



IMX Resources

EL 39/2011 “19 Mile Hill” Final Report for the Period 2nd February 2012 to 30 April 2013.

Volume 1 of 1

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ABSTRACT

IMX Resources Ltd considered the Smithton area in NW Tasmania to have potential to host Ni-Cu sulphide mineralisation in sub-volcanic basic-ultrabasic intrusions. To pursue this target, several exploration licences were applied for in 2006 – 2011, the last of which, EL39/2011, is the subject of this report.

During the period of tenure, 46 Mobile Metal Ion samples were collected, airborne magnetic data were remodelled and 2 RC holes, for 221m were completed.

Although the results of the sampling suggest sulphides are present in fresh rocks, the drillholes did not return any significant results.

In early 2013, the drill holes were rehabilitated in accordance with Departmental guidelines.

Due to contracted budgets, a decision was made to rationalise the company's asset portfolio and as such, all NW Tasmanian licences, including EL39/2011, were relinquished in favour of more advanced projects elsewhere.

Total expenditure for the reporting period was **\$83,178**.

KEYWORDS

Tasmania North West, Burnie 250,000 map sheet, Smithton, geochemistry, Ni-Cu sulphide mineralisation, MMI sampling, HMC sampling, RC drilling.

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EL392011_201305_01_report.pdf

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1.0 INTRODUCTION

The following report details work conducted at IMX Resources Ltd's ('IMX') EL39/2011 – '19 Mile Hill' during the period 2nd February 2012 to 30th April 2013. The tenement is located 25km west-south west of Smithton, NW Tasmania (Figure 1).

1.1 Exploration Rationale

EL39/2011 is considered to have potential for Ni-Cu sulphide mineralisation in subvolcanic basic-ultrabasic intrusions.

1.2 Geological Setting

The Rocky Cape region of northwest Tasmania consists of thick weakly metamorphosed deformed Neoproterozoic sedimentary and volcanic successions (Calver 1998). The oldest exposed succession consists of orthoquartzite, siltstone and minor carbonate (the Rocky Cape Group) that underlies the Togari Group. The Rocky Cape Group is younger than 1200Ma. An angular unconformity separates the Rocky Cape Group from the Togari Group which occupies the Smithton Synclinorium in far northwest Tasmania. The Togari Group (Everard et al. 2007) consists of siliciclastic rocks (Forest Conglomerate), a carbonate -chert-shale unit (Black River Dolomite) dated at 750-650 Ma, rift tholeiite and associated volcanoclastic units (Kanunnah Subgroup) and dolostone (Smithton Dolomite) dated at 580-545 Ma. The Black River Dolomite contains stromatolites and probably had evaporitic affinities. The Smithton Dolomite is overlain by Middle to Late Cambrian sandstone and shale, the Scopus Formation. On older maps e.g. the 1: 50 000 SMITHTON sheet all carbonates and dolostones are shown as Smithton Dolomite.

Dolerite dykes dated at 600-588 Ma and differentiated basic- ultrabasic intrusions related to the tholeiitic sequence were emplaced into the sequence below the Kununnah Group. The Proterozoic- Paleozoic sequence is locally overlain by Tertiary basalts occurring mainly as hill cappings. Basalt compositions range from basanite through alkali olivine basalts to tholeiite.

Both the Rocky Cape Group and the Togaru Group were deformed during the Cambrian and the Devonian.

The presence of subvolcanic basic-ultrabasic intrusions in a sequence of sulphide bearing sedimentary rocks, imply that the region has potential for Ni- Cu sulphide deposits. Possible sulphur sources for Ni sulphide deposits are present in the Cowrie Siltstone (Rocky Cape Group) and in shales of the Black River Dolomite.

2.0 TENURE

Exploration Licence 39/2011, in the vicinity of Nineteen Mile Hill, was granted to IMX for a term of 5 years from the 2nd February 2012 and forms part of the Smithton Project. The licence is subject to a Joint Venture with Mr F. Barrett (4% ownership). Due to rationalisation of property assets and refocusing of budgets, IMX decided to relinquish all licences in the Smithton Project in April 2013. Table 1 summarises the tenement details.

Table 1: Licence Details

Licence	Granted	Years of tenure	Area
EL39/2011	2 nd February 2012	1.5	84 km ²

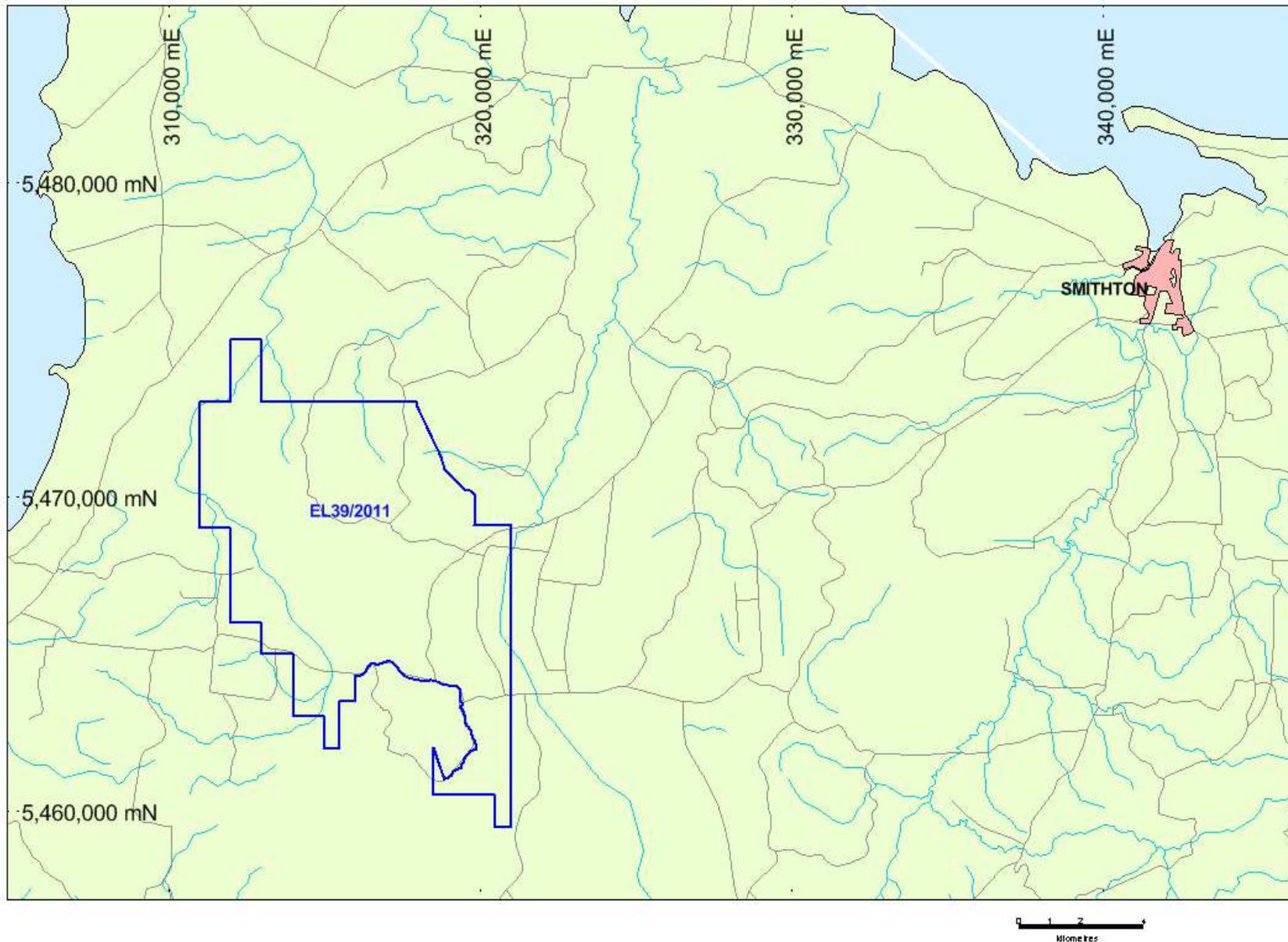


Figure 1: Tenement location map (projected to MGA94, Zone 55)

3.0 REVIEW OF PREVIOUS WORK

Very limited exploration has been carried out within EL39/2011. ANZECO (Kinnane 1972) carried out stream sediment sampling and located sites with very high Sn (max 1.08%) and Cr (max. 33%) in heavy mineral concentrates. Subsequent work revealed that the high Cr and Sn contents originated in widespread alluvial terraces related to Arthur River, but the ultimate origin of the Sn and Cr was not well defined.

Similar terraces are also widespread further north in the Montagu Swamp Area, and all the terraces have been investigated for their Cr contents e.g. BHP (1998). While the Cr grades may be high in small samples the tonnages are orders of magnitude too low for a Cr deposit.

The chromites form 2 populations with one possibly originating in the local volcanic and subvolcanic intrusions, whereas the main population are more likely to originate in rocks similar to the Cambrian basic-ultrabasic complexes further south. The origin of the alluvial chromites is also discussed by Everard et al. (2007).

Pacific Nevada carried out stream sediment sampling, rock chip sampling and a combined airborne EM a magnetic survey exploring for sediment hosted base metal deposits in the southern part of E39/2011, but the project was terminated after one season as the results were not promising (Reid 1998).

Index has explored for silica flour over silicified carbonates, and a silica flour mine is being developed near the Arthur River (MacCulloch, 2005).

A detailed aeromagnetic/radiometric survey with 200m line spacing flown by AGSO/MRT in 1996 has been valuable in locating intrusions due to the generally poor outcrop.

4.0 EXPLORATION COMPLETED DURING LIFE OF THE LICENCE

All results, including sample description, location, survey and assay data were presented in Doyle and Barrett (2013) and the metadata for that data is presented in this report as Appendix 1.

4.1 Surface Sampling

Due to the highly leached nature of Tasmanian soil, MMI^{TM1} sampling was used during the 2012 field season to test and rank magnetic features accessible in the tenement. 46 MMITM samples were collected. The MMITM sampling targeted stratigraphically controlled magnetic highs. Coverage was very uneven and mainly restricted to the south due to access problems north of the Bass Highway.

Cr and Ti were ubiquitously present in anomalous concentrations while elevated Pd, Cu, Sn, Zr and REEs were present in a number of locations. The presence of Pd without matching Pt in the MMITM samples and the widespread anomalous Cu suggests that sulphides are present in unaltered rocks. The Cu-Ni-PGE sulphide potential is also indicated by elevated chromite compositions.

Three heavy mineral concentrates were collected from a stream.

The location of the samples is shown in Figure.

4.2 Geophysical Modelling

Paul Mutton of Southern Geoscience Consultants (SGC) was contracted to model the dip and depth to fresh magnetic rock to determine ideal drilling orientation of targets generated from surface sampling.

4.3 Reverse Circulation Drilling

Geochemically anomalous areas coincident with magnetic highs were selected for drilling (Table 2). Two RC holes were drilled (Figure 2). A summary of the drill hole locations is presented in Table 3.

Table 2: Summary of proposed drill targets

Drillhole	Sample	Depth (m)	Comments
SRRC03	SMM541-42	150	Multi-element anomaly; Anomalous in Li, REE, Zr, Ti
SRRC04	SMM709	150	Multi-element anomaly. Anomalous in REE, Pd, Zr, Cu, Fe, Mn, Ti.

The drilling was carried out by Edrill Pty Ltd in August, 2012 using a Globe 2000 truck-mounted drilling rig.

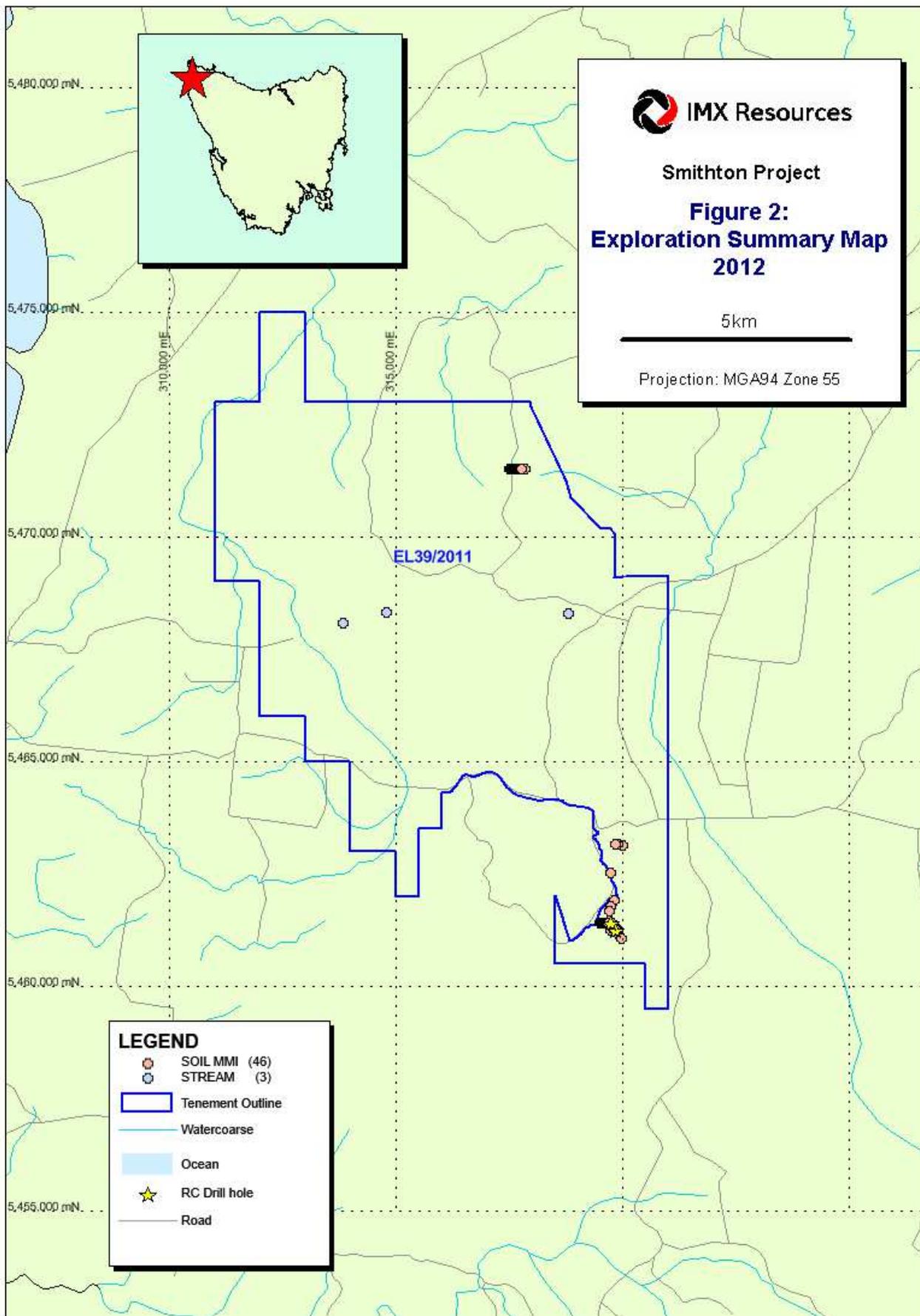
¹ MMITM - Mobile Metal Ion analysis is a low level detection geochemical process that analyses metals in soils and weathered materials using extremely weak solutions of organic and inorganic compounds rather than the conventional aggressive acid digest solutions or fusions. MMITM extractants, containing strong ligands, are used to detach and hold in solution metal ions which are loosely bound to soil particles by weak atomic forces. The metal ions held in solution are therefore the chemically active or 'mobile' component. These mobile forms occur in very low concentrations that are readily measurable by modern ICP-MS analysis with considerable precision. Source- <http://www.geochem.sgs.com/mmi-process.htm>

Table 3: Summary of RC holes

Hole name	Easting	Northing	Dip	Depth (m)
SRRC03	319846	5461242	-90	121
SRRC04	319746	5461397	-90	100

Each metre was tested by a portable XRF analyser on site and 29 of these samples anomalous Ni, Cu, Ti, Te, Zr and Sn were sent to Genalysis Pty Ltd laboratory for multi-element analysis by ICP-OES and Au, Pt and Pd by ICP-MS using Pb pre-concentration. The remaining drill cuttings were composited into 4 or 5m samples and sent to Genalysis for Pt, Pd and Au analysis by Fire Assay. Assay results are presented in Doyle and Barrett (2013).

One sample was selected from SRRC03 (60-61m) and sent to the University of Tasmania for petrography. The outcomes are described by Crawford (2012). Four chromites were selected from the sample and analysed by probe for Al_2O_3 , Fe_2O_3 , Cr_2O_3 , FeO, MnO, MgO, ZnO, NiO, TiO_2 , and V_2O_3 by Sandrin Feig.



6.0 DISCUSSION OF RESULTS

The geochemical data shows extensive leaching to depths of 20-40m, so of the common elements of interest only Cr and the PGEs are likely to be useful in standard soil sampling justifying the use of MMI sampling. In a broad sense the MMI method has worked well in the highly leached soils, but the method has some drawbacks:

1. The values are relative and while the contrasts between lithologies are obvious, it is often uncertain which anomalies are significant.
2. The MMI signature may be a composite with contributions from several lithological units.
3. Elements hosted by refractory minerals are likely to give subdued response.
4. Depths to anomalous lithologies are generally unknown, causing problems for drill planning.
5. The surface soils must contain clays or iron hydroxides that can trap the MMI fluids. Pure quartz sands appear to be a poor sample medium.

Unfortunately, the rocks selected for analysis of REEs and an extended range of trace elements and for petrography do not cover the whole range of rock types present, as they were chosen from fresh rocks and most of the high Cr rocks are in the weathered part of the profile.

The high Cs, Sn and Te obtained by Niton analysis during the drilling have not been substantiated by the laboratory analyses. The most likely cause is overlapping X-ray peaks, but none of the elements show good correlations with more abundant elements.

All the chromites identified in the petrographic slides were in volcanoclastic rocks. However the grains are unlikely to have moved far, and as the basalts in the Spinks Creek Volcanics do not contain chromites the most likely source is picritic flows or shallow intrusions. Detrital chromite in 2 samples with REE profiles like Grimes intrusive suite were analysed for the following reasons:

1. To establish whether there are more than one population of detrital chromites.
2. To assess mineralisation potential based on Ni and Zn contents of chromites.
3. To compare with chromites from the better documented King Island flows/ intrusion.

SRRC03 60-61m chromite has low TiO_2 confirming they are unlikely to have crystallised from a basaltic magma.

Zn is low in all analyses downgrading the mineralisation potential, and chromite Ni is relatively high, suggesting the chromites crystallised from a magma that had not been Ni depleted.

Chromites with similar compositions to those in SRRC03 60-61m sample analysed seem to be widespread in the streams within the tenement. The origin of the high Cr chromites found in some streams is still uncertain. They are too far from the known ultrabasic complexes, and serpentinite fragments and high Cr-chromites in sandstones older than the ultrabasic complexes suggest a local unknown source.

7.0 CONCLUSIONS

Two RC holes were drilled and no mineralisation was intersected. Detrital chromite was found in SRRC03. Only magnetic anomalies along Bond Tier South were sampled due to access problems north of the highway. Only limited exploration could be carried out without an airborne geophysical survey to focus the exploration; however the necessary budget required to progress the licence was refocussed into other projects in IMX's portfolio and so a decision was made to relinquish the ground.

8.0 ENVIRONMENT

The RC holes were drilled on existing Forestry tracks so no trees were removed. The holes were capped below surface and backfilled at the completion of the drilling. Due to fires in early 2013, rehabilitation of the drill cuttings and sumps was delayed until February. Drill holes and sample spoils have been rehabilitated according to Departmental guidelines.

9.0 EXPENDITURE

Expenditure for 19 Mile Hill EL39/2011 for the reporting period is summarised in Table 4. This summary includes all expenses accrued up to 30th April 2013.

Total expenditure for the reporting period was **\$83,178**.

Table 4: Expenditure Life to Date

Activity	Amount
Assaying	\$6,942
Drilling - RC	\$35,767
Geological Salaries (recharge - staff S & W)	\$6,871
Geological Consultants	\$8,161
Geophysical Consultants	\$1,079
Data Entry / Drafting	\$99
Road , Site Works, Track Cutting	\$745
Petrology / Mineralogy	\$944
Tenement Administration	\$594
Tenement Rentals	\$4,355
Tenement - Rehab	\$988
Vehicles - Fuel	\$68
Light Vehicle Hire	\$147
Equipment Hire	\$789
Computer Software	\$653
Consulting Fees	\$3,120
Communication	\$260
Travel & Accomodation - International	\$56
Travel & Accommodation - Domestic	\$2,740
Food & Messing	\$548
Training - Other	\$693
Overheads (10%)	\$7,562
TOTAL EXPENDITURE	\$83,178

10.0 REFERENCES

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APPENDIX 1

Exploration Metadata

Metadata: Surface Sample

H01	Tenement Holder	IMX Resources Ltd	
H02	Tenement Name	EL39/2011	
H03	Activity	Stream Sediment samples	Mobile Metal Ion soil samples
H04	Location of the data	EL392011_02_Appendix1.txt	
H05	Date created	21/01/2013	
H06	Date modified	21/01/2013	
H07	Parameters of data acquisition / processing	-80# size fraction sampled	
H08	Contractor	Genalysis	Genalysis
H09	Translation Parameters		
H10	Equipment	4 Acid Digestion, MS finish	Mobile Metal Ion Analysis. ICP-MS finish.
H11	Original data format	csv	
H12	Codes	SOIL MMI	Soil sample: MMI
H13	Codes	STREAM	Stream sediment sample: heavy mineral concentrate

Metadata: Collars

H01	Tenement Holder	IMX Resources Ltd	
H02	Tenement Name	EL39/2011	
H03	Activity	RC Drilling programme	
H04	Location of the data	EL392011_201212_04_Appendix3.txt	
H05	Date created	27/08/2012	
H06	Date modified	21/01/2013	
H07	Parameters of data acquisition/ processing	RC drill chips spear	
H08	Contractor	Edrill Pty Ltd	
H09	Translation Parameters	GPS	
H10	Equipment	Globe 2000 Truck-Mounted RC Drill rig.	
H11	Original data format	csv	
H12	Codes	RC	Reverse Circulation
H13	Codes	IBF	Ian Fahey

Metadata: Lithology

H01	Tenement Holder	IMX Resources Ltd
H02	Tenement Name	EL39/2011
H03	Activity	RC Drilling programme
H04	Location of the data	EL39_201209_04_Appendix3.txt
H05	Date created	27/08/2012
H06	Date modified	14/09/2012
H07	Parameters of data acquisition/processing	Geology logs
H08	Contractor	Edrill Pty Ltd
H09	Translation Parameters	GPS
H10	Equipment	Globe 2000 Truck-mounted RC drilling rig
H11	Original data format	excel

Metadata: Drillhole Assays

H01	Tenement Holder	IMX Resources Ltd	
H02	Tenement Name	EL39/2011	
H03	Activity	RC Drillhole assays	
H04	Location of the data	EL392011_06_Appendix3.txt	
H05	Date created	21/01/2013	
H06	Date modified	21/01/2013	
H07	Parameters of data acquisition / processing	NITON SPEAR RIFFLE	Portable XRF Composite 4-5m using spear Riffle split 1m samples
H08	Contractor	Genalysis	Genalysis
H09	Equipment	4A_ICPOES	4 acid digest, ICP finish.
H10	Original data format	csv	
H11	Codes	CHIPS NITON SOIL NITON ALL	RC Chip samples Portable XRF internal mode Portable XRF internal mode

Metadata: Chromite Probe Analyses

H01	Tenement Holder	IMX Resources Ltd	
H02	Tenement Name	EL39/2011	
H03	Activity	Microprobe analysis	Mobile Metal Ion soil samples
H04	Location of the data	EL392011_02_Appendix1.txt	
H05	Date created	21/01/2013	
H06	Date modified	21/01/2013	
H07	Parameters of data acquisition / processing	Riffle split RC sample	
H08	Contractor	University of Tasmania	
H09	Translation Parameters		
H10	Equipment	Electron Microprobe	
H11	Original data format	csv	