

'M:\Geology\Exploration Drilling\Exploration\Annual Reports\Long Plains\2013\EL30-2003 Near Bowry
Creek\2013\Annual Report EL30_2003 Near Bowry Creek 2013.docx'



EL 30/2003 Near Bowry Creek

Annual Report

19 June 2012

to

18 June 2013

Roger Hill
May 2013

copies:(1) MRT
(1) Grange Savage River

ABSTRACT:

The objective of the definition drilling programme during the period July 2012-June 18 2013 was to:

- a) Drill the North zone to 100m spacing to allow for more of the resource to be classified as indicated and
- b) Drill the Central zone on 100m spacing with single holes to allow an inferred resource to be estimated in the Central zone between NZ and SZ.

New access tracks where required and drilling used a combination of RC pre-collars and HQ3 sized diamond tails to collect geological, chemical and geotechnical data sets through the mineralised zones.

A 1:10,000 scale surface mapping compilation was completed to create a first-pass 3D geological model which was refined as holes were drilled. Standard DTR (Davis tube recovery) assays were taken as part of a standard suite of chemical analyses. Acid based accounting samples were collected on a representative sub-set of the data in order to classify the waste and ore types for their acid forming potential.

Progress to date includes a preliminary (maiden) resource estimate based on drilling completed up to July of 2012 and ongoing processing of recently logged core to collect samples and have these assayed as soon as possible.

Results:

A resource estimate has been declared (August 2012) for Long Plains consisting of 48.8Mt @ 44.6%DTR and this resource estimate will be revised in August 2013 based upon the ~4,600m of new drilling just completed during the reporting period.

The assaying of these most recent holes is incomplete, but in progress at time of writing.

Recommendations:

This most recent exploration and delineation campaign confirms and improves the confidence in the declared resource for Long Plains; establishes a new resource for Central zone and will upgrade some of the tonnage to an indicated resource. Grange has confidence that this resource can be mined economically and has started a pre-feasibility study to evaluate mining, beneficiation, potential transport options and the potential "fit" of Long Plains into the Savage River Life of Mine Plan (LOMP) schedule.

This pre-feasibility work has just commenced alongside a 5 year - \$ 1.34 Million dollar programme to conduct the necessary environmental studies to allow for successful application for environmental permits to mine Long Plains. Grange intends to apply for a Mining lease in 2013 over much of the EL30/2003 area as part of this work.

TABLE OF CONTENTS

TABLE OF CONTENTS 3

INTRODUCTION 5

 Exploration Rationale 5

 Licence Details 5

 Location 5

 Tenure 6

 Geology 7

REVIEW OF PREVIOUS WORK 10

 Prior to Current Tenement 10

 During Current Tenement 11

Exploration Completed During the Reporting Period 12

 Track construction 16

 Drilling 17

Discussion of Results 20

Conclusions 28

Environment 28

2012/13 EXPENDITURE 29

 Appendix 1 Geological surface compilation map 32

 See AO hard copy 32

Appendix 2 Resource Estimate Long Plains 32

 Appendix 5 Environmental surveys for Long Plains Development Proposal and Environmental Management Plan (LP DPEMP) 32

 a Long Plains Historical report 32

 b Long Plains Aboriginal Heritage Investigation report 32

 c Long Plains Flora and Fauna Report 33

TABLE 1 AUGUST 2012 RESOURCE ESTIMATE LONG PLAINS-GRANGE	14
TABLE 2 PLANNED EXPENDITURE 2012-13	14
TABLE 3 LIST OF HOLES COMPLETED 2012-2013 REPORTING PERIOD	18
TABLE 4 PLANNED -BUDGETED EXPENDITURE FOR 2012-13 WORK SEASON	29
TABLE 5 CONTENTS OF CD-ROM -MAPS DRILL LOGS, DATABASE TABLES, SECTIONS	33
FIGURE 1 SAVAGE RIVER PROJECT LOCATION	6
FIGURE 2 LAND TENURE AS AT JUNE 2011: EL30/2003 AND ML 2M/2001	7
FIGURE 3 REGIONAL GEOLOGY	8
FIGURE 4 REGIONAL TOTAL MAGNETIC INTENSITY (TMI)	9
FIGURE 5 EL30-2003 SURFACE COMPILATION MAP	15
FIGURE 6 SURFACE GEOLOGY COMPILATION –INSERT SHOWING NORTH AND CENTRAL ZONES	16
FIGURE 7 TRACK CONSTRUCTION 2012-13	17
FIGURE 8 AIRPHOTO GDA94 SHOWING LOCATIONS OF RECENT DRILL HOLES	19
FIGURE 9 REVISED CONCEPTUAL MODEL BASED UPON RECENT CENTRAL ZONE DRILLING	21
FIGURE 10 LITHOLOGY CROSS SECTION N5397130 LPDD 1301 AND 0222	
FIGURE 11 LITHOLOGY CROSS SECTION N5397100 LPDD 1303	22
FIGURE 12 SECTION 5397100MN WITH WASTE CLASSIFICATION SHOWN	23
FIGURE 13 LITHOLOGY CROSS SECTION N5396930 LPDD 1306 & 7(ASSAYS PENDING)	24
FIGURE 14 LITHOLOGY CROSS SECTION N5396780 LPDD 1308 & 9	25
FIGURE 15 LITHOLOGY CROSS SECTION N5396680 LPDD 1310	25
FIGURE 16 CZ 5396160MN LPDD1312, 17(ASSAYS PENDING)	26
FIGURE 17 CZ 5396060MN LPDD1313 (NO ORE ON SECTION)	27
FIGURE 18 CZ 5395960MN LPDD1314 (ASSAYS PENDING)	27
FIGURE 19 CZ 5395860MN LPDD1315 & 16 (ASSAYS PENDING)	28

INTRODUCTION

Exploration Rationale

Grange's interest is focussed on the Long Plains magnetic anomaly for a potential future source of magnetite ore as a feed material for its Savage River concentrator. EL30/2003 now contains the entire strike length of the Long Plains magnetic anomaly.

The following report summarises exploration activities completed at Nine Mile Creek during the ninth year of tenure(2012/13). This document will report all activities using the GDA94 datum.

Licence Details

Exploration licence EL30\2003 "Near Bowry Creek"

Located at Bowry Creek, 10km south of Savage River Tasmania.

ID: 23550

Area: 38 sq km blocks

Status: Pending renewal

Reporting period: June 19 -2012 to June 18 -2013

Tenement Holder: Grange Resources (Tasmania) Pty Ltd

Product categories: Category 1 - Metallic Minerals, Atomic Substances, Category 5 - Industrial Minerals, Semi/Precious Stone.

Location

The Long Plains Prospect is located approximately 10km south by road of the Savage River Mine and concentrator. Savage River is located approximately 100km south west by sealed road from Burnie (Figure 2). The lease is accessed by the all-weather gravel road between Savage River and Corinna, and then by a bush track of approximately 2km.

Local topography surrounding the lease is rugged, with incised valleys and steep hills. The North and Central Zones of the anomaly is located on top of a prominent north-south trending ridge. The west flowing Bowry Creek is the main drainage in the area and runs past the northern boundary of the lease area before joining with Main Creek which drains much of the northern portion of the lease. The southern part of central zone is cut by a deeply incised tributary of main creek. The south zone continues on a prominent ridge south of the central zone.

Regional vegetation includes undisturbed rain forest, wet eucalypt, acacia and open heath land. The immediate area of the prospect has previously been logged extensively approximately 20 years ago, with almost no mature trees present in the working area. A bush fire not long after this time devastated the remaining vegetation, leaving the present vegetation as thick regrowth dominated by eucalypts with several rainforest species. Climate is wet temperate with an average annual rainfall of 1,950mm and mean monthly temperatures ranging from 3-19°C.



Figure 1 Savage River Project Location

Tenure

Exploration Lease EL 30/2003 “Nine Mile Creek” was transferred to Goldamere Pty Ltd on 6th February 2008. Australian Bulk Minerals (ABM) was a wholly owned subsidiary of Goldamere and managed and conducted all exploration activities on this lease. ABM merged with Grange Resources Ltd (Grange) on the 1st January 2009 resulting in a name change for Goldamere to Grange Resources (Tasmania) Pty Ltd. Grange also manages the operation of the magnetite mine and roseconcentrator at Savage River, and the pelletising plant and ship loading facilities at Port Latta on the North West coast. EL30/2003 was amalgamated with 2 other leases in 2010 and is now known as EL30/2003 Near Bowry Creek.

Grange’s Long Plains Prospect is held under an amalgamated lease EL30/2003 Near Bowry Creek as shown in figure 2 land tenure below.

EL30/2003 comprises an area of 38km². The amalgamated lease EL30/2003 encompasses the entirety of the Long Plains magnetic anomaly and provides continuous leasehold connecting EL30/2003 and the Savage River Mine Lease 2M/2001.

Grange successfully applied to transfer EL30/2003 to Goldamere after negotiating with the holders, Gregory and Thorne. This transfer was granted on the 6th February 2008. It completes the coverage of the anomaly and incorporates ground adjacent to the anomaly necessary for extended exploration activities and potential mine infrastructure.

In September of 2010 Grange requested an amalgamation of leases EL19/2005, EL46/2007 and EL 30\2003 into EL30\2003. This request was granted in February 2011.

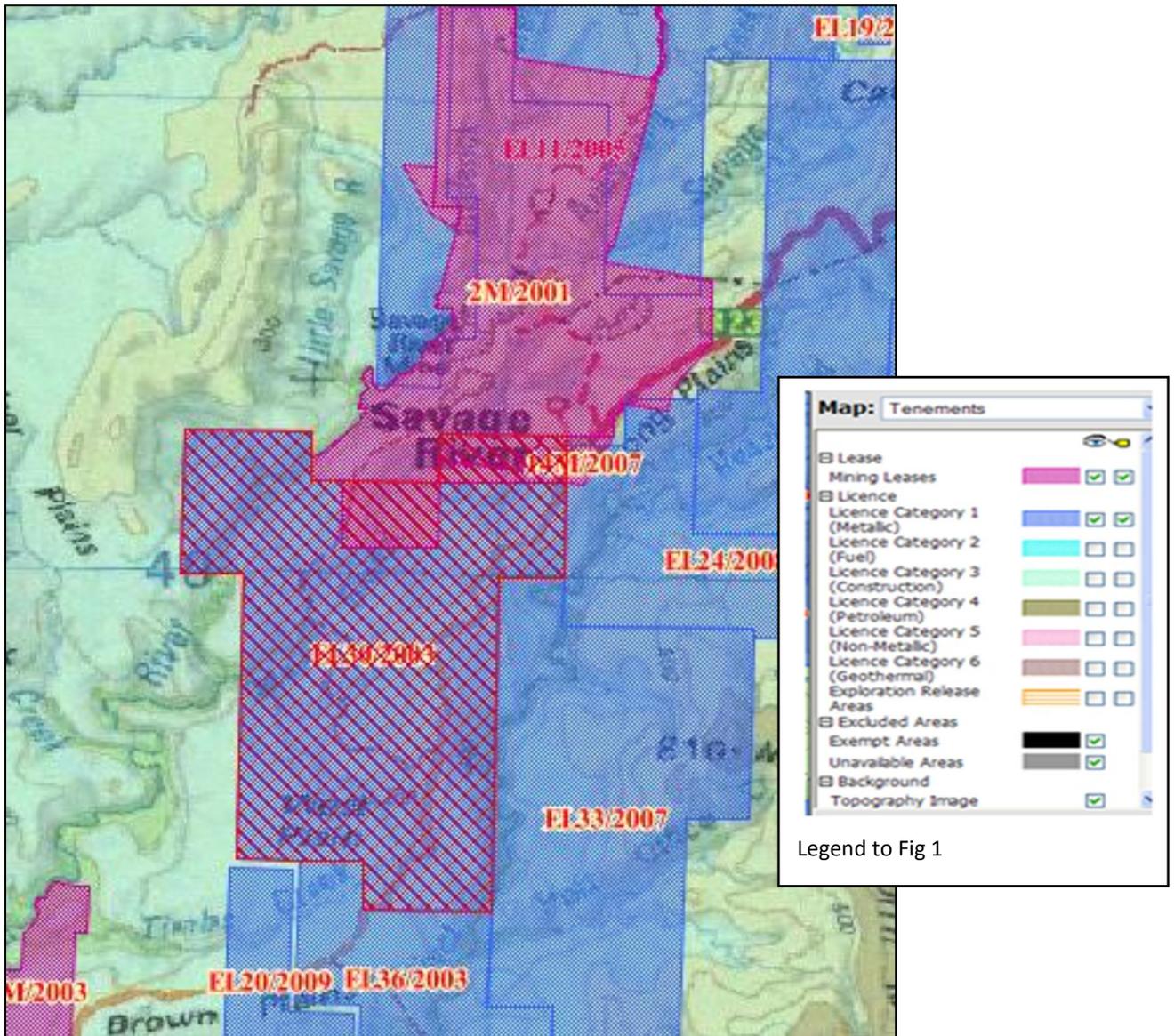


Figure 2 Land tenure as at June 2011: EL30/2003 and ML 2M/2001

Recently amalgamated Exploration licence EL 30/ 2003 (the result of combining EL 46/ 2007, EL19/ 2005 and EL 30/2003 in Oct of 2010) adjoining the Savage River mining lease (2M/ 2001).

Geology

The Long Plains magnetite deposit lies within and near the eastern margin of the Proterozoic Arthur Metamorphic Complex in north-western Tasmania. The complex is exposed along a northeast-southwest

trending structural corridor, the Arthur Lineament, which separates Proterozoic sedimentary rocks to the northwest from a variety of Palaeozoic rocks to the southeast (Figure 3).

The magnetite deposits at Long Plains represent a series of elongate, discontinuous magnetite lenses that extend over a three kilometre strike length (Figure 4). The deposit has been separated into three distinct zones on the basis of total magnetic intensity termed the Northern, Central and Southern Zones. The oblique view of the total magnetic intensity in Figure 4 illustrates the broad geometry of the Zones.

The magnetite zones are sub-vertical to strongly east dipping and hosted within ultramafic and mafic schists. A suite of late metabasalt and metadolerite intrusive dykes occur sub-parallel to the ore zones. Vein magnetite is developed at the western magnetite boundary with the contact marked by the strong weathering and the development of surface clays (Griffith, 2000, Internal memorandum).

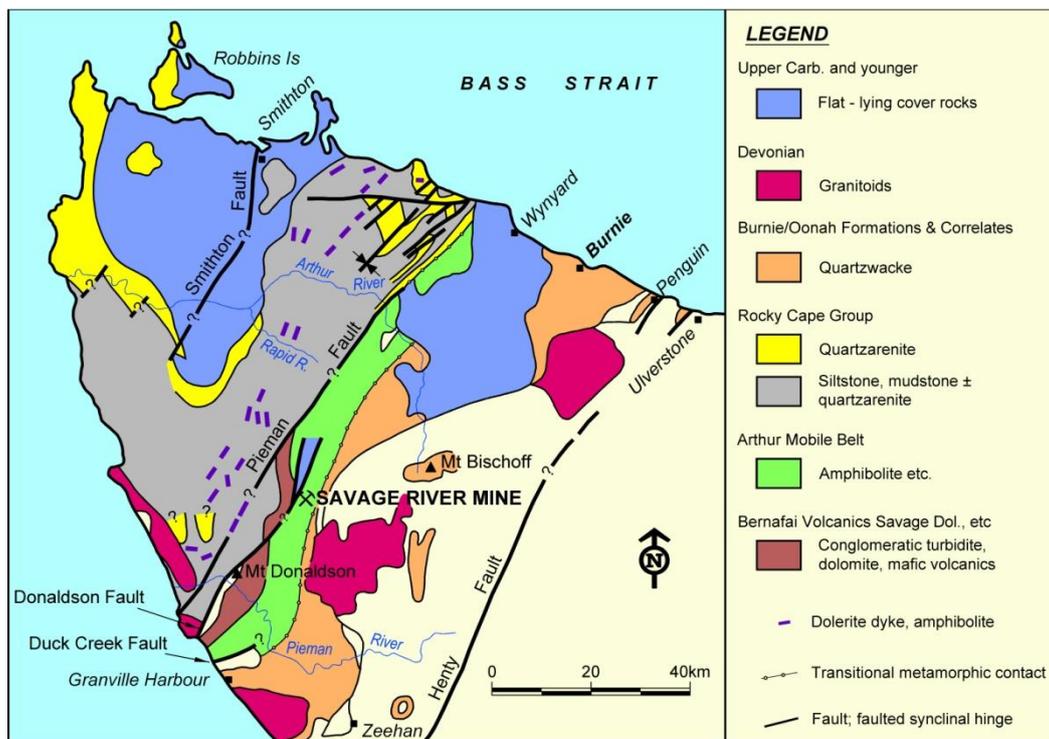


Figure 3 Regional Geology

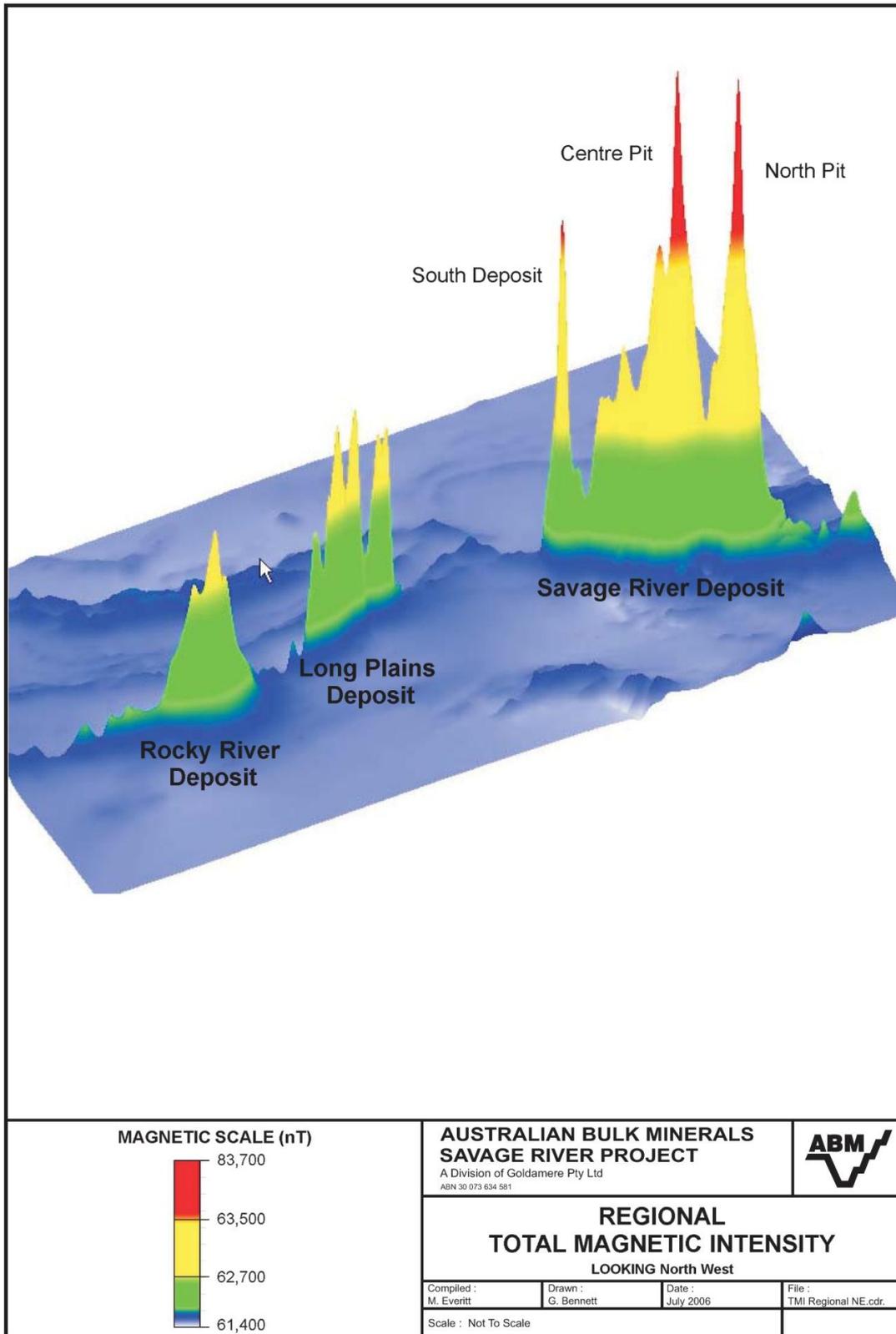


Figure 4 Regional Total Magnetic Intensity (TMI)

REVIEW OF PREVIOUS WORK

Prior to Current Tenement

Ironstone outcrops on the Savage River were first discovered by State Government surveyor C.P. Sprent in early 1877 during one of his exploration journeys through western Tasmania. The deposits were first reported as a possible source of iron ore in 1919. Modern, systematic exploration techniques were employed by the Australian Bureau of Mineral Resources during 1956 that included ground and airborne magnetic surveys. The largest magnetic anomaly was detected at Savage River with two smaller anomalies being detected at Long Plains and Rocky River further to the south.

The Long Plains magnetite anomaly was first investigated during the late 1950's by the Bureau of Mineral Resources (BMR), as part of a regional magnetic study of the Savage River area. A ground magnetics survey was completed in 1962 across the area (Eadie, 1962). The contour map produced for that report has been digitised and converted into AMG66 co-ordinates to be combined with other data.

1960's: Diamond drilling and ground magnetic surveys were undertaken by Rio Tinto Australia Exploration (RTAE) Pty Ltd during the early 1960's. One diamond drill hole RTAE-1 totalling 195.0 metres was drilled in the northern end of the deposit.

Ownership of the deposit was transferred to Industrial and Mining Investigations (IMI) Pty Ltd during the 1960's, who completed broadly spaced diamond drilling at Long Plains. A total of seven diamond drill holes (IMI28-30; IMI33-35 and IMI46) totalling 1,135.07 metres were drilled in the northern and southern areas of the deposit.

1994: No further significant exploration was completed at the deposit until 1994 when Savage Resources Pty Ltd completed four diamond drill holes (LPDDH100-103) in the north of the deposit. The program totalling 525 metres was designed to provide a complete cross section through the deposit in an area of moderate grade magnetite development lying between drill holes RTAE 1 and IMI 29.

1996: Some weak gold anomalies were identified on the lease by the Goldstream Mining/ Titan Resources JV during 1996/97. No further work was undertaken on these anomalies. Extensive historic gold workings are located in the north of the lease in the Golden Ridge area and on the adjacent mine lease 2M/2001.

2006: An initial program in 2006 was devised to develop a geological model. This involved

- relogging historic core, costeaning across the mineralisation (1505 meters), logging the costeans, establishing survey control points

2007: A follow-up program in 2007 completed 6 RC drill holes and 1 diamond hole, and completed a ground magnetic survey over part of the Northern Zone.

2008: In 08/09, the following work was completed on this lease EL 30/2003: including a review of historic data, review of Goldstream helimag data, a preliminary mining infrastructure plan, inspection of overgrown access tracks

- 2009 : The program in 09/10 included a financial model of the potential impact of the deposit and detailed planning to develop a 5 year plan.

During Current Tenement

-
- 2010 (ie: amalgamation of lease EL30\2003 submitted in 2010 and granted in Feb 2011)
- The program in July 10 - June 11 included the track cutting of proposed new track alignments, a follow-up fauna survey and cutting of gridlines in preparation for ground geophysics.
- June 2011-May 2012
- During May-June of 2011, an exploration contractor hand cut 3.2 line km of proposed new track alignments and an additional 7.2 line km of 100m spaced grid lines in preparation for a ground magnetic geophysics survey that was completed in July of 2011.

Processing and reporting of the ground magnetic survey by Contactor Gap Geo was completed in 2011 as well as 2.15km of track construction and rehabilitation to enable the commencement of the drilling campaign in October 2011

Project drilling started 24th October 2011 with reverse circulation drilling and the last diamond –tail hole was completed on Thurs May 3rd 2012.

In total, 5,029m were drilled between July 2011-June 12 comprised of:

- 2,485m Diamond only
- 2,053m Reverse circulation
- 491.3m Diamond tails

A total of 5,029m were drilled vs 6,239m planned, with 4 of the planned holes in CZ (totalling 1,200m) were deferred to the next years (2012-2103) program.

Exploration Completed During the Reporting Period

- June 19 2012-June 18 2013

Exploration:

In October of 2012 funding of \$1,837,920 over 12 months was approved by Grange Resources Tasmania Pty Ltd for the exploration of Long Plains during the current tenure period to 18 June 2013.

The Exploration programme on EL30/2003 between 19 June 2012 and 18 June 2013 consisted of:

1. Geological mapping compilation at 1:10,000 scale of the entire EL30-2003 lease area
2. Construction of 450m of new tracks in North zone and 450m of new track in Central Zone.
3. Drilling of 12 new holes in North zone totalling 3,196.5m to convert as much as possible of the inferred resource to an indicated resource.
4. Drilling of 5 new holes in Central zone totalling 1,421.1m to establish an inferred resource at central zone based on the magnetic anomaly there.
5. Assaying and waste characterisation work to enable a revised resource estimate and conceptual mine planning.
6. Resource estimation in August 2012 based on the 2011-12 drilling to establish a maiden resource estimate for the entire Long Plains resource. Preliminary conceptual mine planning to evaluate the potential contribution of Long Plains to the life of mine plan (LOMP) for the Savage River operation.

Environment activities :

In October of 2012 funding of \$1,324,890 over 5 yrs was approved by Grange for studies, investigations and works at Long Plains between January 2013 and January 2017 to provide the following:

- a. Baseline environmental surveys/studies.
- b. Referral to SEWPaC under the EPBC Act.
- c. Development and submission of a Notice of Intent to the Tasmanian EPA
- d. Technical studies into the impacts of a mining and ore beneficiation operation at Long Plains and management of those impacts
- e. Preparation and submission of a DPEMP to the Tasmanian EPA and the Waratah Wynyard Council.

During the lease period (18 June 2012-18 June 2013), the following works have been completed;

Baseline environmental surveys/studies including:

Flora and fauna studies, Aboriginal heritage and Archaeological heritage studies, Scoping for hydro-geology infrastructure as well as baseline water sampling and stream flow measurements in catchments.

These detailed environmental reports are not detailed in this exploration annual report as they will form part of a separate submission for;

- a) initially, an application for conversion of the EL to a Mining lease and
- b) part of the baseline data for eventual environmental permitting (approval to mine).

Exploration Activities:

Project exploration drilling started mid November of 2012 with reverse circulation drilling followed by diamond drilling and completion of Rc holes with diamond-tails. Diamond-tails drilling is still in progress at time of writing with approximately 200m remaining to be drilled. We expect drilling will be complete by 18th June 2013.

At the time of writing (13 June 2013)

- 4,417.6m were drilled in total, consisting of;
- 2,925.8m Diamond only including diamond tails on Rc pre-collars
- 1491.8m Reverse circulation

Geological mapping compilation at 1:10,000 scale was completed for the entire EL30-2003 lease area.

Waste characterisation work was completed at Long Plains during the period with 159 acid-base accounting (ABA) samples collected used to inform waste type classification based on lithological wireframed units.

See digital data waste classification data and chart NAGph vs NAPP (attachments)

and assaying is in progress to enable a revised resource estimate in August 2013 and a revision to conceptual mine planning.

Resources:

The maiden Resource estimate was completed in August 2012 based on the 2011-12 drilling and a revision to that estimate is due in August 2013 based on the results of the current program.

Mineral Resource Estimate - Long Plains- August 2012

Classification	Measured Resources	Indicated Resources	Inferred Resources	Total Resources
Tonnes (Mt)	0.0	5.6	43.2	48.8
DTR%	0.0	51.1	43.8	44.6
Fe%	0.0	67.8	69.4	69.2
Ni%	0.00	0.05	0.02	0.03
TiO ₂ %	0.00	0.62	0.60	0.60
MgO%	0.00	0.92	0.78	0.80
P%	0.000	0.007	0.006	0.006
V%	0.00	0.34	0.38	0.37
S%	0.00	0.04	0.05	0.05

NB - Impurities were measured from Davis Tube Concentrate where sampled
- A cutoff grade of 15% was used in the calculation of Mineral Resources

Table 1 August 2012 Resource Estimate Long Plains-Grange

Digital file= EL_30_2003_201306_04_120823_1436_G_Grange_LongPlains_Resource_Report_final

At time of writing assay data is not available to allow a revised resource estimate based on the 2012-13 drill programme just completed. The resource will be re-estimated in August 2013 and a revised copy sent to MRT as an update to this report.

Preliminary conceptual mine planning is in progress and will use the revised resource estimate to evaluate the potential contribution of Long Plains to the life of mine plan (LOMP) for the Savage River operation.

Environmental Baseline surveys/studies have been completed or are underway and will enable continuation of the work leading to the initial EPBC Referral and technical impact assessments leading to a DPEMP planned for 2014 with final approval for the project according to Grange's advice planned for January 2017.

EXPLORATION COMPLETED DURING THE REPORT PERIOD

Long Plains Exploration and Delineation Drilling Planning for 2012-13 work season (Plan "B")						
Part 1	Zone	Activity	Type	Contractor	Item	Est. Cost
	LongPlains	Radio upgrade	Safety Cap	Coastal Elect	radio	\$ -
Part 2	Zone	Activity	Type	Contractor	Line km	Est. Cost
	Entire LP area	Compilation	Compile	NJ Turner	-	\$ 30,000
	LongPlains	mapping			Mapping of entire 20sqkm area	\$ 30,000
Part 3	Zone	Activity	Type	Contractor	Metres	Est. Cost
High priority	NZ new tracks	rehab-sheet	Road	Fagan	450	\$ 45,000
High priority	CZ North track	new track	Road	Fagan	450	\$ 67,500
					High priority only	\$ 112,500
Part 4	Zone	Activity	Type	Holes	Metres	Est. Cost
High priority	NZ Ind	Drilling	RC+HQ3	11	3,006	\$ 967,780
High priority	CZ-North Inf 100m	Drilling	RC+HQ3	5	1,559	\$ 620,136
				16.0	Total	\$ 1,587,916
				16.0	Hi priority only	\$ 1,587,916
Part 5	Lab preparation and assays				samples	Est. Cost
SGS Renison	Sample prep	Analytical	labour		2,739	\$ 43,104
GBE	DTR and Impurities	contract labour	labour		2,739	\$ 64,400
				Lab	Hi priority only	\$ 107,504
Total Long Plains 2012 -13 Budget Period- Planned Expenditure						\$ 1,837,920

Table 2 Planned Expenditure 2012-13

A surface geology compilation map at 1:10,000 scale was completed in the period. The map compiled all known open file and available internal company reports , maps and filed notes in the area and adjoins existing 1:10,00 and 1:500 regional geology mapping completed previously by ABM (now Grange).

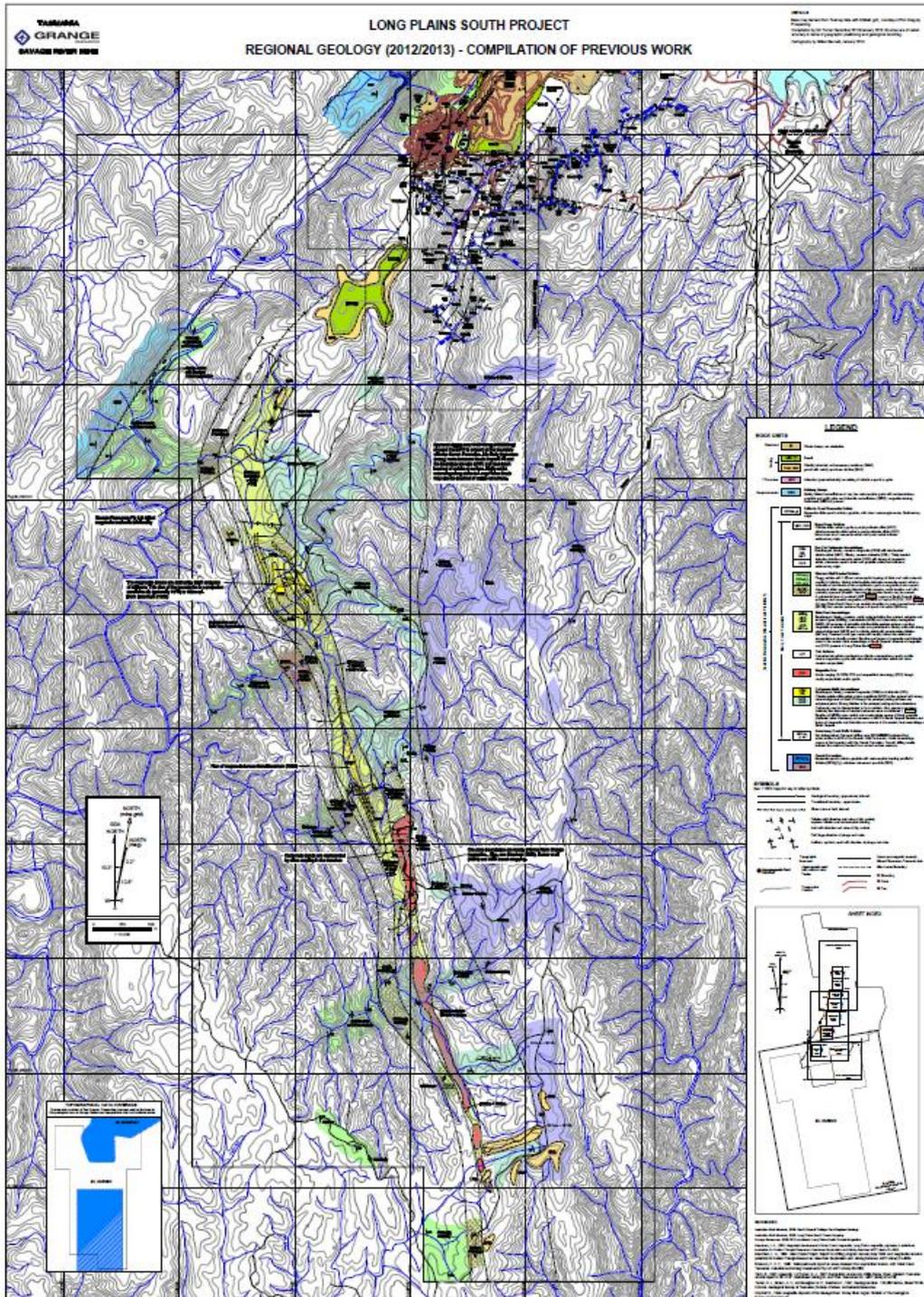


Figure 5 EL30-2003 Surface compilation map

Digital file name= EL30-2003_2013-06_01_Map_Geology_Compilation 2013

The map was used immediately to create a preliminary 3D geological model. This model was used as a basis for drill planning and is used for waste rock characterisation, planning of infrastructure, waste dumps and mine planning.

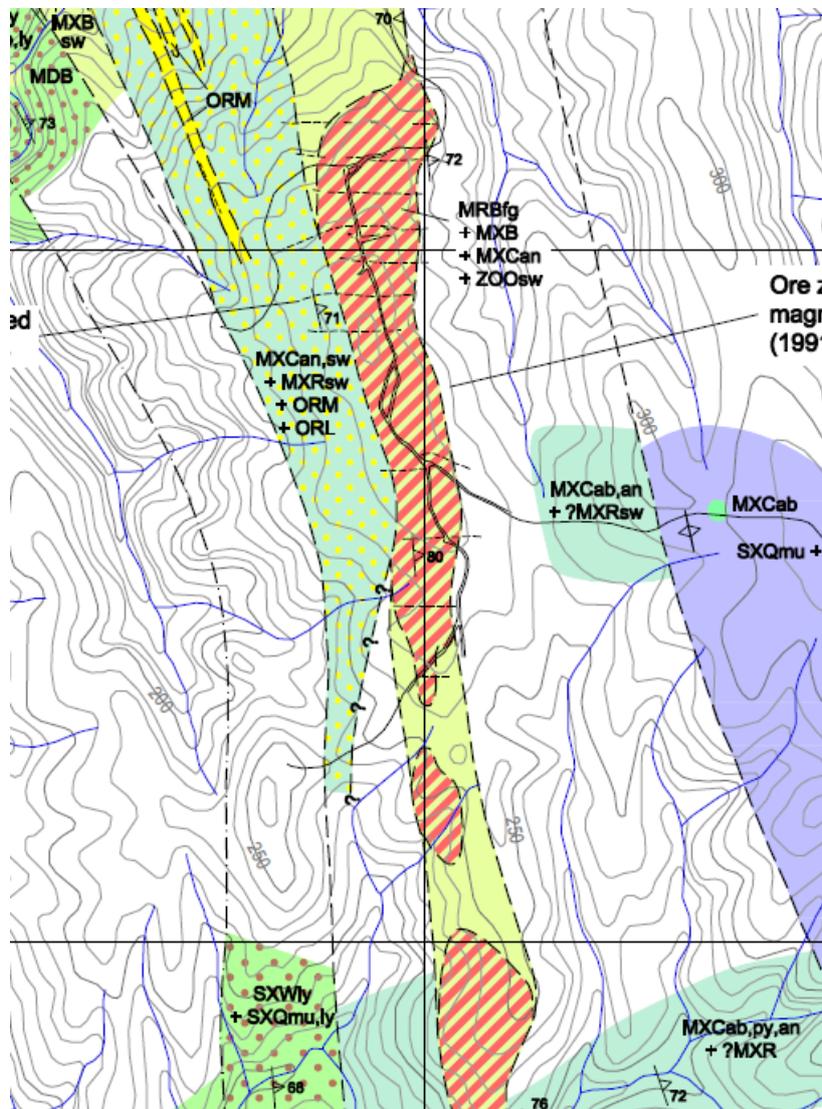


Figure 6 Surface Geology Compilation –Insert showing North and Central Zones
 Digital file name= EL30-2003_203-06-01_Map_Geology_compilation-2013.pdf

Track construction

450m of new track construction and 450m of track rehabilitation to extend existing tracks into Central zone and to prepare several in-fill drill pads were started in early November. The clay soils required substantial clean road-base to be carted from the mine site. The roads are now robust and will provide long-life access to this prospect.

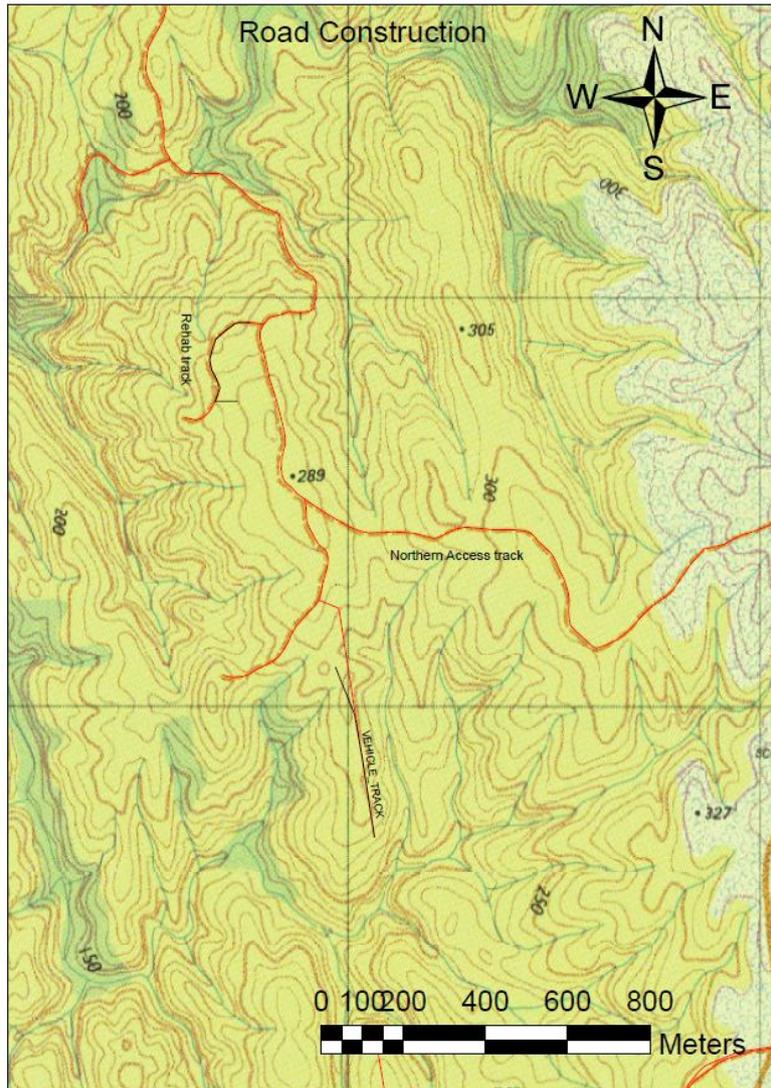


Figure 7 Track Construction 2012-13

Drilling

Project drilling started Nov 2012 with reverse circulation drilling and the last diamond-tail hole was completed on 3rd June 2013.

- 4,417.6m were drilled in total, consisting of;
- 2,925.8m Diamond only including diamond tails on Rc pre-collars
- 1,491.8m Reverse circulation

12 (Rc and diamond) were drilled in North Zone on a nominal spacing of 100m in the north section and 5 x 100m spaced single holes were drilled in Central zone (holes 1312 through 1316).

	Hole ID	RC	DD	EOH			
1	LPDD1301	135	73.1	208.1			
2	LPDD1302	135	93.7	228.7			
3	LPDD1303	88	191.6	279.6			
4	LPDD1303A		298.7	298.7			
5	LPDD1304	200*	0	0	*currently drilling		
6	LPDD1318	**	212	212	** renamed from LPDD1305		
7	LPDD1306		478.9	478.9			
8	LPDD1307		260.5	260.5			
9	LPDD1308	166	0	166			
10	LPDD1309	153	131	284			
11	LPDD1310	153	155.4	308.4			
12	LPDD1311	159	112.6	271.6			
13	LPDD1312	124	98.2	222.2			
14	LPDD1313	90.8	208	298.8			
15	LPDD1314	96	187.8	283.8			
16	LPDD1315	92	220.7	312.7			
17	LPDD1316	100	203.6	303.6			
		RC	DD	Totals			
	Totals Long Plains	1,492	2,926	4,418			
	North Zone	503	918	1,421			
	Central Zone	989	2,008	2,997			

Table 3 List of holes completed 2012-2013 reporting period

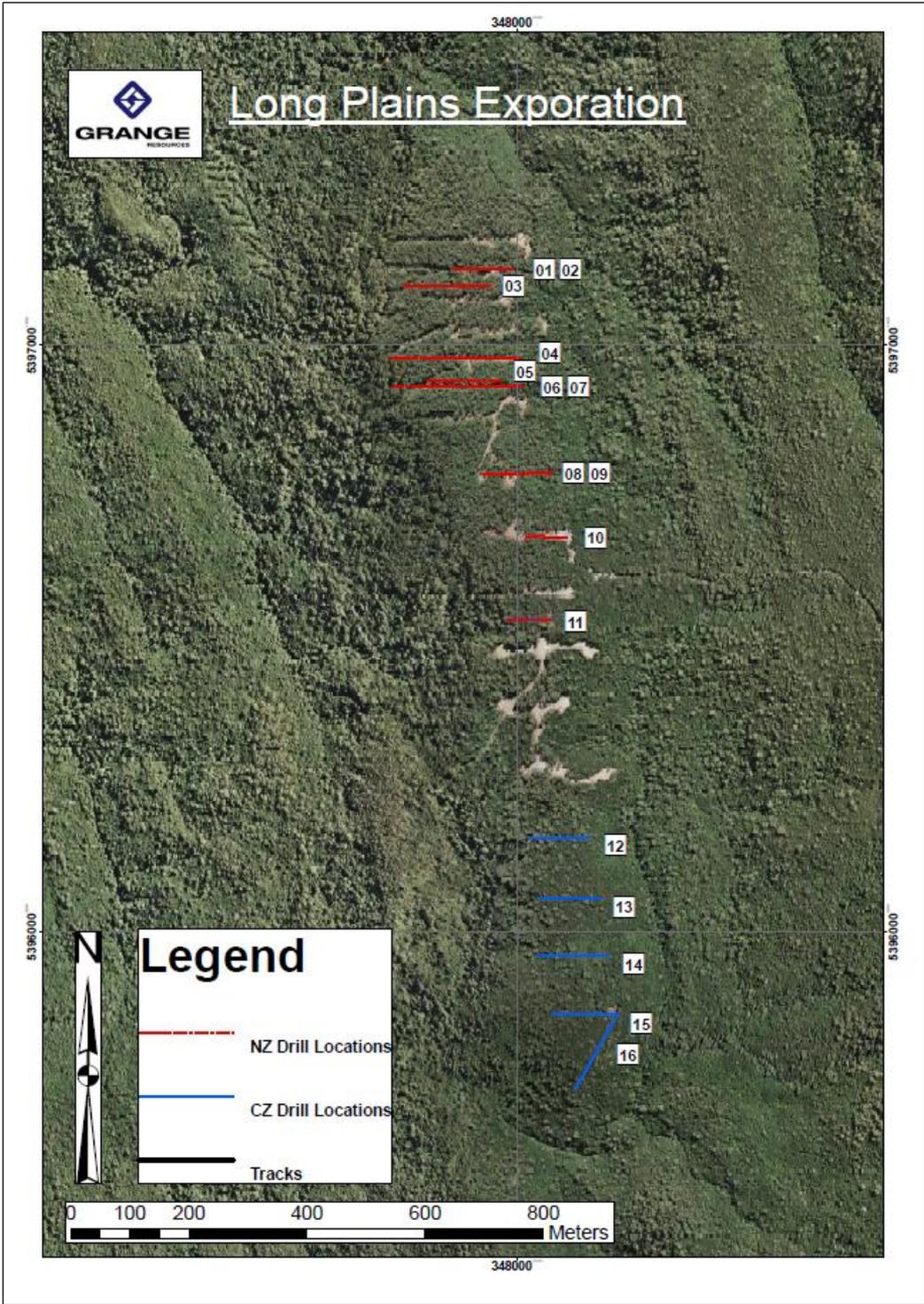


Figure 8 Airphoto GDA94 showing locations of recent drill holes

Discussion of Results

Preliminary Geological Model

The Long Plains mineralisation presents as an immature analogue of the Savage River magnetite / magnesite orebodies with less pronounced structural (strike and /or dip-slip) deformation. The North zone strikes N-S and has a steep dip to the east, with local dip rolling past vertical. A weakly serpentinised mafic host rock, denoted the main host assemblage, outcrops at surface and contains discrete lenses and pods of magnetite (weathered to haematite) that have an apparent shallow plunge to the south.

The original source of magnetite appears to be diagenetic magnetite after siderite with possible contribution of the incomplete separation of magnetite and magnesite components from the metamorphic process of serpentinisation of the original tholeiitic basalts (now obducted in the Arthur lineament).

The orebodies / lens are separated by several late cross-cutting basalt/dolerite dykes, but the precise geometry of these is elusive given the current drill spacing.

The north zone (NZ) has a distinct magnesite (carbonate) sequence immediately to the west of the main host assemblage. The main host assemblage is comprised of variably altered mafic schists and the thin discrete magnetite lenses which commence and terminate parallel to the regional foliation suggesting a shear control on mineralisation and incomplete remobilisation of original (diagenetic?) magnetite.

The central zone (CZ), shows a very strong magnetic signature as intense as the one at NZ, and was drilled on 100m centres this past year. A full kilometre of strike length in the Central zone between 5396250mN and 5395250mN contains an intense magnetic anomaly and was tested by drilling. Drilling demonstrated thin and discontinuous high grade magnetite lenses that appear to pinch and swell as suggested by the recent surface geology compilation. Greatest continuity is in the dip component.

Long Plains Conceptual Model

M:\Geology\Modelling\Long_Plains\Long_Plains_Block_Model\2012_ip_bm_final\2012_ip_bm_conceptual.mdl

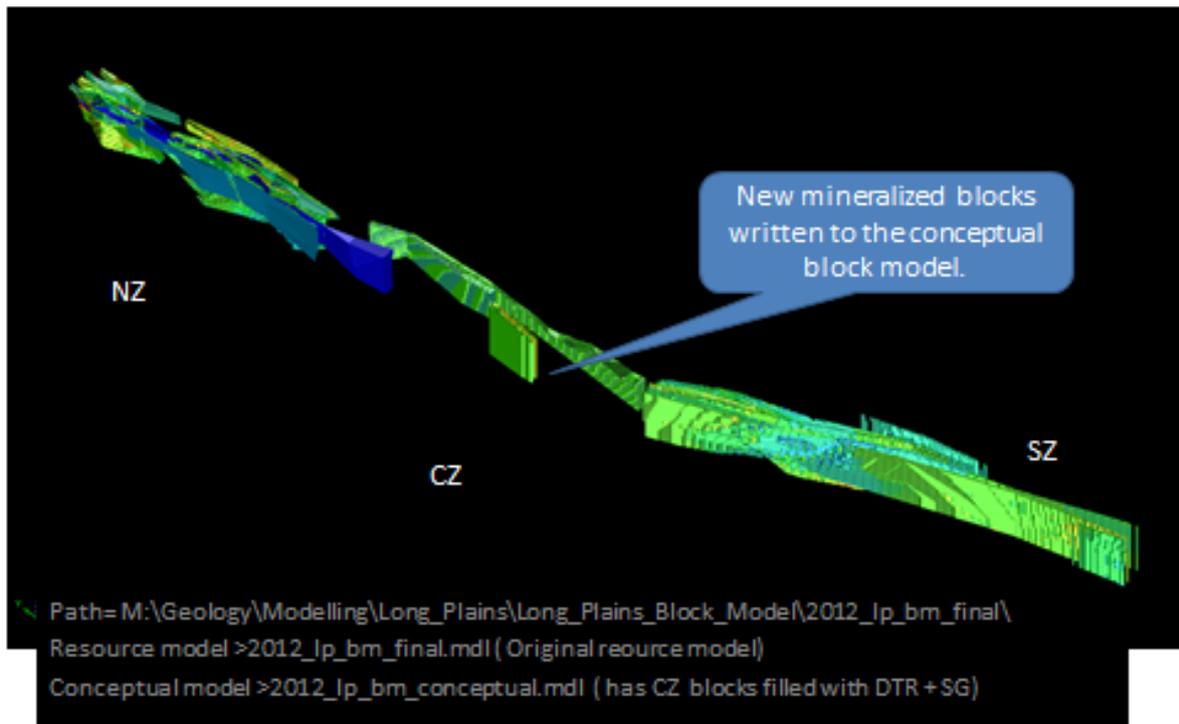


Figure 9 Revised conceptual model based upon recent central zone drilling

The south zone (SZ) was drilled on a much wider 300m drill spacing (first pass programme) with the objective of early determination of the limits of probable economic mineralisation ahead of a targeted resource definition campaign (if warranted).

At the northern end of the South zone (section 5394960mN) is a very high grade and thick sequence of main host that lies above a discreet talc unit and the magnesite sequence is absent or located distal into the footwall rocks.

The thick high grade interval is co-incident with a very high magnetic signature.

The south zone at the southern end (section 5394060mN) shows an intercalated magnesite/magnetite “core” with thin but high grade and steeply dipping magnetite lenses flanking the core at the southern end. This is thought to be an immature or less mature/ less deformed analogue of the Savage River magnetite / magnesite orebodies suggesting a decreasing structural component of ore remobilisation / ore genesis.

The magnetic signature breaks up and becomes very granular south of 5394800mN. Logically, the probable southern limit of economic mineralisation is at 5394800mN.

The preparation of the geology model is now complete and the geological domains have been used to constrain the estimation of ore within the block model and to select representative samples for waste type characterisation.

Significant changes to modelled ore as a result of this drilling.

North Zone Cross Sections

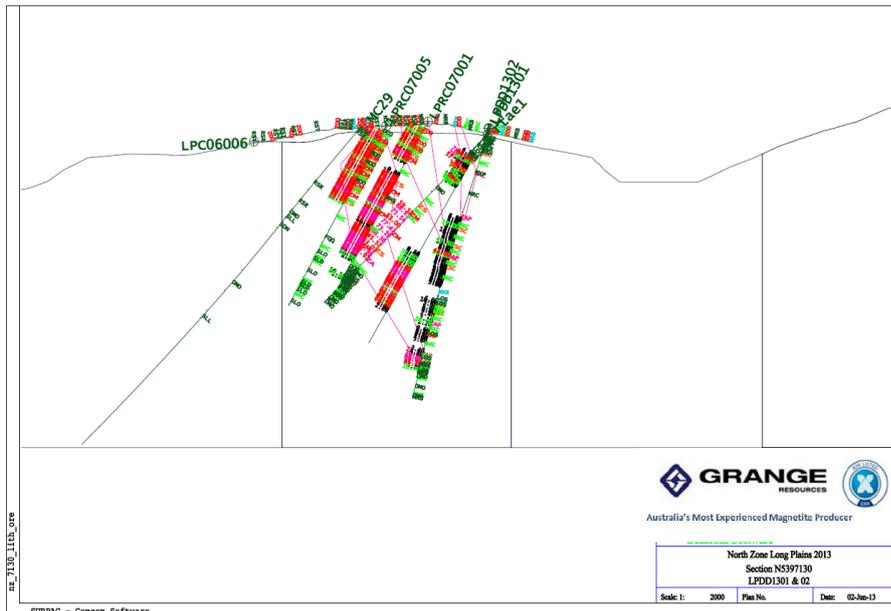


Figure 10 Lithology cross section N5397130 LPDD 1301 and 02

This years drilling has resulted in some significant changes to the modeled magnetite geometry.

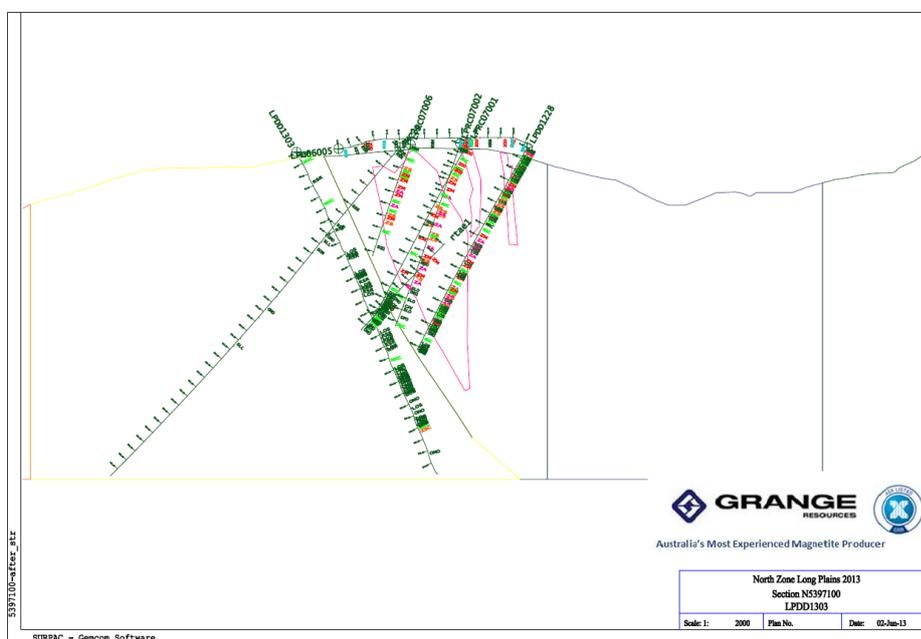


Figure 11 Lithology cross section N5397100 LPDD 1303

The major changes were on sections N5397100 from observed geology in LPDD 1303 and on section N5396930 from observed geology in LPDD 1306 & 7.

Section 5397100mN LPDD1303

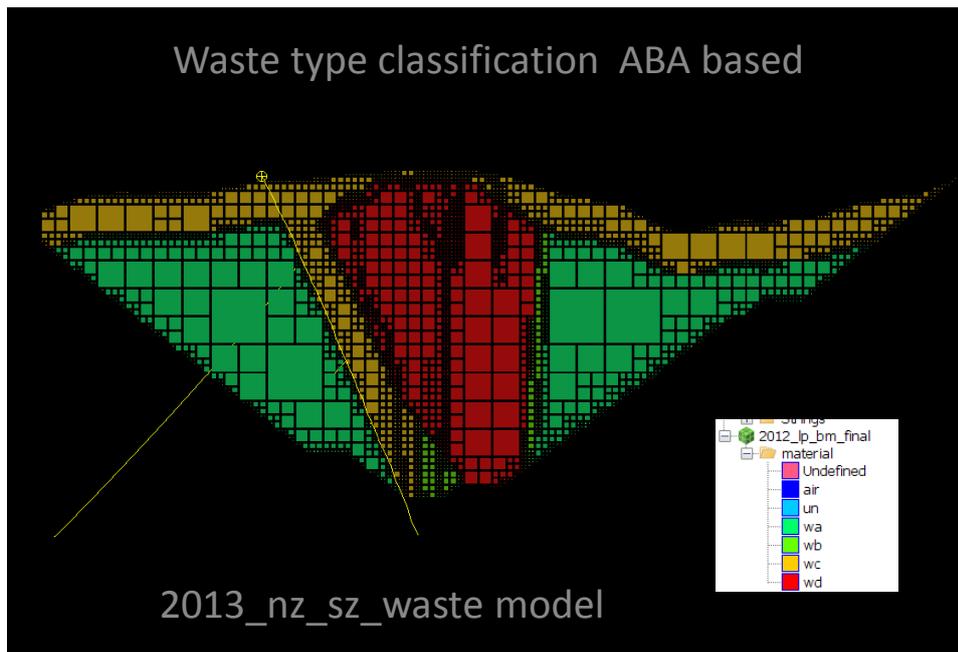


Figure 12 Section 5397100mN with waste classification shown

In this section LPDD1303 drilled 200m of its 279.6 total depth in soft –water-logged clays derived from chlorite-carbonate host rocks . We believe the formation of a strongly weathered zone so close to the magnetite orebody results from the rheology contrast between hard magnetite and soft host rocks during deformation. Interestingly, this feature does not pervade onto adjacent 100m spaced sections as evidenced by drill intersections on adjacent sections showing competent magnetite in contact with competent slightly-weathered wall rocks of chlorite-carbonate composition.

The vein geometry in the North end of North zone has been proven to dip east and have a distinct tear-drop termination (as opposed to an “open at depth” interpretation from the previous year).

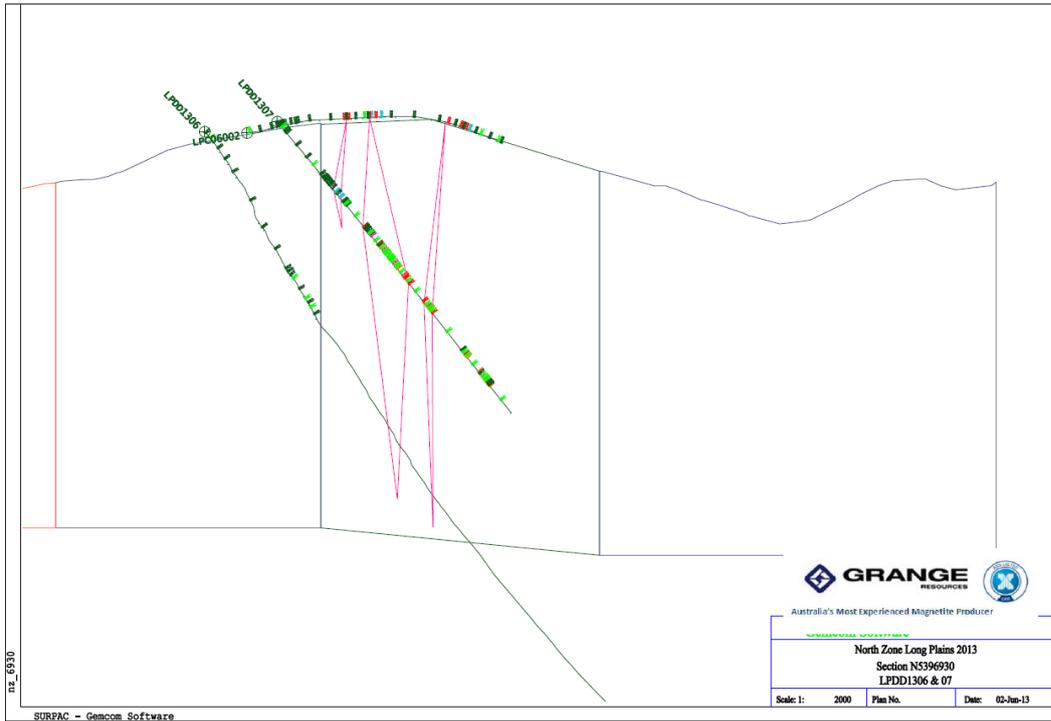


Figure 13 Lithology cross section N5396930 LPDD 1306 & 7(assays pending)

Section 5396930 represents a change in lense shape in north zone with the ore north of this section characterised by 3 thick tear-drop shaped lenses that dip 70degrees east . South of this section the main host contains several (7-10) discreet , thinner and high grade lenses Holes LPDD 1306 & 7 demonstrate grade continuity within Norh zone but mark a transition between these vein morphologies. We do not yet understand what structural or geo-chemical process has resulted in this transition.

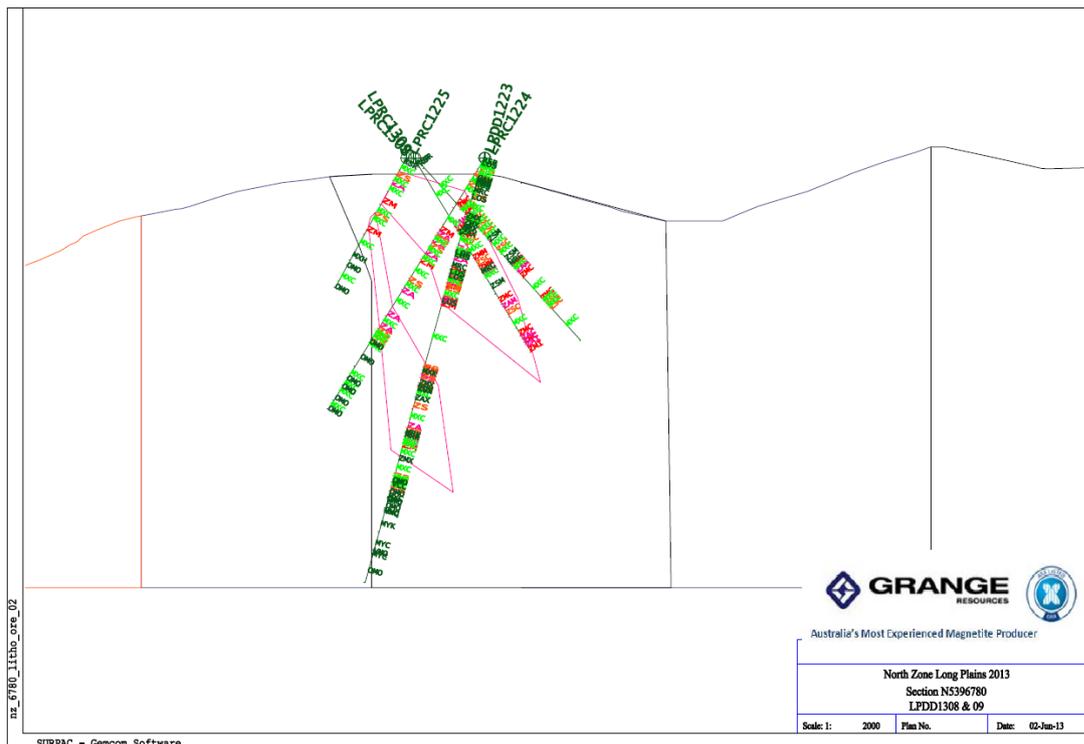


Figure 14 Lithology cross section N5396780 LPDD 1308 & 9

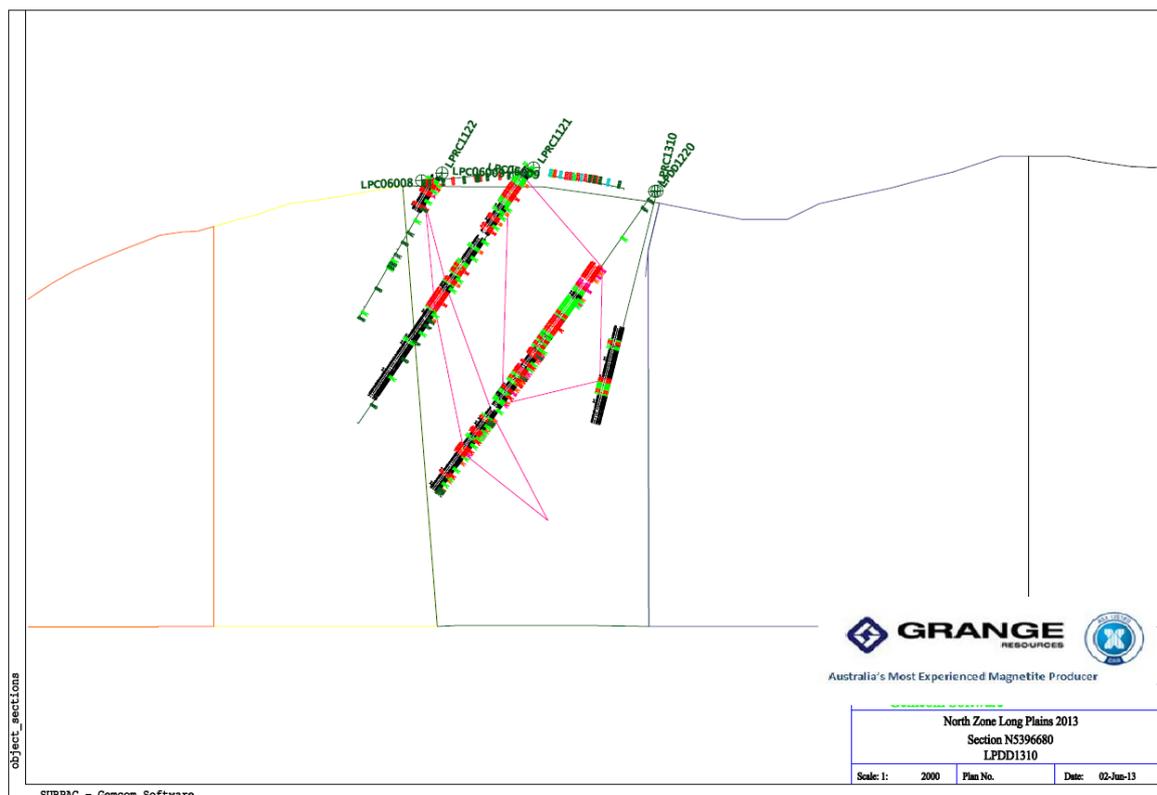


Figure 15 Lithology cross section N5396680 LPDD 1310

Central Zone Cross Sections

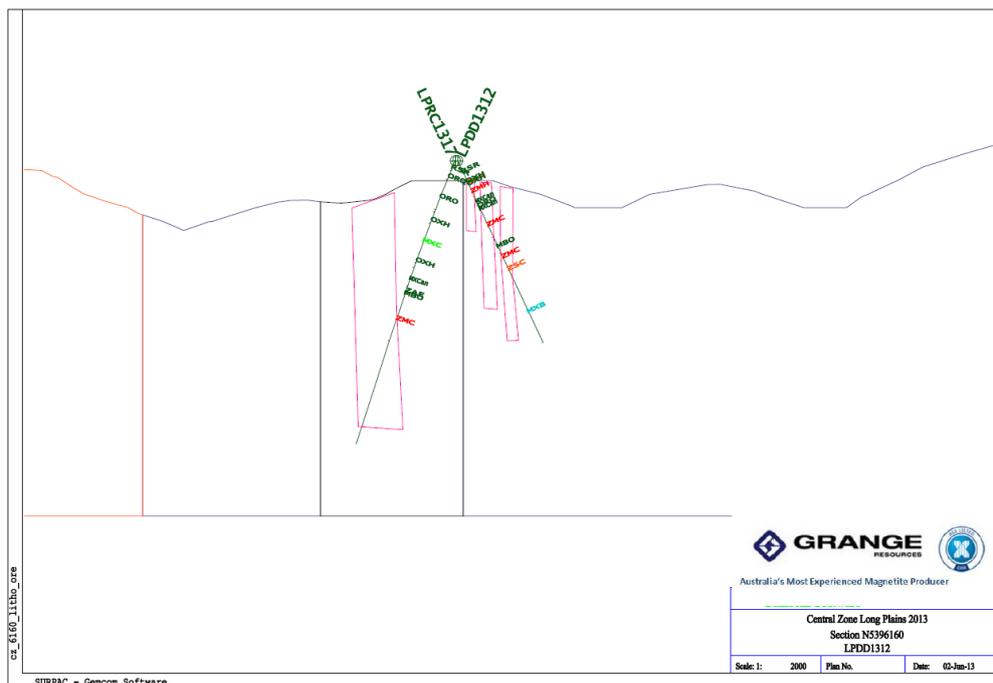


Figure 16 CZ 5396160mN LPDD1312, 17(assays pending)

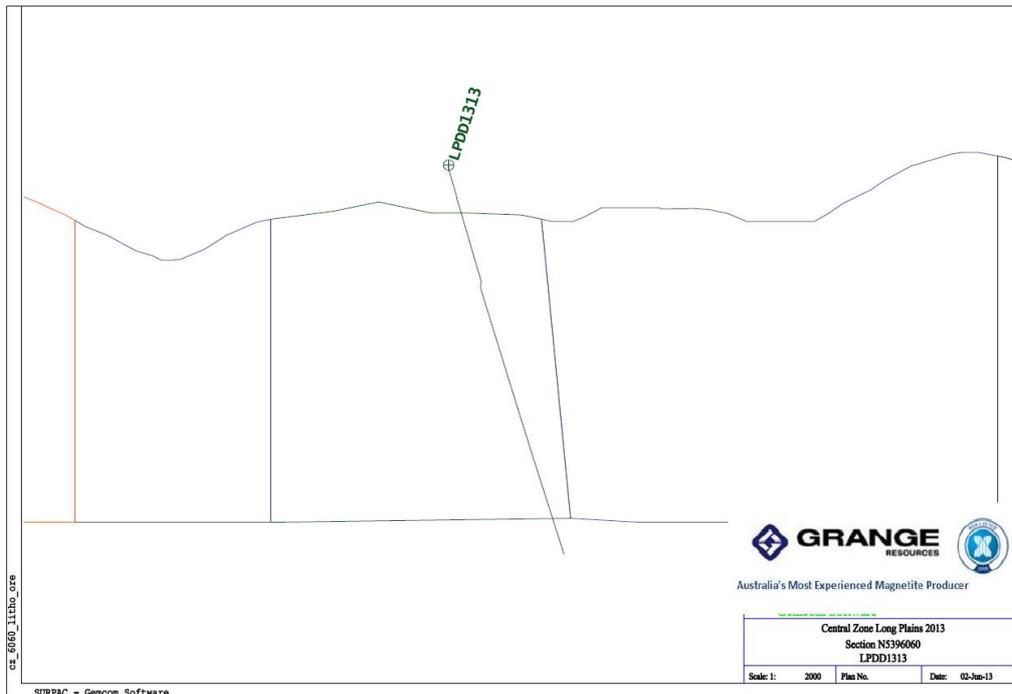


Figure 17 CZ 5396060mN LPDD1313 (no ore on section)

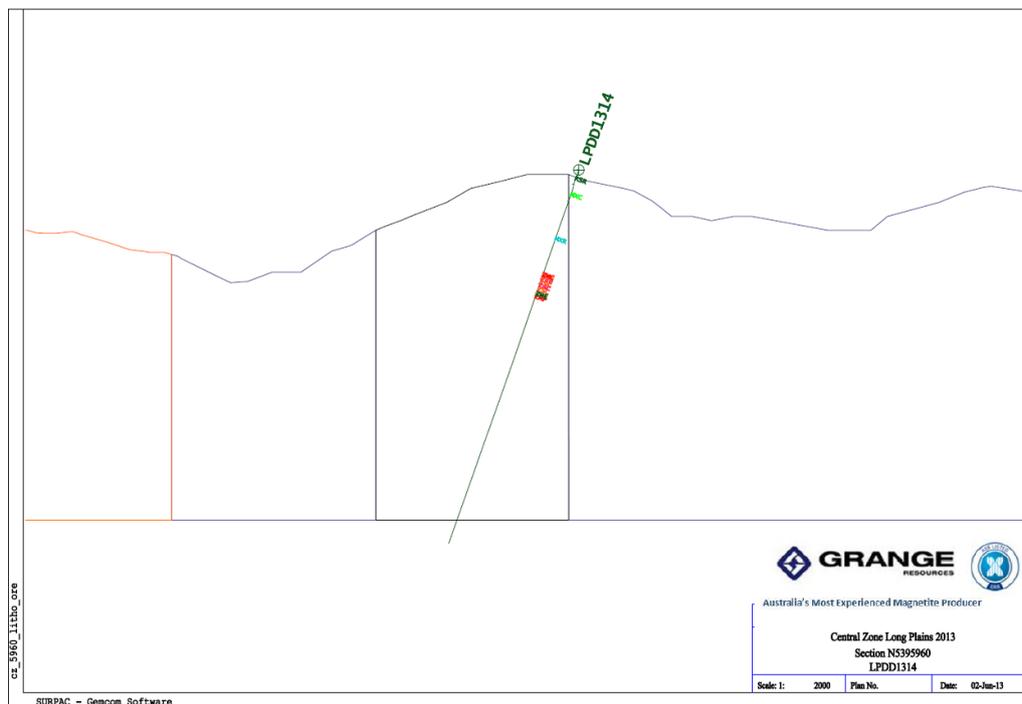


Figure 18 CZ 5395960mN LPDD1314 (assays pending)

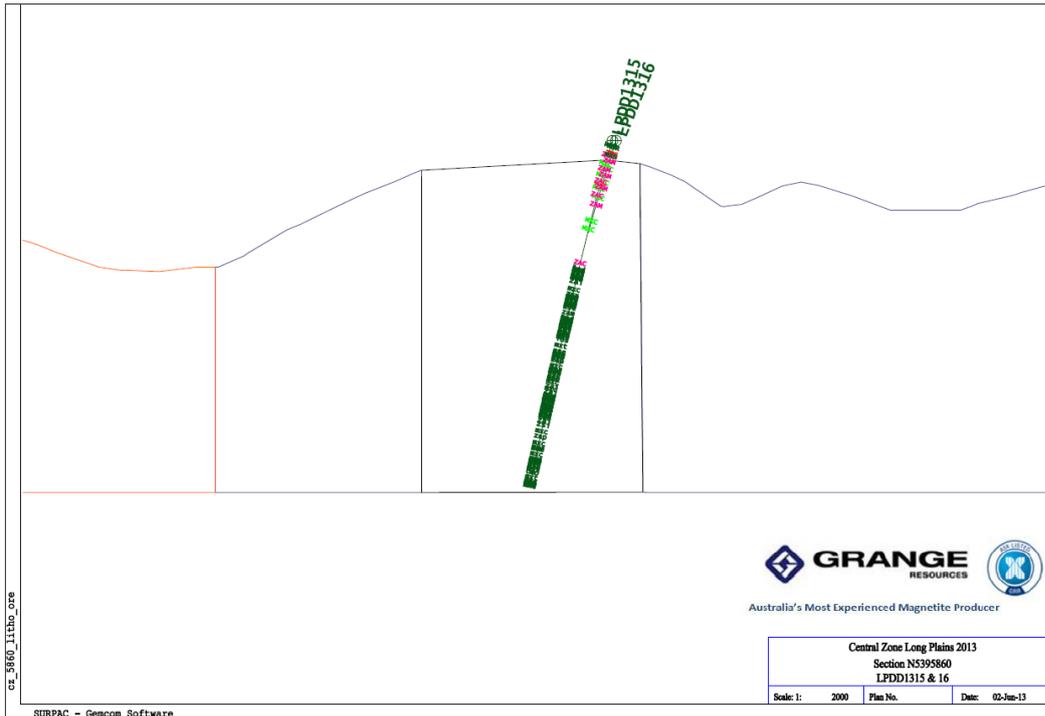


Figure 19 CZ 5395860mN LPDD1315 & 16 (assays pending)

Conclusions

This most recent exploration and delineation campaign confirms and improves the confidence in the declared resource for Long Plains; establishes a new resource for Central zone and when converted to a resource model will upgrade some of the tonnage to an indicated resource. Grange has confidence that this resource can be mined economically and has started a pre-feasibility study to evaluate mining, beneficiation, potential transport options and the potential “fit” of Long Plains into the Savage River Life of Mine Plan (LOMP)schedule. This pre-feasibility work has just commenced alongside a 5 year - \$ 1.34 Million dollar programme to conduct the necessary environmental studies to allow for successful application for environmental permits to mine Long Plains. Grange intends to apply for a Mining lease in 2013 over much of the EL30/2003 area as part of this work.

Environment

Surface disturbance operations include the construction of tracks and drill pad preparations as described in section 3.1.

Rehabilitation: All drill sites have had their sumps filled in, collars capped and holes surveyed.

No rehabilitation is planned due to the conversion of the exploration lease to a mining lease and the requirement to continue work and maintain access.

Surveys: Several environmental surveys have been conducted under the scope of work for developing a DPEMP; they include:

Parent file path=M:\Geology\Admin\Budget\2013\Long_Plains\LP-DPEMP\

Heritage survey AHMS

- Long Plains Historic Report FINAL REPORT 6/5/13
- Long Plains Savage River Aboriginal Heritage Investigation FINAL REPORT 6/5/13

Flora and Fauna

- Long Plains Flora and Fauna Report (pending) survey completed 8-12 April 2013)

Hydrology

- Hydrology scoping > 3549 Hydrology scoping.pdf FINAL REPORT 26/3/13

Water baseline sampling

- Water monitoring sites guage , data-logger and probe quote.

These detailed environmental reports are not detailed in this report as they will form part of a separate submission for;

- c) initially, an application for conversion of the eL to a Mining lease and
- d) eventually will become part of the baseline data for eventual environmental permitting (approval to mine).

2012/13 EXPENDITURE

The following table details expenditure to date on the lease from 19 June 2012 to 13 June 2013

Long Plains Exploration and Delineation Drilling Planning for 2012-13 work season (Plan "B")						
Part 1	Zone	Activity	Type	Contractor	Item	Est. Cost
	LongPlains	Radio upgrade	Safety Cap	Coastal Elect	radio	\$ -
Part 2	Zone	Activity	Type	Contractor	Line km	Est. Cost
	Entire LP area	Compilation	Compile	NJ Turner	-	\$ 30,000
	LongPlains	mapping			Mapping of entire 20sqkm area	\$ 30,000
Part 3	Zone	Activity	Type	Contractor	Metres	Est. Cost
High priority	NZ new tracks	rehab-sheet	Road	Fagan	450	\$ 45,000
High priority	CZ North track	new track	Road	Fagan	450	\$ 67,500
					High priority only	\$ 112,500
Part 4	Zone	Activity	Type	Holes	Metres	Est. Cost
High priority	NZ Ind	Drilling	RC+HQ3	11	3,006	\$ 967,780
High priority	CZ-North Inf 100m	Drilling	RC+HQ3	5	1,559	\$ 620,136
				16.0	Total	\$ 1,587,916
				16.0	Hi priority only	\$ 1,587,916
Part 5	Lab preparation and assays				samples	Est. Cost
SGS Renison	Sample prep	Analytical	labour		2,739	\$ 43,104
GBE	DTR and Impurities	contract labour	labour		2,739	\$ 64,400
				Lab	Hi priority only	\$ 107,504
Total Long Plains 2012 -13 Budget Period- Planned Expenditure						\$ 1,837,920

Table 4 Planned -Budgeted Expenditure for 2012-13 work season

This calculation addresses the minimum expenditure condition imposed for the grant of extension of term between 18 June 2012-18 June 2013. Roger Hill Grange Resources 18 May 2013

EL30-2003 Expenditure \$AUD		Comments
Period	Expenditure	
prior to June 2011	\$ 266,512	
2011-12 to 18 May '12	\$ 803,634	actuals to 18 May 2012, granted renewal with condition of 2.17M minimum expenditure
2011-12 to end of program (August)	\$1,062,098	balance of 2011/12 program
2012-13	\$1,817,743	actuals to 14 May '13 plus forecast to 18 June '13.
Totals	\$3,949,987	

minus \$ 1,030,145 Sum expenditure prior to 18 May 2012.
 equals \$ 2,919,841 amounts expended between 18Jun'12 to 18 Jun '13

\$ 2,170,000 Minimum expenditure requirement between 18Jun'12 to 18 Jun '13

Q6. Expenditure

Prior to current year \$ 266,512
 During current year 2011 \$ 803,634
 During life of Exploration Licence \$ 1,030,146
 Proposed for next year 2012/13 \$ 2,170,000 : remainder of 2011 program (970k) and start of 2012 program (\$1.2M)

Q7. Summary of exploration completed

Applicant should briefly outline work undertaken and major results during the current year. Applicant

Roger Hill 18 May 2013.

Mapping Compilation:

The following datasets were compiled into the current 1:1000 scale surface geology map

Ref: EL30-2003_2013-06_01_Map_Geology_Compilation 2013

M:\Geology\Exploration Drilling\Exploration\Long_Plains\Exploration Data\2012 program\nic
turner

Compilation of the following and other open-file reports.

#	Title	Media	Size	Scale	Author	Date
1	Umber Lease-Main Creek Magnesite	Paper	A1	not to scale		2000
2	LP Drill collars	Paper	A0	1:7500	ABM	2000
3	2008 Magnetic survey lines	Paper	A0	1:2000	ABM	
4	LP Costean locations plan	Paper	A0	1:1000	ABM	2006
5	LP Geology southern area	Paper	A0	1" to 800'	G. Urquhart	1964
6	LP prospect topography	Paper	A0	1:1500		2005
7	Ground mag contours	Paper	A0	1:5000		1961
8	LP Costean mapping South	Paper	A0	1:1000	Nic Turner	2006
9	LP Costean mapping North	Paper	A0	1:1000	Nic Turner	2006
10	LP All data [mapping] North	Paper	A0	1:1000	Nic Turner	2005
11	LP and Main Creek magnesite	Paper	A4	various	L.Newnham	1993
11	LP and Main Creek magnesite	Paper	A4	various	G.Purvis	2004

Appendix 1 Geological surface compilation map

Digital copy= Digital file name= EL30-2003_2013-06_01_Map_Geology_Compilation 2013

See AO hard copy

Appendix 2 Resource Estimate Long Plains

Digital file= EL_30_2003_201306_04_120823_1436_G_Grange_LongPlains_Resource_Report_final

See A4 bound Hard copy

Appendix 3 Drilling and costean logs (78 individual holes or costeans)

See digital Drill tables for Collar, Survey, Assay and Geology , presented as digital .csv files (CD-ROM attached)

Appendix 4- Geology Logging Codes

Rock Type (ROCK) 3 letter code		2nd Character (Rock)		3rd Character (Rock)		Minerals (MIN1, 2, 3)		Qualifier / Style / Texture		Colour Qualifier (2 letters)	
Code	Description	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
R	Regolith	A	Alluvium	A	Amph - actinolite/hbl	ab	Albite	an	Anastomosing	dk	Dark
V	Vein	B	Basalt	B	Amph - chlorite /gschist	ac	Actinolite	bc	Breccia clast	lt	Light
Z	Mineralisation (Magnetite)	D	Dolerite	J	Calcite	ap	Apatite	bd	Banded	im	Intermediate
G	Granitoid	L	Dolomite	N	Carbonate (unspecified)	bi	Biotite	bd1,2,3	1=weak,2=mod,3=strong	Colour (2 letter code)	
F	Felsic	F	Fault/Shear Zone	C	Chlorite	bo	Bornite	bo	Boudins	bk	Black
M	Mafic	G	Gabbro	R	Chlorite + Carbonate	cb	Carbonate (unspecified)	bw	Boxwork	bl	Blue
U	Ultramafic	N	Gneiss	K	Chlorite + Quartz	cc	Calcite	bx	Brecciated	br	Brown
S	Sedimentary	M	Magnetite	L	Dolomite	ch	Chlorite	co	Coating	cm	Cream
O	Unspecified/Unknown	Y	Mylonite	E	Epidote	cp	Chalcopyrite	cr	Crenulated	gn	Green
Lost Sample		Q	Quartzite/Chert	F	Feldspar (Albite)	cy	Clay	ds	Disseminated	gy	Grey
CAV	Cavity	R	Rock (metamorphic)	G	Graphite	do	Dolomite	er	Erratic / irregular	or	Orange
LOS	Core Loss	X	Schist	H	Chlorite + mica	ep	Epidote	fb	Fracture fill	pk	Pink
WST	Fill, waste, cobber	S	Soil (Regolith)	P	Pyrite	fe	Ferruginous	ff	Fracture fill	rd	Red
NCO	NotCored-precoll no sam	O	Unspecified	Q	Quartz	fs	Feldspar (unspecified)	fo	Foliated	wh	White
NSA	No Sample- lost RC			S	Serpentine	gc	Glaucophane-blue amon	fo1,2,3	1=weak,2=mod,3=strong	ye	Yellow
				T	Talc	gf	Graphite	fr	Fractured, jointed	Grain Size (2 letter code)	
				I	Tremolite	gh	Goethite	hl	Halo	code	Description
				O	Unspecified	gl	Galena	ib	Interbedded	fg	Fine grained
Amount % (AMT1,2,3)		2nd Character (Vein)		3rd Character (Regolith)		3rd Character (Mineralisation)		2-3 letter code		Shape (2 letter code)	
Code	Description	C	Calcite	R	Residual	A	Abundant (DTR 65 to100)	in	Interstitial	ang1	Very angular
0	Trace	L	Dolomite	T	Transported	B	Basalt (metabasalt)	la	Laminated	ang2	Sub-angular
1	1%	M	Magnetite	G	Gravel	N	Carbonate (unspecified)	le	Lenticular	rnd1	Well rounded
2	2%	Q	Quartz			C	Chlorite	ln	Lineated	rnd2	Sub-rounded
3	3%	2nd Character (Mineralisation)		3rd Character (Mineralisation)		E	Epidote	ly	Layered	agrd	Angular>rounded
4	4%	A	Abundant (DTR 65 to100)	A	Amph - actinolite,hbl	H	Haematite	ma	Massive	rdag	Rounded>angular
7	7%	M	Moderate (DTR 35 to < 65)	B	Basalt (metabasalt)	M	Magnetite (massive >97%)	mo	Mottled		
10	10%	S	Sparse (DTR 15 to <35)	N	Carbonate (unspecified)	P	Pyrite	my	Mylonitic		
15	15%	P	Massive Pyrite	C	Chlorite	Q	Quartz/Siliceous	ne	Needles		
20	20%	H	Massive Pyrrhotite	E	Epidote	S	Serpentine/Serpentinite	pa	Patchy		
25	25%	O	Unspecified/Unknown	G	Goethite	X	Schist	pi	Pillowed		
30	30%	Serpentinisation (2 letter code)		H	Haematite	T	Talc	pu	Puggy		
40	40%	Code	Description	M	Magnetite (massive >97%)	I	Tremolite	pv	Pervasive		
50	50%	WS	Weakly serpentinised	P	Pyrite			re	Replacement		
60	60%	MS	Moderately serpentinised	Q	Quartz/Siliceous			sh	Sheared		
70	70%	SS	Strongly serpentinised	S	Serpentine/Serpentinite			so	Spotty		
80	80%			X	Schist			sp	Specular		
90	90%			T	Talc			st	Sstaining		
				I	Tremolite			sv	Selva		
								sw	Stockworked		
								tr	Transitional		
								vc	Vein - concordant		
								vn	Veined		
								vx	Vein - crosscutting		
								vu	Vuggy		



GEOLOGY LOGGING DICTIONARIES

Example of rock/mineralisation codes
 ZAS Mineralisation, abundant, serpentine gangue
 MXC Mafic rock, schistose, chloritic

Appendix 5 Environmental surveys for Long Plains Development Proposal and Environmental Management Plan (LP DPEMP)

a Long Plains Historical report

Digital=EL30_2003_201306_05_

Bound copy= EL30_2003_201306_05_Heritage (part 1)

b Long Plains Aboriginal Heritage Investigation report

Digital=EL30_2003_201306_06_Long Plains Savage River - Aboriginal Heritage Investigation FINAL REPORT

Bound copy= EL30_2003_201306_05_Heritage (part 2)

c Long Plains Flora and Fauna Report

Digital=EL30_2003_201306_07_Long Plains Savage River – Flora and fauna Habitat assessment and Constraints Analysis

Bound copy= EL30_2003_201306_07_Long Plains Savage River – Flora and fauna Habitat assessment and Constraints Analysis

Files Currently on the Disc (28)				
EL302003_201305_DATABASE	20/05/2013 9:09 A...	File folder		
EL_30_2003_03_201306_03_waste -type classification -Geochem Tables_Long Plains_(by waste type) Rev_c	13/06/2013 9:00 PM	Adobe Acrobat D...		179 KB
EL_30_2003_201306_02_waste -type classification -NAGph vs NAPP chart	13/06/2013 8:58 PM	Adobe Acrobat D...		13 KB
EL_30_2003_201306_04_120823_1436_G_Grange_LongPlains_Resource_Report_final	24/08/2012 6:28 A...	Adobe Acrobat D...		6,577 KB
EL30_2003_2013_07_Long Plains Flora and Fauna Habitat Assessment and Constraints Analysis_20120516	14/06/2013 1:50 PM	Adobe Acrobat D...		2,418 KB
EL30_2003_201306_05_Long Plains Historic Report FINAL REPORT	14/06/2013 1:13 PM	Adobe Acrobat D...		3,621 KB
EL30_2003_201306_06_Long Plains Savage River - Aboriginal Heritage Investigation FINAL REPORT	14/06/2013 1:15 PM	Adobe Acrobat D...		9,751 KB
EL30-2003_2013-06_01_Map_Geology_Compilation 2013	13/06/2013 1:47 PM	Adobe Acrobat D...		2,862 KB
EL302003_201305_Assay.csv	13/06/2013 7:58 A...	Microsoft Excel Co...		374 KB
EL302003_201305_Collar.csv	13/06/2013 8:14 A...	Microsoft Excel Co...		10 KB
EL302003_201305_Geology	13/06/2013 8:03 A...	Microsoft Excel Co...		380 KB
EL302003_201305_Survey.csv	13/06/2013 7:59 A...	Microsoft Excel Co...		91 KB
Geology Field Logging Codes	3/06/2008 2:06 PM	Adobe Acrobat D...		91 KB
Long Plains Headers	13/06/2013 9:50 PM	Microsoft Excel W...		12 KB
lp_cz_ore_5396380	13/06/2013 1:56 PM	Adobe Acrobat D...		160 KB
lp_cz_ore_5396450	13/06/2013 1:56 PM	Adobe Acrobat D...		128 KB
lp_nz_ore_5396530	13/06/2013 1:56 PM	Adobe Acrobat D...		220 KB
lp_nz_ore_5396530_01	13/06/2013 1:56 PM	Adobe Acrobat D...		214 KB
lp_nz_ore_5396660	13/06/2013 1:56 PM	Adobe Acrobat D...		137 KB
lp_nz_ore_5396780	13/06/2013 1:56 PM	Adobe Acrobat D...		448 KB
lp_nz_ore_5396880	13/06/2013 1:56 PM	Adobe Acrobat D...		207 KB
lp_nz_ore_5396900	13/06/2013 1:56 PM	Adobe Acrobat D...		270 KB
lp_nz_ore_5396920	13/06/2013 1:56 PM	Adobe Acrobat D...		258 KB
lp_nz_ore_5397000	13/06/2013 1:56 PM	Adobe Acrobat D...		504 KB
lp_nz_ore_5397075	13/06/2013 1:56 PM	Adobe Acrobat D...		417 KB
lp_nz_ore_5397150	13/06/2013 1:56 PM	Adobe Acrobat D...		503 KB
waste -type classification -Geochem Tables_Long Plains_(by waste type) Rev_c	13/06/2013 10:01 ...	Adobe Acrobat D...		349 KB
waste -type classification -NAGph vs NAPP chart	13/06/2013 10:03 ...	Adobe Acrobat D...		11 KB

Table 5 Contents of CD-ROM –Maps, Drill logs, database tables, sections, reports

Roger Hill

14 June 2013