INDIANA PROJECT

EL 24194, 24427, 24739

ANNUAL TECHNICAL REPORT FOR
PERIOD 1st February 2008 to 30th January 2009

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MAP REFERENCE:
Illogwa Creek 250K Sheet SG53/15
Huckitta 250K Sheet SF53/11

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SUMMARY

This report summarises work completed on Mithril Resources Indiana Project Exploration Licences (EL24194, 24427 and 24739) for the year ending the 30th January 2009

The project area is located approximately 220 km northeast of Alice Springs, south of the Plenty Highway.

Work completed over the tenement area during the reporting period includes the following:

- Ground electromagnetic surveys
- Heritage surveys
- Track access construction
- Diamond drilling
- Rehabilitation

Results from the VTEM survey indicate multiple high quality targets. Many of these were field checked and rock samples taken where outcrop was present. Elevated nickel, copper and cobalt analysis were returned from a number of samples at a number of locations. Modelling of the ground EM completed over a number of the VTEM targets suggests basement conductors are present and are worthy of drill testing.

Further work will consist of a heritage survey followed by drill testing of geophysical and geochemical anomalies.

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1.0 Introduction

This report summarises work completed on Mithril Resources Indiana Exploration Licences (EL24194, 24427, 24739) for the year ending 1st February 2009. Joint reporting status for the project was granted in June 2008.

The Indiana Project is located approximately 300 km northeast of Alice Springs. Access to the area is via the Plenty Highway, which passes east-west north of the project area (Figure 1).

The area under licence was targeted for magmatic Ni/Cu/PGE sulphides associated with mafic and ultramafic rock types, which have previously been identified in the western portion of the of the licence area and further west including the Hammer Hill Prospect. Tectonically the project is located on the interpreted southern edge of the North Australian Craton within the Irindina Province of the Arunta Region between the Georgina and Amadeus Basins.

2.0 Tenure

Leasing details for the project are detailed in Table 1 below. All tenements were granted for a period of six years.

EL	Original Area (sqkm)	Date Granted	Expenditure Commitment	50% Reduction Dates	Current Area
24194	809	24/1/2005	$150,000	9/12/2008	404
24427	576	26/5/2005	$180,000	N/A	576
24739	50	2/2/2006	$25,000	N/A	50

Table 1: Tenement Status

During the reporting year EL24194 was reduced by 50% as part of the standard statutory obligations. The area relinquished is shown in Figure 2.

3.0 Geology

3.1 Regional Geology

The Arunta Block has been divided into 3 tectonic areas: - Central, Southern and Northern (Shaw and Freeman 1985). The Central Tectonic Zone consists of an accumulation of sedimentary and volcanogenic rocks deposited in an east – west trough. With time the trough broadened to include the Northern and Southern Tectonic Zones and the composition of the sediments being supplied to the basin matured.

An early tectonic event during the mid-Proterozoic metamorphosed and dislocated the rocks into numerous fault-bounded blocks. A later orogenic event, the Carboniferous Alice Springs Orogeny, reactivated many of these faults.

Sedimentation in the Georgina Basin began during the Neoproterozoic (i.e. Adelaidean equivalent) with deposition of argillites, arenites glacigene sediments and carbonates along the southern margin of the basin. Sediments deposited after the Neoproterozoic sequence consist primarily of carbonates and arenites (Shaw et al, 1982).

3.2 Project Geology

The Arunta Region within the project consists of biotite gneiss, garnet-biotite gneiss, calcareous rocks, amphibolite and quartzofeldspathic gneiss. The tenement falls within a poorly understood region of the Arunta known as the Irindina Province consisting of highly metamorphosed Cambrian aged rocks. Much of the tenement is under a thin veneer of Quaternary alluvial and aeolian sands and gravels. Significantly there are multiple outcrops of Tertiary laterite, which may be indicating the weathering product of the targeted mafic and ultramafic rocks.

4.0 Exploration Work Completed

4.1 Historical Exploration

Reviews of historical exploration found that the majority of exploration was conducted by BHP Minerals and Poseidon Gold Ltd and are the only two companies to have completed any exploration of significance.

Summaries of their exploration are described below:

BHP Minerals (1992)
BHP explored the area for base metals (Cu, Pb, Zn) using broad spaced stream sediment sampling, rockchip sampling, ground geophysics (EM and magnetics) focussing on magneitc anomalies within major north-west trending structures interpreted from the magnetics. Limited RC percussion drilling was completed over a few of these magnetic targets which identified anomalous levels of Au, Pt, Pd, Ni, and Cu. These anomalous results were not followed up by BHP Minerals.

Anomalous rockchip samples (up to 0.33% Cu) were recorded from “a Tertiary and siliceous ferruginous cap rock of limited extent.” These samples were not followed up.

Poseidon Gold Ltd (1995)
Although Poseidon Gold acquired the lease targeting epigenetic gold mineralisation they attempted to replicate the anomalous Ni/Cu/Pt/Pd results obtained by BHP Minerals by drilling 29 RAB holes on four traverses. No significant results were returned and the licence was relinquished.

4.2 Mithril Resources Historical Exploration Activities

4.2.1 Interpretation and Evaluation of Historical Exploration

A review of the historical exploration found that no systematic exploration had been completed over the project area. The few explorers that have been in the area previously focussed their exploration on base metals and gold. Although they identified anomalous geochemistry associated with siliceous and iron-rich cap rocks they seem to have failed to make the connection that this could be related to magmatic sulphides associated with mafic / ultramafic rocks.

4.2.2 Mithril 2005 Work

The bulk of Mithril's work in 2005 consisted of stream sediment sampling. Results from this survey showed a coherent NW trending Ni/Cu/Cr anomaly southwest of the main drainage area and is coincident with the anomalous areas defined by historical work. This anomaly is also coincident with a NW trending magnetic anomaly.

4.2.3 Mithril 2006 Work

Mithril completed a magnetic lag sampling and Ground EM program in 2006. This program identified significant Ni-Cu anomalous samples and a ground EM conductor. This work confirmed the prospectivity of the area and it was recommended that an airborne EM program be flown to help identify multiple drill targets.

4.2.4 Mithril 2007 Work

During 2007 year a number of extensive exploration activities were completed over the project area. These included an extensive VTEM survey, ground verification of targets generated followed by ground EM surveys over multiple targets. From this a number of high quality drill targets were identified for drill testing over targets IVT040 IVT017 and IVT020.

Many of these targets were followed up on the ground to determine if the source of the anomaly could be located. Due to the extensive sand cover in the area many of the anomalies are unexplained. Rockchip samples were taken at a number of locations with a number of them returning elevated nickel and/or copper and/or chrome values.

It was planned to drill test priority targets following heritage surveys in 2008

5.0 Exploration Work Completed 2008

5.1 Ground Electromagnetics

An extension to the ground EM surveys conducted in November and December of 2007 and January of 2008 was completed during the reporting period to follow-up some of the remaining high priority VTEM targets.

A total of seven VTEM and one magnetic target were followed up with ground EM. The locations of these targets are summarised in Figure 2.

The survey was conducted by Quantec Geoscience with the following parameters observed throughout the survey.

Survey Type:	Moving loop slingram and inloop
Loop Size:	2 turn 100m loops
Station Spacing;	50m
Line spacing:	200m
Inloop Sensor:	B Field
Slingram Sensor:	RVR coil
Sensor Separation:	200m between RVR and B Field.
Inloop Component:	Z Component only
Slingram Component:	Z and X Component
Frequency:	Dependent on target.

No significant conductors were identified and all data is contained in Appendix 1.

5.2 Heritage Surveys

Two heritage surveys were completed during the reporting period over the project. Although the priority areas were cleared for drilling a very large Exclusion Zone was determined by the traditional owners, largely within EL24427. This has limited exploration within this licence area (Figure 2)

5.3 Diamond Drilling

Two diamond drillholes were completed for a total of 360.3m over anomaly IVT040 targeting two of three ground electromagnetic anomalies identified during the last reporting period. Both drillholes intersected significant intervals of up to 50% pyrrhotite > pyrite > chalcopyrite mineralisation associated with amphibolites and calc-silicate rocktypes with grades averaging 0.2%Cu. These sulphide abundances adequately explain the anomalies. A detailed summary of each drillhole is contained below and detailed description of the drillholes (including cross-sections) can be found in Appendix 2 with all raw data such as assay results, geological logs etc, in Appendix 3.

INDD-001

This hole was drilled to 183.3m with the top 4 m comprising aeolian-colluvial sand and gravel. Bedrock geology comprises quartz-biotite-feldspar gneiss with lesser garnet-chlorite-kyanite and layered quartz-epidote-hornblende-calcite calc-silicate units. All of these units are interpreted to be metamorphosed sediments indicating an original package of interbedded siltstone, mudstone and carbonates.

Stringer to blebby pyrrhotite-pyrite-chalcopyrite is best developed in and around a dark green, foliated hornblende-chlorite-rich unit between 149.8-160.4 m. The chalcopyrite content is up to 2 % between 155.0-155.5 m, but is typically <1 %. The main host unit was initially interpreted as a

metamorphosed mafic magmatic unit, but similar units in INDD002 are more consistent with a sedimentary origin, which is now the preferred interpretation. Sulphide stringers are folded in adjacent psammopelitic gneiss (eg 145.5 and 163 m) and mineralisation is interpreted to be pre-metamorphic. Some unusual units around this main mineralised zone are probably metamorphosed alteration associated with mineralisation. Mineralisation is also associated with magnetite.

INDD-002
This hole was drilled to 177m with the top 5 m comprising aeolian-colluvial sand overlying alluvial-colluvial gravel. Bedrock geology comprises quartz-biotite-feldspar-garnet gneiss and green to white layered calc-silicate units. There is a fault zone between 83.75-97.2 m. The stratigraphy is mirrored across this fault zone and the gross geometry is interpreted to be a broken through very tight antiform.

Stringer to blebby pyrrhotite-pyrite-chalcopyrite is best developed in and around a dark green, foliated hornblende-chlorite-rich units between 62.5-66.7 and 100.9-113.9 m. The chalcopyrite content is up to 2 % between 113.5-114.0 m, but is typically <1 %. There is significant fine-grained pink garnet alteration around both mineralised units with 80% replacement between 103.0-107.0. Mineralisation is interpreted to be pre-metamorphic and developed around sedimentary carbonate units. There is some magnetite developed with the mineralisation.

It is currently thought that the mineralisation is related to some sort of skarn type of system given the variable, complex nature of the silicate minerals.

5.4 Petrography

Four samples from INDD-001 were submitted for petrographic description and the interpretation form these samples is that the mineralisation is derived from a magmatic source. Given the lack of nickel / chrome and PGEs in the analysis it is highly unlikely that a magmatic nickel sulphide origin is possible. The author believes the magmatic interpretation could be product of alteration associated with skarn mineralisation. The petrology report is contained in Appendix 4.

5.5 Rockchip and Stream Sediment Sampling

A total of 12 rockchips and one stream sediment sample (with 5 screen sizes) was taken over the project area (Figure 2). These samples were taken in two areas within the project. The western samples were taken over iron and silicified caprocks some of which returned highly elevated nickel and chrome indicating an ultramafic origin for these samples in an area where there is no reported ultramafics. The other group of samples were taken over an iron rich outcrop that contained silicified material and up to 50% magnetite. A stream sediment sample was also taken at the confluence of a number of small streams draining this body. No elevated base metal values were returned from

this sampling. The rockchip sample results are contained in Appendix 5 and the stream sediment results in Appendix 6.

6.0 Planned Work and Proposed Budget 2009

Although drilling failed to intersect economic mineralisation significant sulphides (with significant copper) was intersected in both drillholes confirming the effectiveness of the electromagnetic surveying techniques – particularly VTEM in screening the area. This gives confidence that the conductors identified at anomalies IVT017 and IVT020 warrant drill testing as they may yet represent sulphides associated with more copper rich skarn mineralisation.

Item	Cost
Drilling (RC/Diamond)	80,000
Analytical costs	10,000
Heritage surveys	10,000
Downhole and Ground EM	20,000
Geological mapping / geochemical sampling	15,000
Administration	20,000
TOTAL	**$150,000**

Table 2: Proposed budget for Indiana Project Year 5

7.0 References

Shaw, R.D., Freeman, M.J., Offe, L.A., and Senior, B.R., 1982. Geology of the Illogwa Creek 1:250,000 sheet area, Central Australia – Preliminary data, 1979-80 surveys. *Bureau of Mineral Resources, Record 1982/23* (unpublished).