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EL 2883 / EL 3730

WARRINA SOUTH

### THIRD PARTIAL SURRENDER REPORT FOR THE PERIOD 7/1/2002 TO 3/9/2009

Submitted by IMX Resources Ltd 2009

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# EL 3730 Warrina South Partial Relinquishment Report

Volume 1 of 1

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#### **SUMMARY**

Exploration licence EL3730 'Warrina South' is a subsequent replacement licence granted on 5<sup>th</sup> April 2007, after original EL2883. It is situated 60 km east-southeast of Coober Pedy in the northern Gawler Craton of South Australia (Figure 1).

The EL currently covers an area of 302 km<sup>2</sup> and is due for partial relinquishment to satisfy conditions of the Amalgamated Expenditure Agreement between IMX Resources Ltd (IMX) and PIRSA. The licence is to be reduced by 24 km<sup>2</sup> to 278 km<sup>2</sup>.

Between 2001 and 2004, the licence was part of the Mt Woods Joint Venture between Goldstream (now IMX) and Anglo. In 2004 Anglo withdrew from the joint venture and the licence was returned to Goldstream for management.

No field work has been conducted on the area to be relinquished owing to exploration commitments elsewhere within the Mt Woods Project.

A review of the geophysical targets and the uranium potential of the licence is ongoing.

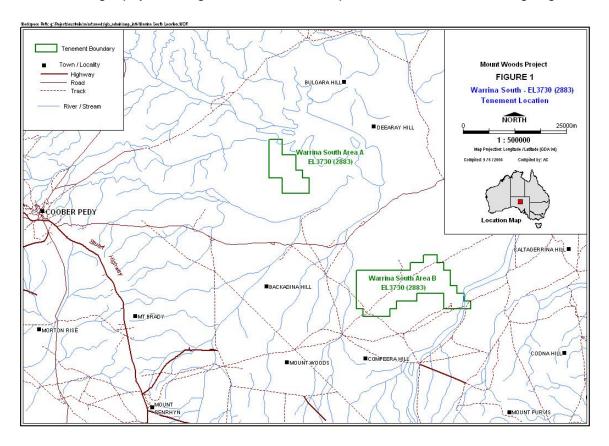


Figure 1: Location map

#### **KEY WORDS**

Coober Pedy, Warrina 1:250,000 map sheet, Murloocoppie 1:250,000 map sheet, Proterozoic, Mabel Creek Ridge, Mount Woods Inlier, Iron Oxide-Copper-Gold, IOCG, Uranium, Base Metals, Magnetics, Gravity, Geophysical Anomalies

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#### 1.0 INTRODUCTION

Warrina South EL3730 is located approximately 60 km ESE of Coober Pedy in the northern Gawler Craton (Figure 1). EL3730 is situated on the Anna Creek Pastoral Lease, within the Woomera Prohibited Area. The EL is on the Warrina (SH53-03) and Billa Kalina (SH53-07) 1:250,000 map sheets.

The terrain is dominantly gibber plains with areas of bluebush and saltbush, and some low lying salt lake swamps. It is drained by a series of intermittent creeks. Access is via the unsealed Coober Pedy–William Creek road and then via a series of dirt station tracks, many of which become impassable in wet weather.

The EL was taken up to explore for iron oxide-copper gold (IOCG), base metal and uranium deposits.

#### **2.0 TENURE**

Exploration Licence 3730 (originally EL2883) was granted to Goldstream Mining NL (now IMX Resources Ltd) on 7<sup>th</sup> January 2002 (Table 1). It has subsequently been replaced, and renewed for additional 12 month periods. The licence expires on 4<sup>th</sup> April 2010 (Table 1).

The licence is part of the Mt Woods Project Amalgamated Expenditure Agreement with PIRSA dated 23 June 2008, for which an application for extension has been applied.

The licence initially covered an area of approximately 379 km<sup>2</sup> (126 blocks) and has been reduced by partial relinquishments to 302 km<sup>2</sup> (101 blocks).

Licence	Granted	Expiry	Year	Area	Status
EL2883	7 January 2002	6 January 2007	4	379 km <sup>2</sup>	Expired
EL3730	5 April 2007	4 April 2010	1	302 km <sup>2</sup>	Current

Table 1: Licence Details

The licence is to be further relinquished by 24 km<sup>2</sup> (8 blocks) to 278 km<sup>2</sup> (93 blocks) (Figure 2).

#### 3.0 REGIONAL GEOLOGY

The Warrina South exploration licence covers a portion of the poorly understood Palaeoproterozoic Mabel Creek Inlier. The Mabel Creek Inlier is a large block of variable magnetic intensity lying to the north of the Coober Pedy Ridge and the Mount Woods Inlier. These three terranes abut an interpreted Archaean age cratonic area to their south and west. The area contains major regional structures (including the major Karari Fault Zone) and is traversed by a several prominent northwest-trending structures along which significant thicknesses of Permian sediments have been deposited.

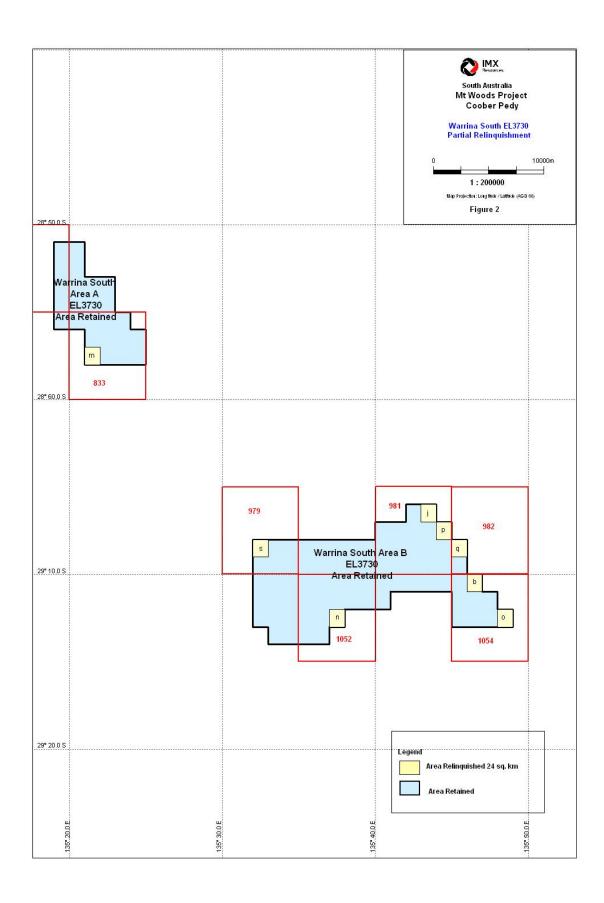


Figure 2: Relinquished blocks

Basement outcrop in the region is generally restricted to the Mount Woods Inlier to the southeast of the tenement, and limited outcrop of Gawler Range Volcanics and Archaean Gneisses further to the south and southwest of the area.

The Mount Woods Inlier comprises high grade Palaeoproterozoic metasedimentary rocks (amphibolite to granulite facies quartzo-feldspathic gneisses, meta-iron formations, quartz-feldspar-biotite schists, quartzites, calc-silicates and forsterite marbles) intruded by syn- to post-tectonic granitoids, (e.g., the Balta Granite, a polyphase Hiltaba Granite equivalent, comprising non-foliated brick-red granite, porphyritic granites and hybrid granites) and is covered by Mesozoic and Tertiary sedimentary cover. The metasediments are characterised by an intense magnetic response in regional aeromagnetic data, which reflects a combination of magnetite rich precursor sediments including BIFs, magnetite alteration, and interpreted probable mafic intrusive bodies. The Inlier is bounded by major shear zones, the most prominent of which is the Karari Fault Zone which bounds the east-west trending Coober Pedy Ridge.

To the north, the Coober Pedy Ridge is separated from the Mabel Creek Inlier by the Permian Tallaringa Trough, and the cover thickness increases markedly. To the west cover thickness also increases due to the presence of Permian and some Cambrian sediments, and increased thickness of Mesozoic cover. Limited previous exploration drilling has shown that the cover sequences as generally comprising Cretaceous sediments of the Cadna-Owie Formation, Algebuckina Sandstone and the Bulldog Shale, which are in turn overlain by Tertiary, Quaternary and Recent units. The cover is highly variable over the tenement area. Basement is interpreted to deepen to the south of the tenement into the Phillipson Trough.

Extensive pre- and post-tectonic alteration can be observed from drill holes in the region. Hematite ± magnetite ± sulphide breccias, iron introduction into meta-sediments and calcium-iron silicate alteration have been reported.

#### **4.0 PREVIOUS EXPLORATION**

Exploration for iron ore in the Coober Pedy region was undertaken by Delhi Petroleum during 1962-1965, with more extensive base and precious metal exploration, and minor uranium and diamond exploration being carried out by Newmont Ltd (1970-1977), CRA Exploration (1981-1988), BHP Minerals (1991-1995) and WMC Resources (1995-2000, in joint venture with BHP Minerals). Some drilling of geophysical basement targets under cover was completed but no mineralisation of note was intersected.

As there is no basement outcrop within the tenement area, all previous exploration has been based on geophysics. Some drilling (principally utilising Rotary Mud/Percussion) of geophysical basement targets under cover was completed but no mineralisation of note was intersected. Extensive regional RC drilling was also completed by PIRSA as part of the South Australian Steel and Energy Project on the Phillipson and Coober Pedy 1:100,000 map sheets (1995).

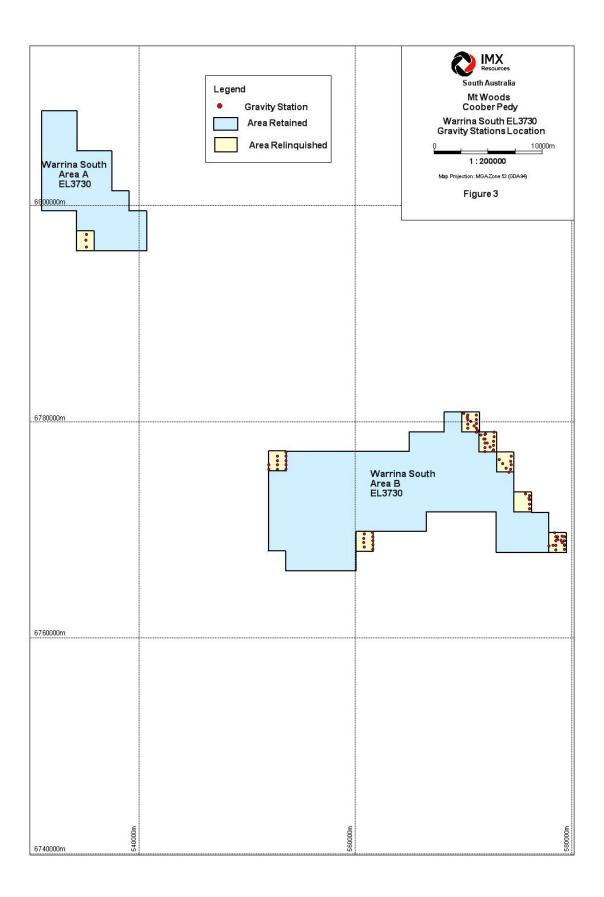


Figure 3: Location of gravity stations

#### **5.0 EXPLORATION ACTIVITIES**

Between 2001 and 2003 Anglo joint ventured into the ground and managed exploration on behalf of Goldstream. Initial exploration by Anglo involved a comprehensive review and compilation of previous work which identified the potential of the area for craton margin magmatic nickel deposits together with a number of aeromagnetic and gravity targets with potential for iron oxide coppergold style mineralisation (IOCG). Anglo subsequently withdrew from the joint venture.

Anglo undertook a gravity survey. Their gravity stations are shown in Figure 3.

In 2004, Ian Garsed of Garsed & Associates concluded that basement lies at significant depths at Warrina South. Using published gravity magnetics data and interpreted geology he identified seven geophysical targets in the Warrina South EL. Two diamond drill holes tested targets on retained ground. Details were reported by Manzi and Garsed (2005). Sparse drilling has intersected elevated copper values, hematite-dusted felsic granite/granite gneiss with fluorite breccia veining, and chlorite-biotite-magnetite alteration. None of the holes are on the relinquished ground.

Assessment of geophysical targets for IOCG deposits, and the uranium potential of the licence, is ongoing.

#### **6.0 EXPENDITURE**

Expenditure for Warrina South, EL 3730 for the reporting period is \$6,000

#### 7.0 CONCLUSIONS AND RECOMMENDATIONS

The tenement EL3730 is being reduced in size for the company to focus on the more prospective portion of the tenement and also as part of the Mount Woods Amalgamate Agreement with PIRSA.

Modeling of gravity and magnetics data and reinterpretation of the existing data is ongoing in order to determine depths and geometry of the IOCG targets.

#### **8.0 REFERENCES**

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**Manzi, B., and Garsed, I., 2005.** EL 2883 Warrina South Annual Report for the Period 7<sup>th</sup> January 2004 to 6<sup>th</sup> January 2005. Volume I of I. *Internal unpublished report for Goldstream Mining NL and PIRSA*.

## APPENDIX 1

### **Gravity Station Data**

X GDA94	Y_GDA94	SURVEY ID	GDAZONE
552004	6775601	acquitaine_angl_02	53
552009	6775999	acquitaine_angl_02	53
552805	6775603		53
552802	6776001		53
552802	6776398	acquitaine_angl_02	53
SOUTH CONTROL OF THE SECOND	L DE LA STRUCTURA DE LA CONTRACTOR DE LA	acquitaine_angl_02	1000000
552802	6776799	acquitaine_angl_02	53
553604	6775606	acquitaine_angl_02	53
553607	6776005	acquitaine_angl_02	53
553612	6776402	acquitaine_angl_02	53
553602	6776799	acquitaine_angl_02	53
553604	6777203	acquitaine_angl_02	53
560805	6768405	acquitaine_angl_02	53
560802	6768804	acquitaine_angl_02	53
560800	6769207	acquitaine_angl_02	53
560806	6769607	acquitaine_angl_02	53
561599	6768203	acquitaine_angl_02	53
561600	6768607	acquitaine_angl_02	53
561598	6769004	acquitaine_angl_02	53
561600	6769363	acquitaine_angl_02	53
561592	6769804	acquitaine_angl_02	53
570402	6779390	acquitaine angl 02	53
570381	6779795	acquitaine angl 02	53
570410	6780212	acquitaine_angl_02	53
570401	6780607	acquitaine angl 02	53
571205	6779028	acquitaine angl 02	53
571212	6779399	acquitaine angl 02	53
571196	6779808	acquitaine angl 02	53
571213	6780215	acquitaine_angl_02	53
571199	6780599	acquitaine_angl_02	53
571985	6777210		10000
	The second secon	acquitaine_angl_02	53 53
571987 571996	6777608 6778005	acquitaine_angl_02	
		acquitaine_angl_02	53
571985	6778384	acquitaine_angl_02	53
571989	6778803	acquitaine_angl_02	53
572803	6777405	acquitaine_angl_02	53
572801	6777792	acquitaine_angl_02	53
572800	6778203	acquitaine_angl_02	53
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574384	6775602	acquitaine_angl_02	53
574397	6776002	acquitaine_angl_02	53
574383	6776349	acquitaine_angl_02	53
574395	6776833	acquitaine_angl_02	53
576123	6771964	acquitaine_angl_02	53
576124	6772373	acquitaine_angl_02	53
576120	6772771	acquitaine_angl_02	53
576132	6773177	acquitaine_angl_02	53
578520	6768165	acquitaine_angl_02	53
578530	6768567	acquitaine_angl_02	53
578525	6768968	acquitaine_angl_02	53
578522	6769368	acquitaine_angl_02	53
579331	6768170	acquitaine_angl_02	53
579319	6768569	acquitaine_angl_02	53
579318	6768981	acquitaine angl 02	53
579331	6769378	acquitaine angl 02	53
577929	6768494	North29 Plus	53
578250	6768571	North29_Plus	53
579345	6768625	North29 Plus	53
579135	6768819	North29 Plus	53
579035	6769019	North29 Plus	53
010000		North29_Plus	53
578717	6769076		

X_GDA94	Y_GDA94	SURVEY_ID	GDAZONE
579112	6769414	North29_Plus	53
578456	6769737	North29_Plus	53
576047	6772894	North29_Plus	53
575730	6773306	North29_Plus	53
574222	6775322	North29_Plus	53
573923	6775719	North29_Plus	53
573635	6776102	North29_Plus	53
573315	6776500	North29_Plus	53
572744	6777264	North29_Plus	53
572441	6777667	North29_Plus	53
572170	6778020	North29_Plus	53
571896	6778394	North29_Plus	53
571612	6778779	North29_Plus	53
571612	6778781	North29_Plus	53
572019	6778885	North29_Plus	53
571300	6779189	North29_Plus	53
570970	6779593	North29_Plus	53
570650	6780013	North29_Plus	53
570363	6780400	North29_Plus	53
570051	6780787	North29_Plus	53
535113	6796172	North29_Plus	53
535103	6796814	North29_Plus	53
535114	6797337	North29_Plus	53