... 55 and refers to distance along trench. Locations of all samples are shown on figure 2.

These 33 samples were assayed for Au only (fire assay) by Burnie Research Laboratories.

5.5 Rehabilitation

All of the trenching and drill sites have been rehabilitated with the site re-contoured. The area is due to be replanted and so reseeding is unnecessary.

6.0 Results of Work Completed 2005 - 2007

6.1 Trenching

The small trenches dug perpendicular to the strike of the reef successfully located the structure over a strike length of over 80 metres. Subsequent trenching along the strike of the reef exposed it in a main trench of 55m length.

6.2 Drilling

Due to the unfortunate problems with the processing of the drillcore it was not possible for the author to log the drillcore, however, John Carswell marked up and sampled the first drillhole without noting any significantly developed reef structure.

The maximum gold assay from the sampling of C1 was 0.07g/t Au.

6.3 Rock/Channel Sampling

The first round of rock sampling included one sample which assayed 4.73g/t Au, however, this sample was of almost gossanous material untypical of the reef as exposed. The 7 samples of typical reef (either in-situ or grab samples) assayed 0.97, 0.61, 0.59, 0.58, 0.38, 0.23 and 0.17g/t Au. The 2 composite samples of quartz tension veins in the immediate wallrocks assayed 0.11 and 0.06g/t Au (see discussion in section 4.0).

The second round of more systematic channel sampling was undertaken to determine whether a small resource may be definable. Sample widths and assays are tabulated below in Table 2. All assays were <1g/t Au making the calculation of a resource irrelevant.

Table 2 Cootes Reef Prospect Channel Sampling - Details

<u>Distance along trench</u>	<u>Hangingwall sample</u>	<u>Reef sample</u>	<u>Footwall sample</u>
5m	H5, 0.3m @ 0.12g/tAu	R5, 0.4m @ 0.84	F5, 2.45m @ 0.17
10m	H10, 0.5m @ 0.08	R10, 1.0m @ 0.52	F10, 2.0m @ 0.12
15m	H15, 0.5m @ 0.09	R15, 0.65m @ 0.47	F15, 1.8m @ 0.05
20m	H20, 0.5m @ 0.03	R20, 0.7m @ 0.11	F20, 1.6m @ 0.08
25m	H25, 0.5m @ 0.07	R25, 0.85m @ 0.07	F25, 1.2m @ 0.31
30m	H30, 0.5m @ 0.06	R30, 1.2m @ 0.11	F30, 0.8m @ 0.20
35m	H35, 0.6m @ 0.08	R35, 0.35m @ 0.43	F35, 1.0m @ 0.19

40m	H40, 0.5m @ 0.14	R40, 0.7m @ 0.37	F40, 1.2m @ 0.28
45m	H45, 0.6m @ 0.05	R45, 0.6m @ 0.28	F45, 1.5m @ 0.18
50m	H50, 0.35m @ 0.59	R50, 0.55m @ 0.42	F50, 1.2m @ 0.03
55m	H55, 0.1.1m @ 0.09	R55, 0.6m @ 0.17	F55, 1.0m @ 0.06

6.4 Rehabilitation

The area has been completely rehabilitated as can be seen in the following photograph.



Figure 3 Cootes Reef Prospect rehabilitation looking north across area trenched

7.0 Expenditure

Geological supervision	\$1,343
Sample preparation	\$2,000
Assaying	\$1,901
Excavator trenching (~80m)	\$31,489
Excavator rehabilitation	~\$10,000
Diamond drilling (604.6m)	\$90,317
Administration (inc. fees, insurances)	~\$13,000
TOTAL	\$150,050

8.0 References

Komyshan, P. 2002. E.L. 38/94 - "Nabowla". Annual report for the period 12/11/01 - 11/11/02. Anglo Australian Resources N.L.

Komyshan, P. 2004. E.L. 38/94 - "Nabowla". Final relinquishment report incorporating the annual report for the period 12/11/03 - 11/11/04. Anglo Australian Resources N.L.

Marshall, B., Barton, C.M., Jennings, D.J. and Naqvi, I.H. 1965 *Geological atlas 1:63,360 geological series, sheet 31 (8315N) Pipers River.* Department of Mines Tasmania

Appendix - Assay Results

Frank Bardenhagen
45 Bentley St., Bridport
Phone 6356 1172

Sample Type Solids
Date Submitted 9/02/06

Sample	Au
	ppm
C1 45-46	<0.01
C1 46-47	<0.01
C1 47-48	0.06
C1 48-49	0.02
C1 49-50	0.03
C1 50-51	0.02
C1 51-52	<0.01
C1 52-53	<0.01
C1 53-54	<0.01
C1 54-55	0.02
C1 55-56	<0.01
C1 56-57	<0.01
C1 57-58	<0.01
C1 58-59	<0.01
C1 59-60	<0.01
C1 60-61	0.06
C1 61-62	<0.01
C1 62-63	<0.01
C1 63-64	<0.01
C1 64-65	<0.01
C1 65-66	0.02
C1 66-67	<0.01
C1 67-68	<0.01
C1 68-69	<0.01
C1 69-70	0.03
C1 70-71	0.07
C1 71-72	0.02
C1 72-73	<0.01
C1 73-74	<0.01
C1 74-75	<0.01
C1 75-76	<0.01
C1 76-77	<0.01
C1 77-78	<0.01
C1 78-79	<0.01
C1 79-80	<0.01
WY 101-108	<0.01
WY 109-114	<0.01
WY 117-118	<0.01
WY 128-129	<0.01
WY 136	<0.01
WY 41-42	<0.01
WY 120	<0.01

Duplicates

Sample	Au
	ppm
C1 59-60	<0.01
WY 101-108	<0.01

Diamond drillhole C1 samples - note samples WY* are not from E.L. 13/2005

Frank Bardenhagen
 45 Bentley St., Bridport
 Phone 6356 1172

Sample Type Drillcore
 Date Submitted 21/02/07

Sample	Au ppm	As ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Bi ppm
Reef 1	0.58	3400	5	30	1310	50	10
Reef 2	0.23	3750	44	1360	1550	210	10
Leaders 1	0.11	400	1	60	90	50	10
Leaders 2	0.06	200	1	40	40	50	10
Grab 1	0.61	3350	5	90	390	220	10
Grab 2	0.97	4850	9	60	970	30	10
Grab 3	0.39	1550	2	70	480	100	10
Grab 4	0.59	1000	3	20	440	60	10
Grab 5	0.17	300	1	40	90	40	<10
Franks Grab	0.77	1950	17	50	580	80	20
Vuggy	4.73	2500	10	20	440	30	10

Duplicates

Sample	Au ppm	As ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Bi ppm
Leaders 2	0.06	n/a	n/a	n/a	n/a	n/a	n/a
Vuggy	n/a	2450	10	30	450	30	10

Rock samples

Frank Bardenhagen
45 Bentley St., Bridport
Phone 6356 1172

Sample Type Drilcore
Date Submitted 5/03/07

Sample	Au ppm
H5	0.12
R5	0.84
F5	0.17
H10	0.08
R10	0.52
F10	0.12
H15	0.09
R15	0.47
F15	0.05
H20	0.03
R20	0.11
F20	0.08
H25	0.07
R25	0.07
F25	0.31
H30	0.06
R30	0.11
F30	0.20
H35	0.08
R35	0.43
F35	0.19
H40	0.14
R40	0.37
F40	0.28
H45	0.05
R45	0.28
F45	0.18
H50	0.59
R50	0.42
F50	0.03
H55	0.09
R55	0.17
F55	0.06

Duplicates

Sample	Au ppm
R5	0.86
H40	-0.17

Channel samples