



# CULLEN RESOURCES LIMITED

ABN 46 006 045 790

## QUARTERLY REPORT 31 MARCH 2003

### HIGHLIGHTS

#### GUNBARREL GOLD

##### Southern Prospect

*Air core drilling outlines an extensive zone of anomalous gold (>0.5 g/t) in weathered bedrock (to 80m depth) over 1,200 x 400m, NE-SW to N-S trend. Results include 12m @ 2.96 g/t Au on the southernmost drill line, with the prospect open to the south.*

*RC drilling of the Central Zone of this prospect returns significant results including:  
7m @ 9.02 g/t Au and 9m @ 6.2 g/t Au*

*Further aircore drilling of the Central Zone and of possible extensions to the Southern Prospect are planned for the current June Quarter.*

*Aeromagnetic interpretation identifies several priority targets within 2km of the Central Zone.*

#### ASHBURTON GOLD

*A Joint Venture Agreement is signed with Barrick Gold of Australia Limited which involves most of the Wyloo project area. Extensive exploration is planned for the June Quarter. Barrick may earn 70% interest by sole funding expenditure of \$5M.*

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ASX Code : CUL  
Level 4, 118 Christie Street  
ST LEONARDS NSW 2065  
AUSTRALIA

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Phone: +61 2 9437 4588 Fax: +61 2 9437 4599  
Email: [info@cullenresources.com.au](mailto:info@cullenresources.com.au)  
Website: [www.cullenresources.com.au](http://www.cullenresources.com.au)

## EXPLORATION ACTIVITIES

### NORTHEAST GOLDFIELDS W.A.

**GUNBARREL GOLD PROJECT - (Eureka Group E 53/568, E 53/535, E 53/818, E53/837, MLAs 53/868-870, Cullen 100%; Irwin Bore Group E 53/403, ELAs 53/925 and 981, Cullen 90%; ELA 53/1040, Cullen 100%)**

#### Summary

Cullen's Gunbarrel Project covers approximately 650km<sup>2</sup> of granite/greenstone terrane in the NE portion of the Archean Yilgarn Block of Western Australia (see Location Plan). The Project is located 130 km E of Wiluna and 90km E of the highly productive Yandal Greenstone Belt. Cullen is exploring for gold in its own right and also for nickel on the Eureka Group tenements in joint venture with WMC Resources Ltd (WMC).

The Gunbarrel project has returned excellent exploration results and is considered by Cullen to be an exploration project of substantial potential.

Exploration activity remained high at the Gunbarrel Project during the Quarter with programmes of air core (46 holes for 2,125m) and RC (9 holes for 1,100m) drilling completed at the Southern, Kilkenny and Eureka Northwest gold prospects.

The air core drilling results are encouraging, and underline the economic potential of the mineralised shear systems at **Southern** with gold mineralisation now known to occur over 1.2km of strike.

Two RC holes drilled as 90m step-outs to the ENE of the Central Zone returned very significant ore grade intersections.

Preliminary interpretation of Cullen's detailed aeromagnetic survey flown in January 2003 indicates a favourable structural setting for gold mineralisation at Southern, and highlights several important new targets to the S and SSE.

Further air core drilling is planned for the current June Quarter.

#### **Air Core Drilling- Southern and Kilkenny Prospects**

Air core drilling (46 vertical holes for 2,125m) was completed on 100 x 50m spacings (see Drill Collar Plan) to test:

- possible southerly extensions of mineralisation intersected in Cullen's previous air core drilling at **Southern** (including 6m @ 3.6 g/t Au in drillhole MEAC 130);
- possible northeasterly extensions of **Southern**; and,

- a lag soil anomaly at the **Kilkenny** Prospect 800m NW of **Southern**.

Results, which were announced on 28 March 2003 (Table1), indicate a zone of strong gold mineralisation at **Southern** extends for at least 200m S of previous drilling. Best intersections include:

- **8m @ 2.03g/t Au (2.72 g/t Au repeat assay) from 12m and 6m @ 5.06g/t Au from 40m (MEAC 147).**
- **12m @ 2.96g/t Au (3.78 g/t Au repeat assay) from 44m (MEAC 156, 125m SE of MEAC 147).**

This new mineralisation is related to quartz veins near a NW-SE trending, sheared felsic volcanoclastic/ultramafic contact which is concealed by up to 10m of transported cover.

A single traverse of holes across the large **Kilkenny** lag gold geochemical anomaly returned anomalous intersections of 8m @ 0.26g/t Au from 53m to the end of hole (MEAC 185) in sheared ultramafics, and 4m @ 0.18g/t Au from 21m in adjacent hole MEAC 186, 50m to the East.

<b>TABLE 1: SIGNIFICANT AIR CORE DRILL RESULTS – Gunbarrel Project.</b>						
<i>Prospect/Hole Id</i>	<i>East GDA 94</i>	<i>North GDA 94</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Intersection &amp; Grade (g/t Au) #</i>	<i>Repeat Assay (g/t Au)**</i>
<b>Southern</b>						
MEAC 145	354000	7055950	48	52	*4m @ 0.63	0.87
MEAC 147	353900	7055950	12	20	*8m @ 2.03	2.72
			40	46	*6m @ 5.06	5.06
Including			44	45	1m @ 14.29	13.63
			49	50	1m @ 9.32	9.17
			52	53	1m @ 1.12	1.03
MEAC 150	353750	7055950	30	34	*4m @ 0.48	0.53
MEAC 156	353950	7055850	32	36	*4m @ 0.62	0.81
			44	56	*12m @ 2.96	3.78
MEAC 157	354000	7055850	57	61	4m @ 1.32EoH	1.11
Including			58	60	2m @ 2.1	1.66
MEAC 163	354050	7055750	32	36	*4m @ 0.97	1.02
<b>Kilkenny</b>						
MEAC 185	353900	7057349	53	61	*8m @ 0.26EoH	N/A
MEAC 186	353950	7057342	21	25	*4m @ 0.18	0.04

\* 4m composite samples. # Assay method B/ETA. \*\* Assay method AAS.

N/A Not available. EoH End of Hole.

## RC Drilling – Southern

A short programme of RC drilling (7 holes for 904m) was completed to test (1) various structural targets over a strike of 500m and (2) the possible ENE extension of the Central Zone. The results, which were announced on 20th March 2003, are summarised as follows (Table 2):

- MERC 74 and 75 results prove a 90m ENE strike extension of multiple, stacked, quartz-sulphide shear lodes previously intersected in MERC 58 to 66 by Cullen. The lodes dip ~35° SE (see Drill Section) in felsic and mafic/ultramafic host rocks along a NE trending, sheared contact zone. New ore grade intersections include: **2m @ 10.01 g/t from 50m and 7m @ 9.05 g/t Au from 116m (MERC 74) and 9m @ 6.2 g/t Au from 98m (MERC 75)**. These new mineralized intervals include high grade, single metre assays (Table 2).
- The Central Zone extends ENE for at least 350m, and has not been closed off.
- MERC 76 and 77 tested an interpreted NS trending shear zone target in the NW of the prospect area. MERC 76 bottomed in mineralisation (1.54g/t Au) and MERC 77 intersected lower grade mineralisation.
- MERC 72 and 73 tested down dip of Cullen's previous air core intersection of 6m @ 3.6g/t Au in MEAC 130. MERC 72 intersected 1m @ 2.41g/t Au and MERC 73 intersected broad, low grade lode mineralisation (18m @ 0.47g/t Au).

## RC Drilling – Eureka Northwest

Two RC holes for 196m were drilled to follow up an earlier Cullen intersection of 10m @ 2.54 g/t Au (MERC 55). This prospect is marked by a 3km long base-of-hardpan gold geochemical anomaly. Limited previous RAB and aircore drilling by Cullen intersected gold mineralisation associated with quartz veins in sheared conglomerate and ultramafic schist.

MERC 79 and 80 indicated down dip continuity of mineralised lodes intersected in previous hole MERC 55 (10m @ 2.54 g/t Au), with intersections of 2m @ 2.2 g/t Au from 97m and 2m @ 2.7 g/t Au from 103m.

Approximately 2km of the gold geochemical anomaly, which is broadly related to a conglomerate-ultramafic contact, remains largely untested. Targets for further aircore drilling will be identified from interpretation of Cullen's detailed aeromagnetic survey together with earlier geochemical data.

<b>TABLE 2: SIGNIFICANT REVERSE CIRCULATION INTERSECTIONS – Gunbarrel Project</b>					
<i>Prospect/Hole Id</i>	<i>East GDA 94</i>	<i>North GDA 94</i>	<i>From (m)</i>	<i>To (m)</i>	<i>Intersection &amp; Grade (g/t Au)</i>
<b><i>Southern</i></b>					
MERC 72 ◀	354098	7056063	78	79	<b>1m @ 2.41</b>
MERC 73 ◀	354114	7056358	66	84	18m @ 0.47
MERC 74 ☉	354167	7056537	50	52	<b>2m @ 10.01</b>
			72	73	1m @ 1.86
			109	111	<b>2m @ 2.50</b>
			116	123	<b>7m @ 9.05</b>
Including			120	121	<b>1m @ 52.73</b>
MERC 75 ☉	354333	7056508	75	76	1m @ 1.69
			86	87	<b>1m @ 3.29</b>
			91	92	1m @ 1.05
			98	107	<b>9m @ 6.20</b>
Including			98	100	<b>2m @ 20.40</b>
			126	127	1m @ 1.29
			129	130	1m @ 1.04
			136	139	3m @ 1.31
MERC 76 ▶	354138	7056588	69	70	<b>1m @ 7.93</b>
			90	91	<b>1m @ 3.77</b>
			133	134	1m @ 1.01
			135	136	<b>1m @ 1.54 EoH</b>
MERC 77 ▶	354088	7056588	112	113	1m @ 1.20
			115	116	<b>1m @ 3.10</b>
			117	118	1m @ 1.08
MERC 78	354225	7056491	39	40	<b>1m @ 2.09</b>
			41	42	<b>1m @ 2.63</b>
			112	113	1m @ 1.23
			119	120	1m @ 1.73
<b><i>Eureka NW</i></b>					
MERC 79 ◀	353568	7061559	74	75	1m @ 1.38
			97	99	<b>2m @ 2.19</b>
			103	105	<b>2m @ 2.68</b>
			109	110	1m @ 1.31
			114	115	1m @ 1.08 EoH
MERC 80 ◀	353558	7061658	53	54	1m @ 1.18
			63	64	<b>1m @ 4.70</b>

All 1m samples. Assay Method: Fire assay 50gm charge, AAS finish; All holes inclined 60°: ◀ towards 270°; ☉ towards 315°; ▶ towards 090°, except MERC 78 (vertical). EoH: End of hole.

## **Aeromagnetics**

A 2,142 line km aeromagnetic survey with flight lines at 50m spacing was completed for Cullen in January 2003 in two separate areas over approximately 100km<sup>2</sup>. It covers the **Irwin Bore**, **Southern**, **Eureka North** and **Eureka Northwest** prospects and joins an earlier survey by Pegasus to give Cullen detailed aeromag coverage over a total area of 170km<sup>2</sup>.

Preliminary interpretation indicates that **Southern** lies along the southern flank of a major NNE trending shear zone separating two regional fold structures, an antiform to the S and a synform to the N (see Aeromagnetic Interpretation Plan). The antiform is strongly disrupted by the NNE shear zone and subsidiary NE and NW shears. Drilling to date indicates that intense shearing occurs at the margins of large, disrupted ultramafic blocks which form part of the antiform. Gold mineralisation may be related to favourable dilation zones along such sheared margins.

Importantly, several similar settings have been identified along a structural corridor extending for about 3km to the S of **Southern**. Four priority target areas within 2km of the Central Zone are shown on the Aeromagnetic Interpretation Plan.

North of **Southern**, target areas are indicated where NE-SW shears cross the regional synform at **Kilkenny**, **Eureka** and **Eureka Northwest**.

## **Proposed Drilling – June Quarter**

A programme of approximately 4,000m of aircore drilling is scheduled to commence in late April with the following objectives:

- Testing possible strike extensions of the Central Zone;
- Testing previously defined lodes within selected areas of the Central Zone for up-dip continuity within the oxide profile;
- Definition of the new zone of mineralisation discovered at the southern end of **Southern** by holes MEAC 147 and 156;
- Testing possible southerly extensions of this new zone;
- Testing of two of the priority structural targets identified from aeromagnetics, one of which, located 400m S of the limit of air core drilling, has associated anomalous gold in lag; and
- Further testing of the **Kilkenny** Prospect geochemical anomaly.

## **Irwin Bore Group**

Cullen has now earned 90% of the Irwin Bore tenements from Revesco Group Ltd. No drilling was carried during March Quarter.

**GUNBARREL NICKEL PROJECT - (Eureka Group E 53/568, E 53/535, E 53/818, E53/837, Cullen 100%, WMC may earn a 75% interest in nickel and base metal rights)**

WMC is planning to drill two diamond holes, each to 230m depth, to test nickel targets during June Quarter 2003. One is to be drilled into the **AK47** target and the other into the **303** target. The holes will test cumulate ultramafics with coincident electromagnetic conductors, as indicated by ground TEM geophysical surveys.

**WONGANOO GOLD/NICKEL PROJECT – (White Well Group E 53/645, ELAs 53/1030, /1069, /1046 and /1083 Cullen 100%; option to earn 80% in E53/988)**

Following reconnaissance field work, an option was signed with Quantum Resources Ltd, the holders of E53/988, “Wonganoo”, which adjoins E53/1030 to the SW. The agreement allows Cullen to review and compile the existing geological and historical exploration data and at its election, Cullen may then earn an 80% interest in the tenement by sole funding expenditure of \$50,000.

Application E 53/1083 was lodged to cover extensions of greenstones west of E 53/1030.

Compilation of available geological and exploration information is in progress in order to prioritise nickel and gold prospectivity.

#### **EASTERN GOLDFIELDS W.A.**

**KILLALOE NICKEL PROJECT (E 63/722\*, E 63/765\*, P 63/1131, 1132, 1133, 1172, 1173 1174, Cullen 100%, \*7.5% NPI to Xplore Pty Ltd applies to these tenements; Sipa Resources International NL (Sipa) may earn 70% in nickel and base metal rights)**

Sipa Resources International N L may earn 70% in the rights to explore for and mine nickel, base metals and associated Platinum Group Element ore from Cullen Resources NL at Killaloe, 25km NE of Norseman in the Kambalda-Widgiemooltha Nickel Province in the Eastern Goldfields of Western Australia.

Extensive exploration by Sipa over the last year has consisted of geological mapping and airborne magnetic data interpretation, followed by ground electromagnetic (EM) surveying, RAB, RC and Diamond Core drilling along about 20km of the Eastern and Western Ultramafic Complexes.

The first ever EM survey over the 10km of strike of the Western Ultramafic Complex was completed during the Quarter (see Nickel Programme Plan). The survey identified 11 conductors, ten of which were subsequently tested by deep RC and Diamond Core drilling.

Five EM conductors situated close to the interpreted basal ultramafic contact were intersected and explained by the presence of either sulphidic black shales or barren massive to semi massive sulphides. No significant nickel mineralisation was detected. KLC27 was drilled to

test the conductor located south of KLC 19 and intersected 2m of massive sulphides at 104m with up to 0.34% copper. The remaining four conductors were associated with barren massive sulphides or sulphidic black shales. Follow-up down hole TEM confirmed all ten conductor positions in-hole. Two off-hole conductors were also detected in KLC 25 and KLD 9.

A review of all work to date is now being undertaken by Sipa prior to planning any subsequent work.

**KILLALOE GOLD PROJECT - (E 63/722\*, E 63/765\*, P 63/1131, 1132, 1133, 1172, 1173 1174, Cullen 100%, \*7.5% NPI to Xplore Pty Ltd applies to these tenements)**

A programme of auger pedogenic carbonate, soil and rock chip sampling was carried out during the Quarter (see Gold Programme Plan) and new target areas were identified at the **Duke, Peninsula, Peninsula South, and NE Volcanic Zone** prospects.

Sipa's nickel related RAB and RC drilling had previously located priority gold targets at **Duke** and **Big Bend**. In the western part of **Duke**, RAB drilling had tested the basal contact of the Eastern Ultramafic Complex and KLR 52 intersected 10m @ 0.12g/t Au in a zone of weak to moderate quartz veining. The nearest RAB drilling is 200m S and 800m N.

At **Peninsula**, a 700 x 500m area was sampled by soil augering on 200 x 50m spacings and an additional line 100m N tested quartz veined and sheared mafic volcanics. Anomalous assays of up to 39ppb Au were reported from the SW part of the new grid associated with quartz veining in mafic volcanics intruded by a basic igneous rock (gabbro). A 700m long, NW-SE trending zone up to 80m wide of +10ppb Au occurs in the central part of the new grid associated with sheared and quartz veined mafic volcanics. Both zones are open along strike.

Auger sampling SE of **Peninsula** tested a major structural trend (Sipa mapping) over an area 2.3km (NW-SE) x 400-1200m. Eight traverse lines 320m apart tested a fault intersection with magnetic mafic rocks. Sample spacing across strike was 100m. Moderately anomalous gold assays occur along a major structure in the W of the new grid area. Highs of up to 11ppb Au occur in the NW of the grid and are open to the N and W. The results are considered significant, particularly as Sipa mapped deep transported overburden in the area that will mask bedrock gold geochemistry.

In the **Duke Prospect** area, auger sampling tested for extensions to the Duke mineralisation to the W and SW. The sampling extended the existing grid 250m W over 1.4 km of strike. Anomalous gold assays up to 28ppb Au were reported SW of Duke over a 500m zone that extends the anomaly to 1.2km. The auger gold assays near the collar of KLR 52 are weakly anomalous (4-5ppb Au).

At **NE Volcanic Zone**, traverses were extended 350m E to sample sheared mafic volcanics. The new grid covered a 1.2km x 350m area between parallel NNW trending shears (Sipa mapping). Moderately anomalous gold assays extend the anomaly NE to the edge of the drainage to Lake Cowan. Earlier sampling of porphyry intrusive returned 0.4g/tAu and auger sampling nearby contained up to 55ppb Au.

Auger sampling at **Big Bend** covered a 1.5 x 1.6km area but no anomalous results were recorded over this target.

Results of the recent auger sampling have been combined with earlier results and interpretation has identified **Peninsula – Peninsula South, Duke and Baseline** as priority targets for follow up. Field inspections will be carried out and where possible, rock chip samples collected to identify mineralized structures. Further auger sampling along the major structure at **Peninsula** will determine the extent and continuity of the anomaly over a 4km trend. RAB and/or RC follow up of **Peninsula** and **Baseline** will be planned on completion of auger sampling

### **ASHBURTON GOLD PROVINCE W.A.**

**BARRICK WYLOO JOINT VENTURE De Courcy (E 47/874, 875, 1004), De Courcy North/Horse Well (E 47/903, ELA 47/1154), Hardey Junction (E 08/1145, ELAs 08/1166, 1189, 1327), Catho Well (ELA 08/1330), Cardo Bore (E 08/1341) and Mount Stuart (ELA 08/1292)**

Barrick Gold of Australia Limited (Barrick) and Cullen have entered into a Joint Venture Agreement whereby Barrick may earn a 70% interest in the Wyloo tenements by sole funding expenditure of \$5 million over 5 years. Expenditure of \$350,000 in the first year is committed, subject to granting of two key tenements at Hardey Junction (E 08/1166, 1189). The agreement is also subject to the usual WA Department of Minerals and Petroleum Resources approval.

Cullen has been actively exploring in the Ashburton since 1998 and has acquired large tracts of underexplored areas along major shear zones prospective for “Carlin style” sediment-hosted gold deposits.

The Joint Venture plans to commence exploration in the current June Quarter with reconnaissance RAB, aircore and RC drilling on geochemical and conceptual targets that were identified by Cullen. Further mapping and reconnaissance stream sediment sampling are scheduled for the remainder of the Joint Venture tenements.

**YANKS BORE PROJECT - Yanks Bore E 08/1022, Cullen 51% (Cullen and Udu Resources Ltd contributing pro rata); Red Hill West E 08/1135, Cullen 100%**

Fieldwork and compilation of all exploration data confirmed several prospects within E 08/1022 which warrant further investigation. The Hunter Zone/Yanks Bore Fault corridor (see previous Quarterly Reports) is strongly anomalous in gold over a 9km strike and provides several target areas for further work and possible drill testing.

**SLATE BORE - (M 08/79, Cullen 100%, E 08/1021, Cullen 100%)**

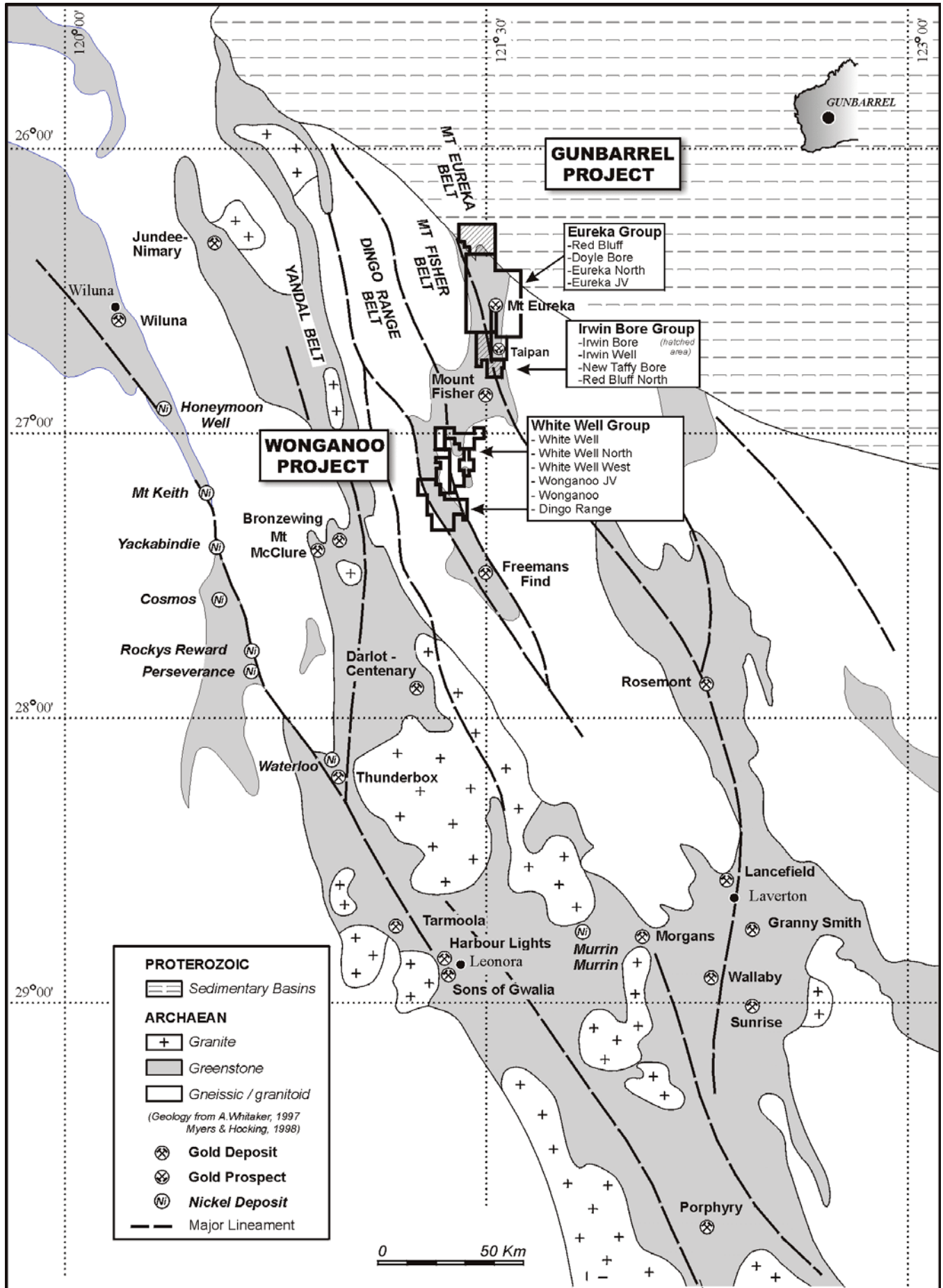
Cullen continues to follow up expressions of interest by parties willing to explore Slate Bore as a base metal exploration prospect. The known base metal prospects and geochemical anomalies are located within a large scale hydrothermal alteration system and indicate potential for stratiform/stratabound, sediment-hosted base metal sulphide deposits.

## **CORPORATE ACTIVITIES**

During the quarter Cullen has sold 175,000 shares in Peter Hambro Mining Limited giving proceeds of approximately \$621,000 (a book profit of \$565,000). At the end of the quarter the Company retained 100,000 shares valued at approximately \$450,000.

## ***ATTRIBUTION***

*Information in this report which relates to mineralisation is based on information compiled by Grahame Hamilton, a full time employee of Cullen Resources Limited who is a Member of the Australian Institute of Geoscientists and has relevant experience as a Competent Person as defined in the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves in relation to mineralisation being reported on.*



GUNBARREL AND WONGANOO PROJECTS

Eureka / Irwin Bore / White Well Groups **Location**



353500E

354000E

354500E

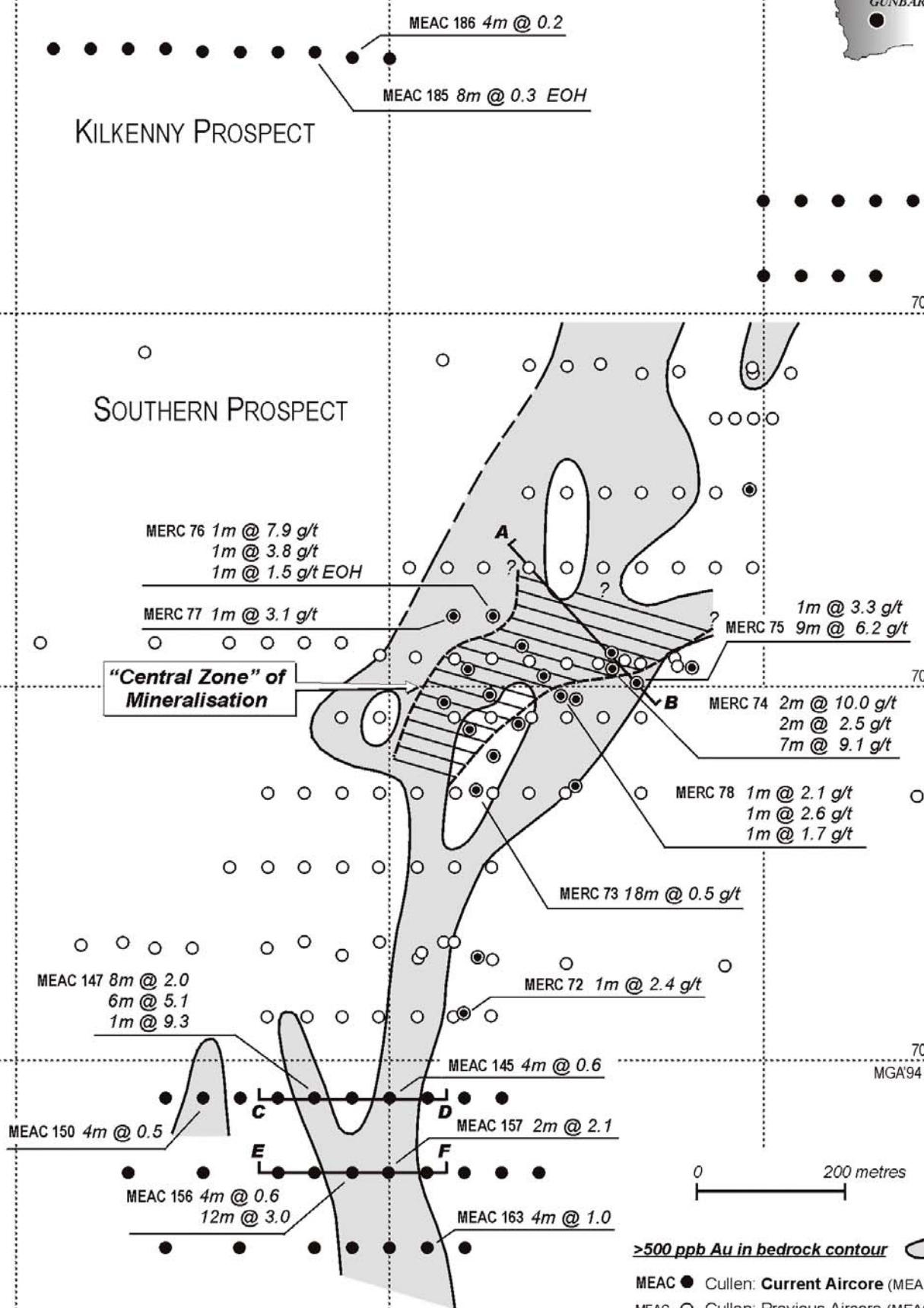
KILKENNY PROSPECT

SOUTHERN PROSPECT

7057000N

7056500N

7056000N  
MGA94 Zone 51

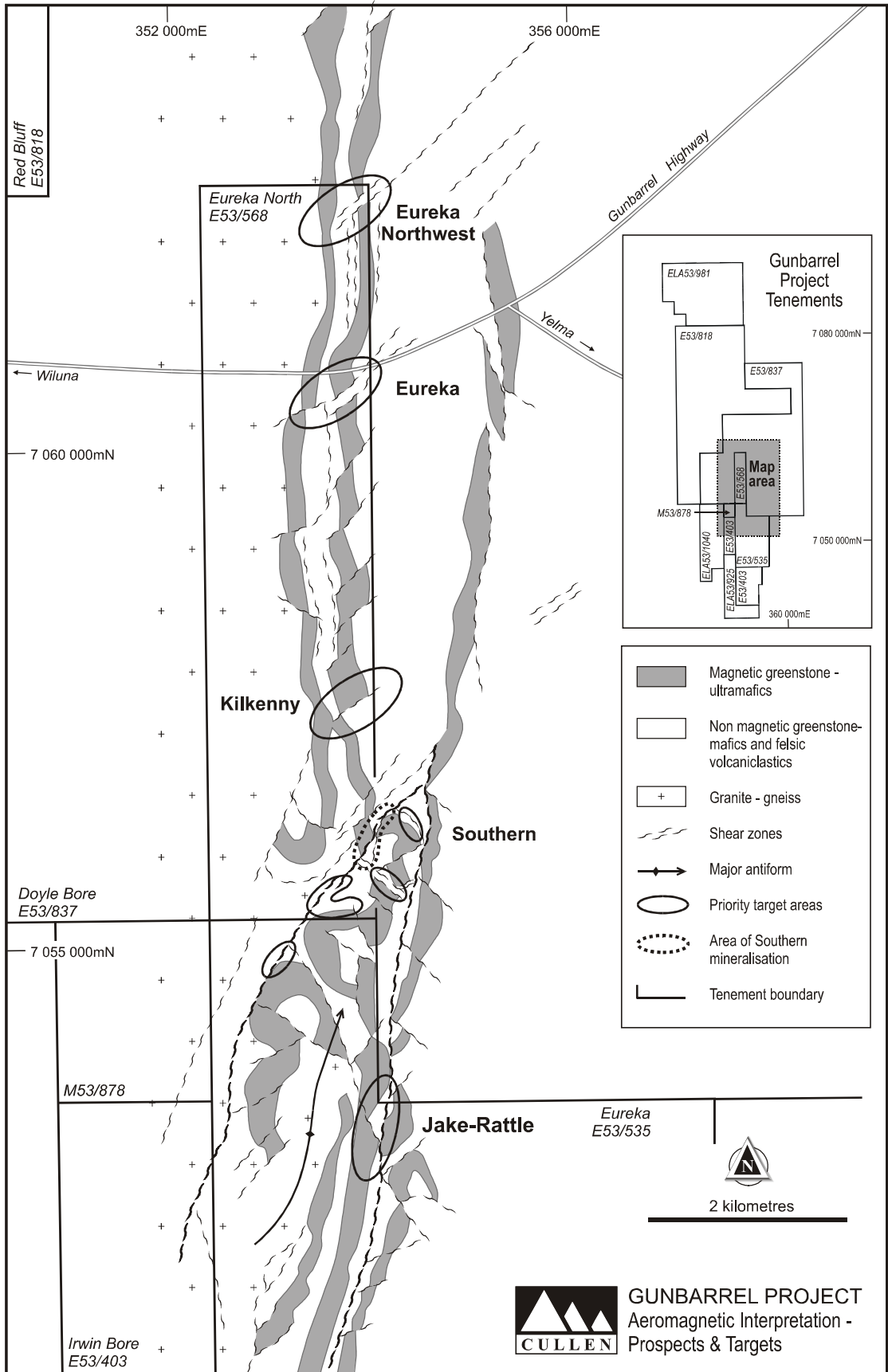


GUNBARREL PROJECT-Southern / Kilkenny

**Drill Collar Plan** - Aircore and RC Results  
(March 2003 Quarter)

- MEAC ● Cullen: Current Aircore (MEAC prefix)
- MEAC ○ Cullen: Previous Aircore (MEAC prefix)
- MERC ● Cullen: RC collars
- A B Cross Section Line  
( Values : metres @ g/t Au )





Red Bluff  
E53/818

352 000mE 356 000mE

Eureka North  
E53/568

Eureka  
Northwest

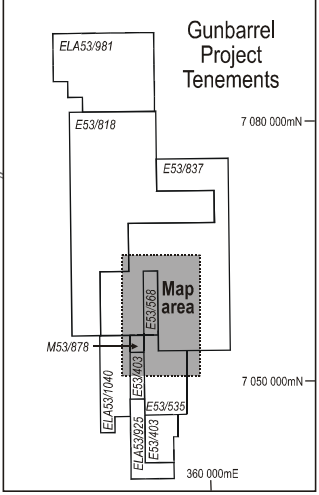
Gunbarrel Highway

Yelma

Wiluna

Eureka

7 060 000mN



Kilkenny

Southern

Doyle Bore  
E53/837

7 055 000mN

M53/878

Jake-Rattle

Eureka  
E53/535

Irwin Bore  
E53/403

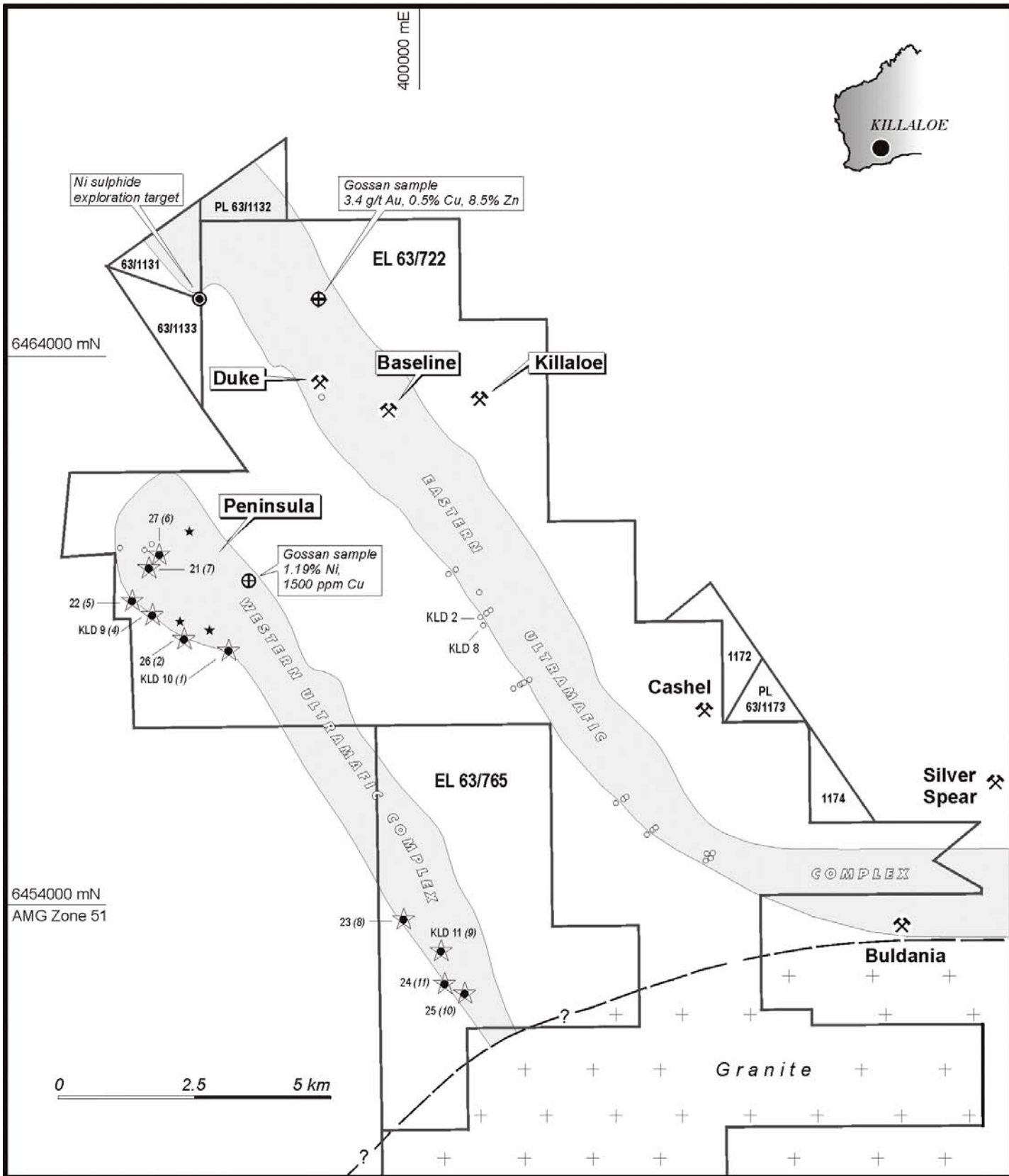
- Magnetic greenstone - ultramafics
- Non magnetic greenstone-mafics and felsic volcanics
- Granite - gneiss
- Shear zones
- Major antiform
- Priority target areas
- Area of Southern mineralisation
- Tenement boundary



2 kilometres



**GUNBARREL PROJECT**  
Aeromagnetic Interpretation -  
Prospects & Targets



Ni sulphide exploration target

Gossan sample  
3.4 g/t Au, 0.5% Cu, 8.5% Zn

PL 63/1132

EL 63/722

63/1131

63/1133

6464000 mN

Duke

Baseline

Killaloe

Peninsula

Gossan sample  
1.19% Ni,  
1500 ppm Cu

27 (6)

21 (7)

22 (5)

KLD 9 (4)

26 (2)

KLD 10 (1)

KLD 2

KLD 8

Cashel

1172

PL 63/1173

1174

Silver Spear

EL 63/765

6454000 mN  
AMG Zone 51

23 (8)

KLD 11 (9)

24 (11)

25 (10)

Buldania

Granite

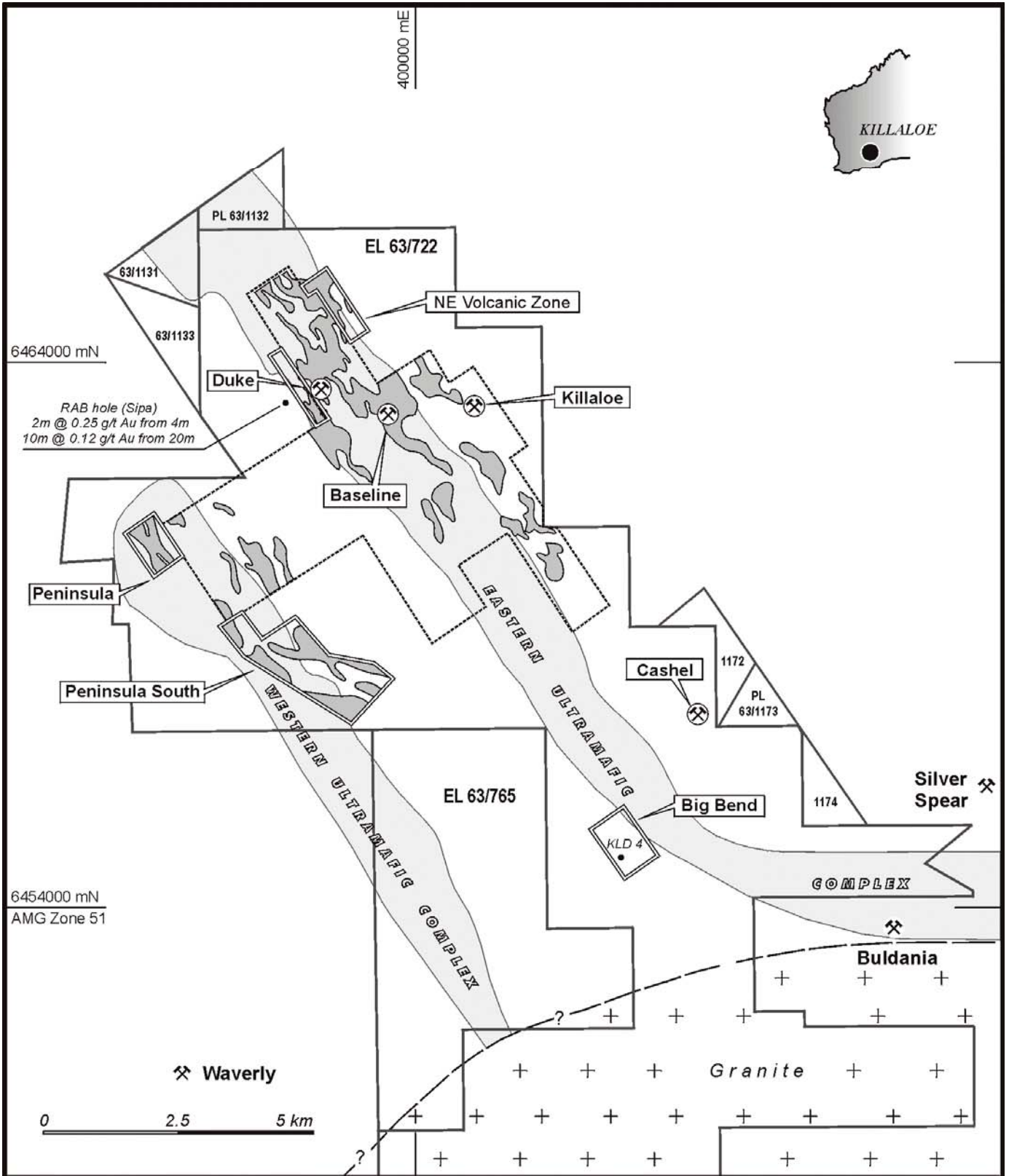
0 2.5 5 km



**KILLALOE PROJECT**  
**Nickel Programme**

CR 10-4-2003

(KWC 4) ☆	<b>2003 EM Anomalies</b>	★	Previous EM Anomalies
KLD/C ●	<b>2003 drill holes</b> (D: diamond collar / C: RC)	○	Previous drill holes
◊	Ultramafic Complex	⚡	Mine / prospect



- > 5 ppb Gold auger contour
- 2003 Auger geochemical survey
- Previous survey area
- Ultramafic Complex
- Mine / prospect (Gold)