



Hemisphere Resources Limited

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ACTIVITY REPORT TO ASX FOR THE QUARTERLY ENDING 31 December 2009

Highlights

- **Yandicoogina South Granted**
 - **On site heritage survey completed**
 - **High grade results from iron outcrop**
- **Hancock Range project secured after successful Ballot outcome.**

Discussion

For the **Yandicoogina South Iron Project**, located some 6km south of Rio Tinto's Yandicoogina mine, native title surveys were completed successfully after the tenement was granted. Sampling of channel iron outcrop returned excellent results with high grades demonstrated. Preparation for drilling includes finalising access agreements to facilitate the approvals process.

Gold Projects were reviewed during the quarter to identify prospective targets. Regional gold projects that are considered to demonstrate potential have been reviewed with field reconnaissance surveys of several target areas. The tenements that are considered to have gold potential compliment Hemisphere's existing gold tenement portfolio.

During the coming quarter the Company intends to continue developing the potential of current projects including drilling and will also assess other projects that have potential to add value to the Company.

Pilbara Iron Projects Advancing on Schedule

ELA47/2110 Hancock Range

- **Ballot Successful for 30 km² tenement south of Yandicoogina South**
- **Iron Potential in the North of the tenement in Brockman Iron Formation**
- **Possible enriched material around Dolerite Dyke to the North**

The northern section of the tenement is considered prospective due to the presence of Brockman Formation (PHb) in the Werriba Anticline (named by BHPB in conjunction with the local traditional Owners) and the NW-SE dolerite dyke extension similar to the structure at Hope Downs to the south. The Werriba Anticline is in detail a series of echelon anticlines considered to be favourable to mineralisation. The dolerite dyke is thought to be an off shoot from the regional Channar Dyke that crosses the Hamersley basin from east to west.

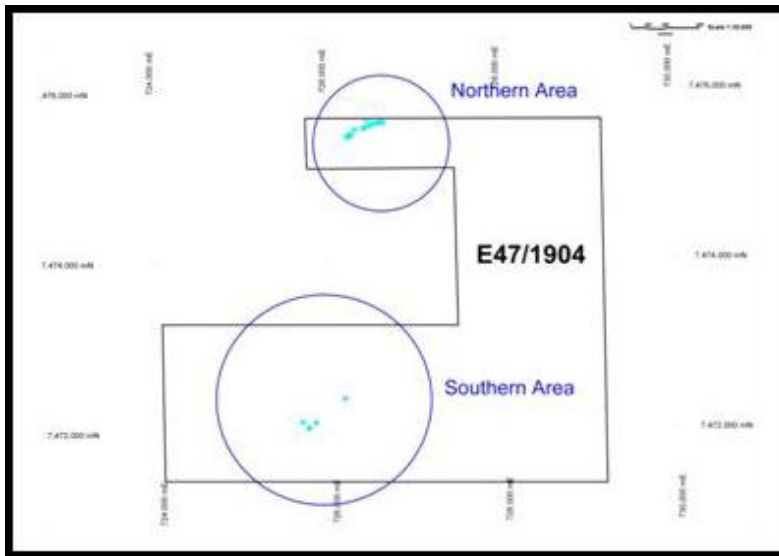


Figure 2: Areas covered by rock chip sampling in December 2009 (E47/1904).

Southern Area

Within the southern area, rock chip sampling was completed during December 2009. Outcropping iron enrichment within the Weeli Wollie formation is evident. This supports the capacity for bedded iron deposits (BED) to be contained within the project area. The location of the sampling in the Southern area is shown in Figure 2. A photo of the outcrop from the Southern Area is shown in Figure 3.

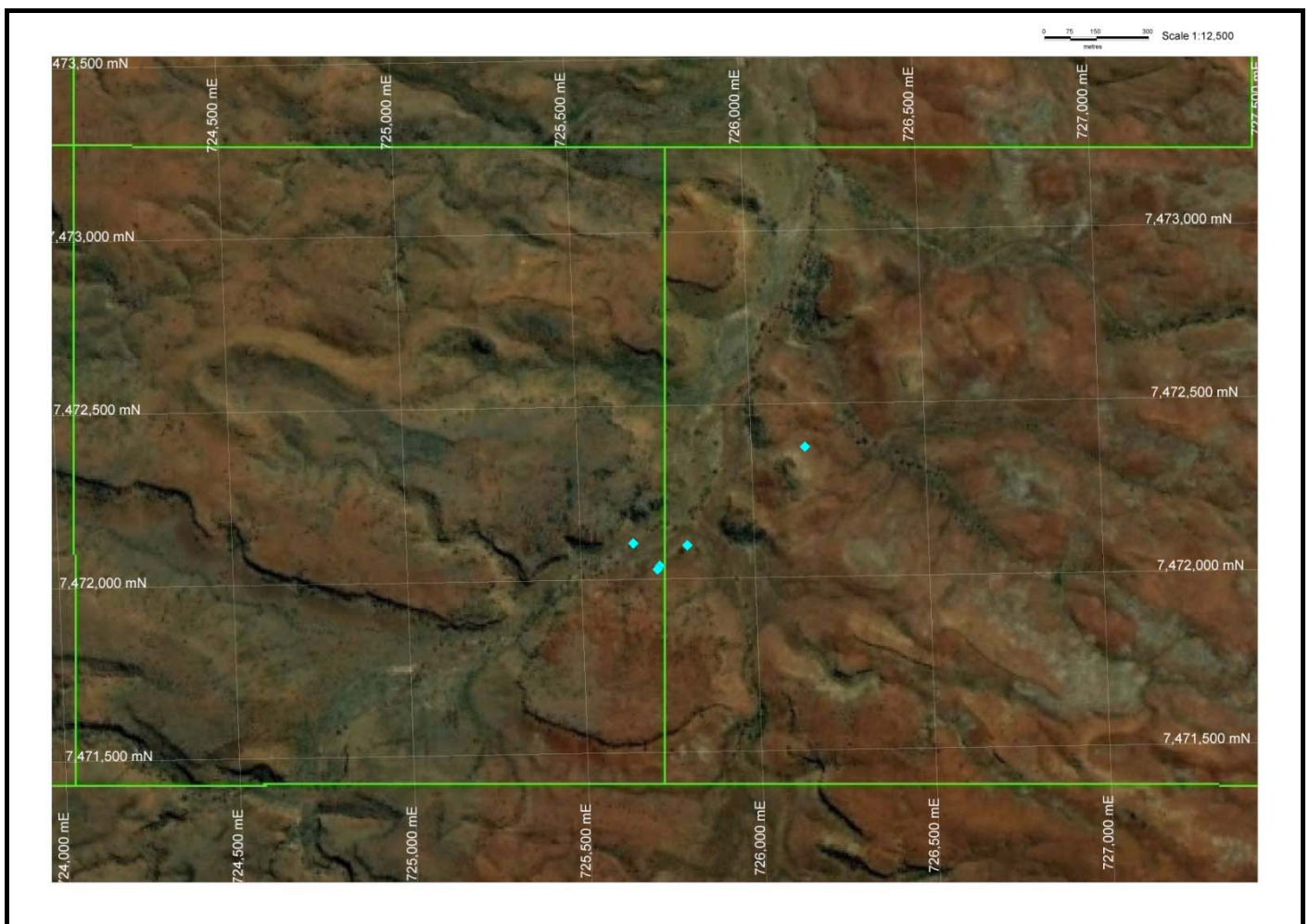


Figure 3. Rock chip sample locations with the Southern Area of E47/1904.

Northern Area

Within the northern area rock chip sampling was completed during October and December with high grades returned. The location and results of these samples are presented below in the Google image shown as Figure 4 and Table 1.

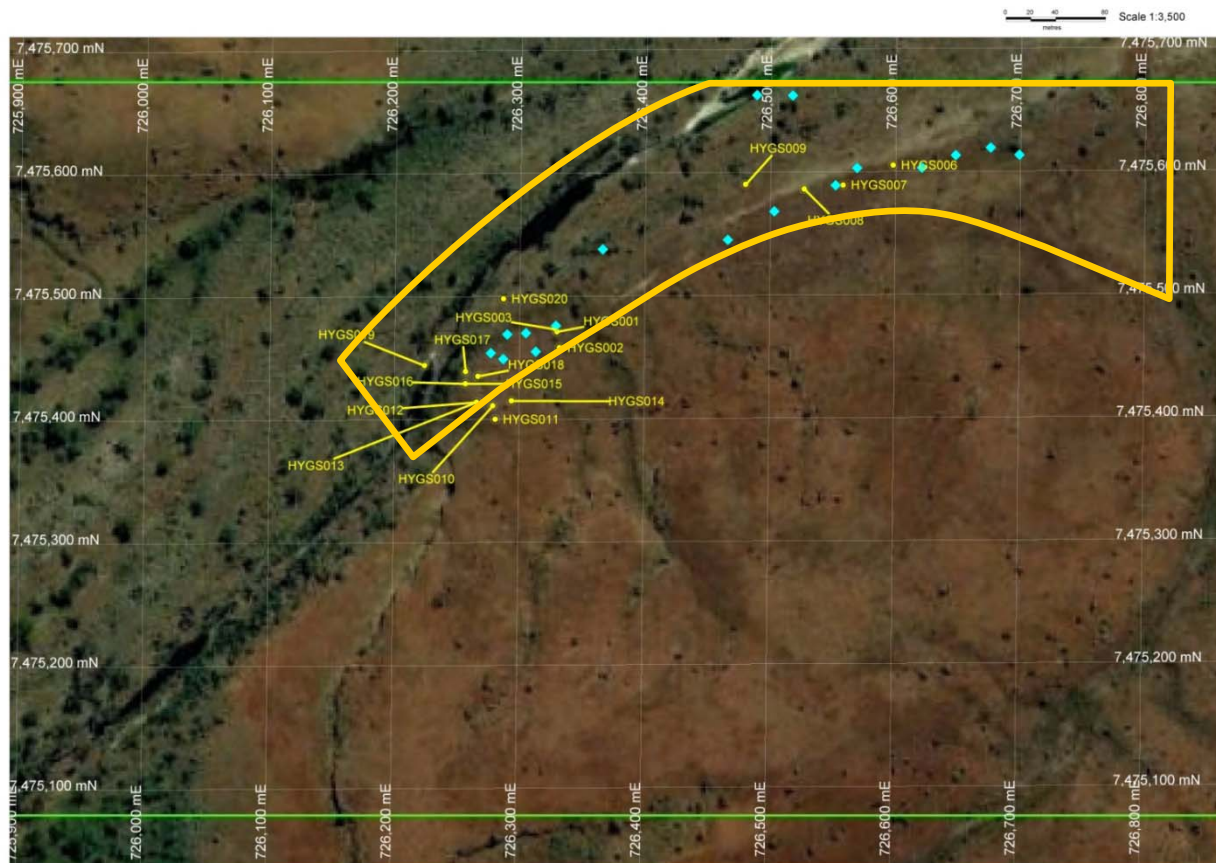


Figure 4: Rock chip sampling programs October 2009 (yellow) and December 2009 (blue) within northern area of E47/1904. Also Shown is the mapped outcrop-subcrop of CID

Sample Number	Northing GDA94	Easting GDA94	RL (m)	Geological Interpretation	Fe (%)	Al ₂ O ₃ (%)	SiO ₂ (%)	P (%)	LOI (%)
HYGS001	7475471	726330	530.6	M2	58.8	1.81	4.36	0.07	7.61
HYGS002	7475458	726332	533.1	Scanga	54.8	5.73	7.11	0.06	7.29
HYGS003	7475473	726329	528.8	M2	58.4	2.04	4.5	0.13	8.85
HYGS006	7475605	726598	523.4	M3	57.9	3.6	4.41	0.06	8.52
HYGS007	7475589	726558	527	M3	56.4	5.45	4.97	0.06	7.9
HYGS008	7475586	726527	529.1	M3	60.4	2.34	4.27	0.07	6.18
HYGS009	7475590	726480	532	Scanga	44.3	14.5	11.8	0.04	9.0
HYGS010	7475411	726279	533.6	Scanga	54.7	9.2	5.02	0.17	5.04
HYGS011	7475400	726281	526.7	Scanga	54.3	9.57	5.48	0.06	4.58
HYGS012	7475414	726266	532	Scanga	53.6	9.07	6.71	0.05	5.48
HYGS013	7475414	726266	531	Scanga/M3	56.6	7.22	5.19	0.09	4.71
HYGS014	7475415	726294	527.9	Scanga	50.4	9.92	8.72	0.06	7.76
HYGS015	7475429	726257	Not Recorded	M3	58.8	2.5	3.38	0.08	9.43
HYGS016	7475429	726257	526.6	M3	58.4	3.47	4.82	0.08	7.09
HYGS017	7475439	726257	523.7	M2	59.2	1.66	3.55	0.07	9.49
HYGS018	7475435	726267	527.2	Scanga	52.1	8.28	8.08	0.07	7.49
HYGS019	7475444	726224	528.8	M3	59.7	3.03	5.07	0.08	5.35
HYGS020	7475498	726287	523.1	M2	61.9	1.82	3.53	0.09	5.48
P1146	Not Recorded	Not Recorded	Not Recorded	M3	59.8	2.22	3.98	0.07	7.4
P1149	Not Recorded	Not Recorded	Not Recorded	M2	59.9	0.81	3.05	0.05	9.97

Table 1: Rock chip assay results Northern Area, previously released (ASX release 6 November 2009).

The potential CID areas were identified by a study of Landsat images as previously announced. This has proved to be correct with the presence of the Hamersley Surface, Upper M3 Pisolite Hardcap with wood fragments, and probable M1 Basal goethitic material seen in the field.



Figure 5: Pavement Outcrop of high grade CID

The stylised Figure 6 below shows a schematic Yandicoogina South CID Cross section (after Kneeshaw et al) with the target areas and the relationship to the old valleys.

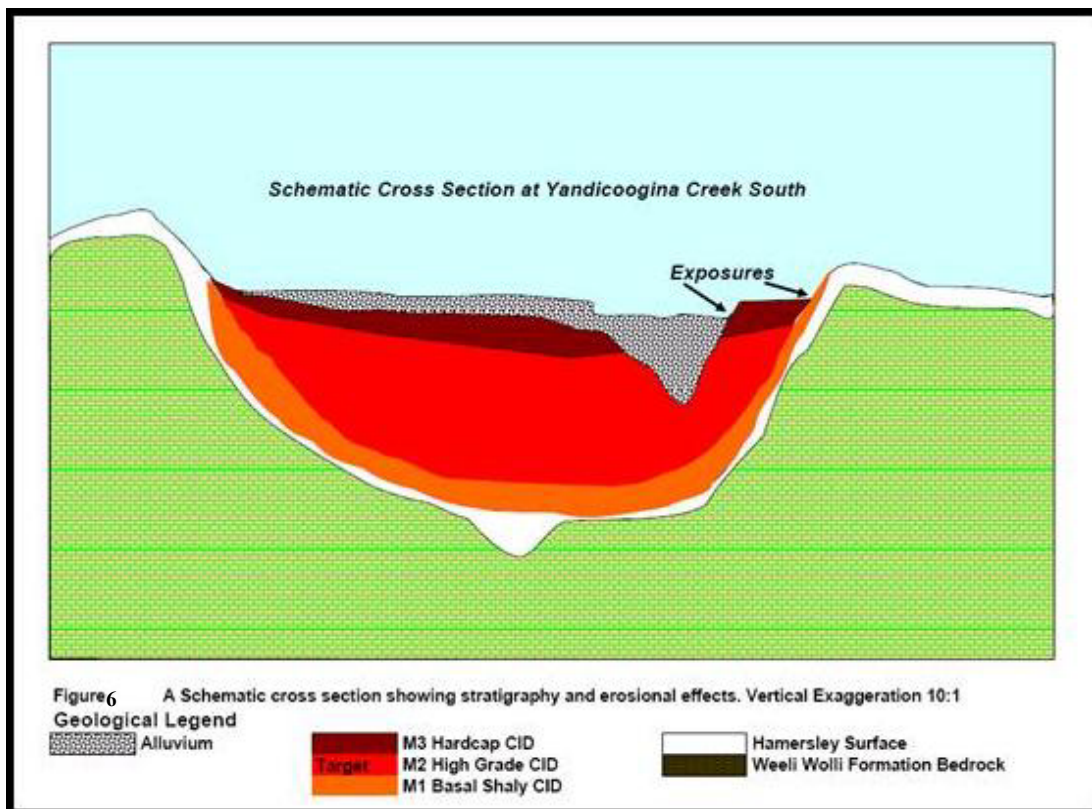


Figure 6 : A schematic Yandicoogina South CID Cross section (after Kneeshaw et al)

Permitting is currently in progress and drilling will commence when all necessary approvals are met. Negotiations are advancing well with the neighbouring tenement owners to allow the PoW to be approved.

Glandore Gold Project (Hemisphere 100%)

During the quarter, a full data review was completed .

The final 1m split sample assays were received from the reverse circulation (RC) drilling completed at the Glandore Project during the September 2009 quarter. A total of seven drill holes were completed for 687 metres. Significant results (>1g/t Au) received for the final 5 drill holes from the Supergene and East Lode prospects are tabulated below in Table 2.

Hole No	East (GDA94)	North (GDA94)	Collar RL (approx)	Azimuth (magnetic)	Dip	Drilled Depth (m)	From (m)	To (m)	Interval (m)	Au g/t
Supergene Prospect										
HGRC122	391758	6595585	318	050	-60	130	-	-	-	NSA
HGRC123	391784	6595581	318	050	-60	94	-	-	-	NSA
HGRC131	391778	6595579	318	050	-60	90	9	16	7	1.07
East Lode Prospect										
HGRC141	392108	6595517	323	050	-60	54	19 50	20 54 (EOH)	1 4	1.77 1.41
HGRC143	392028	6595586	324	050	-60	100	65 69	67 70	2 1	1.79 2.20

Table 2: Significant RC Drill results Glandore RC Drilling – September Quarter 2009

Note: NSA is <1g/t Au returned. All assays completed using 30gm Fire Assay with AAS finish to a lower detection limit of 0.01ppm gold by SGS Minerals Services using method FAA303. Drill hole coordinates surveyed with hand held GPS with approximate RLs.

Hemisphere has a further 6 tenements applications close to the existing Glandore project, prospecting licence applications P25/2089 to P25/2094. These properties form a contiguous group located approximately 1300 metres from the southern boundary of the existing Glandore project tenements (Figure 7).

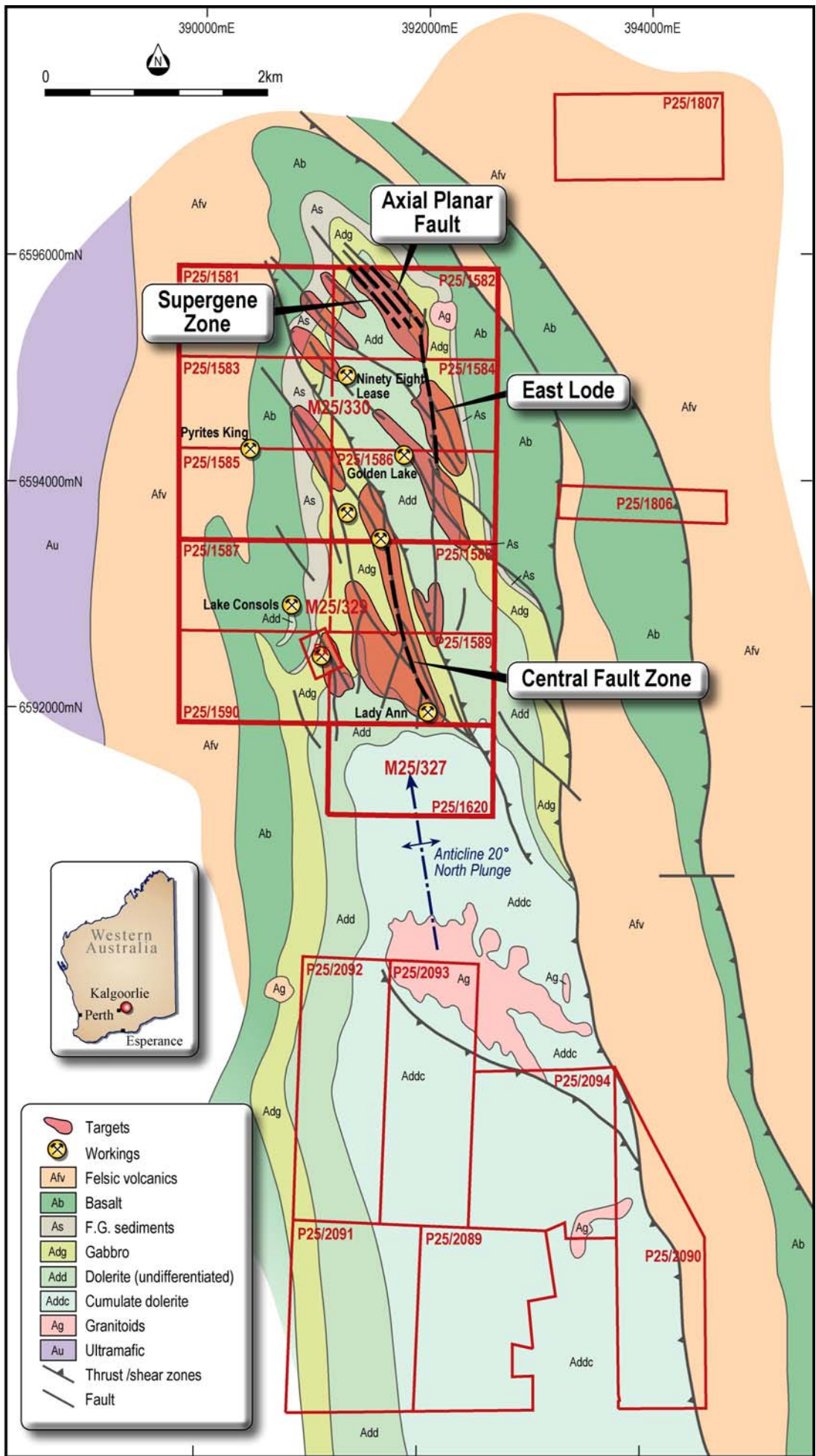


Figure 7: Glandore tenements

Regional Gold Projects

During the quarter Hemisphere has reviewed regional tenements within the Eastern and North Eastern Goldfields of Western Australia. The tenements that are considered to have gold potential compliment Hemisphere's gold tenement portfolio. These tenements can be grouped into 3 project areas. These are the Kurnalpi South (Pinnacles South, Steeple Hill and Mt Quin), Laverton East and Jundee South projects (Figure 8).

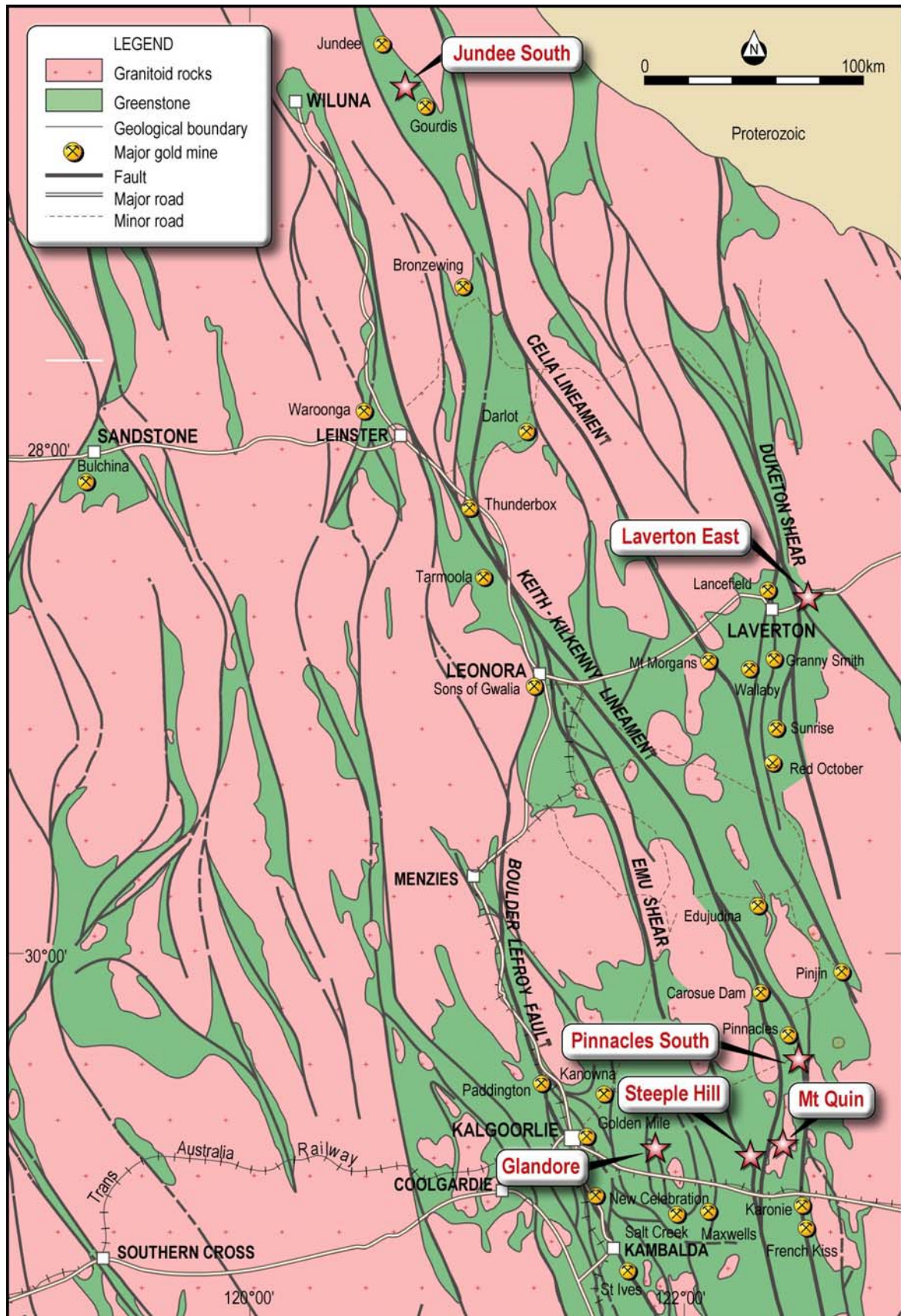


Figure 8: Regional Gold Project Locations

Kurnalpi South Project (Hemisphere 100%)

The Kurnalpi South Project consists of 3 exploration licences (Figures 9 and 10), 2 of which have been granted (E28/1833, E28/1849) with the remaining one as an application (E28/1855). This project area is located approximately 90km to 100km east of Kalgoorlie. The tenements comprising the project areas are located within the Jubilee, Kurnalpi and Mulgabbie terranes which form part of the Laverton-Karonie greenstone belt. Gold prospectivity of the Kurnalpi district is demonstrated by the number of known gold deposits and mines in the region. The tenements that make up this project lie close to or straddle major shears and lineaments in association with secondary structures. Previous exploration in the general area of the Kurnalpi South Project has been completed by Troy Resources NL, Newcrest Mining Limited, Yilgarn Mining Limited, Kilkenny Gold NL, Golden State Resources NL, Normandy Exploration Limited, CSR/Placer Exploration, CRA Exploration Pty Ltd, Marymia and Mt Kersey Mining Limited. Initial exploration of the area was completed for nickel in the early 1970's and base metal exploration from the mid 1970's to the mid 1980's. Gold exploration has been the priority of this area since the mid 1980's. Previous exploration has covered from regional phases including aeromagnetic surveys and interpretation, soil sampling, geological mapping and drilling programmes. During the quarter Hemisphere performed field reconnaissance on the project.

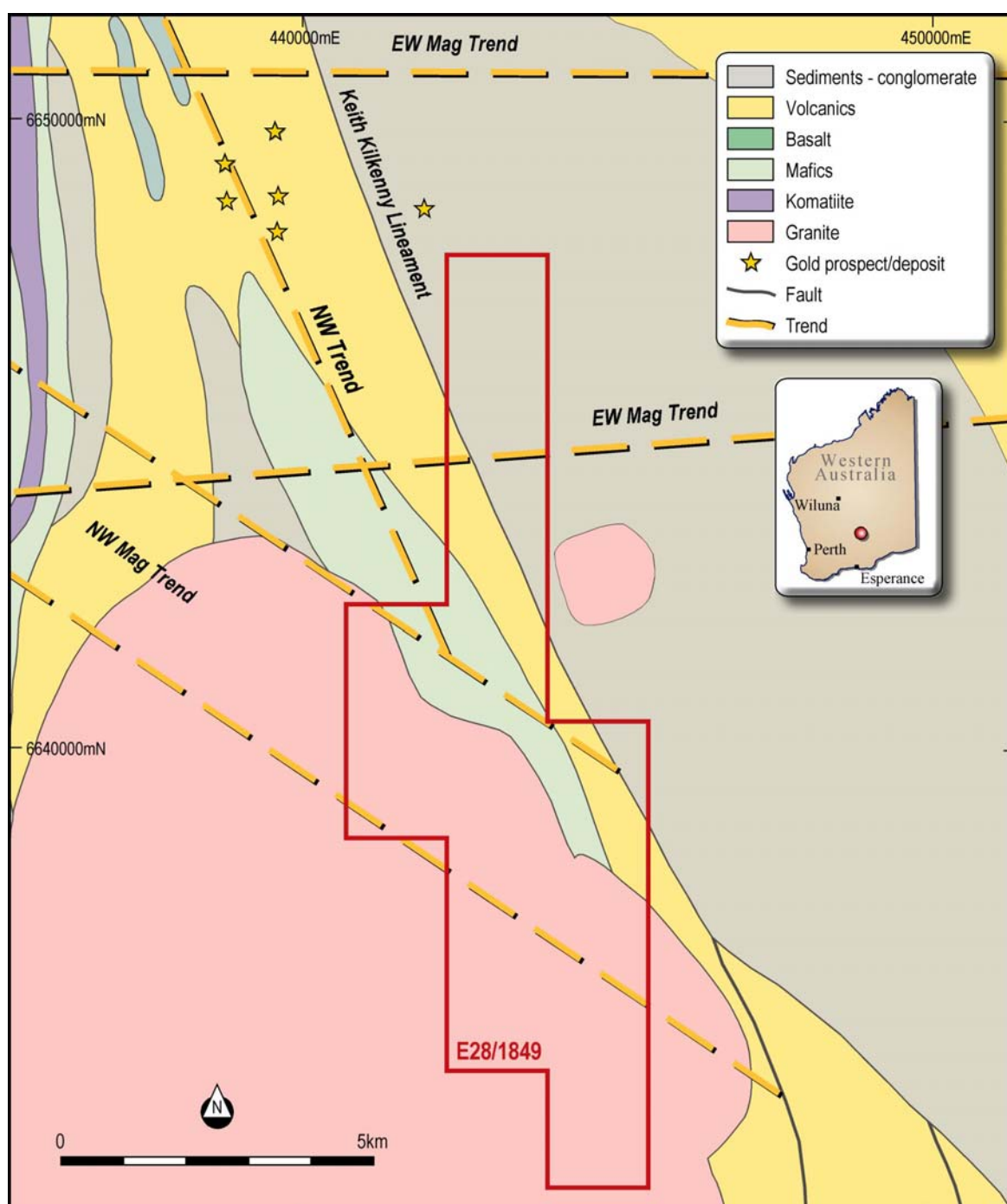


Figure 9: Kurnalpi South Pinnacles tenement E28/1849

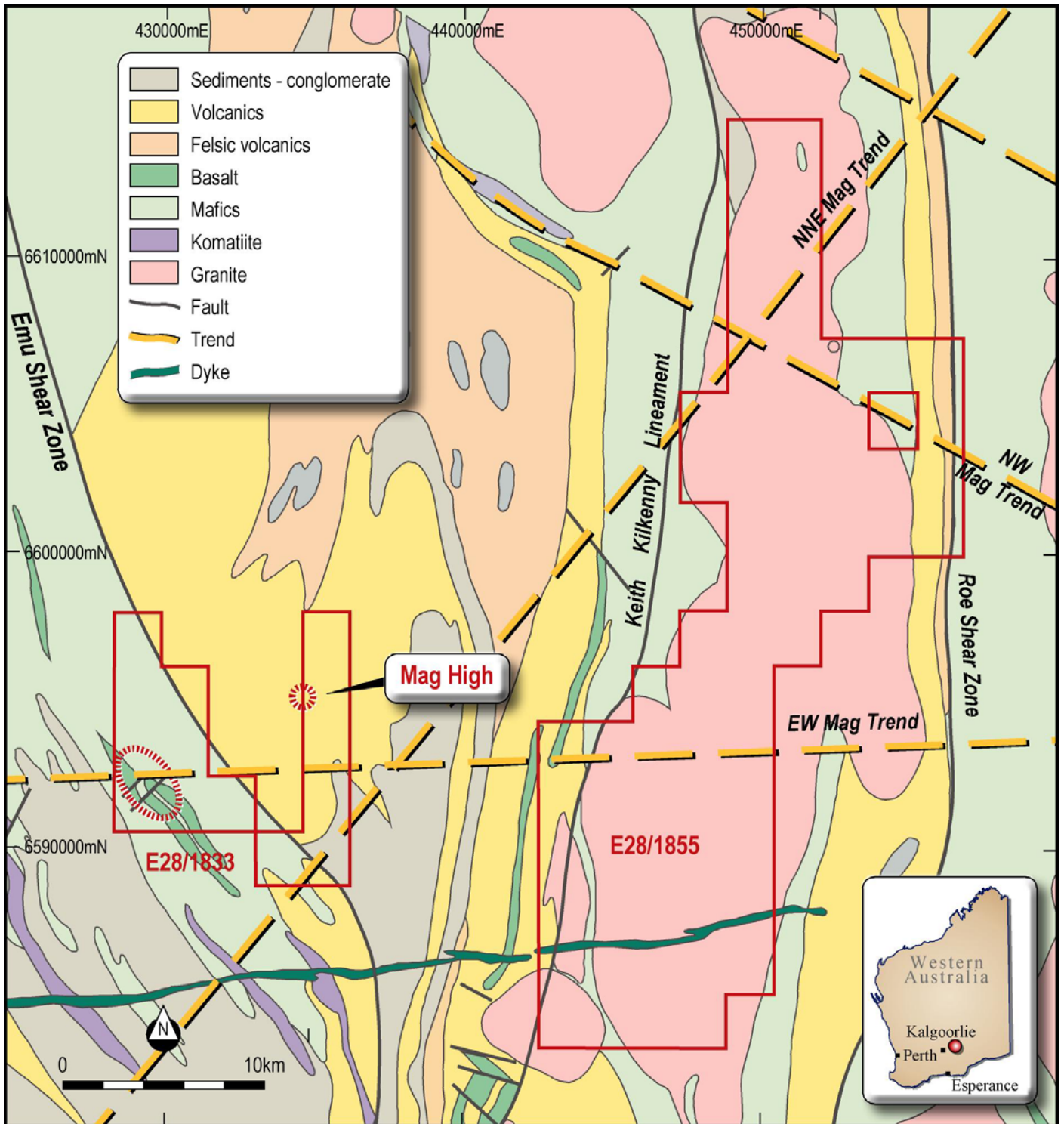


Figure 10: Kurnalpi South Project tenements Mt Quin (E28/1855) and Steeple Hill (E28/1833)

Laverton East Project

(Hemisphere 100%)

The Laverton East Project (P38/3782 to P38/3786) consists of 5 granted prospecting licences and is located within the North Eastern Goldfields approximately 20km east of Laverton (Figure 11). This project area lies on the eastern edge of the Laverton Tectonic zone greenstone belt and is proximal to the Jasper Hills Transfer, which separates the greenstone from the eastern granite terranes. The majority of the project covers a corridor of north-north-west trending mafic volcanics interspersed with narrow bands of ultramafics and volcanogenic sediments. Previous gold exploration has been completed in the general area by a number of companies including CRA Exploration Pty Ltd, Aarex Resources NL and NiWest Ltd. This work has included aeromagnetic interpretation, geological mapping, auger geochemistry and RAB / aircore drilling. During the quarter Hemisphere performed field reconnaissance including rock chip sampling at the project. Best results from this sampling are tabulated in Table 3 and displayed in Figure 13.

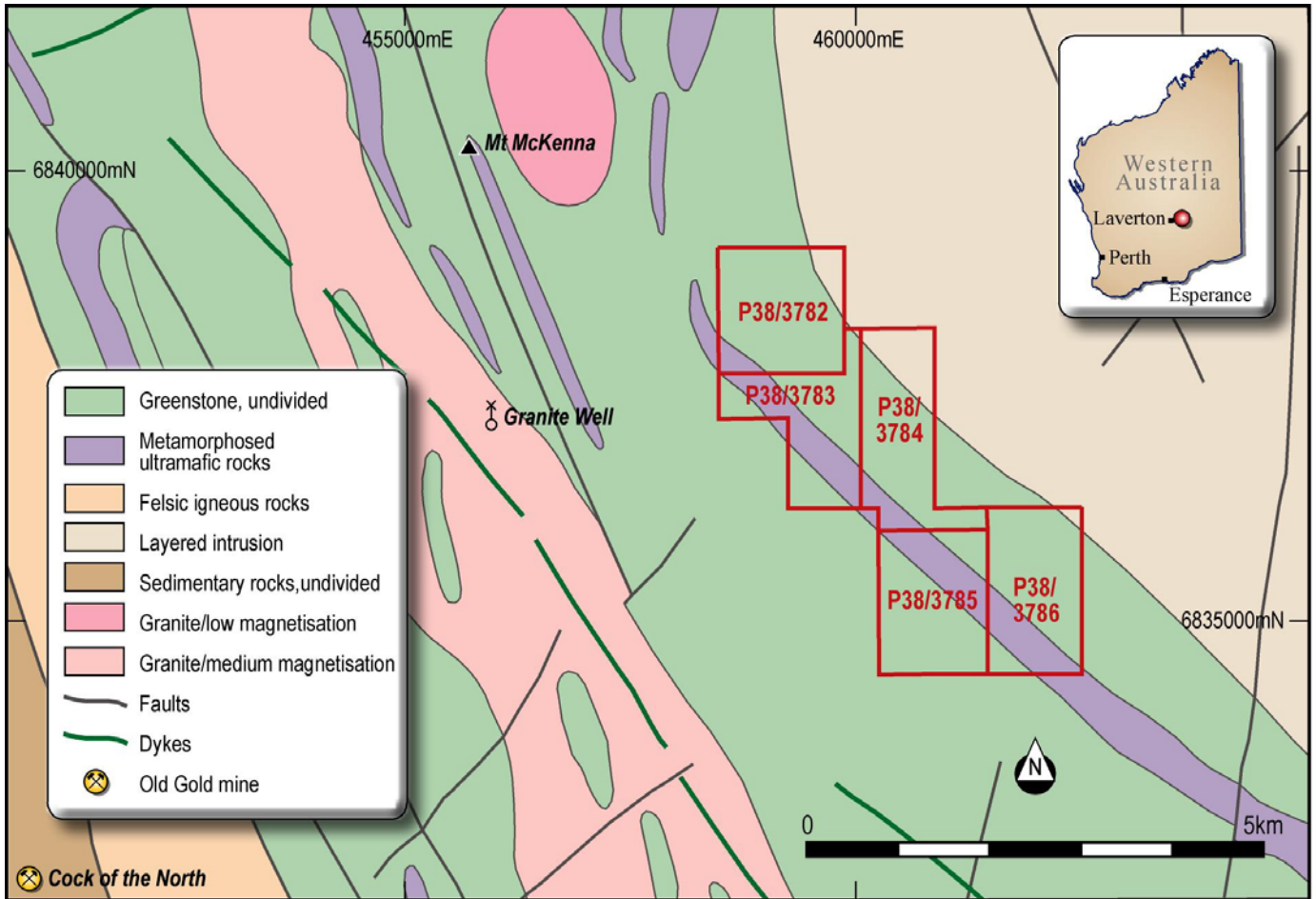


Figure 11: Laverton East project tenement locations



Figure 12: Photograph taken during field reconnaissance at Laverton East Project

Sample Number	Tenement	Latitude	Longitude	Au (ppm)
B5	P38/3783	-28° 35' 11.7"	122° 35' 17.6"	0.24
B17	P38/3783	-28° 35' 50.3"	122° 35' 06.0"	0.41
B20	P38/3784	-28° 35' 30.9"	122° 35' 43.6"	0.49
E3	P38/3786	-28° 36' 00.0"	122° 36' 36.2"	0.26
E15	P38/3786	-28° 36' 01.2"	122° 36' 28.7"	0.25
A16	Not Recorded	Not Recorded	Not Recorded	0.28
A20	Not Recorded	Not Recorded	Not Recorded	0.35

Table3: Laverton East Project rock chip samples

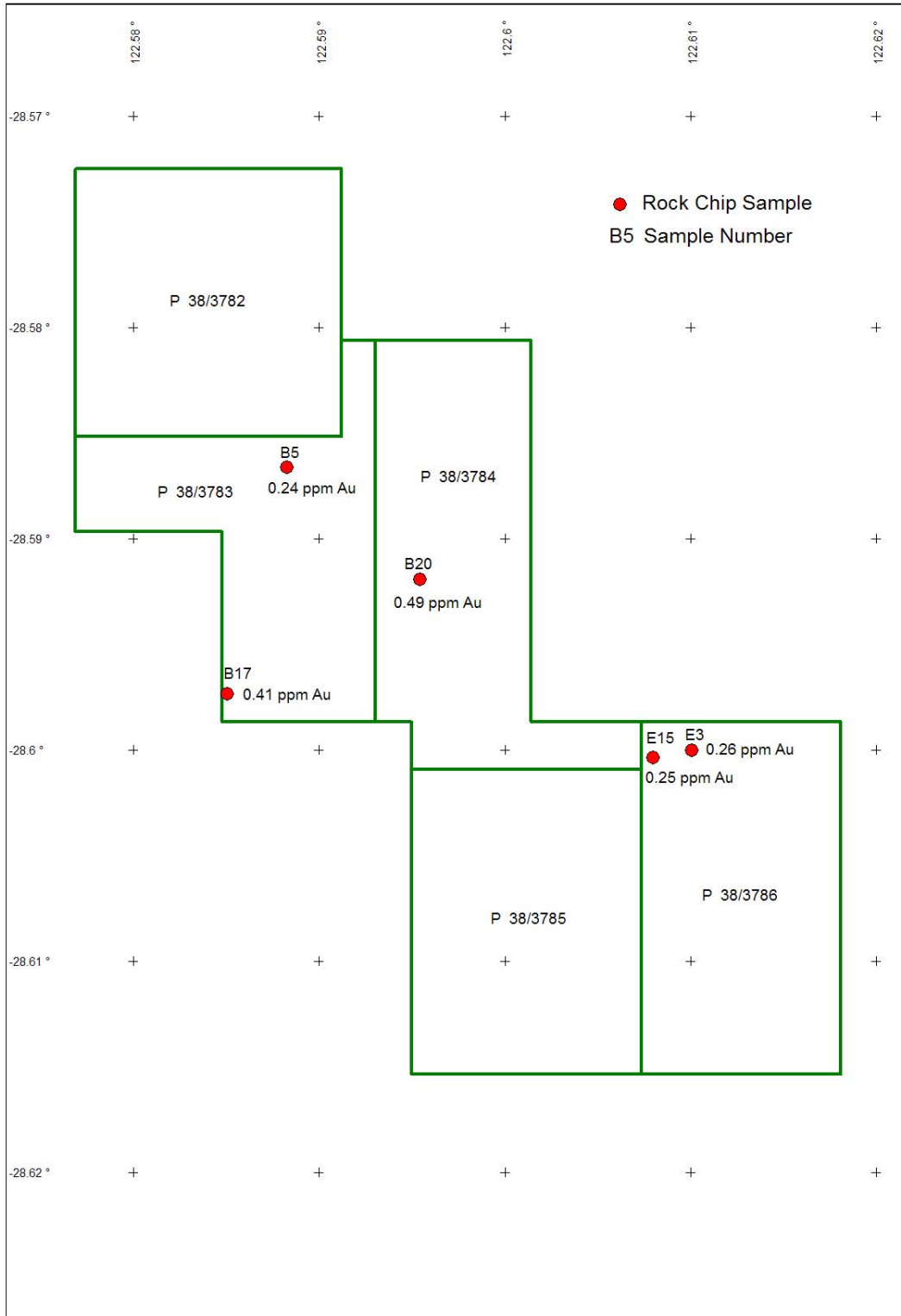


Figure 13: Laverton East Project rock chip sample locations

Jundee South Project

(Hemisphere 100%)

Jundee South (E53/1461) is an exploration licence application located in the North Eastern Goldfields. This tenement is located approximately 50km to the east of Wiluna within the Yandal Greenstone Belt. Follow up targets for gold explorations have been identified from existing regional datasets including geological mapping, aeromagnetics and gravity data. The tenement is situated between the Jundee Gold mine approximately 10km to the northwest and the Gourdis mine approximately 4km to the southeast (Figure 14). The Jundee South Project area has been subjected to several phases of reconnaissance exploration by previous explorers, including geological and regolith mapping at a variety of scales, stream sediment, soil and lag sampling, airborne and ground magnetic and EM surveys and drilling. Several phases of RAB and minor aircore drilling were completed targeting both gold and base metal targets.

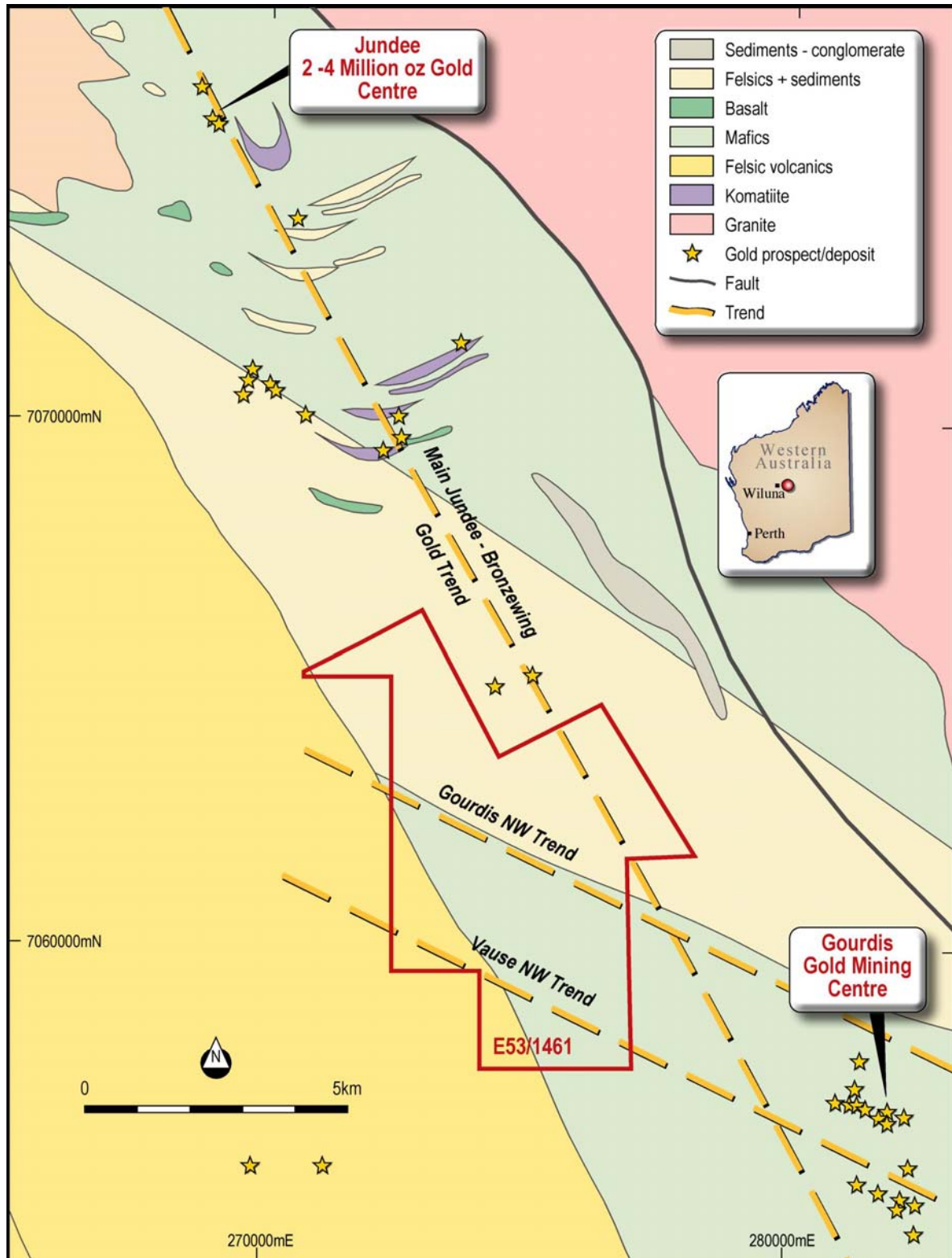


Figure 14: Jundee South project tenement

Sandstone Uranium Project (Hemisphere 100%)

During the quarter, geological investigations continued and heritage surveys are awaited to facilitate drilling.

Mulgarrie Nickel Project (Hemisphere 70%)

During the quarter no field work was undertaken.

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The information in this release is based on information compiled by Peter Schwann who is a Fellow of the Australasian Institute of Mining and Metallurgy and Chartered Professional (Geology) and has sufficient relevant experience to qualify as a Competent Person as defined in the JORC Code (2004). Peter Schwann consents to the inclusion of this information in the form and context in which it appears.