ANNUAL REPORT

EL-25399 COMPASS CREEK

EL-25436 MAVIS PROJECT

EL-29068 NEW WATERDRUM

Pine Creek – NT, Australia

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Summary

IsMins Pty Ltd (IsMins) holds three exploration licences collectively known as the Compass Creek Project. The tenements consist of EL-25399, EL-25436 and EL-29068. IsMins is exploring the Compass Creek area for gold, silver, copper and tin. IsMins is a wholly owned subsidiary of Island Minerals Limited; an unlisted public company.

The Compass Creek Project contains four large “drill ready” targets consisting of favourable stratigraphy, antclinal structures cut by major NNW faulting, strong geophysical anomalies, strong hydrothermal alteration, two known breccia pipes, and very high pathfinder geochemical assays (As, Pb, Ag, Bi & Sb), along with significant gold and tin anomalism (up to 1.25 g/t Au and 0.73% Sn). Three of the targets have had no drilling or trenching, and only minor surface prospecting, while the fourth area has only seven shallow holes (35-50m). Each of the target areas are one to two kilometres long and several hundred meters wide. The geophysical studies consist of airborne and ground magnetics, airborne electro-magnetics (AEM), and 16.5 kms of ground IP/resistivity surveys. A total of 120 rock chip samples have been collected from three of the target areas. All four areas are shallowly underlain by granite (~1-2 km?) which is the source of the breccia pipes and related hydrothermal systems.

During 2012 IsMins was faced with a significant shortfall of funding for field programs during the northern field season. This led to the cancellation of all field work during 2012. The company is seeking new ways to fund its exploration on the Compass Creek group of tenements. Several financial arrangements are being considered, and IsMins remains confident that it will be able to fund exploration in the coming years. In lieu of field exploration during 2012, IsMins was able to conduct research into the past exploration in the area of the New Waterdrum Prospect (Appendix 1). This research showed that the New Waterdrum area is highly prospective, with coincident AEM & Airborne Magnetic anomalies, along with favourable geology and gold anomalism.

Introduction

Hapsburg Exploration Pty Ltd was granted EL-25399 in April 2007 for a period of six years. The tenement, known as Compass Creek, consists of 16 sub-blocks and is about 53.4 km² in area. In 2010 the name of the tenement holder was officially transferred to IsMins Pty Ltd. The tenement is located about 130 km south-east of Darwin, 55 km NNW of Pine Creek and about 15 km east of Ban Ban Springs. Application has been made for renewal of EL-25399.

In January 2010, IsMins signed an “option to purchase agreement” with Spundaily Pty Ltd concerning an adjoining tenement known as EL-25436 (Mavis Project). This tenement consists of two sub-blocks that are located on the south boundary of EL-25399, just south of the old Mavis tin mine. Spundaily was originally granted EL-25436 (Mavis Project) in February 2007 for a period of five years. Application for a two year renewal was granted on the 28th of May 2012 by the NT Department of Resources. The two sub-blocks total about 6.4 km².

In April 2012, IsMins was granted EL-29068 for a period of six years. This tenement known as “New Waterdrum” consists of four sub-blocks located immediately south of the SW corner of the Compass Creek tenement (EL-25399). EL-29068 covers about 13.4 km². Therefore the combined three tenements (Compass Creek Project) total 22 sub-blocks and cover 73.2 km².
The Compass Creek Project covers relatively hilly terrane that has been found to contain large alteration zones associated with quartz-gossan veining and breccia pipes; all of which show strong IP/resistivity responses. Two unexplained magnetic anomalies are also associated with alteration and mineralisation coincident with strong IP & AEM conductors. The surface sampling reveals highly anomalous values of arsenic, lead, bismuth and antimony; along with locally high tin and copper, and significant values of silver and gold.

The Compass Creek Project is within the old “Mt. Wells Policy Reserve” which existed from 1964 to June 1988. This Policy Reserve restricted exploration in the area to small scale prospecting only. Hence no significant work was done by major exploration companies during this period.

Most early exploration around Compass Creek was focussed on gold and/or tin deposits. The closest significant mines are the Mount Wells tin mine, located about 8 km south-east, and the Woolwonga and Yam Creek Group of gold mines located about 5 to 7 km west and south-west of the Compass Creek Project respectively (Figures 1 & 2).

Tenement Description

EL-25399 is in Block Identification Map: SD-52
Block Sub-Blocks
1220 N, O, P, S, T, U, X, Y, Z (9)
1221 L, Q, V (3)
1292 C, D, E (3)
1293 A (1) Total for EL-25399 = 16 sub-blocks

EL-25436 is in Block Identification Map: SD-52
Block Sub-Blocks
1292 K (1)
1293 F (1) Total for EL-25436 = 2 sub-blocks

EL-29068 is in Block Identification Map: SD-52
Block Sub Blocks
1292 G, H, M, N (4)
Total for EL-29068 = 4 sub-blocks
Regional Geology & Gold Mineralisation
The Compass Creek tenement is located near the centre of the Pine Creek Orogen (PCO). The PCO is a major sedimentary basin up to 14 km thick, and covers a present area of about 66,000 km² in the north central part of the Northern Territory. The PCO consists of Early Proterozoic (2470 – 1870 Ma) fluvial to marine sediments deposited in a spreading/rift basin unconformably resting on an Archean basement of granite-gneiss domes. The PCO is made up of an alternating sequence of psammitic and pelitic sediments with minor carbonate and volcanic rocks. Mafic sills (Zamu Dolerite) of a continental thoelitic suite of rocks were intruded prior to the Lower Proterozoic orogeny.

The PCO was subject to deformation and metamorphism between 1870 and 1780 Ma. During this period the tensional regime that had opened the sedimentary basin, change to compression in an east-west direction (F-1). This caused the sediments in the centre of the basin to become tightly to isoclinally folded, and developed a strong axial plane cleavage. The units in the centre of the PCO (geosyncline) were subject to regional lower greenschist facies metamorphism. The mafic sills of the Zamu Dolerite were altered to amphibolites.

The central part of the PCO is cut by a major fault/shear zone that occurred just prior and possibly during the major granitic intrusive event. This is known as the Pine Creek Shear Zone (PCSZ) and extends through the centre of the Pine Creek Orogen, from Katherine in the SSE, to near Darwin in the NNW; a distance of over 200 kilometres. The width of the PCSZ is at least 10 km and possibly wider in places.

The Lower Proterozoic sequence of the PCO was intruded by a series of granitoids between 1840 and 1780 Ma. These intrusions are related to a major orogeny between 1870 to 1780 Ma. In the central part of the PCO a granitic intrusive event (Cullen Batholith) occurred between 1830 – 1800 Ma, near the end of the deformation events. The Cullen Batholith intrusives are widespread and created broad aureoles of metamorphism and metasomatism.

In 1870 coarse alluvial gold was found at Yam Creek (12 km SSW from Compass Creek) while crews were digging holes for the overland telegraph line. This started a major gold rush in the central PCO, and by the turn of the century all of the major gold mines had been found. By 1915 gold mining had virtually ceased, and it wasn’t until the modern gold exploration in the early 1980’s that led to the resumption of gold mining in 1986. This modern exploration and mining targeted the 250 known gold mines and prospects, with only minor effort spent on “grass-roots” exploration. With the possible exception of the Glencoe and Goodall mines and the Mount Porter deposit, it would appear no new discoveries have been made during the modern era.

Total gold production from the PCO to the end of 1998 (NT DME production records), was about 115.5 tonnes (3.71 mill oz). It is likely that this number vastly underestimates the amount of gold won from alluvial and shallow surface mines, due to the fact that goldfield records were not kept until 10 or 20 years after the goldfields were discovered. Current resource estimates indicate over 5.0 million ounces remain in 15 to 20 mines throughout the central Pine Creek district, with the majority occurring in 5 or 6 mines.

The gold mineralisation within the PCO is preferentially developed within strata of the South Alligator Group (especially above the Middle Koolpin Formation) and lower parts of the Finniss River Group (ie, lower parts of the Burrell Creek Formation), and is largely located
within the metamorphic aureole of the granitic intrusives of the Cullen Batholith (generally within 5 km of the intrusive).

It is apparent that the gold mineralisation in the PCO is spatially and temporally related to the granitic intrusives of the Cullen Batholith, and that the formation of gold deposits is controlled by structures (fluid pathways & pressure release), decrease in temperature away from the intrusive (500 – 1000m above the carapace) and possible chemical interaction with favourable host rocks (enhancing precipitation). Fluid inclusion and stable isotope studies (Bajwah, 1994) of various gold, base metal and tin deposits in the Central PCO show a significant overlap of isotope values and formation temperatures. Therefore it was concluded that most mineralisation originated from the granitic magmas and that the various types of mineralisation can be found together. However, it is reasonable to assume that significant tin mineralisation is more likely to occur closer to the intrusives in higher temperature regimes such as greisen zones.

**Compass Creek Geology**
The Compass Creek tenement covers the contact between the Prices Springs Granite (I-type) to the south-west and the South Alligator Group and the Finiss River Group of sediments to the north and north-east. Almost all the contact aureole in the sediments is covered by the tenement. In the southern half of the tenement, the combination of higher topography due to resistant sediments, and a weak aeromagnetic response over the same area, is thought to be related to shallow underlying Prices Springs Granite. The higher terrane is likely due to harder rock created by metasomatism, while the weak magnetic response is typical of all the Cullen granites. The presence of strong hydrothermal alteration and a breccia pipe at Kamas Cauldron and breccia veins at Jason’s Peak are also indicative of an intrusive at a relatively shallow depth.

**Previous Exploration in the Compass Creek/Mavis Area**
Between 1988 and 1998 several companies conducted limited stream sediment and rock chip sampling, geologic mapping and Landsat structural interpretation. This limited surface exploration did show widespread anomalous rock chip samples for Sn-As-Pb-Ag and weak values of Cu, Au & Nb. However, no trenching or drilling of any kind has been documented in the Compass Creek Project (apart from the New Waterdrum area).

**Previous Exploration in the New Waterdrum Area**
From 1983 to about 1998, exploration in the area of the New Waterdrum consisted of bulk stream sampling, rock and soil sampling followed by seven shallow RC drill holes (35-50m) testing auriferous quartz veins. More recent regional exploration has included airborne magnetics and airborne electro-magnetics (AEM) surveys.

**2007 to 2009 Exploration at Compass Creek by Hapsburg & IsMins**
Exploration in the Compass Creek/Mavis area by Hapsburg and IsMins since 2007 has included extensive research of historic exploration, examination of satellite imagery and airborne magnetic surveys, and research on controls of gold mineralisation in the Pine Creek Goldfield. In addition two mapping and sampling programs have been conducted on Compass Creek and Mavis. In November 2008, Fugro Airborne Surveys (FAS) completed a detailed airborne electro-magnetic survey (AEM) over EL-25399. The geophysical interpretation of this data concluded there were two significant AEM anomalies that occur on the deeper depth slices of the AEM data (deepest being 150 to 200m). The most prominent
AEM response was over the Mavis mine, where it appears to be about 1400m long and creates a signal response up to 500m wide, and is attributed to two NNW trending lineaments (fault/veins) probably made up of a high sulphide content. It is possible graphite could be present, but is thought to be unlikely. In addition, a prominent airborne magnetic anomaly was recognised to the SW of the Mavis Mine, in EL-25436.

**2010 Exploration Program**

Exploration during the 2010 field season consisted of a detailed ground magnetic survey over the both the airborne magnetic anomaly in EL-25436 and the airborne EM anomaly at the Mavis mine. This was followed by detailed mapping over the magnetic anomaly and the Mavis mine area. Extensive rock chip sampling accompanied stream and soil sampling over the same areas. The 2010 exploration program confirmed four target areas worthy of follow-up in 2011: the magnetic/alteration anomaly in EL-25436, the Mavis area, and the two breccia pipes of Jason’s Peak and Kamas Cauldron.

**2011 Exploration Program**

Exploration during the 2011 field season consisted of a reconnaissance IP/Resistivity survey over the previously defined targets. In addition, extensive mapping & rock chip sampling was conducted mainly in the mountainous areas around Jason’s Peak, Kamas Cauldron and the old Hewson tin mine.

Mapping in the hilly terrane between Hewson’s and Jason’s Peak revealed broad zones of metasomatic alteration related to structures that contain network quartz veining and locally host breccia zones with significant gossan (ex-sulphide) mineralisation (e.g. Hewson’s mine). These alteration/vein zones form the high ridges and hills due to their resistance to weathering. The alteration type seen in the structural zones is the same as that seen around the breccia pipes of Jason’s Peak and Kamas Cauldron. Thus they are all thought to be related, and have resulted from hydrothermal fluids coming off granite at shallow depth. The alteration zones mainly trend NNW-SSE and occupy large parts of a 1 km wide by 2 km long area, with the possibility of extending to 3 km length. Individual alteration zones range from 5m to 150m wide and extend up to 1 km in length. The assay results from rock samples in the Mountain Area returned highly anomalous arsenic and lead, along with moderately anomalous bismuth, antimony, tin, gold, silver and copper.

The IP/Resistivity program consisted of 8 lines totalling 16.5 km. Five lines were located over the southern Magnetic Anomaly and Mavis Mine area with line spacing of 500 m. Three lines were located over the Jason’s Peak – Kamas Cauldron area with 350 m line spacing. All 8 IP lines show significant chargeability anomalies. Some of these were expected as they reflect known surface mineralisation; while several locations were a surprise as there was no known sulphide mineralisation on surface (i.e. blind anomalies).

Three exploration target areas have been defined (Figure 3). These are: the Magnetic Anomaly, the Mavis Area, and the newly define target known as the Mountain Area. The new Mountain Area encompasses the breccia pipes of Kamas Cauldron and Jason’s Peak, and the old Hewson tin mine.

**Favourability of the Magnetic, Mavis & Mountain Areas**

All three areas have geophysical anomalies (IP &/or AEM) that indicate the presence of significant sulphide mineralisation at depth (Appendix 2). All three areas have large zones of hydrothermal alteration with related quartz-sulphide vein mineralisation. All three areas
Annual Report for ELs 25399, 25436 & 29068 by IsMins Pty Ltd (March 2013)

contain strong pathfinder geochemistry that is consistent with known gold deposits in the Pine Creek Goldfield (Figure 4). All three areas are in a structurally favourable setting within the core of a plunging anticline and cut by major N-S to NNW trending faults (Figure 5). And all three areas appear to be underlain by granite at shallow depth.

2012 Exploration Program
The company faced a very difficult financial situation during the 2012 year. This resulted in virtually no funding for field programs during the northern field season. The company is continuing to seek new ways to fund its exploration for the Compass Creek group of tenements. Several financial arrangements are being considered, and IsMins remains confident that it will be able to fund exploration in the coming years. In lieu of field exploration during 2012, IsMins was able to conduct research into the past exploration in the area of the New Waterdrum Prospect. The results of this research is summarised below, and the complete review can be seen in Appendix 1.

Research on the New Waterdrum Prospect (see Appendix 1)
The review of historic data on the New Waterdrum area has shown it is highly prospective for gold, based on the following features:

- Favourable stratigraphy (upper South Alligator & lower Finniss River Groups).
- Proximity to Granite; from contact to over 2 km from the contact.
- The presence of a north plunging anticline and a NW structural corridor linking to the Woolwonga gold mine located five km to the north-west.
- A large magnetic body located within the core of the north plunging anticline and adjacent to the granite contact (500m to 1,500m from the contact).
- A significant AEM anomaly associated with the magnetic body.
- Anomalous gold in soils coincident with the area of magnetic anomaly (up to 1 g/t Au).
- Anomalous gold in quartz vein stringer zones near the north end of the magnetic anomaly. Limited rock chip samples show up to 33.1 g/t Au, with next highest at 7.5 & 1.97 g/t Au.
- Only 7 shallow drill holes (35-50m) have been drilled on the northern quartz veins. No deep holes have been done, and the magnetic anomaly has had no drilling.

The New Waterdrum prospect would appear to have much the same attributes as the Magnetic Anomaly on EL-25436; but with the added bonus of more significant gold values in the surface samples.

Proposed Drill Program
A first phase drill program of 12 holes has been prepared to test the most significant anomalies (Magnetic Anomaly, Mavis and Mountain Areas: see Appendix 3). Drilling on the New Waterdrum prospect should await surface sampling and mapping and a possible IP/resistivity survey over the area. The proposed 12 hole RC drill program has a total of 3,350m with an estimated program cost of about $400,000. This program is designed to test the ultimate potential of the Compass Creek Project; and allow a clear decision to be made based on the drill results.
References

Ahmad, M., Wygralak, A.S. & Ferenzi, P.A.  
Gold Deposits of the Northern Territory  
Northern Territory Geological Survey (Rpt 11), 1999

Ahmad, M. & Lally, J.M.  
Pine Creek Orogen: Field Excursion Guide. Chief Government Geologist Conference, NTGS Record 2003-003

Bajwah, Z. U.  
A Contribution of Geology, Petrology and Geochemistry To the Cullen Batholith and related Hydrothermal Activity Responsible for Mineralisation, Pine Creek Geosyncline, Northern Territory. Northern Territory Geological Survey (Rpt 8), 1994

Geoscience Australia (ex BMR)  
1:100,000 Geology Map Series – McKinlay River Sheet

McGregor-Dawson, Jim  

McGregor-Dawson, Jim  
Annual Report for EL-25399 (Compass Creek, NT) for the period 12 April 2008 – 11 April 2009 Hapsburg Exploration P/L, unpublished report (May 2009)

McGregor-Dawson, Jim  
Annual Report for EL-25399 (Compass Creek, NT) for the period 10 April 2009 – 9 April 2010 Hapsburg Exploration P/L, unpublished report (April 2010)

McGregor-Dawson, Jim  
Joint Annual Report for EL-25399 (Compass Creek) and EL-25436 (Mavis Project) for the period 28 February 2010 to 27 February 2011. Ismins Pty Ltd, unpublished report (March 2011)

McGregor-Dawson, Jim  
Joint Annual Report for EL-25399 (Compass Creek) and EL-25436 (Mavis Project) for the period 28 Feb 2011 to 27 Feb 2012. Ismins Pty Ltd, unpublished report (March 2012)

Snowden Report  