



**OM Manganese Ltd**

## **Helen Springs Project Annual Exploration Report**

for

**EL23495**

(6<sup>th</sup> Year)

7<sup>th</sup> Nov. 2007 - 6<sup>th</sup> Nov. 2008

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Commodity:	Manganese
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1:250,000:	HELEN SPRINGS SE 53-10
1:100,000:	MUCKATY 5660
	HELEN 5661
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## Report Summary

Exploration Licence (EL) 23495 is located 10 km east of the Helen Springs Homestead, 160km north of Tennant Creek. The licence is contiguous with EL24052 to the north and EL23698 to the southwest. The three tenements comprise OM (Manganese) Ltd's Helen Spring Project Area.

EL23495 was acquired from Neil Henry Scriven during early 2008.

A helicopter borne SkyTEM airborne EM survey was conducted over the project area in November and December 2007. The survey comprised 154.3 kilometres within EL23495 and the resultant data was interpreted by Southern Geoscience. Further fieldwork is required to resolve the complexity of the modelled data.

An RC drilling program was conducted to investigate the extent of manganese mineralization discovered in the costeans excavated in 2007. 301 samples were collected and assayed. No significant mineralization was intersected.

NOTE: All maps and georeferenced data submitted with this report is in GDA94 datum MGAz53.

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## Attachments

File name	Data	format	size
ML23495_2008_A_01_report.pdf	Annual report	pdf	1,269kb
ML23495_2008_A_02_Collars.txt	Collars	comma delimited text	4kb
ML23495_2008_A_03_Geology.txt	DH Geology	comma delimited text	80kb
ML23495_2008_A_04_DHSurvey.txt	DH Surveys	comma delimited text	1kb
ML23495_2008_A_05_DHAssays.txt	DH Assays	comma delimited text	66kb
Helen Springs_SkyTEM.dat	EM survey data	GDF dat file	101,599kb
Helen Springs_SkyTEM.dfn	EM survey dfn	GDF dfn file	1kb

## 1 Project Tenure Details

Comprises one granted Exploration Licence –

EL23495      granted 07/011/2002      currently 20 blocks      year 6 annual report

The EL was originally granted to Neil Henry Scriven on 7<sup>th</sup> November 2002 for a period of six years. The original grant of 33 blocks was subsequently reduced to the current 22 blocks by N Scriven.

Ownership of EL23495 was transferred from Neil Henty Scriven to OM (Manganese) Ltd (OMM) during the reporting period.

## 2 Location

HELEN SPRINGS	1:250,000 SE 53-10
HELEN	1:100,000 5661
MUCKATY	1:100,000 5660

Exploration Licence EL 23495 is located approximately 10km east of the Helen Springs Homestead and 30km NNW of the OMM Bootu Creek manganese project (see Figure 1).

The licence is situated on Helen Springs Station, in an area known as Milla Milla paddock and is accessible via several dirt roads infrequently maintained by the Helen Springs Station.

The main hydrological feature is McKinlay Creek which drains the majority of the exploration licence.

## 3 Geological Setting

Manganese mineralisation on the Helen Springs 1:250,000 map sheet occurs on two Proterozoic stratigraphic horizons, the upper Attack Creek / lower Bootu Formation of the Tomkinson Creek Group (~1.7 Ma) and within the Shillinglaw Formation of the overlying Namerinni Group (~1.6 Ma).

Both formations occur within the exploration licence, though known manganese mineralisation on the licence area (minor low outcrops and float) is restricted to the Tomkinson group.

Figure 2 shows the NTGS geology mapping and for the Helen Springs project area.

A detailed description of the geological setting and geology model for EL23495 and the adjoining EL24052 was reported in the year 5 report Appendix 2.

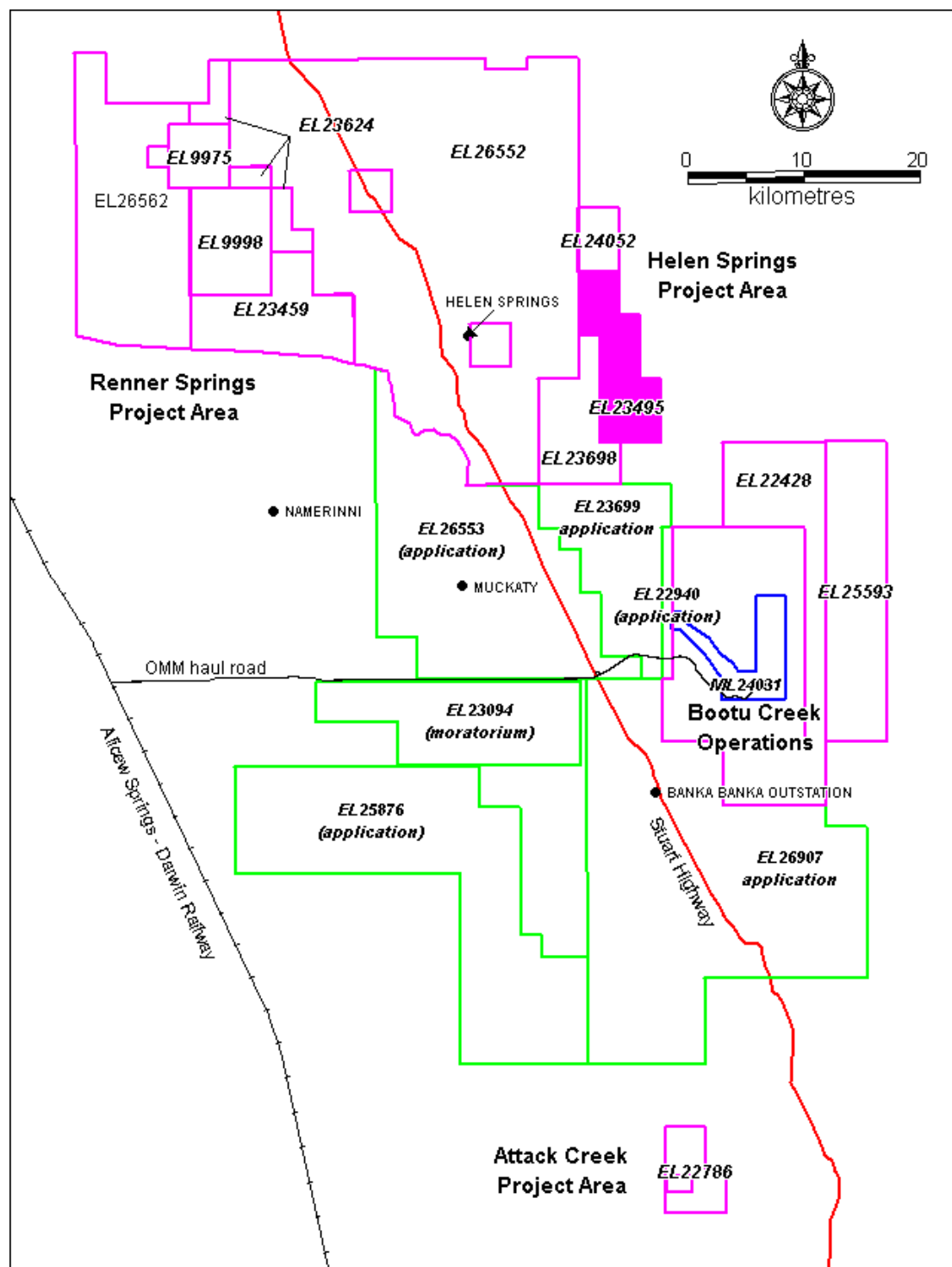
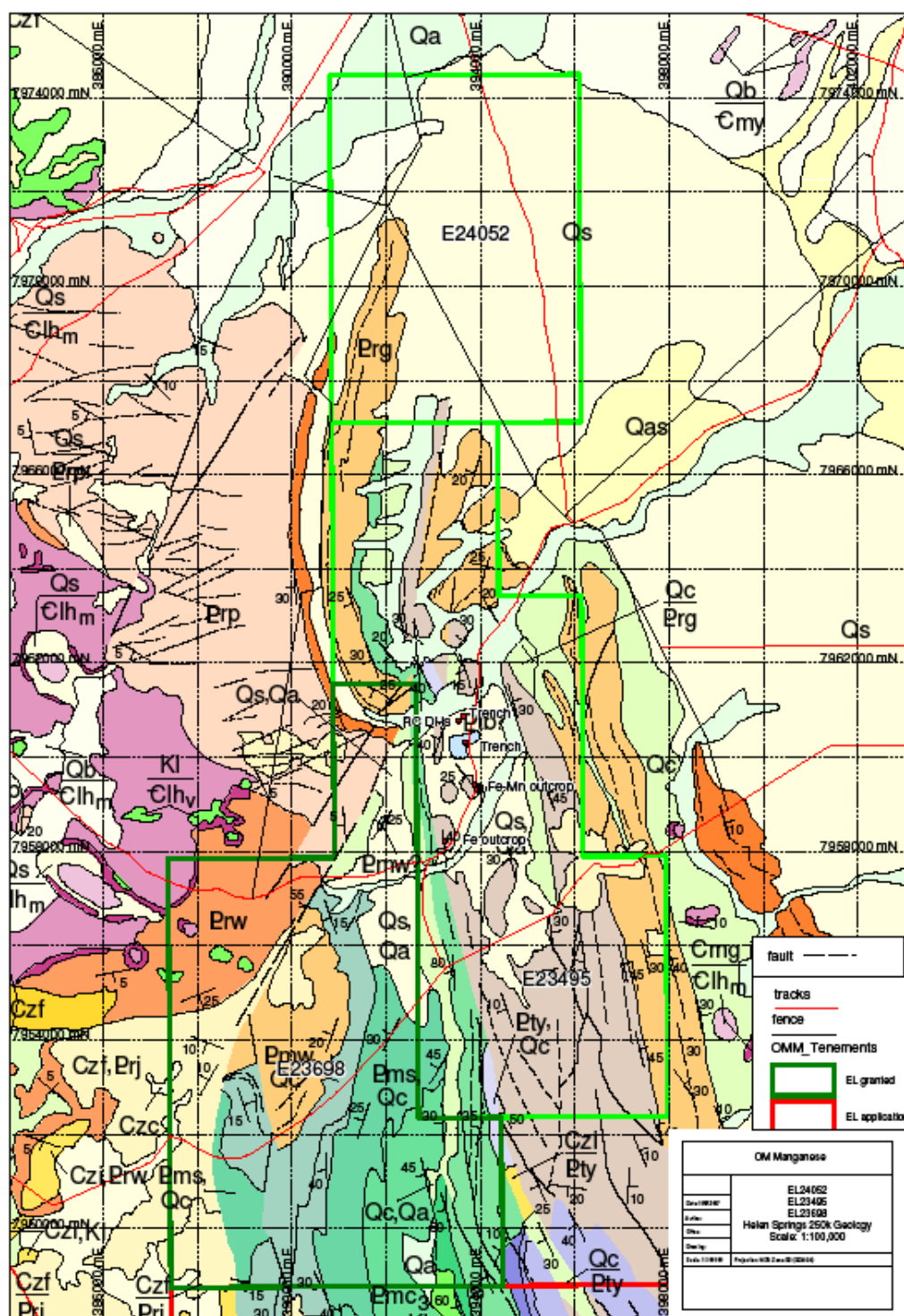


Figure 1. OMM Tenure Plan showing location of EL23495 in relation to Bootu Creek Manganese Operation.



## **4 Previous Work**

Work prior to year 5 of EL23495 included:

- mapping of float and outcrop in 2003,
- a ground EM survey using an E31 instrument in 2003,
- 4 RC holes drilled in 2003,
- a second ground EM survey using an E34 instrument in 2004,
- 8 open percussion holes drilled in 2004,
- Follow up ground EM surveys in 2005/06 attempting to resolve the strike and dip of the manganese mineralisation.

Work conducted in Year 5 included:

- Excavation mapping and sampling of three costeans,
- geological review, interpretation and report,
- satellite borne ASTER spectral study and field work,
- preparation for helicopter-borne SkyTEM survey in Nov/Dec 2007

## **5 Work Completed during 2008 (year 6)**

### **5.1 SkyTEM**

Geoforce Pty Ltd was contracted to conduct a helicopter-borne 'SkyTEM' survey over both the Helen Springs Project Area and Renner Springs Project Area. The survey was conducted over a period of several weeks in late November and December in 2007.

The Helen Springs Survey area comprised 949 line kilometres with 415.3 line kilometres being within EL23495.

The survey was conducted with lines spaced at 200 metres with infill at 100 metres over selected areas. The survey was conducted in an east-west direction with the loop at a nominal ground clearance of thirty metres.

The final dataset was provided to Southern Geoscience Consultants who interpreted the data and created final georeferenced image set.

The data supplied to OMM, an example of which comprises Figure 3, illustrates the geologically complex nature of the area which requires extensive fieldwork to identify conductive units.

### **5.2 RC Drilling**

McKay's Drilling were contracted to drill for OMM during 2008 and completed 18 holes for a total of 936 metres within EL23495. 301 samples were collected and submitted for assay by XRF. Collar locations are shown in Figure 4.

The RC holes were drilled using a Schramm T685WS rig and were sited immediately adjacent to the costeans which were excavated in year 5 of the licence.

The results of the drilling were disappointing with most manganese mineralization being restricted to a thin (one metre thick) areally discontinuous sheet of material

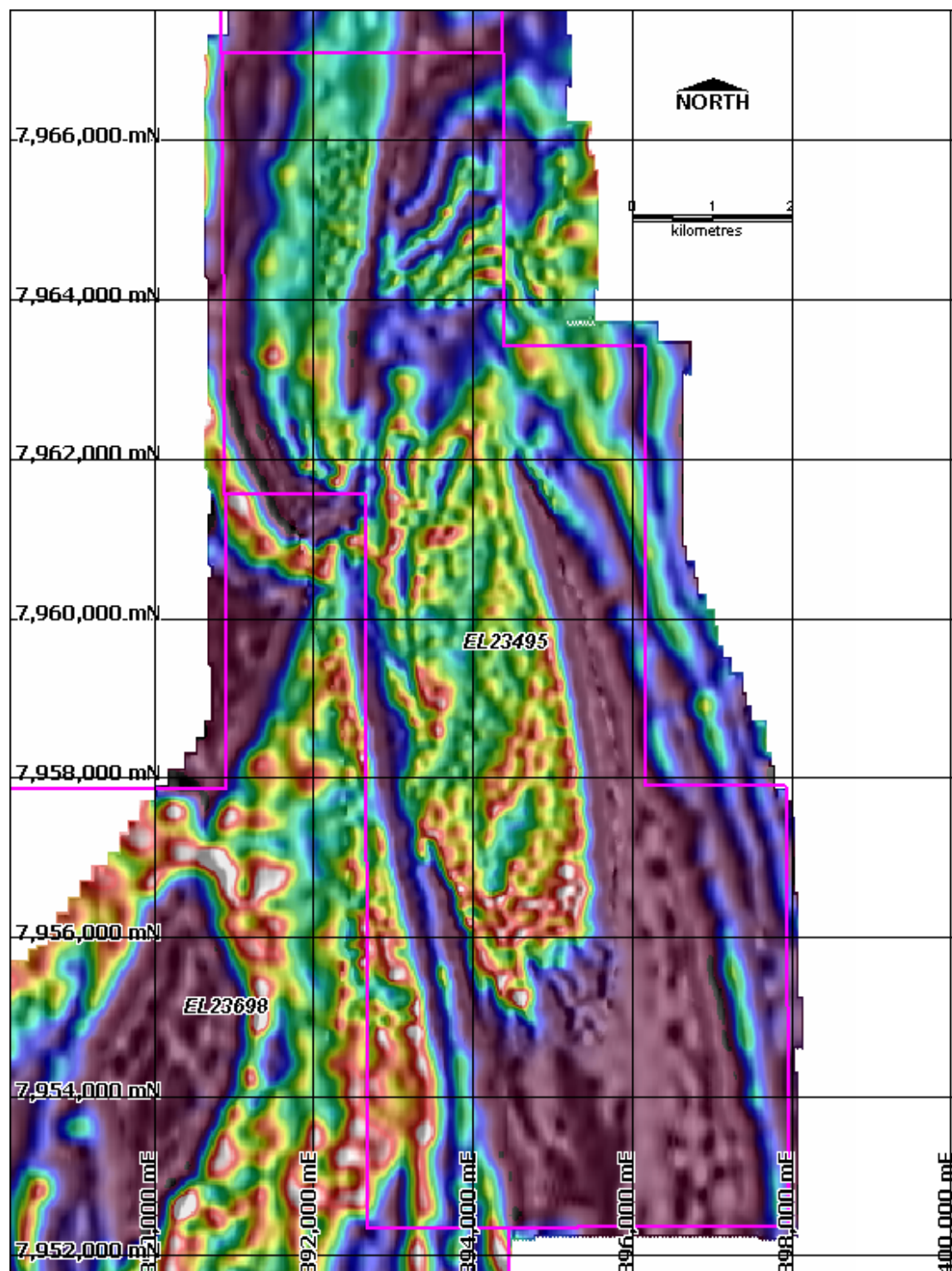


Figure 3. SkyTEM image representing the geology within EL23495. The data represents a depth-slice approximately 60m below surface.

which may represent a colluvial/alluvial deposit. Further ground reconnaissance and mapping is required in that area.



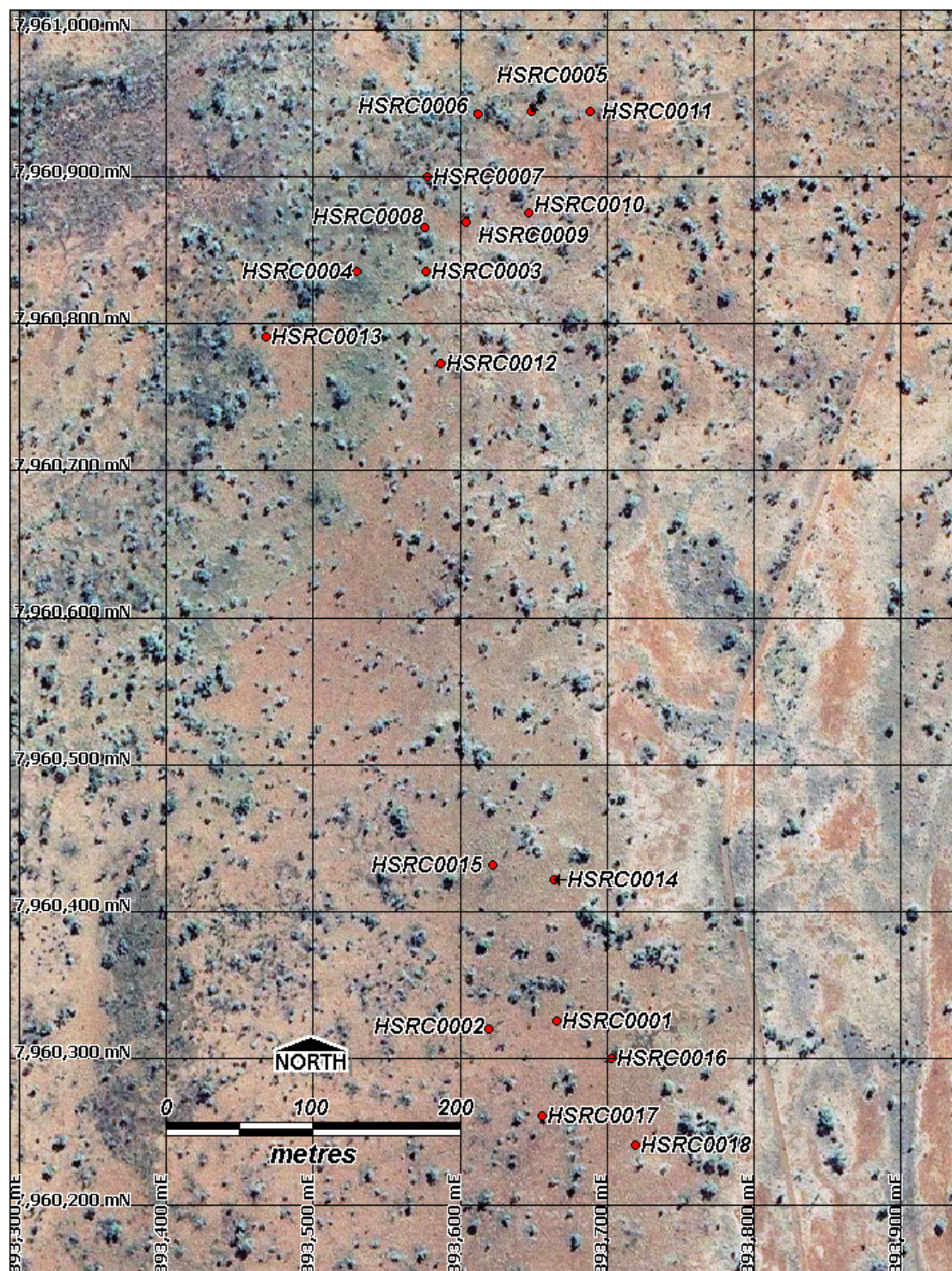


Figure 4\_ Map showing the relative locations of the RC collars drilled within EL23495 in 2008. The imagery comprising the background is a scene from the Ikonos satellite data acquired during the reporting period.

### 5.3 Satellite Imagery

High resolution satellite imagery covering the three exploration licences comprising the Helen Springs Project Area was purchased from GeoImage in Sydney. The imagery is used for locating tracks for access during field work.



The data was archival 0.8m imagery captured by the Ikonos satellite system in 2006 and is shown over the full extent of EL23495 in Figure 5.

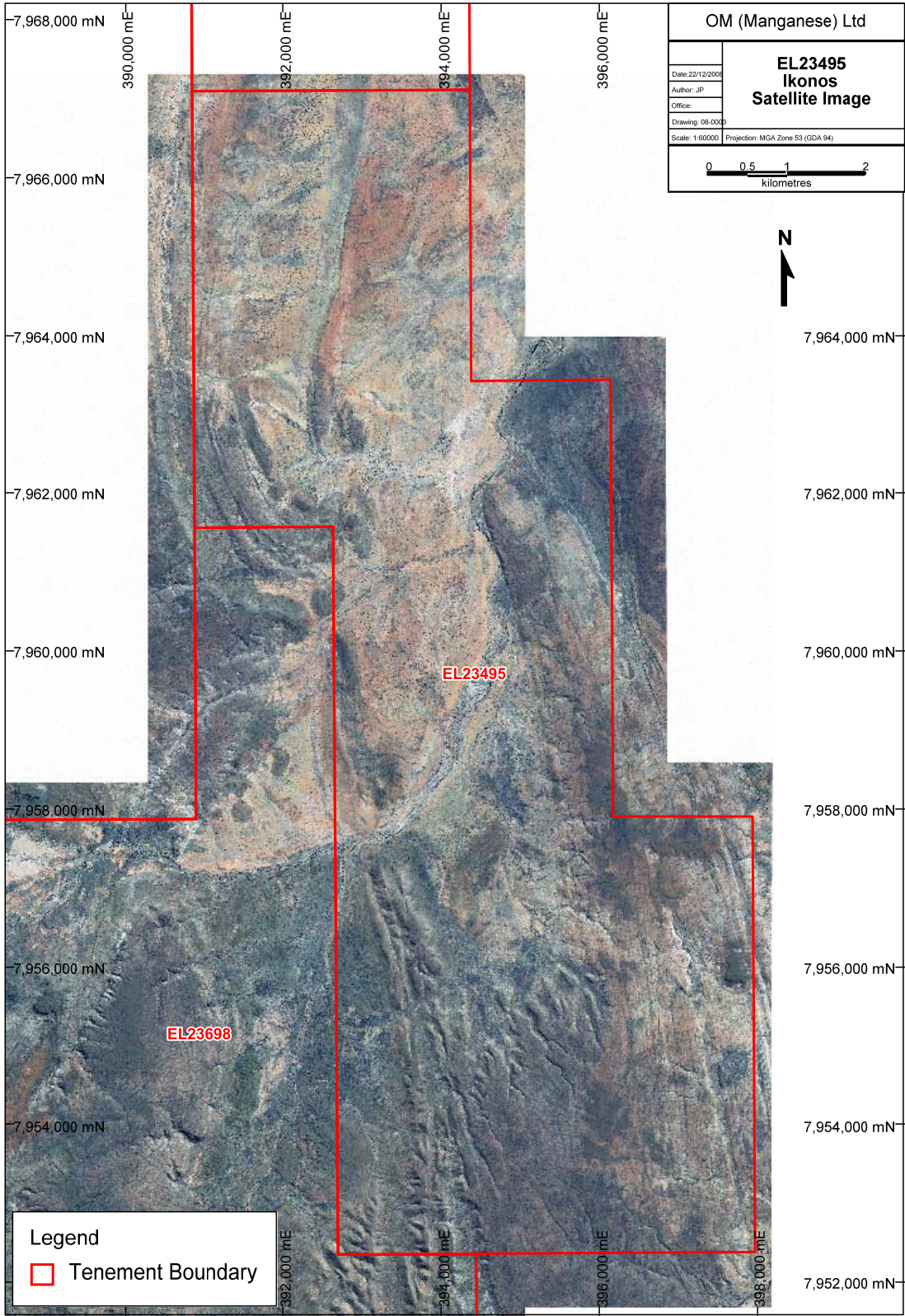


Figure 5\_ Map showing Ikonos satellite imagery over EL23495.

## **6 Expenditure Incurred during 2008 (year 6)**

Exploration expenditure incurred for period November 2006 to October 2007 was

Field work, site visits	\$ 3,500
RC drilling	\$ 59,660
RC drill samples	\$ 7,375
Ikonos satellite imagery	\$ 3,000
SkyTEM Survey	\$ 70,678
Tenement Administration	<u>\$ 970</u>
	\$145,183

## **7 Planned Exploration Program for 2009 (year 7)**

Planned work program for November 2007 to October 2008 includes

- Airborne Magnetic and Radiometric Survey
- Re-processing of geophysical data by Vector Research
- field checking of SkyTEM anomalies
- geological and structural mapping as required,
- identification of drill targets, and
- drill testing.

The airborne geophysical (mag and radiometric) survey was completed in late November 2008. The survey was conducted over the entire OMM tenement holding.

The planned work program is expected to cost approximately \$89,000