



MT WEBBER PROJECT

E45/2922-I P45/2702-I 2705-I 2706-I 2739-I P45/2901-I to P45/ 2904-I & M45/1197-I

ANNUAL TECHNICAL REPORT

To the Department of

Mines and Petroleum

For the Period Ending

29 March 2015

GSWA REF: C71/2003

Geological Map Sheets:

1:250K – MARBLE BAR SF50-8

1:100K – Tambourah 2754 North Shaw 2755

Distribution:

Department of Mines and Petroleum, Perth (1)

Atlas Iron Ltd, Perth (1)

Shaw River Resources Ltd (1)

Compiled By:

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- VII. MW_C71/2003_WAQG4_Ass2014A.txt
- VIII. MW_C71/2003_WADG3_SAss2014A.txt
- IX. Daltons Mineral Resource Update.pdf/bmf (Folder)
- X. Environmental reports (Folder)
- XI. Geological Mapping (Folder)



BIBLIOGRAPHY

Report Title: MT WEBBER PROJECT C71/2003 to the Department of Mines and Petroleum
For the Period Ending 29 March 2015

Report Period: 30 March 2014 to 29 March 2015

Project Name: MT WEBBER PROJECT

Tenement Numbers: E45/2922-I P45/2702-I 2705-I 2706-I 2739-I P45/2901-I to P45/ 2904-I
& M45/1197-I

Tenement Holder: Giralia Resources Pty Ltd Haoma Mining NL Atlas Iron Ltd

Tenement Operator: Atlas Iron Ltd

Report Type: Annual

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Email: Margaret.Stewart@atlasiron.com.au

Commodities: Iron Ore

Tectonic Unit: Pilbara Granite Greenstone Terrane

Stratigraphic Units: Soansville Greenstone Belt

1:250,000 Map Sheet: Marble Bar SF50-08

1:100,000 Map Sheet: Tambourah 2754 North Shaw 2755

1:50,000 Map Sheet: 27552 27553 27541 27544

Keywords: Archaean Pilbara BIF Mt Webber Daltons Gibson Daltons North Regional RC Drilling MRE Fauna Survey Heritage Surveying Geological Mapping



ABSTRACT

- Location:** The Mt Webber Project C71/2003 tenure is located approximately 140 km south-east of Port Hedland, 68 km southwest of Marble Bar and 20 km north of Hillside Station homestead.
- Geology:** The Mt Webber area is a structurally complex portion of a large greenstone belt flanked by the Shaw Batholith to the east and south. Gorge Creek sediments unconformably overly Warrawoona Group mafic-ultramafics, occasionally separated by Corboy Formation sediments. The greenstones are folded into a series of tight NE trending folds, which become more open further to the NW and SE. These synclines are cored by Pincunah Hill Formation BIF's, sometimes overlain by massive quartzite. Near the southern margin of the project area the folding is much more open and northerly plunging, paralleling the surface of the migmatitic granite. The contact between these distinct structural domains is sharp and marked by a decollement fault (Crossing, 2008).
- Work Done:** Activities for the 2014-2015 period comprised:
- Earth works
 - Geological mapping
 - Rock chip sampling – 14 samples collected
 - the drilling of one hundred and thirty-one (131) RC holes (MWRC1131- 1262) for 7852m on the Daltons deposit, M45/1197-I, and regional reconnaissance E45/2922
 - Daltons MRE update
 - Heritage surveying and assessment
 - Environmental assessments – Daltons ramp:
 - terrestrial fauna impact
 - Flora and vegetation impact

Table 1 and Figure 3 summarize exploration conducted on the project tenements.

Table 1: Exploration statistics 2014 - 2015

Tenement No	Prospect	RC Drilling (No. Holes/Metres)	Rock Chip Sampling	Geological Mapping	MRE Update	Heritage Survey	Pow Approval
E45/2922-I	Regional	9/794	7	√			47331 (2/4/14) 47861 (26/4/14)
E45/2187	Regional	1/30	7	√		√	47822 (19/4/14)
M45/1197-I (Formerly E45/2186)	Daltons North Regional	122/7058		√	√	√	48189 (31/5/14)
Total		132/7882	14				



Table 2: Mt Webber Daltons Resource Summary ≥ 50% Fe, as at March 2014

Prospect /Classification		Daltons - Gibson Resource Table >50% cut-off by Prospect and Classification													
Daltons	Volume	Density (t/m ³)	Tonnes	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	S (%)	LOI (%)	MnO (%)	CaO (%)	MgO (%)	TiO ₂ (%)	K ₂ O (%)	Na ₂ O (%)
Measured	5,203,406	2.51	13,065,718	58.95	5.02	1.47	0.103	0.019	8.30	0.227	0.068	0.079	0.037	0.015	0.027
Indicated	3,390,945	2.55	8,653,703	56.14	8.37	1.89	0.080	0.025	8.30	0.197	0.211	0.128	0.068	0.028	0.038
Inferred	223,094	2.35	524,262	57.57	8.27	1.19	0.062	0.059	6.82	0.640	0.044	0.102	0.035	0.021	0.030
Subtotal	8,817,445	2.52	22,243,683	57.82	6.40	1.63	0.093	0.022	8.26	0.225	0.123	0.099	0.049	0.020	0.031

Results: Significant intercepts from RC drilling -

HoleID	Lease	MGA94_50 East	MGA94_50 North	Depth From (m)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)	S (%)
MWRC1131	M45/1197	739603.27	7618399.87	38	20m @ 54.17	15.99	1.25	0.052	4.37	0.077
MWRC1150	M45/1197	739614.34	7618292.14	4	22m @ 56.58	7.43	2.22	0.119	8.47	0.018
MWRC1151	M45/1197	739602.46	7618257.69	4	20m @ 58.91	4.74	1.84	0.095	8.27	0.011
MWRC1153	M45/1197	739619.41	7618270.04	0	20m @ 54.94	8.15	3.05	0.079	8.52	0.023
MWRC1154	M45/1197	739598.65	7618281.63	2	24m @ 58.17	6.39	1.83	0.099	7.83	0.016
MWRC1166	M45/1197	739642.33	7618351.15	0	16m @ 53.73	8.56	2.81	0.121	9.95	0.016
MWRC1178	M45/1197	738921.15	7618686.88	64	40m @ 53.03	8.56	4.49	0.148	10.17	0.019
MWRC1179	M45/1197	738513.35	7619075.66	0	16m @ 55.15	9.66	1.65	0.188	9.2	0.032
MWRC1199	M45/1197	738830.23	7619537.96	0	22m @ 53.45	9.44	2.27	0.096	10.56	0.028
MWRC1201	M45/1197	738864.35	7619518.11	0	16m @ 58.27	4.71	1.11	0.088	10.26	0.02
MWRC1208	M45/1197	738816.75	7619452.9	0	16m @ 54.29	9.96	2.38	0.109	9.31	0.037
MWRC1215	M45/1197	738855.64	7619568.6	0	16m @ 54.05	10.5	1.19	0.095	10.31	0.017
MWRC1216	M45/1197	738879.45	7619554.6	6	18m @ 55.7	8.2	0.9	0.132	10.34	0.009
MWRC1220	M45/1197	738670.99	7619538.72	6	16m @ 54.15	7.67	2.16	0.122	11.15	0.028
MWRC1222	M45/1197	738742.83	7619489.18	2	16m @ 54.41	9.98	1.65	0.114	10.05	0.017
MWRC1238	M45/1197	738531.72	7619110.16	0	18m @ 55.23	8.02	1.96	0.151	10.38	0.042
MWRC1260	M45/1197	739632.33	7618281.54	0	16m @ 53.78	9.55	3	0.084	9.23	0.023
MWRC1262	M45/1197	739578.46	7618295.56	0	28m @ 55.05	9.95	1.88	0.102	7.55	0.015



Mt Webber North (M45/1197-I. The Daltons ramp (above) - site of environmental surveys conducted during 2014.

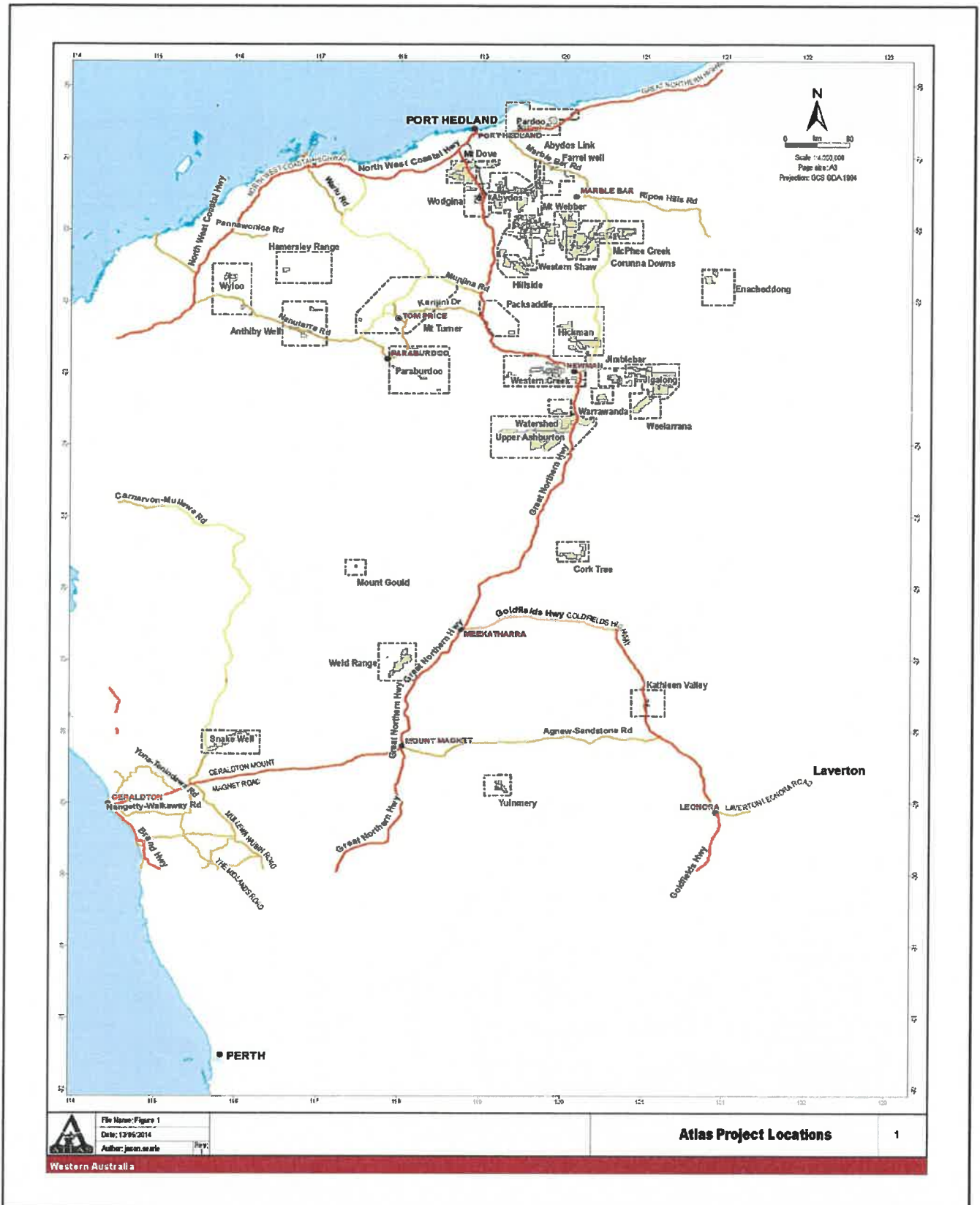


Figure 1: Atlas' Regional Project Location

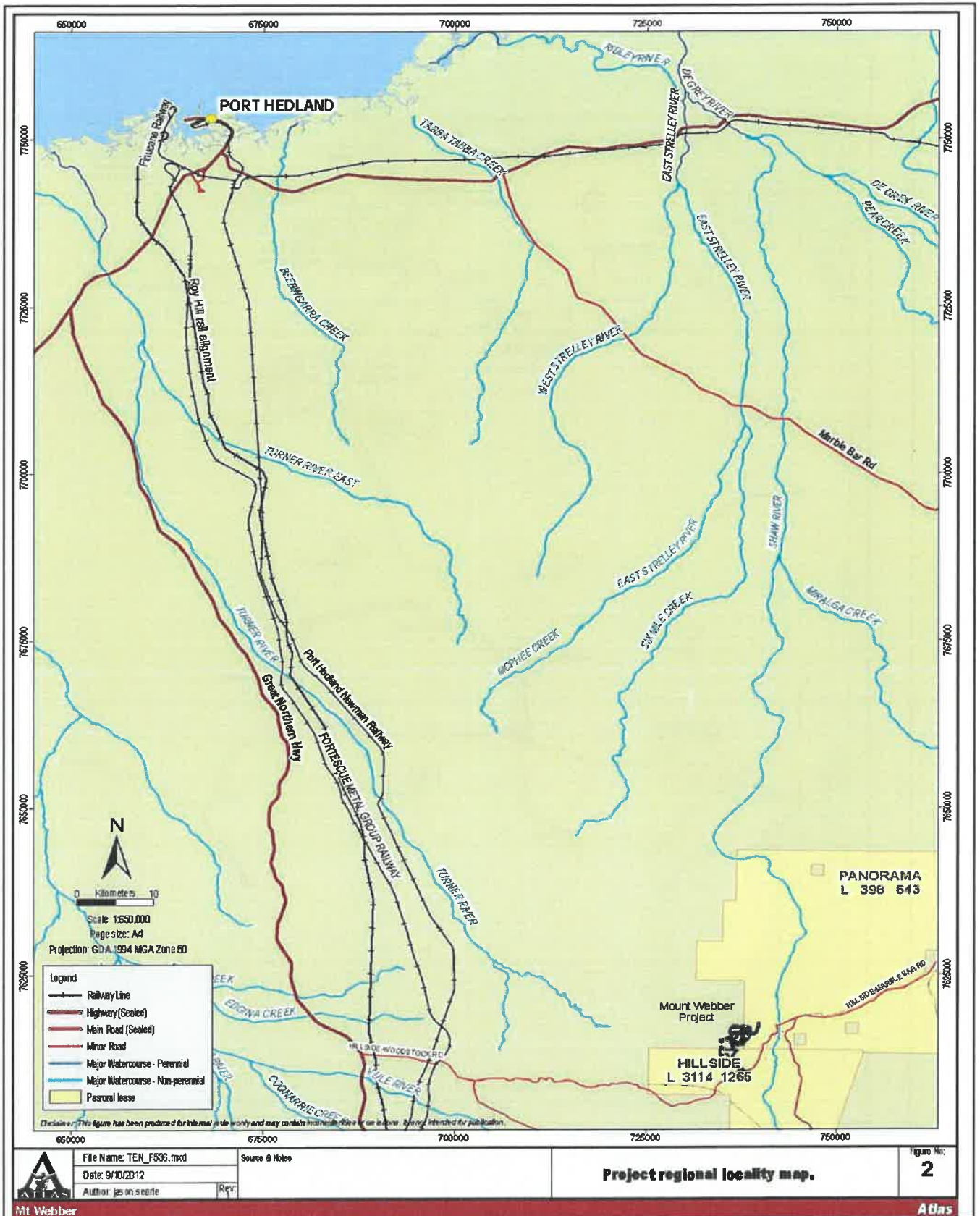
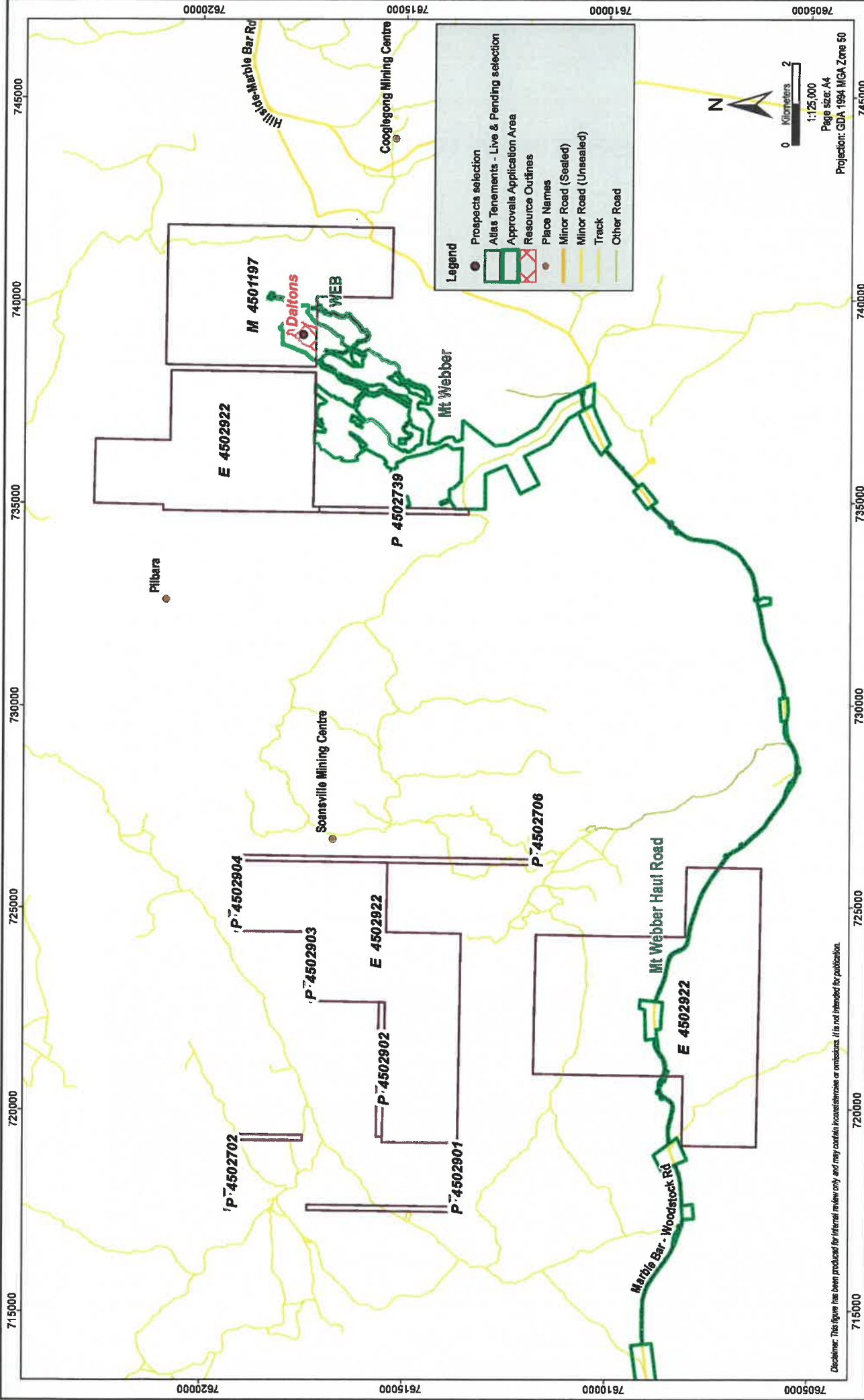
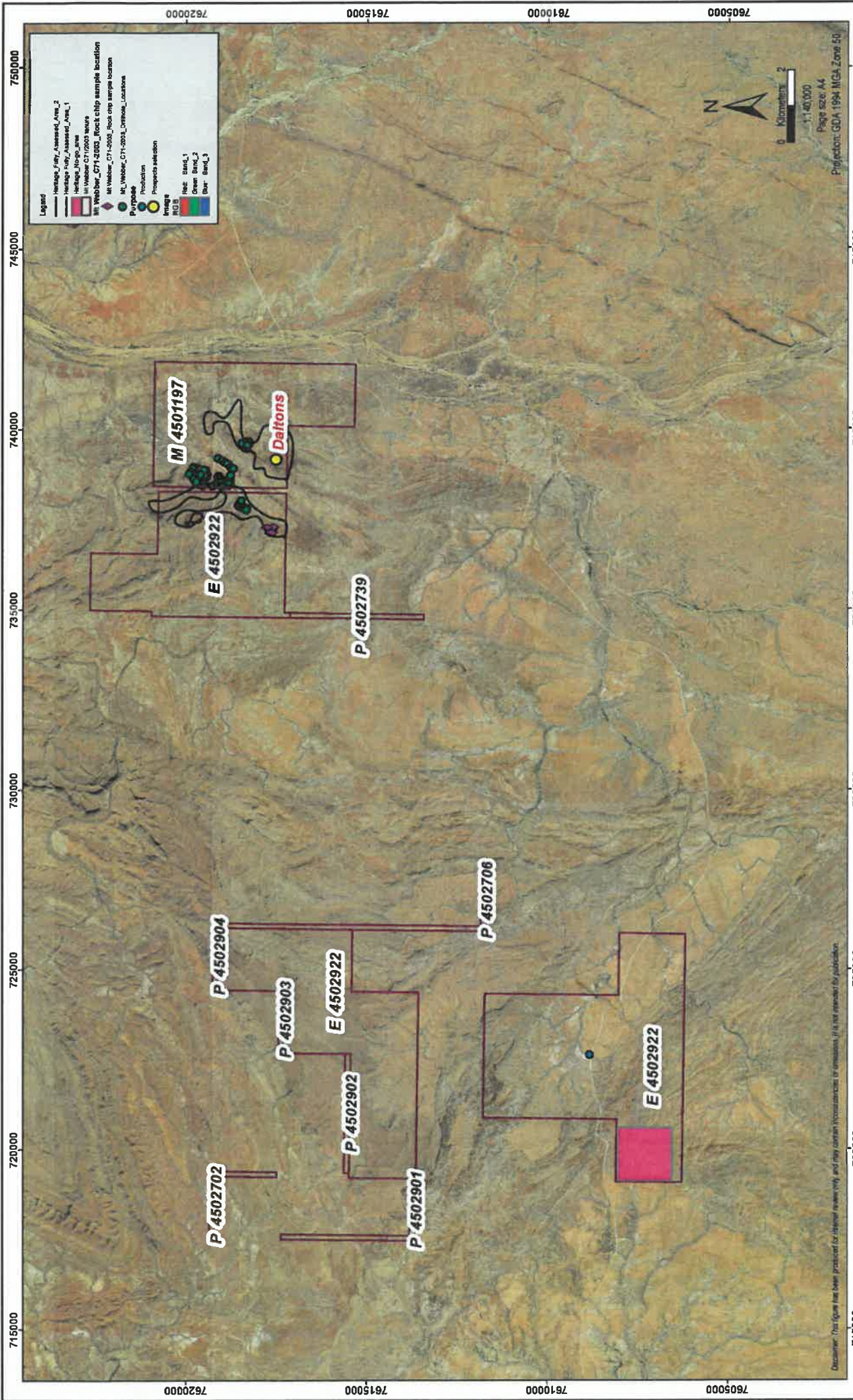


Figure 2: Mt Webber Project Regional Tenement Location



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<p>File Name: MtWebber_C71-2003_tenure_20097776.kml Date: 5/03/2015 Author: Margaret Stewart</p>		<p>Figure No: 3</p>
<p>Mt Webber Project C71/2003 Tenement Location</p>		



	File Name: Mt Webber_C71-2003_tenure_information Date: 5/03/2015 Author: Margaret Stewart	Mt Webber Project C71/2003 Exploration Index	Figure No: 4
	Rev: 1		

Mt Webber C71/2003 Atlas



1. INTRODUCTION

The Mt Webber DSO Project is located 150km southeast of Port Hedland. The project is comprised of four (4) deposits, Ibanez, Fender (development stage 1), Gibson and Daltons (development stage 2). The Ibanez, Fender and Gibson deposits are under a 70:30 Joint venture with Altura Mining Limited (70% AGO: 30% AJM) whilst the acquisition of the Daltons Joint Venture iron rights was completed in June 2012 from Haoma Mining. Drill testing of the first Mt Webber DSO target by Atlas commenced in May 2009 and was immediately successful in discovering ore-grade enrichment from surface. Further infill drilling plus Metallurgical and Geotechnical test work has allowed Atlas to successfully define Measured, Indicated and Inferred resources and subsequent conversion into reserves. Atlas is focused on continuing to increase confidence and growth in the resource base at Mt Webber and adding to the reserves.

The Daltons deposit and surrounding tenure belonging to CRG 71/2003 is the subject of this report for the 2014-2015 reporting period.

1.1 Location and Access

The Mt Webber Project tenements are located approximately 140 km south-east of Port Hedland, 52 km southeast of Marble Bar and 20 km north of Hillside Station homestead (Figures 1 and 2).

The tenements are situated in the Pilbara Block of Western Australia on the Marble Bar SF50-8 1:250K; Tambourah 2754 and North Shaw 2755 1:100K geological map sheets respectively (Figure Nos.1 and 2).

Access is via 4-wheel drive tracks heading east from the Great Northern Highway which lies 25 km to the west of the tenement package.

2. TENURE and HERITAGE

2.1 Tenure

Table 3: Tenement Status as at 29 March 2015

Tenement No.	Tenement Holder	Date Granted	Original Area (Blocks/Hectares)	Current Area (Blocks/Hectares)	Group Reporting Grant Date
M45/1197-I	Giralia Resources Pty Ltd	26/06/2012	1594	1594	05/10/2012
E45/2922-I	Giralia Resources Pty Ltd	10/07/2008	32	19	03/11/2008
P45/2702-I	Giralia Resources Pty Ltd	28/11/2008	51.22 Ha	51.22 Ha	05/09/2011
P45/2705-I	Atlas Iron Ltd	30/08/2011	84 Ha	84 Ha	11/10/2013
P45/2706-I	Atlas Iron Ltd	30/10/2009	73 Ha	73 Ha	05/09/2011
P45/2739-I	Atlas Iron Ltd	29/01/2010	50.95 Ha	50.95 Ha	05/09/2011
P45/2901-I	Giralia Resources Pty Ltd	30/05/2014	74.63	74.63	21/07/2014
P45/2902-I	Giralia Resources Pty Ltd	30/05/2014	49.43	49.43	21/07/2014



Tenement No.	Tenement Holder	Date Granted	Original Area (Blocks/Hectares)	Current Area (Blocks/Hectares)	Group Reporting Grant Date
P45/2903-I	Giralia Resources Pty Ltd	30/05/2014	23.7	23.7	21/07/2014
P45/2904-I	Giralia Resources Pty Ltd	30/05/2014	23.72	23.72	21/07/2014

Table 3a: 2014 Tenure Surrendered

Tenement No.	Tenement Holder	Date Granted	Original Area (Blocks/Hectares)	Current Area (Blocks/Hectares)	Group Reporting Grant Date	Date Surrendered
E45/2186-I (converted to M45/1197)	Haoma Mining NL	05/03/2002	68	0	20/08/2003	23/10/2014
E45/2187-I	Haoma Mining NL	25/03/2002	66	0	20/08/2003	23/10/2014
E45/2921-I	Giralia Resources Pty	29/11/2007	23	0	03/11/2008	23/10/2014
E45/2984-I	Giralia Resources Pty	06/02/2008	14	0	05/09/2011	27/08/2014
E45/3372-I	Atlas Iron Ltd	23/12/2013	8	0	15/01/2014	27/08/2014
E45/3703-I	Giralia Resources Pty	07/09/2011	2	0	05/10/2012	01/09/2014
P45/2561-I	Giralia Resources Pty	14/05/2010	180 Ha	0	05/09/2011	27/08/2014
P45/2707-I	Atlas Iron Ltd	30/08/2011	24 Ha	0	05/10/2012	01/09/2014
P45/2708	Atlas Iron Ltd	30/08/2011	101 Ha	0	05/10/2012	01/09/2014
P45/2879-I	Atlas Iron Ltd	29/07/2013	23.4 Ha	0	11/10/2013	02/09/2014

Table 3b: Tenement Expenditure for Period 30 March 2014 to 29 March 2015

Tenement No.	Expenditure Commitment (\$)	Tenement Expenditure For Reporting Period (\$)
M45/1197-I	159,400	1,538,350
E45/2922-I	48,000	181,499
P45/2561-I	7,200	-
P45/2702-I	2,080	435
P45/2705-I	3,360	2,800
P45/2706-I	2,920	935
P45/2707-I	2,000	-
P45/2708	4,040	-
P45/2739	2,040	8,220
P45/2879-I	2,000	-

Exploration licences E45/2186 and E45/2187 were initially held by De Beers Australia Exploration Ltd, as part of a Pilbara-wide regional diamond search joint venture with Haoma Mining NL. In November 2002 Giralia Resources NL entered a commodity-specific joint venture with De Beers and Haoma comprising a 75% interest in base metals and PGE discoveries on the tenement, with Haoma retaining rights to gold and tantalum following De Beer's withdrawal.

In February 2006, agreement was reached with Falconbridge (Australia) Pty Ltd to fund accelerated regional exploration for nickel sulphide mineralisation at the Daltons project. Falconbridge agreed to farm into E45/2186 and E45/2187 at Daltons (excluding a 2.8 square kilometre area covering the Kingsway prospect). Following the successful takeover of Falconbridge by Xstrata, Falconbridge withdrew from the JV on 4 October 2006.



On 28 November 2006 Atlas Iron Limited signed an agreement to purchase a package of Berkeley Resources tenements in the Abydos area. Tenement E45/2496, granted to Berkeley Resources on 1st May 2006 with an initial area of seven (7) blocks, formed part of this tenement package. A mineral rights agreement was executed between Atlas Iron Ltd and Shaw River Resources Ltd on 5 March 2008 allowing Shaw River to explore for metals other than iron on E45/2496.

Giralia Resources NL (holder of the Dalton's prospect) became a wholly owned subsidiary of Atlas Iron Ltd on March 8, 2011.

A voluntary partial surrender was recommended on non-prospective areas within E45/2186 and E45/2187 in February 2013 (Atlas Report No. CR747_132-GEO-EX-REP-0002).

Exploration licence E45/2186-I was surrendered on the 23 October 2014 and converted to mining lease M45/1197-I (*Conversion 346177*). E45/2187-I was surrendered on 23 October 2014.

A voluntary partial surrender of thirteen (13) blocks with nineteen (19) blocks retained was effected on E45/2922 on 8 July 2014.

2.2 Heritage

The Mt Webber Project tenements are subject to Native Title Claim by the Njamal People NTC WC99/008.

De Beers Australia Exploration Limited (the original holders of E45/2186 and 2187) signed an initial Heritage Agreement with the native title claimants of the area the Yamatji on 5 December 2001. Haoma Mining and Giralia Resources became party to the agreement in 2002 upon initiating a commodity specific Joint Venture with De Beers.

In 2008 Atlas Iron Ltd commenced Heritage and Native Title negotiations with the Njamal Claimant group over E45/2496.

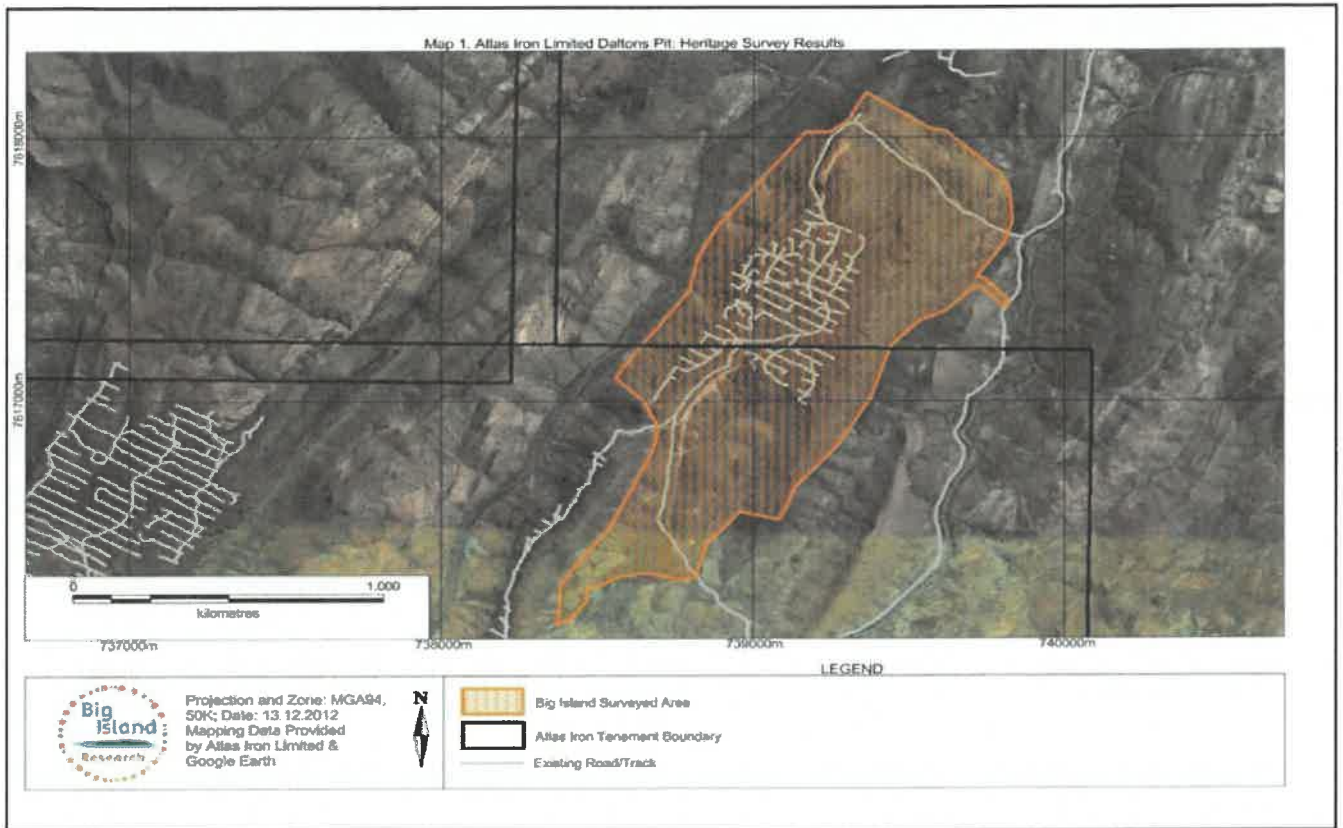
2010

On February 15, 2010 a heritage survey was conducted over exploration licence E45/2186 with the party comprising representatives from Giralia Resources NL and the Njamal Native Title Claimants group.

The Njamal claim area lies within the PNTS representative area. PNTS is a division of the Yamatji Marlpa Aboriginal Corporation (YMAC) and is the official native title representative body for the Pilbara region in accordance with the Native Title Act (1993).

2012

The 2013 area of drilling was given clearance prior to commencement of work. Big Island Research was commissioned to undertake Site Avoidance Work over the Daltons Pit, an area of 1.226 km² in late May and early December 2012. Representatives from the Njamal Native Title Group and an Atlas Heritage Officer participated in the survey. Sixty-five (65) sites had previously been identified and recorded from the 2012-2013 heritage surveys principally in the southern Mt Webber Project area. No new ethnographic material was observed in the pit area.



Area of 2012 Heritage Survey Daltons Pit M45/1197-I

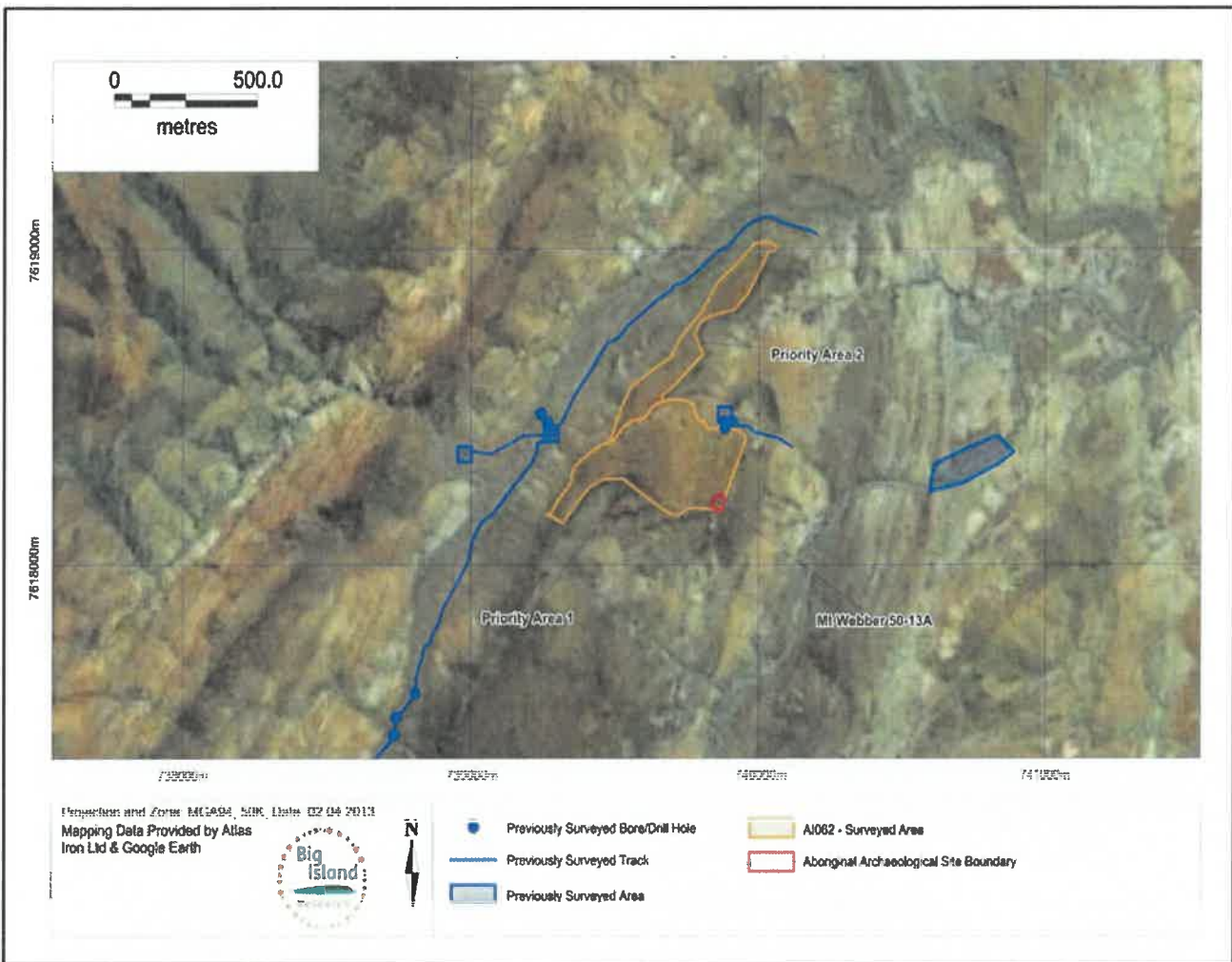
2013

Heritage surveys were conducted across the Mt Webber tenements E45/2186-I, E45/2187-I and M45/1197-I in March, July/August 2013 and February 2014.

On 22 March 2013 an Aboriginal archaeological and ethnographic heritage assessment (Site Avoidance Level) of two (2) priority areas (Figure 14) at the Daltons prospect M45/1197-I was undertaken by Big Island Research. One site was identified and is registered in Table 8.

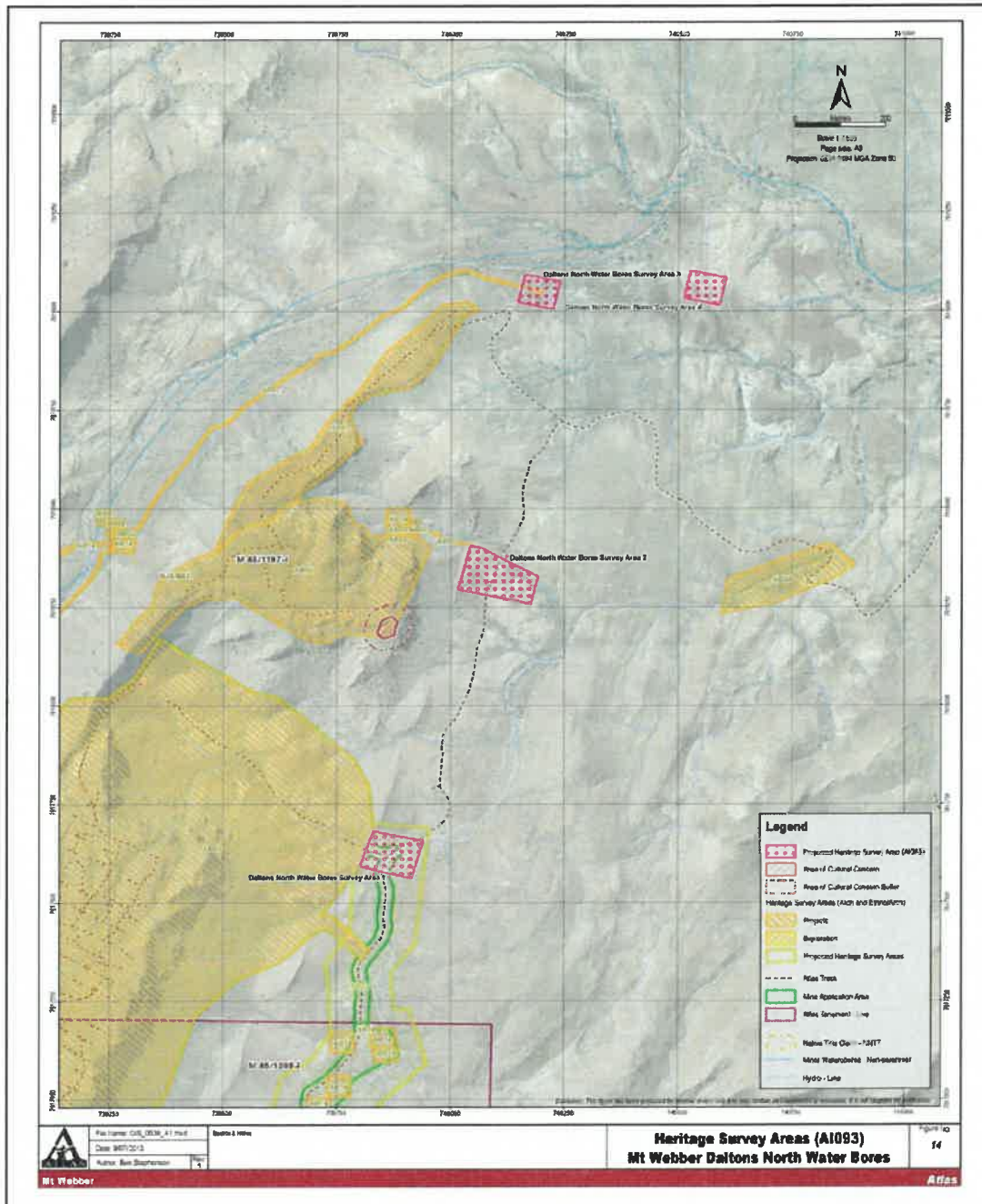
Table 8 . Archaeological site recorded within the Dalton's Project, Atlas Iron Mt Webber Project Area (GDA 94, Zone 50).

Site	Type	BP no.	mE	mN	EW (m) x NS (m)	Recording Level	Location
Mt Webber 50-13A	Quarry	1	739878	7618200	46 x 56	Site Avoidance	Dalton's Priority Area 1
		2	739884	7618212			
		3	739870	7618227			
		4	739848	7618216			
		5	739838	7618185			
		6	739850	7618171			
		7	738876	7618179			



Mt Webber Heritage Survey Results (A1062), March 2013

In July/August 2013 Big Island Research was contracted on behalf of Atlas to undertake an ethnographic and archaeological Site Avoidance Work Programme and Work Area assessment of four (4) areas within the Mt Webber Project where six (6) water bores are proposed (M45/1197-I). No ethnographic or archaeological sites were identified from this survey. One (1) isolated artefact was recorded in Daltons North Water Bores Survey Area 2.

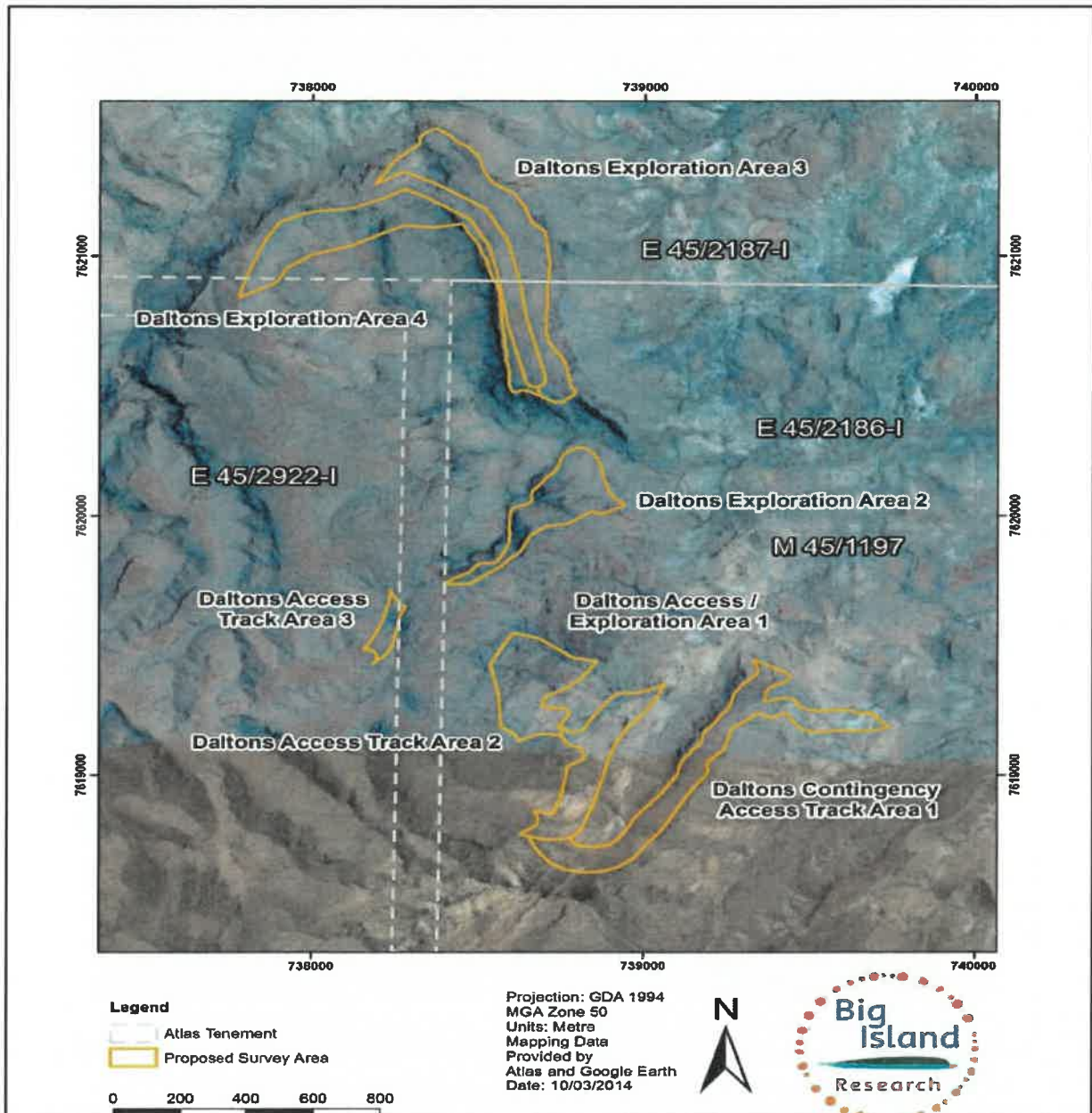


Mt Webber Daltons North Water Bores M45/1197-I Heritage Survey Areas 2013

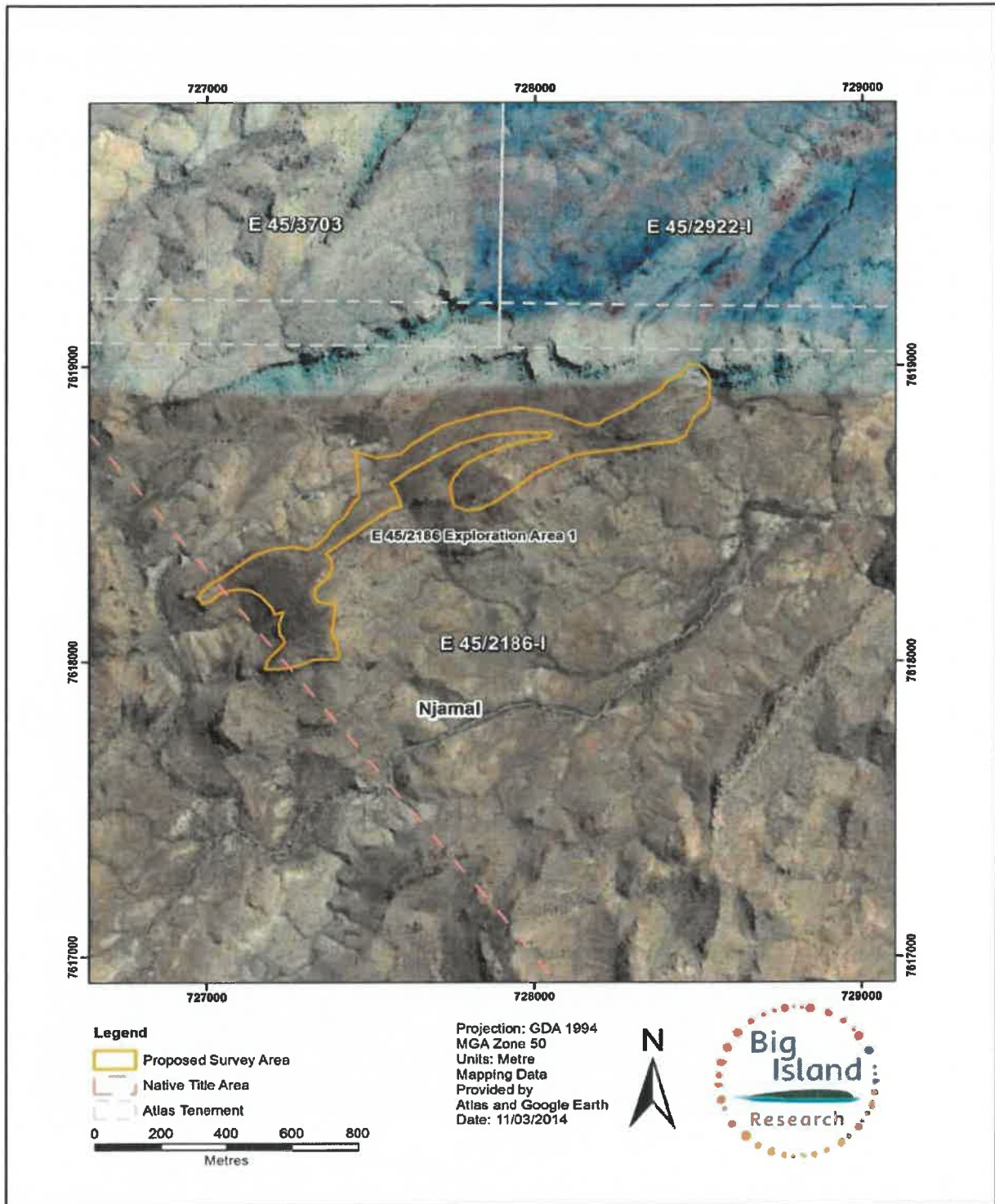
A site avoidance survey across eight (8) nominated proposed exploration areas (Figure 16 1-2/2) was conducted with helicopter assistance between 24-25th and 27-28th February 2014 on tenements E45/2187-I,

M45/1197-I, E45/2922-I and E45/2186-I on behalf of the Yamatji Marlpa Aboriginal Corporation (YMAC). The ethnographic assessment aimed to identify sites of cultural importance and to record them to Site Avoidance level. No new ethnographic sites of importance were located during this survey.

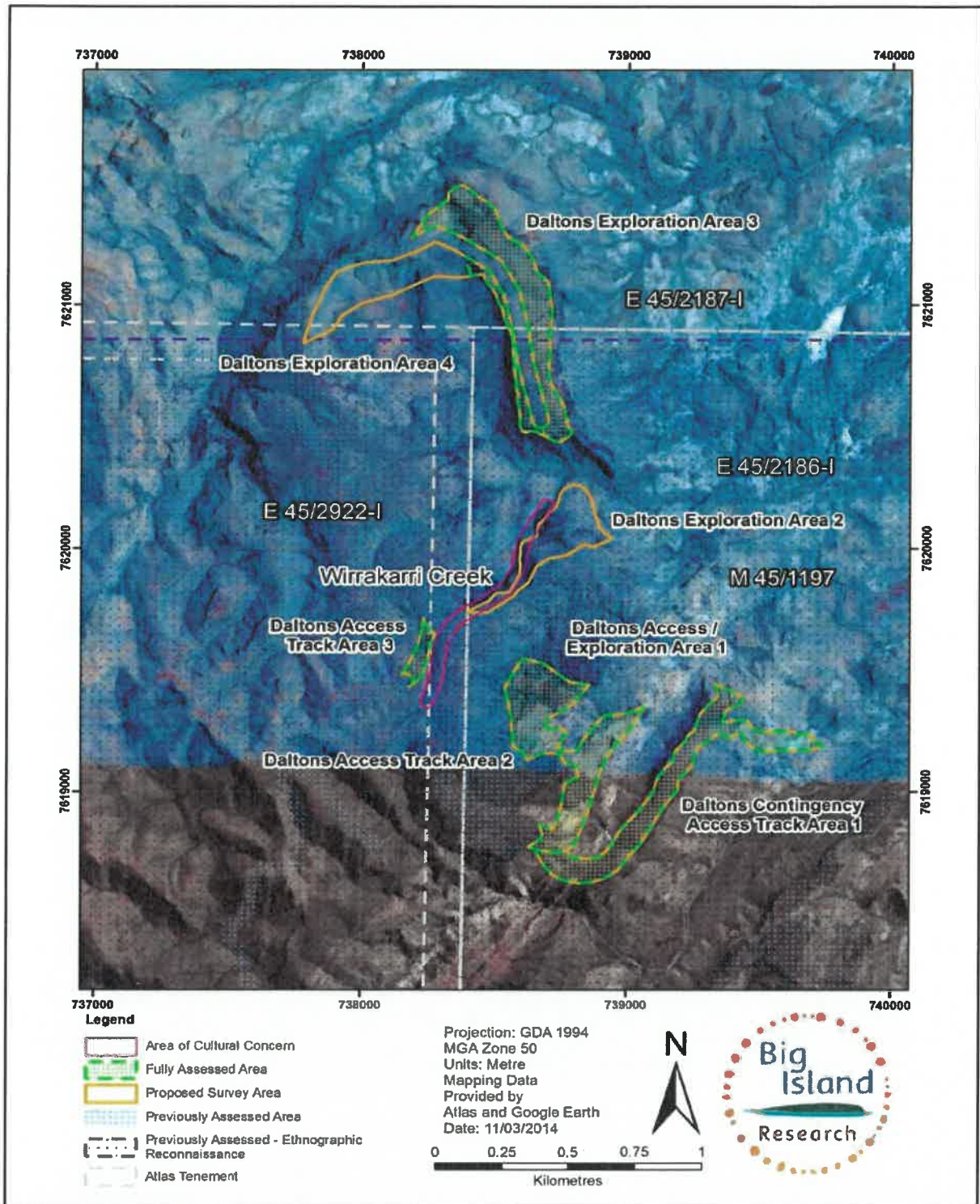
Sixty-five (65) sites had previously been identified and recorded from the 2012-2013 heritage surveys principally in the southern Mt Webber Project area within open spinifex plains with low granite outcrop, in proximity to ephemeral water sources.



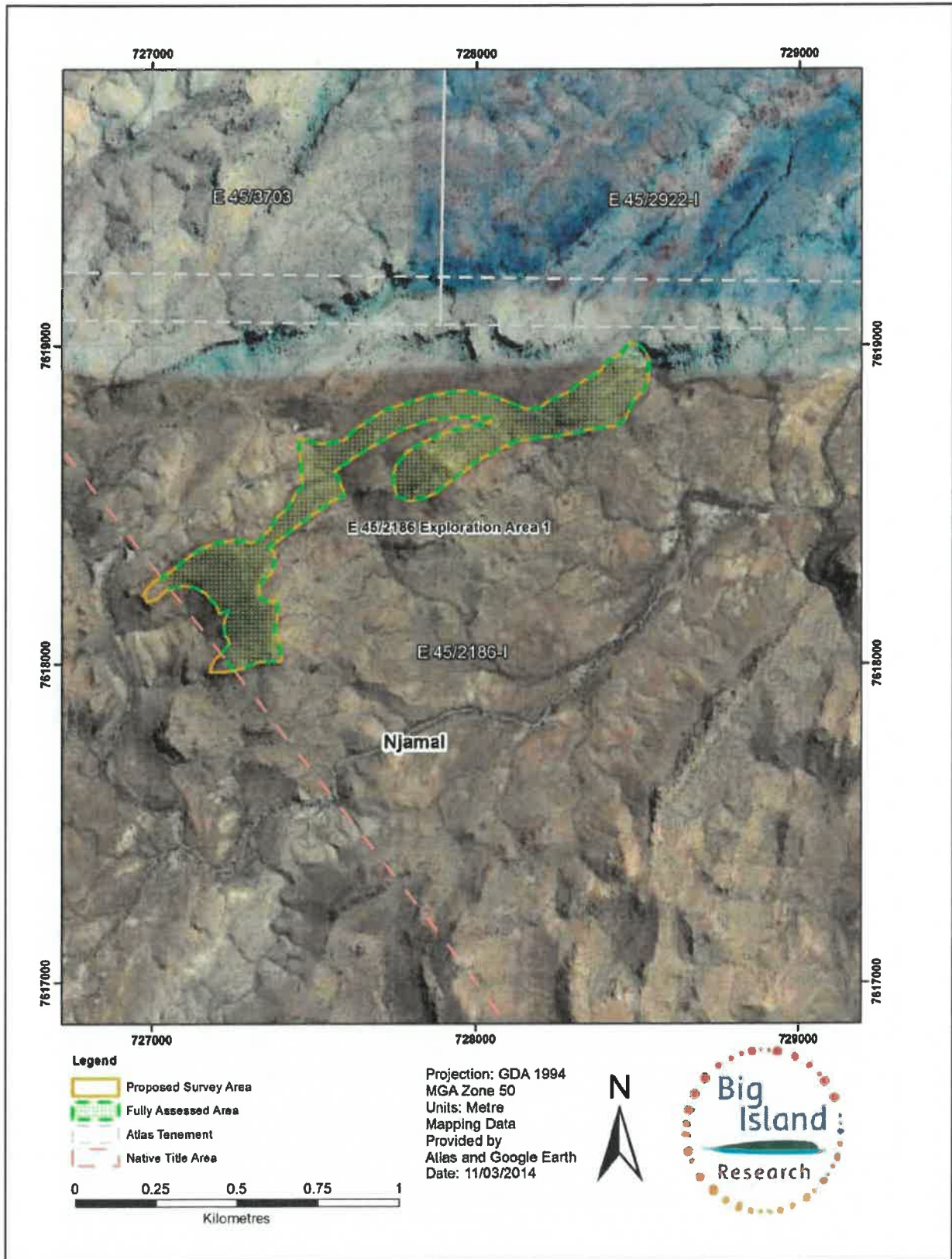
Mt Webber Project February 2014 Heritage Survey Area (1/2)



Mt Webber Project February 2014 Heritage Survey Area (2/2)



Mt Webber Project February 2014 Heritage Survey Results (1/2)



Mt Webber Project February 2014 Heritage Survey Results (2/2)



2014

A site identification heritage assessment was conducted within E45/2186 (M45/1197) and E45/2187 between the 12th and 16th May 2014. The survey party comprised three (3) Njamal Traditional owner representatives and three (3) consultants from Terra Rosa Cultural Resource Management. Survey Areas 2-4 were completed (encompassing thirteen survey areas). Survey Area 1 was not commenced.

3. GEOLOGY

3.1 Regional Geology

The Mt Webber Project occupies a portion of the Eastern Pilbara Block of WA and falls predominantly within the Gorge Creek and Sulphur Springs Groups of the Pilbara Supergroup, although the large tenement area includes Fortescue, De Grey and Warrawoona Group rocks (Table 4). The Gorge Creek Group is subdivided into six formations: the sediment dominated Paddy Market, Corboy, and Pincunah Formations of the Soansville Subgroup, and Honeyeater Basalt, and Pyramid Hill Formation. The sedimentary formations of the Gorge Creek Group consist of mainly clastic meta-sedimentary rocks, which are characterised by large internal variations in thickness and by major facies changes, which suggest accumulation in an unstable tectonic environment. Indirect isotopic dating suggests that the age of the Gorge Creek Group is between 3.3 and 3.0 Ga.

In the Pincunah Greenstone Belt, the Pincunah Hill Formation is located at the contact between arenites and conglomerates of the Corboy Formation and felsic to intermediate volcanics of the Kangaroo Caves Formation. The Pincunah Hill Formation contains red and black thinly bedded banded iron formation. Within the Abydos/Mt Webber Project this sequence contains zones of enrichment in a region located to the south of Pincunah Hill ("Pincunah Trend"). The Corboy Formation also contains a sequence of banded iron formation which has the potential to host zones of bedded iron enrichment. The Kangaroo Caves Formation which outcrops to the southwest of the Pincunah Hill Formation in the Abydos Project contains interbeds of white-grey layered chert and minor banded iron formation.

Table 4: Stratigraphy of Pilbara Supergroup, East Pilbara (after Van Kranendonk, 2003)

Formation	Main Lithology	Age (Ga)
Fortescue Group		
Kylena Formation	Andesite-Felsic tuff, basalt	2.75
Hardey Formation	Conglomerate, sandstone, shale	2.76
Mt Roe Basalt	Basalt	2.77
De Grey Group		
Lalla Rookh Sandstone	Conglomerate, sandstone, layered	2.95
Gorge Creek Group		
Pyramid Hill Formation	BIF	3.0-3.3
Honeyeater Basalt	Basalt	
Dalton Suite	Ultramafic sills, komatiites?	
Soanesville Subgroup		
Paddy Market Formation	Chert, Fe-shale	
Corboy Formation	Sandstone, mudstone, conglomerate	
Pincunah Hill Formation	Fe-shale, BIF, sandstone	
Sulphur Springs Group		
Kangaroo Caves Formation	Basalt-Rhyolite volcanics	3.238
Kunagunarrina Formation	Basalt, komatiite	
Leilira Formation	Sandstone, Rhyolite, chert	
Warrawoona Group		
		3.33-3.49
Coonterunah Group		
		3.515



A suite of differentiated ultramafic and mafic bodies (Daltons Suite) intrude the upper Warrawoona Group, the Sulphur Springs Group, and into the lower part of the Gorge Creek Group on the limbs of the Soansville Syncline. The bodies have been serpentinised and carbonated, but original igneous textures are usually preserved. A typical upward sequence includes dunite-peridotite-gabbro-norite and anorthosite (sporadically developed). In most areas, at least some of these lithology layers are missing. The average thickness of differentiated sills is approximately 400m, and there are generally between three and five such intrusions on any section into the core of the syncline. In general the distribution of these bodies is not directly related to structure or stratigraphy. There is some evidence, based on flat normalised REE patterns, that the Daltons Suite sills may be comagmatic with the Honeyeater Basalt, which contains high MgO basalts.

Several ultramafic sequences have been mapped in the Soansville syncline area that contain both intrusive (eg: Daltons ultramafic body) and extrusive (e.g. Maui ultramafic body) variants of these olivine-rich rock types. The ultramafic sequences are interlayered with mafic volcanic and detrital to chemical sedimentary rocks which also contain variable sulphide contents. Extrusive komatiitic rock types have been recognised from characteristic olivine and pyroxene spinifex textures in multiple thin flow sequences. Other cumulate rich rock types form either the basal sections of thicker flow units, or basal cumulate piles in differentiated intrusions commonly associated with pyroxene and olivine-pyroxene cumulates.

A variety of lava types have been recognised including ultramafic, magnesian basalts and basalts ranging in composition from komatiitic to iron-rich tholeiite. Lavas in the dominantly mafic sequences in this area display a continuum of field characteristics, textures, mineralogy and geochemistry. The komatiitic lavas occur as both thin flows with well-preserved zoning from spinifex textured tops to cumulate lower parts, with thicker flows commonly differentiated, with basal pyroxene and olivine-rich cumulate zones. Although flows of a particular type may dominate some local sequences, lava flows of different types are interlayered in most sequences.

Ultramafic rocks occur at many stratigraphic levels within the Soansville syncline. Ultramafic rocks appear to be associated with both an older volcanic dominant terrain and an overlying younger detrital sedimentary succession. Figure No. 5 depicts the regional geology.

3.2 Local Geology

The Mt Webber area is a structurally complex portion of a large greenstone belt flanked by the Shaw Batholith to the east and south. Gorge Creek sediments unconformably overlie Warrawoona Group mafic-ultramafics, sometimes separated by Corboy Formation sediments. The greenstones are folded into a series of tight NE trending folds, which become more open further to the NW and SE. These synclines are cored by Pincunah Hill Formation BIF's, sometimes overlain by massive quartzite. Near the southern margin of the project area the folding is much more open and northerly plunging, paralleling the surface of the migmatitic granite. The contact between these distinct structural domains is sharp and marked by a decollement fault. (Crossing; 2008).

The terrain is rugged, consisting of steep sided hills and mesas containing weathering resistant BIF's and cherts of the Pincunah Hill Formation and quartzite, separated by valleys containing pelitic sediments and mafic-ultramafics of the Warrawoona Group. Generally outcrop is excellent, with minimal overburden. Predominantly the cover consists of scree and shallow colluviums (Crossing; 2008). For the most part outcropping lithologies are unoxidised. Chemical weathering and/or lateritisation are generally restricted to a



few small areas located on the areas of iron enrichment hosted by the Pincunah Hill Formation, and small areas of thin transported laterite.

Iron enrichment in the Pincunah Hill Formation is found at all stratigraphic levels and forms irregular pods with a distinct orientation to the bedding of the BIF. The pods vary in size from lenses 10-15m wide to pods several hundred metres wide and over a kilometre long. These enrichment zones occur at Ibanez, Fender and Gibson prospects within the Emerald Mine Greenstone Complex.

3.3 Iron Enrichment in the Pincunah Hill Formation

Mt Webber has three areas of iron enrichment that occur in the synclinal fold closures where the Pincunah Hill Formation BIF's thicken due to extensive intraformational folding. The largest areas of high-grade enrichment occur on the westernmost (Ibanez) and easternmost synclines. The latter is divided into two zones, Fender and Gibson, which are separated by a low-grade "neck". Gibson extends off the tenement to the northeast and is part of a resource which has been defined by Giralia. Both Ibanez and Fender are striking in a NE direction; Ibanez is the larger of the two deposits with a strike length of 900m and varying widths from 20m at its southernmost tip to 600m within the centre of the deposit. Fender's strike length is 1.4 km with a width averaging 100m throughout and is currently open to the northeast.

Iron enrichment is predominantly goethite which has replaced chert in the BIF to varying degrees. In addition elevated iron grades indicate the presence of hematitic shale. The iron enrichment outcrops as irregular pods in the BIF where the chert in the BIF has been replaced leaving the enriched zone depleted in quartz. Zones of ferruginous grit or pisolitic and nodular laterite occur indicative of Mesozoic to Cainozoic weathering contributing to the formation of the iron enrichment pods which are generally 1 to 3m thick.

The enrichment pods are considered to be remnants of an ancient weathering horizon, the pods forming as a result of supergene enrichment of iron in the BIF during the weathering process. The edges of the enrichment pods are moderately sharp, less than 2-5m wide. Depths of enrichment are generally 30m but can be as much as 60m as seen in the eastern side of the Ibanez deposit. The iron enrichment at the surface is generally in the 55 to 60% Fe range but some values in excess of 60% Fe have been encountered. A hydrated cap exists of 1-10m.

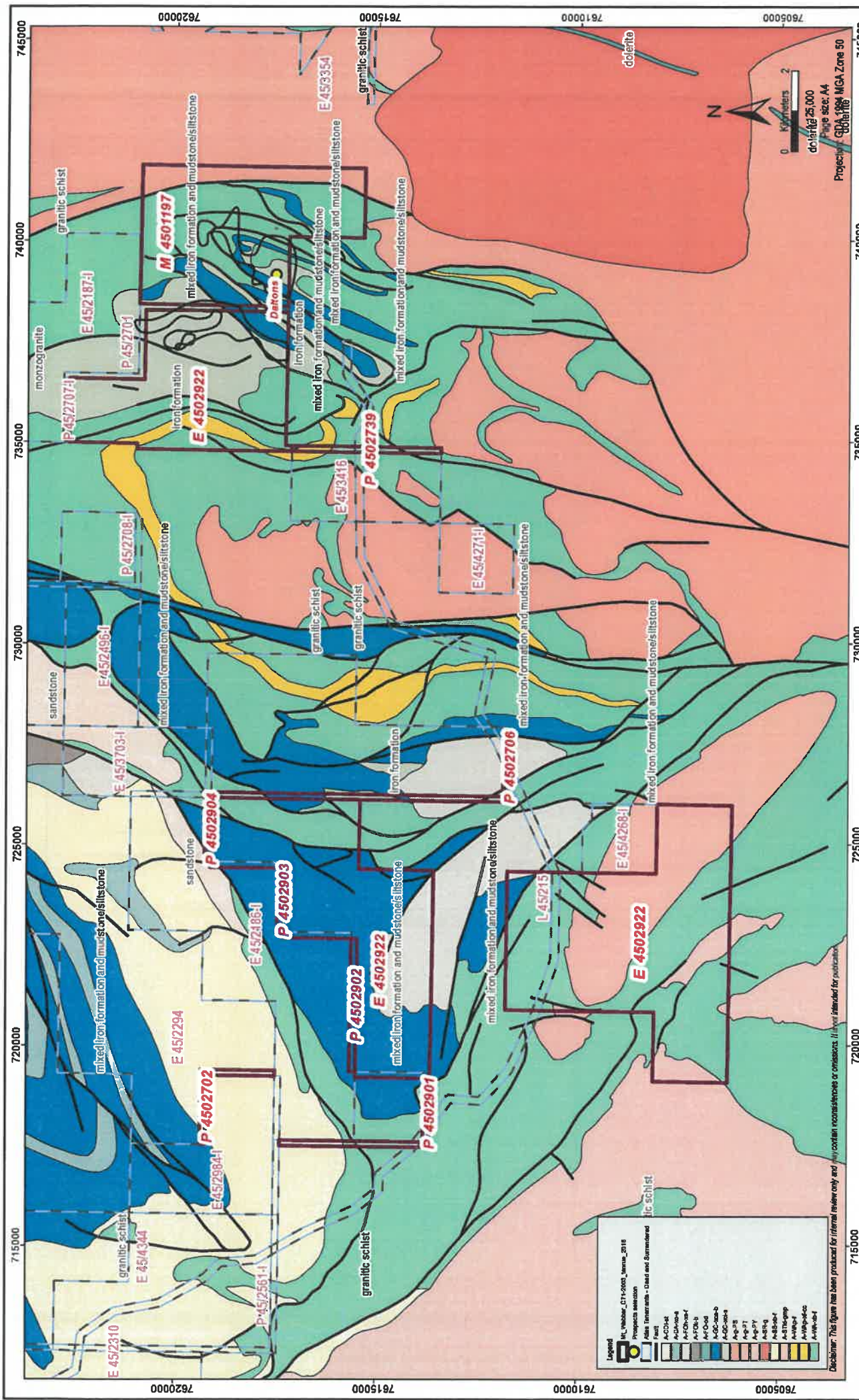


Figure No: **5**

Mt Webber Project C71/2003 Regional Geology

File Name: Mt Webber_C71-2003_tentative_2018.mxd
 Date: 21/04/2015
 Author: Margaret Stewart
 Rev: 1

Project: GDA 4984 MGA Zone 50
 Scale: 1:25,000
 Paper size: A4

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Atlas

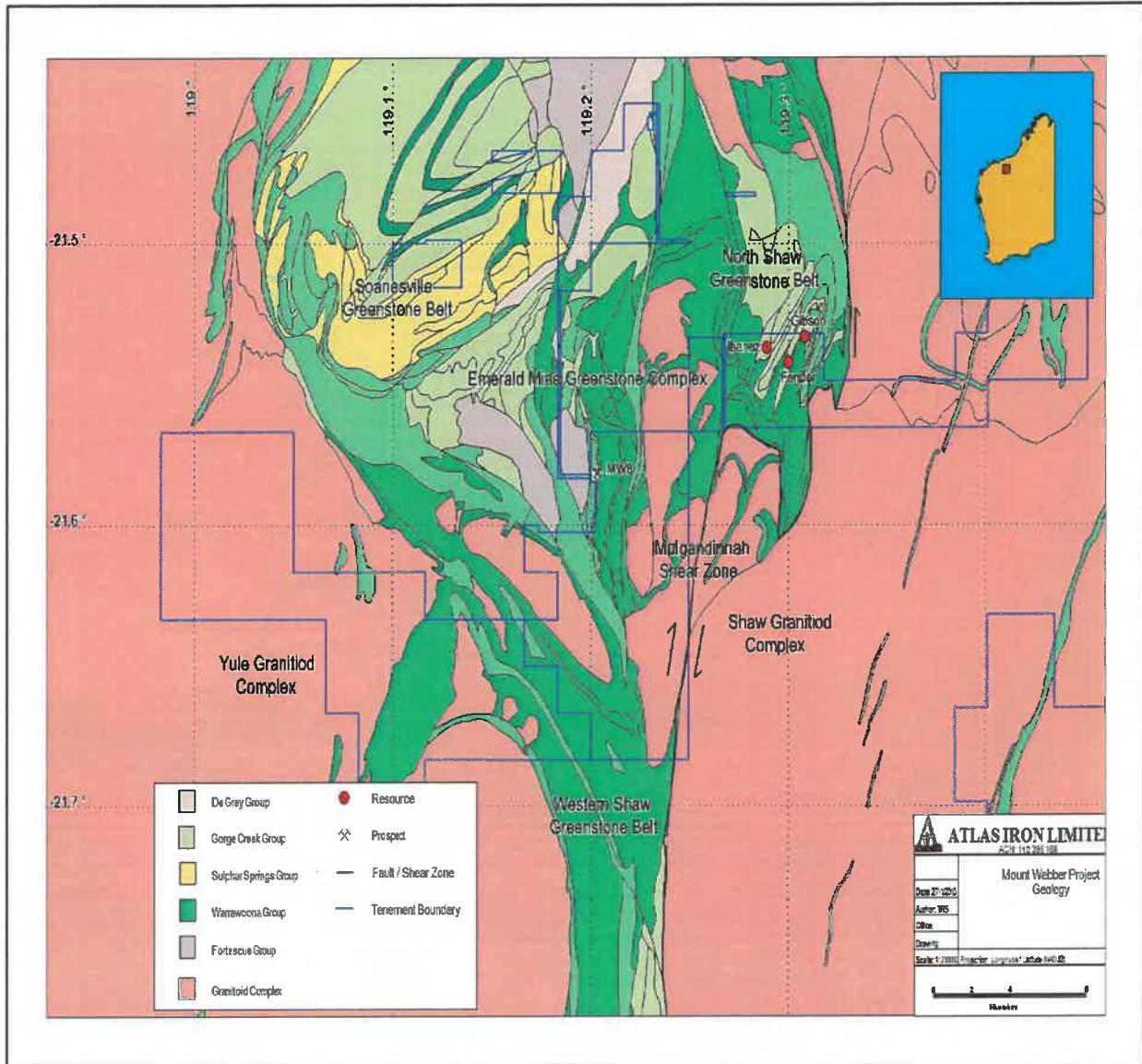


Figure 6: Mt Webber Project Regional Greenstone Belts



4. PREVIOUS EXPLORATION

The Mt Webber project and surrounding area has seen exploration for various commodities (Cu Pb Ni Zn) since late in the nineteenth century. Exploration has been primarily focused in the greenstone belts and has produced a number of gold and base metal deposits. Within the Shaw Batholith are numerous mining centres, which constitute the Shaw River tin field. This field was historically one of the Pilbara's largest producers of tin and tantalum (Crossing, 2008). Throughout the twentieth century companies have been actively exploring for iron deposits with varying success.

1968-1975

Exploration between 1968 and 1975 was focussed on ultramafic bodies, with work by Kingsway Minerals NL (WAMEX Item 2877) and Pacminex (WAMEX Item 1320) of principal interest for nickel. Other companies active around the Soansville Syncline at the time included Kennecott, Pickards Mather, Australian Anglo American, Alliance Minerals and Westralian Nickel.

The Daltons nickel prospect on adjoining E 45/2186 was evidently identified by a member of the Stubbs family of Marble Bar in about 1968, during the height of the Western Australian nickel boom. The property was later acquired by Kingsway Minerals NL of Sydney. Intermittent exploration on mineral claims covering the prospect ensued through the late 1960s to perhaps 1975 and included work on the Maui ultramafic (on E 45/2187). Data stored at the Department of Industry & Resources in Perth is incomplete (in particular there are no proper drill logs), but a very brief description of exploration follows.

Work by consultants Geotechnics (Aust) Pty Ltd in 1968 discovered gossanous ironstones near the contact of a serpentinised peridotite body apparently intruded into clastic sedimentary rocks. Mapping, prospecting, rock sampling and geophysical surveys (including ground magnetics, IP-Resistivity, VLF EM) followed. Some thirteen diamond drill holes were drilled over about 800m of strike and were mainly aimed at testing the footwall contact of the ultramafic body, by consultants Clifford – McElroy & Associates Pty Ltd in late 1971.

Two holes encountered massive sulphides at 263m and 314m down hole, and reportedly returned the following weighted averages:

DDH 3 - 0.9m @ 9.29% Ni, 3.59% Cu from 262.7m

DDH 5 - 0.7m @ 11.81% Ni, 3.11% Cu from 313.6m

The high grade zone in DDH 5 was reportedly composed of mainly a nickel-cobalt sulphide with a maximum grade of 0.55% Co.

At the Maui ultramafic 2 kilometres to the northeast of the Daltons prospect, Kingsway completed 4 costeans. Mapping, soil geochemical sampling and some ground geophysics (IP, VLFEM).

A single diamond drill hole was reportedly drilled by Kingsway in 1972 to follow up an 8.5% Cu rock chip. No results are available.



Concurrent with Kingsway's work, Pacminex, on adjoining ground, confirmed the nickel prospectivity of the Daltons intrusive, drilling five diamond drill holes, including one hole (PV4) collared around 100 metres west of the Kingsway discovery that intersected 6m @ 0.43% Ni, with violarite and pentlandite identified in petrographic studies of drill core. Pacminex also drilled malachite rich gossans to the northwest of the Kingsway discovery (PV1-3 inclusive). These gossans were subsequently shown to be highly anomalous in PGE.

1980

In the 1980s Hancock and Wright explored for chromite at Pincunah Hill (WAMEX Item 1834), whilst Pancontinental (WAMEX Item 1972) sought copper-zinc mineralisation in the felsic volcanic sequences that were later found to host the Panorama deposits (Sulphur Springs) to the north.

1989-1998

From 1989-98 Sipa Resources, variously in joint venture with Outokumpu, CRA, Ashling and Troy Resources, completed exploration around the Panorama discovery for further VHMS mineralisation, and explored the Daltons and Maui nickel prospects (WAMEX Item 10412).

Between 1994 and 1998 Sipa and Outokumpu completed a great deal of work at Daltons, and the nearby Maui nickel prospect.

Initial rock chip sampling returned up to 52 ppm PGE from gossans at Daltons. Follow up included:

- detailed mapping,
- aeromagnetism,
- drilling (total 6 diamond drill holes and 8 RC holes at Daltons)
- gridding
- soil geochemical surveys at Daltons and Maui
- ground EM surveys and down hole EM

Giralia Resources NL

2002-2003

In the first year of grant of E45/2186 and E45/2187, the following exploration work was completed by the joint venture:

- compilation of past exploration activity
- retrieval of data and construction of database
- stream sediment sampling, analysis
- geological prospecting
- rock chip sampling
- GPS pick up of old drill collars
- Interpretation of EM data



2003-2004

Surface electromagnetic ("EM") surveys were completed at the Daltons nickel project in October - November 2003 to refine drill target selection. The EM survey was conducted by contractors GPX Services Pty Ltd, and coordinated and interpreted by geophysical consultants Newexco Services Pty Ltd. The survey comprised 3.9 kilometres of data, in 3 fixed loop EM surveys, using a Zonge GGT 10 Transmitter and a Smartem 5 Receiver (GeoTEM 3 coil).

A strong ground EM conductor located close to the ultramafic contact 100 metres to the south of the Kingsway zone (the Wadi conductor) was infilled to better resolve strike and dip, and several other areas of strong surface gossan geochemical results (up to 7.0% nickel and 52 g/t PGE + gold), were covered by surface EM.

Fixed loop ground EM surveys were conducted over three target areas at Daltons:

- The Kingsway zone, where high grade nickel sulphides were reported from drill testing in 1971 of a serpentinite-sediment contact.
- The Northern Gossans, where exceptional nickel, copper and PGE grades are present in rock samples of copper stained ferruginous outcrop and subcrop along a 600 metre long segment of the basal ultramafic contact.
- The Wadi prospect, 100 metres south of the Kingsway zone, where a strong ground EM conductor had been identified close to the basal ultramafic contact in previous surveys but interpretation had been hampered by a missing station.

Several conductors warranting drill testing were confirmed, including responses interpreted as being up plunge from deeper down-hole EM conductors thought to be sourced by high grade nickel, copper sulphides intersected previously at the 'Kingsway' zone. Additionally strong surface EM conductors were confirmed in the "Wadi" area around 100 metres along strike from the 'Kingsway' zone. No conductive responses were noted in the area of the Northern Gossans.

Following the completion of Aboriginal Heritage clearances coordinated by the Pilbara Native Title Service, shallow bedrock geochemical drilling was completed at the Daltons prospect in late November 2002 utilising a small track mounted rotary air blast ("RAB") rig, contracted from D Taylor of Marble Bar, to access difficult sites. Fourteen shallow holes were drilling (maximum depth 33 metres), a number of holes failed to reach target depth due to the limitations of the rig. Grab samples as either 3 metre composites or 1 metre samples were collected and analysed at ALS Perth for Au, Pt and Pd by method PGM-MS24, and As, Co, Cr, Cu, Ni, Pb and Zn by method ME-ICP61.

Anomalous results from RAB drilling included:

RBDN001	1 m @ 0.65% Ni, 0.13% Cu, 0.3 g/t PGE from 9m
RBDN002	12 m @ 0.32% Ni, 0.09% Cu, 0.12g/t PGE from 6m
RBDN008	6 m @ 0.61% Ni, 0.21% Cu, 0.08g/t PGE from 12m



2004-2005

First pass RC (7 holes/700 metres) and diamond drilling (5 holes/609.63 metres) was completed at Daltons in late May 2004, targeting a 300 metre long section of the basal contact of the Daltons ultramafic in the Kingsway-Wadi zone, where 1970s drill holes reportedly intersected high grade nickel-copper sulphides. The program was designed to provide a platform for down-hole geophysical exploration below the depth limits of surface electromagnetic ("EM") surveys, which were unable to detect the previously intersected massive sulphide zone. A 29 metre water bore was also drilled and cased. Drilling contractor was Blue Spec Mining using a track mounted multi-purpose RC-diamond drill rig. Four metre composites of RC holes and pre collars, and selected half NQ diamond core samples were submitted to ALS Perth for analysis for Au, Pd, Pt, and Cu, Pb, Zn, As, Ni, Cr by fire assay and ICP.

An encouraging disseminated sulphide intersection was returned from hole RDDN019, including 0.66 metres @ 0.54% Ni, 0.12% Cu and 0.2 g/t PGE, however indications from drill hole geology and down-hole EM surveys suggest that the recent drilling may not have been deep enough to intersect the massive sulphides.

Down-hole EM was read for five of the seven holes in May 2004, and interpretation by consultants, Newexco, suggested the presence of a conductor of interest below RDDN019. An off-hole conductor was also detected below hole RDDN021. Drillholes RDDN015 and RDDN016 intersected a black shale unit at the targeted position of the Wadi conductor, just beneath the basal ultramafic contact.

Daltons Joint Venture - May 2004 RC/Diamond Drilling

Hole No	East	North	Dip/Az	Depth (m)	m_From	m_To	Intersection
RDDN015	724115	7621225	-55°/288°	149.30			NSV
RDDN016	724088	7621158	-55°/295°	161.35	84	96	12m @ 0.46% Zn
RCDN017	724140	7621138	-60°/138°	100.0	95	98	3m @ 1.02% Zn, 0.36% Ni
RCDN018	724230	7621470	-60°/090°	100.0			NSV
RDDN019	724148	7621395	-60°/187°	259.78	254.94	255.6	0.66m @ 0.54% Ni, 0.17% Cu, 0.2 g/t PGE
RDDN020	724132	7621421	-72°/128°	269.60	267.05	267.32	0.27m @ 0.64% Cu
RDDN021	724230	7621469	-65°/185°	272.10	52	64	12m @ 0.15% Cu

2005-2006

During the year ending 29 March 2006 (the fourth year of grant of E 45/2186 and 2187, Daltons project) RC and diamond drilling and down hole EM surveys continued at the Kingsway nickel sulphide prospect.

Significant intersections:

RDDN029 recorded- 3.5m @ 1.61% Ni, 0.85% Cu, 0.81 g/t PGE, hosted by metasediments in the immediate footwall of a thick serpentinised ultramafic body;

Hole RDDN025 recorded - 0.2m @ 2.57% Ni, 1.42% Cu and 0.83 g/t PGE, hosted in footwall cherty metasediment; 3.75 metres @ 0.60% Ni, 0.17% Cu and 0.16 g/t PGE, from within an upper peridotite-hosted zone of disseminated sulphides.



Hole RDDN025 tested a position approximately 60 metres east of RDDN022 (0.5 metres @ 1.98% Ni, 0.97% Cu, including 0.15 metres @ 5.82% Ni, 1.41% Cu, 1.35 g/t PGE).

Hole RDDN026 (targeted 50 metres beneath RDDN022) encountered a steeper than expected basal contact, and intersected 0.4 metres @ 1.18% Ni, 0.17% Cu, 0.42 g/t PGE and 0.58% Zn around 150 metres below previous intersections.

A further down-hole EM survey was completed in early March 2005, with holes RDDN022, 023 and 025 read for off-hole conductors. Of most interest was a strong unclosed conductor below RDDN025, which was tested with a follow up hole (RDDN028), designed to intersect the basal ultramafic contact 50 metres below the intersection position in RDDN025.

Giralia confirmed its earning of 75% interest in the Daltons JV with Haoma Mining NL through expenditure since commencement in November 2002 of in excess of \$625,000.

2006-2007

During the year ending 29 March 2007 (the fifth year of grant of E 45/2186 and 2187- Daltons project) further diamond drilling was conducted by Giralia at the Kingsway prospect. Falconbridge (Australia) Pty Ltd in a farm-in arrangement to fund accelerated regional exploration for nickel sulphide mineralisation at the Daltons project - carried out a ground TEM geophysical survey and diamond drilling around the East Gossan area. Just prior to the takeover of Falconbridge by Xstrata and their subsequent withdrawal from the JV, Falconbridge carried out a major detailed (1,479 line kilometre, 150 metre line spaced) VTEM airborne electromagnetic survey covering approximately 75% of the outcropping ultramafic units on the Daltons property.

2008

During the year ending 29 March 2008 (the 6th year of grant of E 45/2186 and 2187, Daltons project) ground follow up of some of the VTEM anomalies was undertaken. Iron ore rights to the tenements were applied for and minor iron ore prospecting was undertaken. Five rock chip samples were collected from potential iron ore targets associated with extensive outcrops of banded iron formation. A large orthophoto covering the tenement area was purchased.

2009

During the year ending 29 March 2009 exploration comprised helicopter assisted reconnaissance with the collection of seventy-five (75) rock chip samples (DR6, DR7, DR15-DR17, HS052 -HS200). A maximum assay result of 65.49% Fe was returned from Sample No. HS109.

Tenement No	Rock Chips
E45/2186	22
E45/2187	17
E45/2921	8
E45/2922	28
TOTAL	75



2010

Exploration during 2010 comprised:

- the drilling of forty (40) RC drillholes for a total of 3438m,
- metallurgical studies using samples from diamond drillhole RDDW001 (70.5m),
- scoping studies relating to potential for DSO from Mt Webber and
- MRE by CSA
- helicopter assisted reconnaissance with the collection of sixty-one (61) rock chip samples (HS201 -HS281).

A significant intercept of 118m @ 59.82% Fe was recorded from surface in RC drillhole RCDW036 within a chert banded BIF. Rock chip sampling returned a maximum assay result of 63.92% Fe from Sample No. HS207 within a hematitic BIF.

Tenement No	Prospect	RC Drilling	Metallurgy	Scoping Study	Rock Chips
E45/2186	Mt Webber	40/3438	√	√	21
E45/2187					11
E45/2922					29
TOTAL		40/3438			61

Daltons Resource Table > 50%Fe (Dec 2010) Completed by CSA							
	Resource Classification	Kt	Fe	SiO ₂	Al ₂ O ₃	P	LOI
			(%)	(%)	(%)	(%)	(%)
Daltons	Measured	-	-	-	-	-	-
	Indicated	28,900	57.90	6.69	1.49	0.097	8.17
	Inferred (Lower Lenses)	4,300	53.70	15.29	0.81	0.046	6.50
	Inferred (Northern Zone)	1,900	55.00	8.10	3.24	0.070	8.52
	Total	35,100	57.20	7.81	1.50	0.089	7.99

Note: The CSA Mineral Resource was estimated within constraining wireframe solids based on a nominal lower cut-off grade of 50%Fe. The resource is quoted from blocks above the specified Fe% cut-off grade. Differences may occur due to rounding

2011

Exploration during 2011 comprised:

- the drilling of thirty-one (31) vertical (-90⁰) and angled (-60⁰) drillholes for a total of 2316.7m,
- surface sampling and
- metallurgical studies using samples from diamond drillholes RDDW002, 003, 005, RDMW004 and RDMW006

Significant iron intercepts of 68m @ 60.14 % Fe from 4m in RCDW041 and 78m @ 59.81% Fe from 10m in RCDW055 hosted predominantly within banded iron formation (BIF) were recorded.

Giralia Resources NL became a wholly owned subsidiary of Atlas Iron Ltd on March 8, 2011.

Atlas Iron Ltd – E45/2496



2006-2007

On 28 November 2006 Atlas Iron Limited signed an agreement to purchase a package of Berkeley Resources tenements in the Abydos area. Tenement E45/2496, granted to Berkeley Resources on 1st May 2006 with an initial area of seven (7) blocks, formed part of this tenement package.

Activities included:

- Acquisition of hard copy and digital GIS data - Landsat imagery
- Assessment and acquisition of available open file geophysical data.

A review was completed of the publicly available airborne geophysics for the area covering the Abydos Project. Data collected by Sipa Resources in the early to mid-1990's, which included at least 100m flight line spacing surveys, was ordered from Southern Geoscience Consultants to be merged with the freely available 400m flight line data from Government Surveys and a range of images prepared for MapInfo use.

2007-2008

A mineral rights agreement was executed between Atlas Iron Ltd and Shaw River Resources Ltd on 5 March 2008 allowing Shaw River to explore for metals other than iron on E45/2496.

During the reporting period Atlas Iron Limited and Shaw River Resources conducted:

- Helicopter and ground reconnaissance was conducted to ascertain the best access to the area.
- Rock chip sampling (2) within E45/2496 and analysed by Ultratrace Laboratories Perth (NSA).
- Review of historic exploration and desk top studies.

2008-2009

Exploration comprised:

<i>Work Completed</i>	<i>Details</i>	
Field Reconnaissance	Field visit	Atlas Iron staff
High Resolution Digital Photography	Acquisition of digital imagery over Mt Webber Project	AAMHatch
Open File Geophysics	Acquisition and overview of geophysics	GSWA, SGC, Atlas Iron staff

- Reconnaissance to assess possible target areas and access routes
- Digital aerial photography - High resolution digital imagery was acquired over the tenement during the reporting period for location and geological interpretation. Atlas Iron commissioned AAMHatch to fly high resolution digital photography over its Mt Webber Project in August 2008. . Imagery was captured at 0.15cm cell size. Project specifications and technical processes were designed to achieve data accuracies as detailed in the table below.

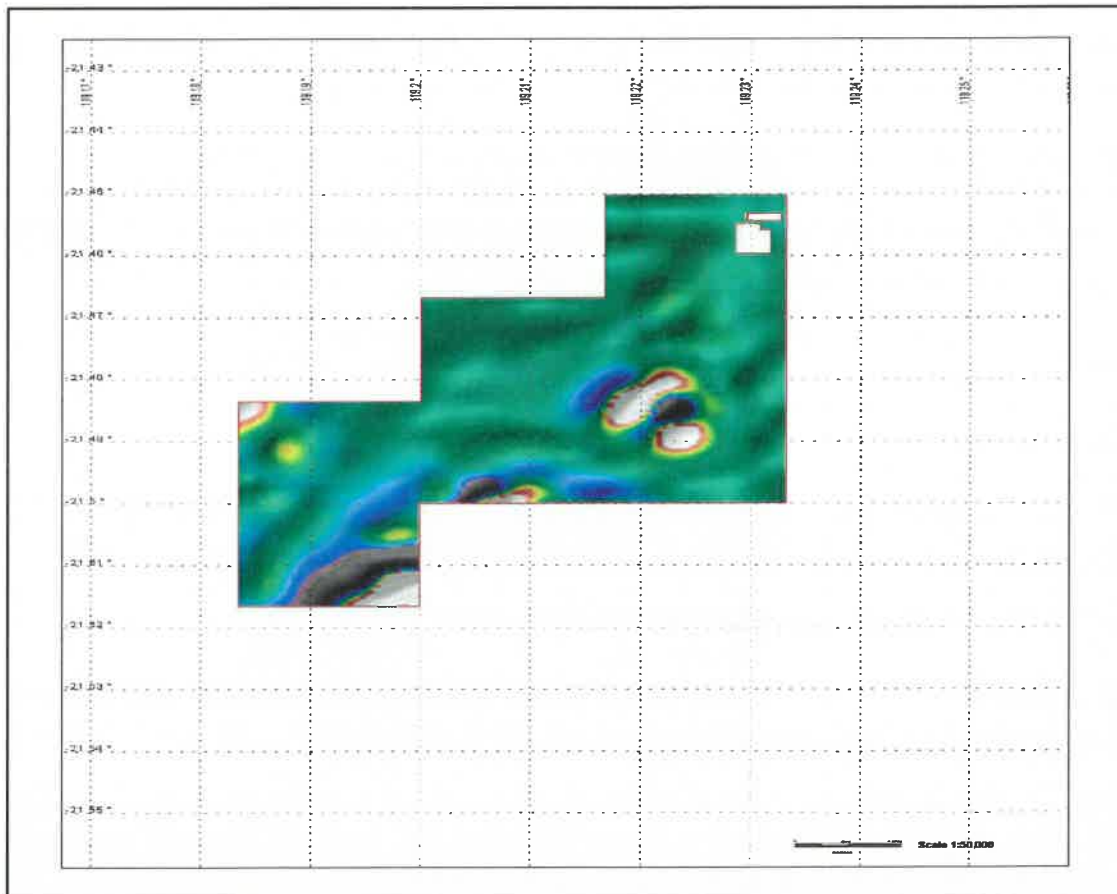
<i>Data Type</i>	<i>Measured Point</i>	<i>Basis of Estimation</i>
Ground Control	0.05m	Survey methodology used

Horizontal data	0.25m	Deductive estimate
Vertical data	0.20m	Deductive estimate
Pixels	0.30m	Deductive estimate

- Open file geophysics - An overview of this data was made and used in conjunction with GSWA geological mapping and the recently acquired high resolution imagery in target generation work.

2009-2010

During the reporting period Atlas Iron Limited conducted exploration activities within E45/2496 comprising a reconnaissance visit to the tenement and a review of recently acquired remote sensing data.



Open File Geophysics acquired over E45/2496, RTP 1VD Image (Lin) Shaded with 50% East AGC Gradient

2010-2011



Shaw River undertook an exploration review of the Pilbara for base metals incorporating E45/2496 in the study.

MinCorp Consultants was commissioned by Shaw River Resources Limited (SRR) and Jabiru Metals Limited (JML) to undertake a review of certain of their tenements in the Eastern Pilbara region that are considered prospective for base metals. The tenement E45/2496 from the Abydos / Mt Webber Project was included in this review. The final report was submitted in May 2010 and describes the geological setting of the project area, mineralisation in the area and previous exploration.

The report states that within E45/2496 “the only exploration geochemistry of note is some panned concentrate sampling, mostly in the northern portion of the tenement. This was only assayed for gold. The Landsat Study identified areas of alteration some of which are related to known mineralisation. De Grey sediments are mineralised elsewhere in the Pilbara associated with major structures and it is noted that the Escarpment Fault (part of the eastern boundary a major structural corridor) runs along the western boundary of the tenement. Base metal targets are not immediately apparent; however given the lack of exploration work it would be appropriate to complete a first-pass soil survey and 1:5,000 geological mapping”.

2011-2012

Exploration for iron on the Mt Webber Project tenements for the twelve month period to 29 March 2012 comprised:

- RC drilling –13/1038m; with a best intercept of 76m @ 59.1 % Fe in MWRC476 from 2m in predominantly massive goethite with minor vitreous and bedded goethite
- Environmental surveying
- Mineral Resource Estimate

Tenement No	Prospect	RC Drilling (No. Holes/Metres)	MRE	Heritage Survey	Environment
E45/2186	Daltons 1	13/1038	√	√	√
E45/2187	Daltons 2			√	√
E45/2922					√
Total		13/1038			

Daltons Resource >50% Fe Atlas Revised Resource May 2011

	Resource Classification	Kt	Fe	SiO ₂	Al ₂ O ₃	P	S	LOI	CaFe
			(%)	(%)	(%)	(%)	(%)	(%)	(%)
Daltons	Measured								
	Indicated	23,075	58.3	5.9	1.6	0.09	0.02	8.2	63.5
	Inferred	385	57.1	8.5	1.1	0.04	0.09	6.9	61.3
Total	All Resources	23,460	58.3	6.0	1.5	0.09	0.02	8.2	63.5

Atlas Iron Daltons Mineral Resource Table – May 2011



Category	Fe Grade % Cut Off	Tonnes (Kt)	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	LOI %	S %	CaFe
Measured	50%	-	-	-	-	-	-	-	
	53%	-	-	-	-	-	-	-	
	55%	-	-	-	-	-	-	-	
Indicated	50%	23,011	58.29	5.92	1.55	0.095	0.017	8.28	63.55
	53%	22,592	58.41	5.78	1.50	0.095	0.017	8.29	63.69
	55%	20,587	58.81	5.33	1.43	0.096	0.017	8.26	64.11
Inferred	50%	384	57.31	8.26	1.09	0.041	0.096	6.81	61.50
	53%	384	57.31	8.26	1.09	0.041	0.096	6.81	61.50
	55%	377	57.36	8.21	1.08	0.041	0.095	6.81	61.55
Combined Total	50%	23,395	58.28	5.95	1.54	0.094	0.019	8.25	63.52
	53%	22,976	58.39	5.82	1.50	0.094	0.019	8.27	63.65
	55%	20,964	58.79	5.38	1.42	0.095	8.230	0.02	58.80

2012-2013

Exploration for iron on the Mt Webber Project tenements for the twelve month period to 29 March 2013 comprised:

- RC drilling –100/6724m; with a best intercept of 60m @ 59.86 % Fe in MWRC1065 from 4m in predominantly goethite and haematitic goethite (Table 4)
- Core drilling – 2/150m
- Rock chip sampling
- Environmental studies
- Mineral Resource Estimate update

The 2012 updated resource indicated the Fender-Gibson-Daltons deposit to have a total mineral resource of 40.0 Mt @ 56.9 % Fe at 50% cut-off, comprising a:

- Measured resource of 8.1 Mt @ 58.0 % Fe
- Indicated resource of 31.2 Mt @ 56.6 % Fe
- Inferred resource of 0.7 Mt @ 56.6 % Fe

Exploration statistics are presented below by tenement.

Exploration statistics 2012 - 2013

Tenement No	Prospect	RC Drilling (No. Holes/Metres)	DDH Drilling	Rock Chip Sampling	MRE	Heritage Survey	Environment
E45/2186	Daltons 1	100/6724	2/150	10	√	√	√
E45/2187	Daltons 2			16			√
E45/2922				23			√
M45/1197	Daltons Pit					√	
Total		100/6724	2/150	49			

Mt Webber (Ibanez Fender Gibson and Daltons) Resource Summary ≥ 50% Fe, as at June 2012



Mount Webber Resource Summary Table > 50% Fe									
	Resource Classification	Kt	Fe	SiO ₂	Al ₂ O ₃	P	S	LOI	CaFe
			(%)	(%)	(%)	(%)	(%)	(%)	(%)
Mt Webber	Total Measured	22,690	57.8	5.5	2.0	0.09	0.02	8.8	63.4
	Total Indicated	41,500	56.1	7.8	2.4	0.08	0.02	8.5	61.3
	Total Inferred	1,000	56.8	8.4	1.2	0.06	0.06	7.2	61.2
Total Resources - Mount Webber		65,190	56.7	7.0	2.2	0.09	0.02	8.6	62.0

2013-2014

Exploration for the 2013-2014 period comprised:

- the drilling of thirty-four (34) angled (-58⁰ to -70⁰) RC holes (MWRC1097- 1130) for 3172m on the Daltons deposit, M45/1197-I,
- geological mapping and rock chip sampling,
- target generation from the 2012-2013 drilling programme
- heritage surveying
- POW approvals - ten (10)
- Earth works

Results: Mapping identified surface mineralisation within the outcropping Pincunah Hill BIF in the north of the Mt Webber North prospect. Significant surface mineralisation was also mapped at Daltons North.

RC drilling recorded a maximum intercept of 82m @ 59.54% Fe in MWRC1126 (-60⁰); 739182 E, 7617670 N from 6m (50 % Fe cut-off).

Rock chip samples in the main were collected from the Gorge Creek Group BIF horizons. A maximum result of 64.35% Fe was recorded in Sample No. ARK02328.

A minor update of the Daltons resource was calculated in November 2013 and determined to be 21.345 Mt @ 57.64% Fe.

Exploration statistics 2013 - 2014

Tenement No	Prospect	RC Drilling (No. Holes/Metres)	Rock Chip Sampling	Geological Mapping	MRE	Heritage Survey
E45/2186-I	Mt Webber West					√
E45/2187-I	MT Webber North MW13			√		√
E45/2922-I						√
M45/1197-I	Mt Webber North	34/3172	19	√	√	√
Total		34/3172	19			

Mt Webber Project Daltons Resource Summary ≥ 50% Fe, as at November 2012



Resource Table >50% cutoff by Resource Classification															
Resource Classification	Volume (m ³)	Density (t/m ³)	Tonnes	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	S (%)	LOI (%)	MnO (%)	CaO (%)	MgO (%)	TiO ₂ (%)	K ₂ O (%)	Na ₂ O (%)
Measured	3,968,313	2.53	10,032,505	58.68	5.35	1.53	0.097	0.021	8.27	0.300	0.074	0.084	0.038	0.020	0.030
Indicated	4,502,922	2.49	11,234,327	56.71	7.45	1.72	0.091	0.024	8.46	0.290	0.187	0.114	0.054	0.026	0.032
Inferred	32,969	2.38	78,340	58.45	6.62	1.18	0.088	0.027	7.70	0.422	0.034	0.074	0.025	0.018	0.019
Total	8,504,203	2.51	21,345,171	57.64	6.46	1.63	0.094	0.023	8.37	0.295	0.133	0.100	0.046	0.023	0.031

PoW approvals for 2013:

Application ID	Description	Date Lodged	Type	Category	Status
39054	452013 M 45/1197-I	03/04/2013	Exploration	Programme of Work - Exploration	Approved
39781	452013 M 45/1197-I	28/05/2013	Exploration	Programme of Work - Exploration	Approved
39783	452013 M 45/1197-I	28/05/2013	Exploration	Programme of Work - Exploration	Approved
40061	452013 M 45/1197-I	20/06/2013	Exploration	Programme of Work - Exploration	Approved
43928	Mt Webber (DSO) Project Dalton Pit Mining Proposal on M451197 & M451209 - Revision C	06/11/2013	Mining	Mining Proposal With Mine Closure Plan	Approved
45545	452014 M 45/1197-I	10/01/2014	Exploration	Programme of Work - Exploration	Approved
45766	452014 E 45/2186-I	03/02/2014	Exploration	Programme of Work - Exploration	Approved
45916	452014 E 45/2186-I	13/02/2014	Exploration	Programme of Work - Exploration	Approved
45960	452014 M 45/1197-I	20/02/2014	Exploration	Programme of Work - Exploration	Approved
46009	452014 E 45/2187-I, E 45/2922-I, M 45/1197-I, P 45/2721-I	19/02/2014	Exploration	Programme of Work - Exploration	Approved
45762	452014 E 45/2186-I, E 45/2922-I, P 45/2721-I	14/02/2014	Exploration	Programme of Work - Exploration	Rejected

RC Drilling

RC drilling during the period aimed to close out and test for potential extension to the mineralisation previously intercepted at the Daltons deposit. Mineralisation was intercepted within the upper BIF unit from near surface to ≈ 50 - 70m before passing into low grade goethite with minor quartzite, becoming more silica rich to end of hole. Selected holes intersected a further 6-10m of hematite mineralisation between 80-112m; this mineralisation in the lower BIF unit is not laterally consistent across the deposit. Drilling was brought down to 40m x 40m spacing. POW 39783 was approved for this drill programme.



Significant Intercepts (Fe > 60%) from 2013 RC Drilling Programme, Dalton's prospect M45/1197-I

Hole_id	MGA94_50 East	MGA94_50 North	Depth From (m)	Depth To (m)	Fe %	Al2O3 %	S %	SiO2 %	P %	LOI %
MWRC1097	739174.27	7617210.22	30	32	61.87	1.13	0.018	2.37	0.075	7.61
MWRC1098	738968.43	7617233.94	14	16	60.53	1.22	0.012	3.36	0.101	8.43
			18	24	60.72	1.05	0.01	3.13	0.08	8.46
			28	30	60.38	1.21	0.015	2.05	0.151	9.43
			30	32	60.34	1.46	0.017	2.21	0.118	9.41
MWRC1099	739010.91	7617255.78	28	30	60.1	1.56	0.017	2.9	0.139	9.08
			32	48	60.81	0.69	0.01	1.59	0.10	10.06
MWRC1100	739279.45	7617244.19	0	2	61.01	2.16	0.029	3.27	0.066	6.84
			44	46	60.4	1.43	0.016	1.71	0.166	9.95
			46	48	60.15	1.65	0.02	2.42	0.147	9.3
			50	52	60.53	0.66	0.011	1.9	0.176	9.97
MWRC1101	738983.16	7617318.23	20	22	61.08	2.75	0.01	4.06	0.076	5.6
			22	24	62.26	1.7	0.01	2.39	0.103	6.17
			36	38	60.34	1.55	0.01	2.11	0.152	8.86
			38	40	60.1	1.51	0.011	2.11	0.123	9.44
			40	42	60.41	1.23	0.009	1.57	0.16	10.11
			58	60	60.95	0.88	0.01	2.47	0.109	8.61
			60	62	60.28	1	0.008	2.8	0.13	9.34
			70	72	61.08	1.26	0.117	3.14	0.046	7.39
MWRC1102	738949.02	7617338.62	72	74	62.68	1.03	0.088	2.79	0.04	5.37
			42	44	61.13	1.11	0.005	3.79	0.125	6.77
			66	68	60.61	1.18	0.235	5.83	0.015	5.38
			70	72	61	1.51	0.167	5.06	0.016	5.46
MWRC1103	739029.16	7617337.46	72	74	60.34	1.2	0.182	5.33	0.015	5.8
			22	24	63.58	1.05	0.01	1.55	0.1	6.15
			24	26	63.01	0.94	0.01	2.38	0.082	6.34
			28	40	61.37	1.28	0.01	2.00	0.14	8.33
MWRC1104	739257.26	7617347.83	16	18	60.33	1.71	0.041	3.98	0.039	7.52
			22	24	60.49	1.43	0.033	2.31	0.166	9.07
			24	26	62.62	1	0.02	1.36	0.126	7.83
			28	30	60.59	1.92	0.021	1.79	0.147	8.86
			78	80	61.25	0.75	0.044	4.76	0.052	5.93
			90	92	60.46	0.49	0.022	5.67	0.037	6.16
MWRC1105	739172.59	7617348.52	8	10	60.21	0.8	0.025	4.88	0.11	7.11
			28	30	60.02	2.71	0.012	3.79	0.052	5.85
MWRC1106	738937.11	7617486.65	24	28	60.32	1.125	0.011	1.92	0.1125	10.345
MWRC1107	739293.28	7617281.58	6	8	60.05	3.1	0.045	4.38	0.043	5.99
			18	34	62.61	1.20	0.02	2.45	0.12	6.54
			48	50	60.03	1.43	0.008	1.91	0.189	10.33
			72	74	60.8	0.39	0.029	7.15	0.025	4.77
MWRC1108	739310	7617319.33	24	40	62.91	1.08	0.01	1.56	0.10	7.08
			42	44	60.87	0.82	0.008	1.41	0.163	10.38
			74	76	60.31	0.87	0.071	7.1	0.031	5
			92	94	61.55	0.5	0.057	4.61	0.062	5.89
MWRC1109	739305.37	7617364.33	18	20	60.31	1.39	0.031	5.83	0.064	5.8
			20	22	62.75	1.26	0.024	4.05	0.056	4.48
			22	24	61.22	1.75	0.033	3.98	0.069	6.05



			Depth From (m)	Depth To (m)	Fe %	Al2O3 %	S %	SiO2 %	P %	LOI %
			26	56	63.10	1.01	0.02	1.45	0.11	6.93
			72	74	60.48	0.62	0.119	6.15	0.04	5.83
			88	90	62.07	1.11	0.103	3.75	0.012	5.06
MWRC1110	739281.95	7617430.7	12	14	60.47	1.35	0.028	4.84	0.068	6.05
			20	34	62.95	1.24	0.03	1.83	0.06	6.61
MWRC1111	739363.09	7617463.72	14	44	62.13	1.09	0.02	2.75	0.11	6.85
			46	48	61.4	0.96	0.015	1.61	0.17	8.89
			80	82	61.15	0.28	0.037	6.51	0.026	5.09
MWRC1112	739338.69	7617435.47	14	16	60.1	2.03	0.023	5.33	0.055	5.96
			16	18	63.66	1.13	0.022	2.32	0.057	5.01
			18	20	61.15	1.9	0.021	3.32	0.072	6.75
			22	50	62.45	1.23	0.01	1.72	0.13	7.22
MWRC1113	739330.54	7617581.72	28	30	60.15	1.15	0.011	2.02	0.122	10.42
			30	32	60.12	1.11	0.009	1.85	0.115	10.61
			44	46	60.89	1.3	0.006	1.88	0.136	8.87
			46	48	60.79	1.4	0.006	1.82	0.123	8.97
			50	52	61.35	1.15	0.005	1.85	0.137	8.67
			98	100	63.31	0.85	0.211	3.09	0.033	4.49
			112	114	60.81	0.3	0.04	4.51	0.035	6
MWRC1114	739348.82	7617567.13	24	50	61.85	1.09	0.01	2.03	0.12	7.64
			90	92	61.39	0.38	0.085	5.76	0.055	5.05
MWRC1115	739341.01	7617621.22	16	50	58.21	0.84	0.01	1.61	0.13	7.76
			60	62	60.36	0.47	0.013	7.3	0.097	5.41
			72	74	60.22	0.34	0.109	6.64	0.031	5.96
MWRC1116	739359.23	7617647.03	22	24	60.03	0.81	0.006	6.2	0.074	6.96
			24	26	61.91	0.89	0.005	2.88	0.098	6.84
			30	32	61.02	0.92	0.005	2.09	0.094	9.49
			32	34	61.35	0.77	0.006	1.85	0.108	9.03
			38	54	61.66	0.60	0.01	3.28	0.14	7.45
			60	62	60.03	0.53	0.007	5.24	0.101	8.05
			80	82	63.38	0.25	0.252	2.79	0.016	5.53
			82	84	60.78	0.22	0.148	5.05	0.017	6.8
			88	90	62.07	0.32	0.058	3.16	0.061	5.47
			94	96	61.39	0.23	0.049	2.73	0.056	6.51
MWRC1117	739429.43	7617589.84	24	58	58.46	0.59	0.01	1.75	0.10	7.82
MWRC1118	739384.26	7617625.94	22	36	61.05	0.61	0.01	3.35	0.11	8.13
			40	42	60.63	0.59	0.005	2.25	0.155	9.66
			68	80	61.91	0.39	0.15	4.52	0.02	5.38
MWRC1119	739315.49	7617669.73	4	6	61.04	0.66	0.013	4.89	0.062	6.74
			10	12	61.43	0.89	0.016	3.66	0.069	7.14
			12	24	61.24	0.52	0.01	4.29	0.07	7.23
			34	36	60.97	0.56	0.007	4.36	0.103	7.33
			54	56	61.31	0.7	0.005	1.68	0.139	8.99
			56	58	61.5	1.01	0.005	2.07	0.149	8.13
			60	62	60.41	0.93	0.005	2.04	0.178	9.5
MWRC1120	739297.47	7617600.02	12	38	60.98	1.27	0.01	1.71	0.10	9.22
			42	44	60.17	1.06	0.006	1.73	0.125	10.34
			50	52	61.61	1.1	0.008	2.81	0.112	7.3
			82	84	61.35	0.29	0.065	6.7	0.012	4.54



			Depth From (m)	Depth To (m)	Fe %	Al2O3 %	S %	SiO2 %	P %	LOI %
MWRC1121	739243.89	7617693.23	2	4	62.39	0.35	0.013	1.69	0.079	7.75
			4	6	61.11	0.29	0.008	4.15	0.082	7.5
			8	10	62.26	0.22	0.008	3.1	0.076	7.28
			16	18	60.73	0.45	0.013	3.79	0.079	8.21
			18	20	60.15	0.47	0.017	4.97	0.077	7.95
			22	24	61.11	0.69	0.013	3.91	0.084	7.32
			26	34	61.42	0.58	0.01	1.60	0.13	9.25
			40	48	60.79	0.21	0.01	1.64	0.15	10.50
			28	30	60.29	0.61	0.005	1.96	0.103	10.01
MWRC1122	739136.14	7617709.21	30	32	61.14	0.64	0.005	1.91	0.082	9.58
			40	42	60.04	0.58	0.005	1.69	0.111	10.43
			20	24	61.13	0.62	0.01	2.75	0.10	8.76
MWRC1124	739190.01	7617711.7	20	22	60.77	0.5	0.012	1.65	0.121	10.28
MWRC1125	739148	7617643	22	24	60.84	0.83	0.016	2.16	0.108	9.39
			26	28	60.32	0.66	0.013	3.6	0.102	9.12
			28	30	60.06	0.74	0.011	3.75	0.132	9.03
			32	34	60.54	1.44	0.016	3.14	0.105	7.96
			40	42	60.68	0.64	0.006	2.32	0.147	9.88
			26	50	60.79	0.88	0.01	1.73	0.10	9.46
MWRC1126	739182	7617670	54	68	61.69	0.68	0.01	1.39	0.12	8.96
			72	74	61.36	0.58	0.007	3.12	0.124	8.24
			74	76	61.16	0.48	0.007	2.36	0.129	9.04
			78	80	61.37	1.47	0.104	4.58	0.036	4.87
			6	8	60.24	0.92	0.028	4.67	0.097	7.62
MWRC1128	739177	7617579	24	34	61.70	0.70	0.01	2.33	0.07	8.11
			8	10	60.94	1.07	0.024	4.42	0.096	6.63
MWRC1129	739057	7617556	10	12	61.05	1.31	0.032	4.1	0.085	6.58
			14	30	61.06	1.13	0.03	4.00	0.08	7.09

Significant intercepts were recorded from the north-eastern extension of the Daltons deposit and infill holes for both the Upper and Lower BIF units.

Geological Mapping & Rock Chip Sampling

Geological mapping at 1:2000 scale at Daltons North prospect (M45/1197) and Mount Webber North prospect (E45/2187), Mt Webber was conducted between August and September 2013. Mapping identified surface mineralisation within the outcropping Pincunah Hill BIF in the north of the Mt Webber North prospect. Significant surface mineralisation was also mapped at Daltons North.

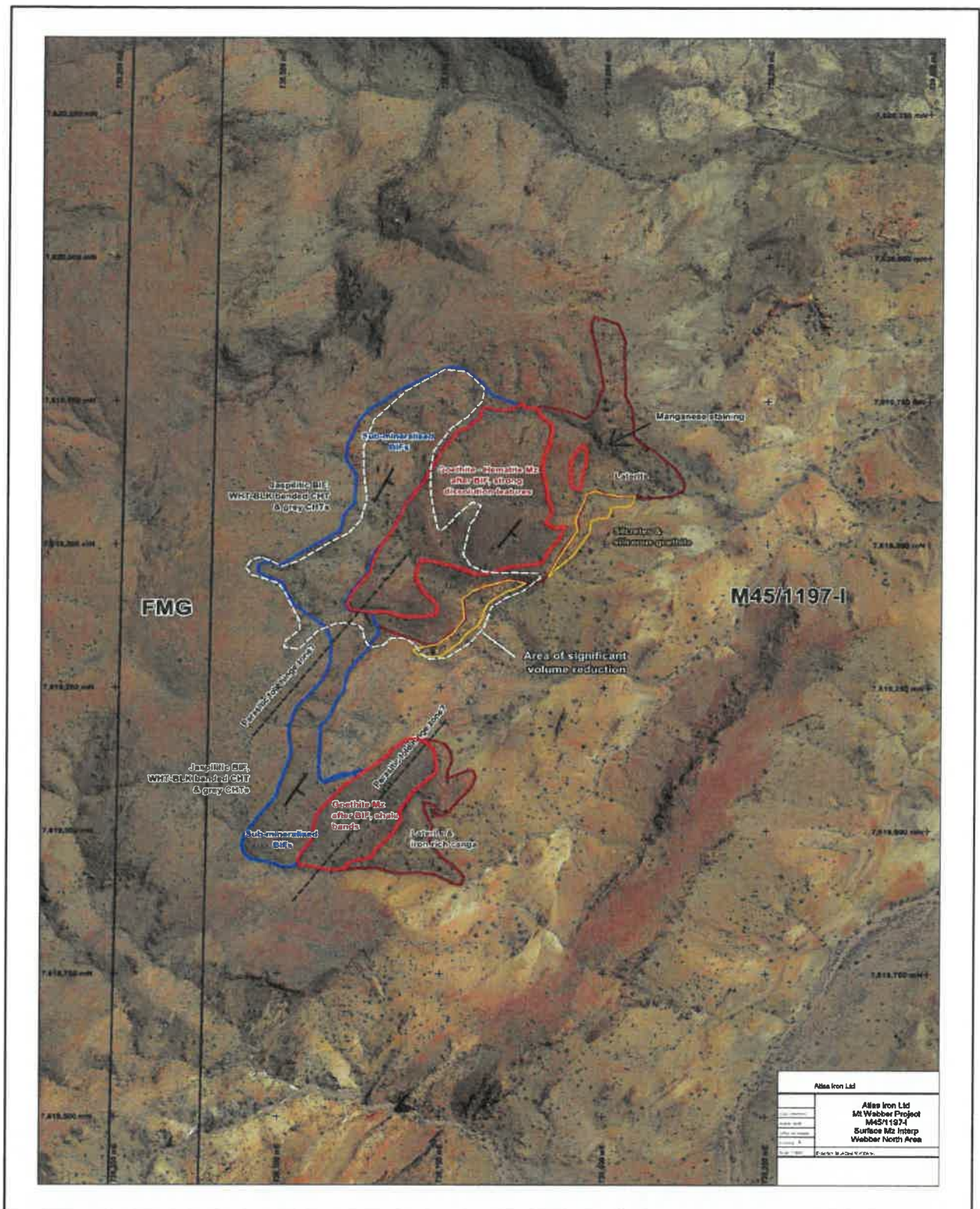
Figure 8 shows the area of mapped mineralisation at Mt Webber North in relation to the existing deposits. The red and pink polygons show the surface extents of strong and moderate/weak bedded iron mineralisation respectively. Mapping showed the mineralisation to be located on the southeast dipping limb of a synform considered to be the same structure which hosts the Ibanez mineralisation approximately 3km to the southwest.



Consanguineous with mapping nineteen (19) rock chip samples (ARK2320 – ARK2338) were collected from within M45/1197-I. Samples in the main were collected from the Gorge Creek Group BIF horizons. A maximum result of 64.35% Fe was recorded in Sample No. ARK02328.

Rock Chip Results from the 2013 Sampling Programme Daltons M45/1197-I

<i>Sample_id</i>	<i>MGA94_50 East</i>	<i>MGA94_50 North</i>	<i>Fe %</i>	<i>Al2O3 %</i>	<i>S %</i>	<i>SiO2 %</i>	<i>P %</i>	<i>LOI %</i>
ARK02320	738546	7619018	42.66	0.5	0.01	33.98	0.105	4.12
ARK02321	738492	7619093	62.13	0.45	0.027	2.16	0.162	7.91
ARK02322	738502	7619296	31.08	0.35	0.018	52.62	0.037	1.86
ARK02323	738464	7619306	45.52	0.37	0.021	32.28	0.067	1.59
ARK02324	738414	7619365	42.14	0.35	0.029	37.62	0.046	1.29
ARK02325	738482	7619444	37.91	0.72	0.039	42.59	0.038	1.67
ARK02326	738799	7619459	61.54	0.51	0.02	2.43	0.216	8.56
ARK02327	738475	7619574	42.87	0.85	0.046	30.5	0.047	6.85
ARK02328	738905	7619613	64.35	0.94	0.055	2.62	0.051	4.24
ARK02329	738476	7619609	31.45	0.95	0.03	48.3	0.029	5.2
ARK02330	738638	7619781	40.42	1.45	0.027	37.97	0.06	2.21
ARK02331	738691	7619805	39.28	0.77	0.034	40.65	0.028	1.56
ARK02332	738828	7619880	42.73	0.84	0.017	35.59	0.088	2.19
ARK02333	738852	7619948	40.38	1.07	0.038	35	0.085	5.65
ARK02334	738811	7620004	33.11	2.74	0.028	45.01	0.096	4.39
ARK02335	738911	7619976	25	1.83	0.026	60.06	0.024	1.95
ARK02336	738979	7619865	41.02	1.22	0.05	37.86	0.067	1.63
ARK02337	738693	7620611	11.79	0.11	0.015	81.04	0.025	1.62
ARK02338	738673	7620726	30.4	0.49	0.045	51.03	0.041	4.31



Mt Webber Project M45/1197-I Surface Mineralisation Interpretation Webber North Area



5. CURRENT EXPLORATION

Exploration conducted by Atlas Iron Ltd on the Mt Webber C71/2003 tenements for the 2014-2015 period comprised:

- Earth works
- Rock chip sampling – 14 samples collected
- Geological mapping
- the drilling of one hundred and thirty-two (132) RC holes (MWRC1131- 1262) for 7882m on the Daltons deposit, M45/1197-I, and regional reconnaissance (E45/2922, E45/2187)
- Daltons MRE update
- Heritage surveying and assessment
- Environmental assessments – Daltons ramp:
 - terrestrial fauna impact
 - Flora and vegetation impact

5.1 Drilling

5.1.1 RC Drilling

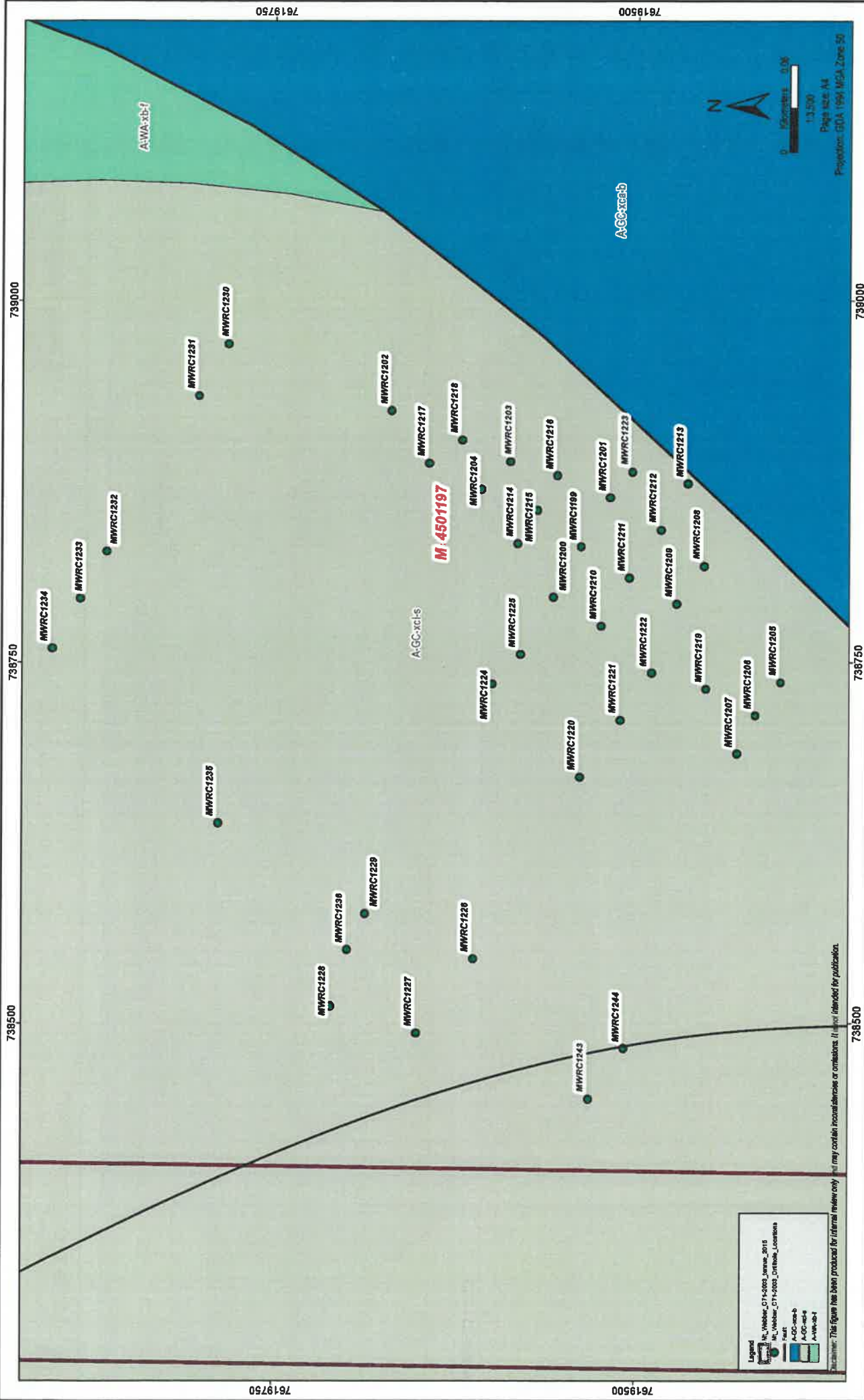
A total of one hundred and thirty-two (132) angled (- 41° to 63°) and vertical (-85° to 89°) drillholes (MWRC1131 - 1262) were drilled on M45/1197-I, E45/2922 and E45/2187 between April and June 2014 for 7852m by Wallis Drilling Services utilising a WD-D24 rig.

Four drilling campaigns were conducted in all at Daltons North, Webber North, Ibanez North and Locality 6 North. Daltons North drill program returned numerous intercepts of DSO Iron ore mineralisation. A total of forty-nine (49) RC holes were drilled down to 20m x 20m spacing at Daltons North on mapped surface enrichment. Mt Webber North and Ibanez North drilling campaigns were conducted over previously untested mapped surface mineralisation. Some significant mineralised intercepts were encountered at Mt Webber North however results were inconsistent and mostly shallow. No significant enrichment was encountered at Ibanez North or Locality 6 North.

Drilling commenced at Daltons North in April 2014 where Phase 1 and 2 programmes were completed. Mineralisation was intercepted in the majority of these drillholes from surface to ~ 6 - 10m. Drilling of the T-Rex Ridge a narrow ridge area (between Daltons North and Webber North), a previously untested area, intersected several narrow zones of mineralisation.

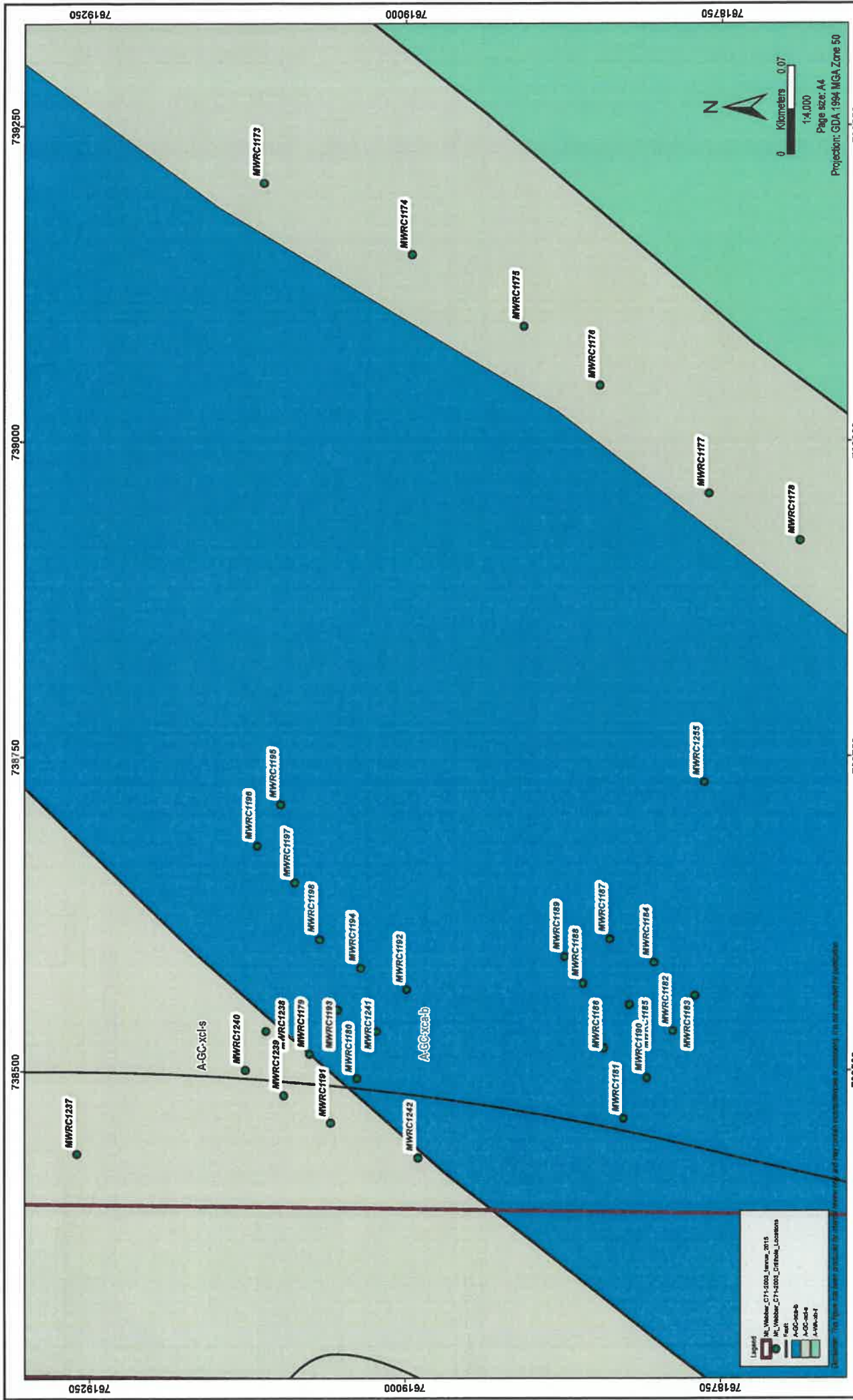
Moderate mineralisation was encountered at Webber North from surface to 16-18 mdh, considered to represent the lower BIF unit of the Pincunah Formation. Drilling commenced in April 2014 where mineralised lateritic cover and BIF grading into a sequence of cherty BIF and quartzite were encountered, overlying a narrow carbonaceous shale unit and altered mafic and ultramafic lithologies. Discontinuous goethitic mineralisation was intercepted to a depth of 20m from surface.

Drilling commenced at Ibanez North (E45/2922) at the end of May 2014 and showed the mineralisation to be patchy and discontinuous in this area with a maximum thickness of 16m from surface.



	File Name: Mt Webber_C71-2003_tenure Date: 23/03/2015 Author: Margaret Stewart Rev: 1	Figure No: 7
	Mt Webber Project M451197-I RC Drillhole Location (Plan 1)	

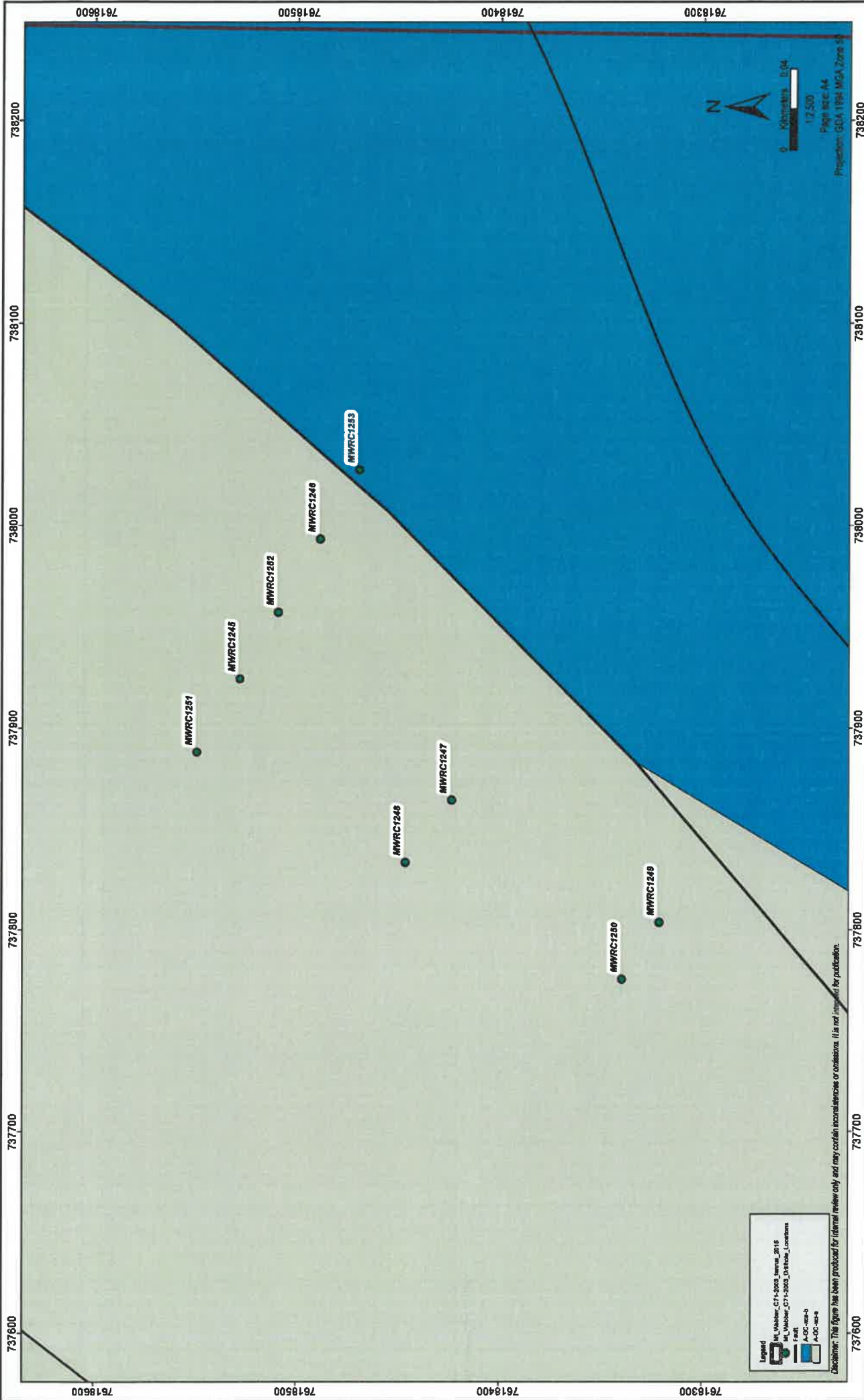
Mt Webber C71/2003 Atlas



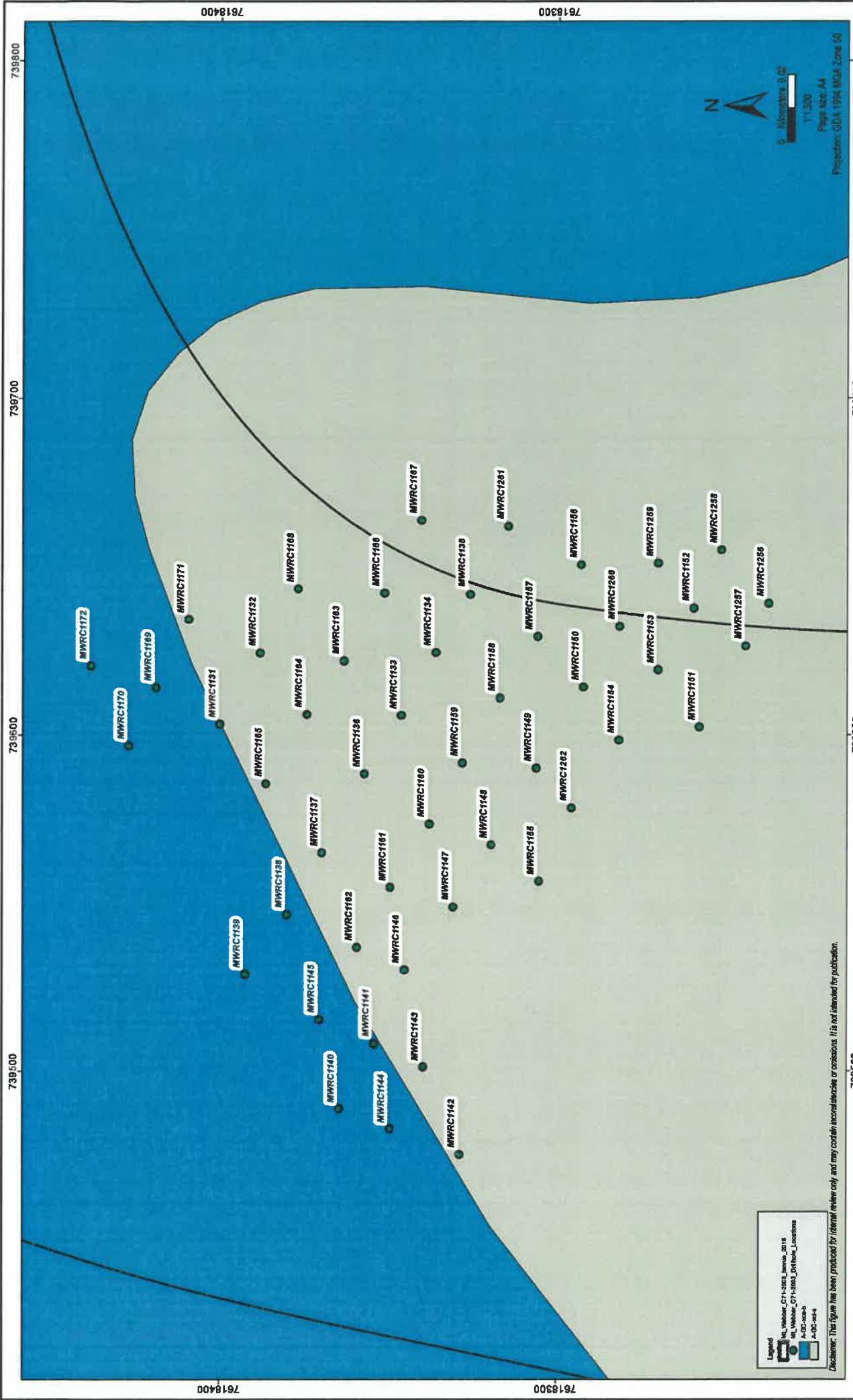
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Date: 23/03/2015
Author: Margaret Stewart
Rev: 1


File Name: Mt Webber Project M45/1197-1
RC Drillhole Location (Plan 2)

Figure No: 7



	File Name: Mt Webber_C71-2003_tenure Date: 23/03/2015 Author: Margaret Stewart	Figure No: 7
	Mt Webber Project M45/1197-1 RC Drillhole Location (Plan 3)	




Mt Webber C71/2003

File Name: Mt Webber_C71-2003_venture_060814.mxd
 Date: 23/03/2015
 Author: Margaret Stewart
 Rev: 1

Mt Webber Project M451197-1
RC Drillhole Location (Plan 4)

Figure No: **7**



Appendices I-VIII and Figure 7 present the technical details and drillhole locations respectively.

Table 5 outlines the most significant iron intercepts from the 2014 drilling programme.

Table 5: Significant intercepts from the 2014 RC Drilling Programme (Fe cutoff 53%)

HoleID	Lease	MGA94_50 East	MGA94_50 North	Depth From (m)	Fe (%)	SiO2 (%)	Al2O3 (%)	P (%)	LOI (%)	S (%)
MWRC1131	M45/1197	739603.27	7618399.87	38	20m @ 54.17	15.99	1.25	0.052	4.37	0.077
MWRC1150	M45/1197	739614.34	7618292.14	4	22m @ 56.58	7.43	2.22	0.119	8.47	0.018
MWRC1151	M45/1197	739602.46	7618257.69	4	20m @ 58.91	4.74	1.84	0.095	8.27	0.011
MWRC1153	M45/1197	739619.41	7618270.04	0	20m @ 54.94	8.15	3.05	0.079	8.52	0.023
MWRC1154	M45/1197	739598.65	7618281.63	2	24m @ 58.17	6.39	1.83	0.099	7.83	0.016
MWRC1166	M45/1197	739642.33	7618351.15	0	16m @ 53.73	8.56	2.81	0.121	9.95	0.016
MWRC1178	M45/1197	738921.15	7618686.88	64	40m @ 53.03	8.56	4.49	0.148	10.17	0.019
MWRC1179	M45/1197	738513.35	7619075.66	0	16m @ 55.15	9.66	1.65	0.188	9.2	0.032
MWRC1199	M45/1197	738830.23	7619537.96	0	22m @ 53.45	9.44	2.27	0.096	10.56	0.028
MWRC1201	M45/1197	738864.35	7619518.11	0	16m @ 58.27	4.71	1.11	0.088	10.26	0.02
MWRC1208	M45/1197	738816.75	7619452.9	0	16m @ 54.29	9.96	2.38	0.109	9.31	0.037
MWRC1215	M45/1197	738855.64	7619568.6	0	16m @ 54.05	10.5	1.19	0.095	10.31	0.017
MWRC1216	M45/1197	738879.45	7619554.6	6	18m @ 55.7	8.2	0.9	0.132	10.34	0.009
MWRC1220	M45/1197	738670.99	7619538.72	6	16m @ 54.15	7.67	2.16	0.122	11.15	0.028
MWRC1222	M45/1197	738742.83	7619489.18	2	16m @ 54.41	9.98	1.65	0.114	10.05	0.017
MWRC1238	M45/1197	738531.72	7619110.16	0	18m @ 55.23	8.02	1.96	0.151	10.38	0.042
MWRC1260	M45/1197	739632.33	7618281.54	0	16m @ 53.78	9.55	3	0.084	9.23	0.023
MWRC1262	M45/1197	739578.46	7618295.56	0	28m @ 55.05	9.95	1.88	0.102	7.55	0.015

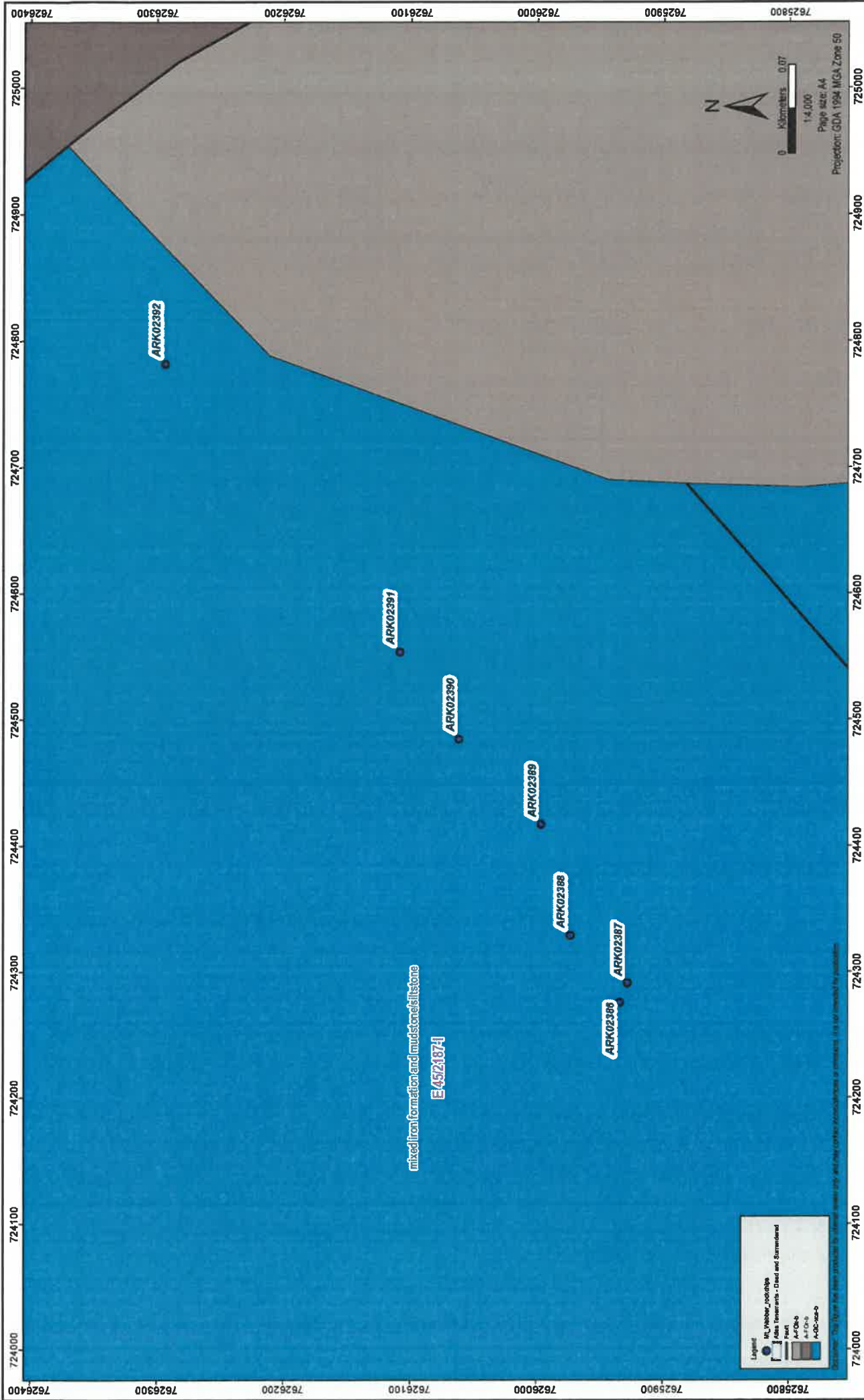
5.2 Geological Mapping and Surface Sampling

Rock chip sampling was conducted across E45/2187 and E45/2922 in May 2014 (Table 1). Fourteen (14) samples, ARK02386 – 02399 (Figure 7a) were collected predominantly from BIF outcrops. Only two samples recorded values > 50% Fe (E45/2922): ARK2396 - 50.28 % Fe and ARK2397 - 52.92% Fe.

Geological mapping of the Webber North target area (M45/1197), Ibanez North (E45/2922) and Location 6 North (E45/2187) was undertaken in April 2014 (Figure Nos.7b and 7c). Spatial data is included as Appendix XI.

5.2.1 Webber North (M45/1197)

A consistent stratigraphy exists across the mapped area with a lower unenriched BIF overlain by a thin interbedded BIF and shale that grades into the mineralised unit, mineralisation is overlain by massive grey and white banded chert. This contact is often obscured by lateritisation, occasional grading of mineralisation to BIF then massive chert and lateritic cover in general. This is interpreted from a general steep south-easterly dip of beds. Younging direction is unknown (Figure 7b).



File Name: Mt Webber_C71-2003_tenure_zifferrm1.kml
 Date: 23/03/2015
 Author: Margaret Stewart
 Rev: 1

Mt Webber Project E452187-I Rock Chip Sample Location

Figure No: 7a

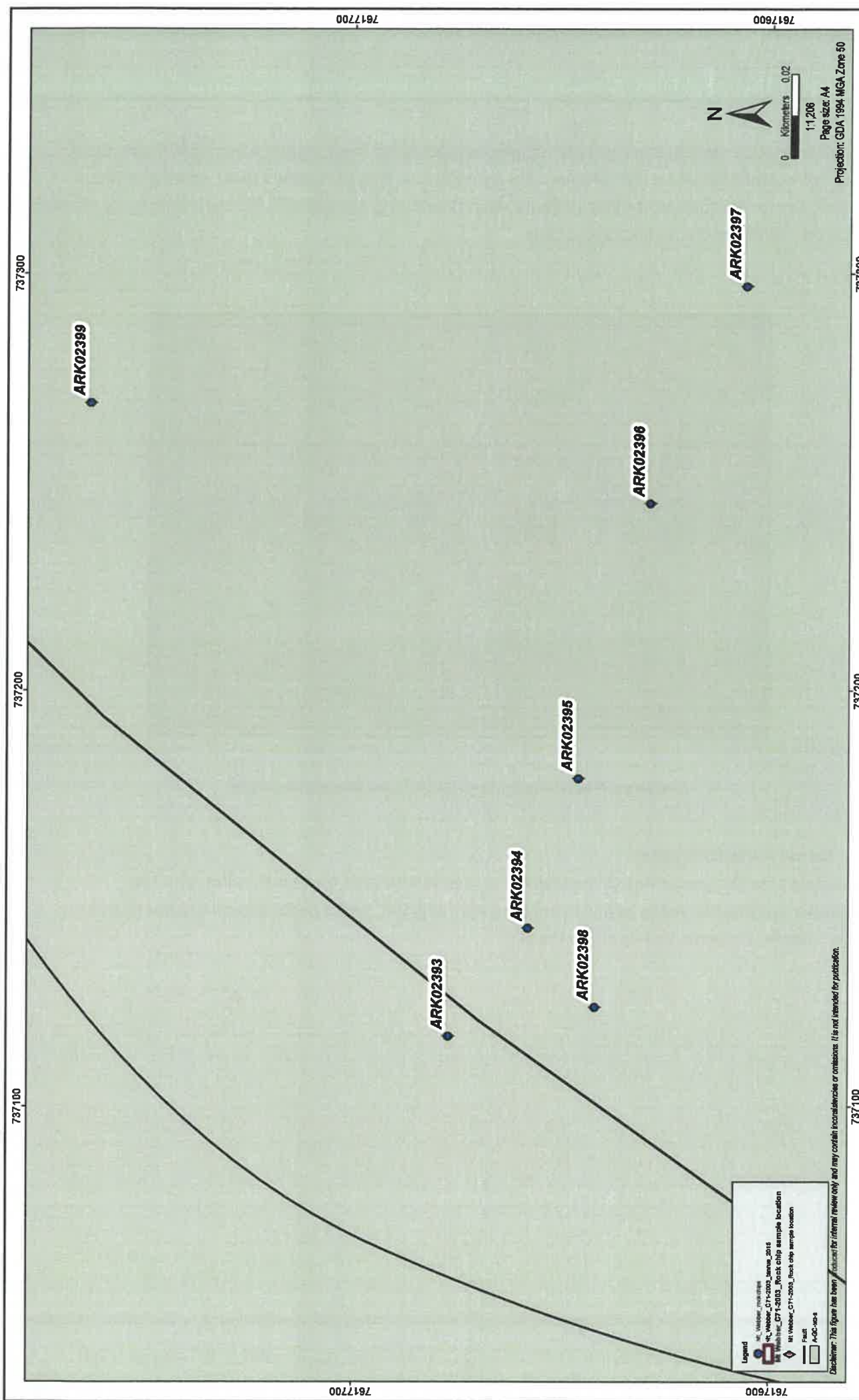


Figure No: **7a**

Mt Webber Project M45/197-1 Rock Chip Sample Location

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 Date: 23/03/2015
 Author: Margaret Stewart
 Rev: 1

Strong mineralisation identified in previous mapping appears to be fresh, highly deformed BIF with high specular iron content but also a high amount of microcrystalline SiO₂ (very pale streak). Bedding is often observable, as are thin chert bands and hydraulic quartz fracturing. Manganese staining is frequently observed at the borders of the northern mineralised zone.



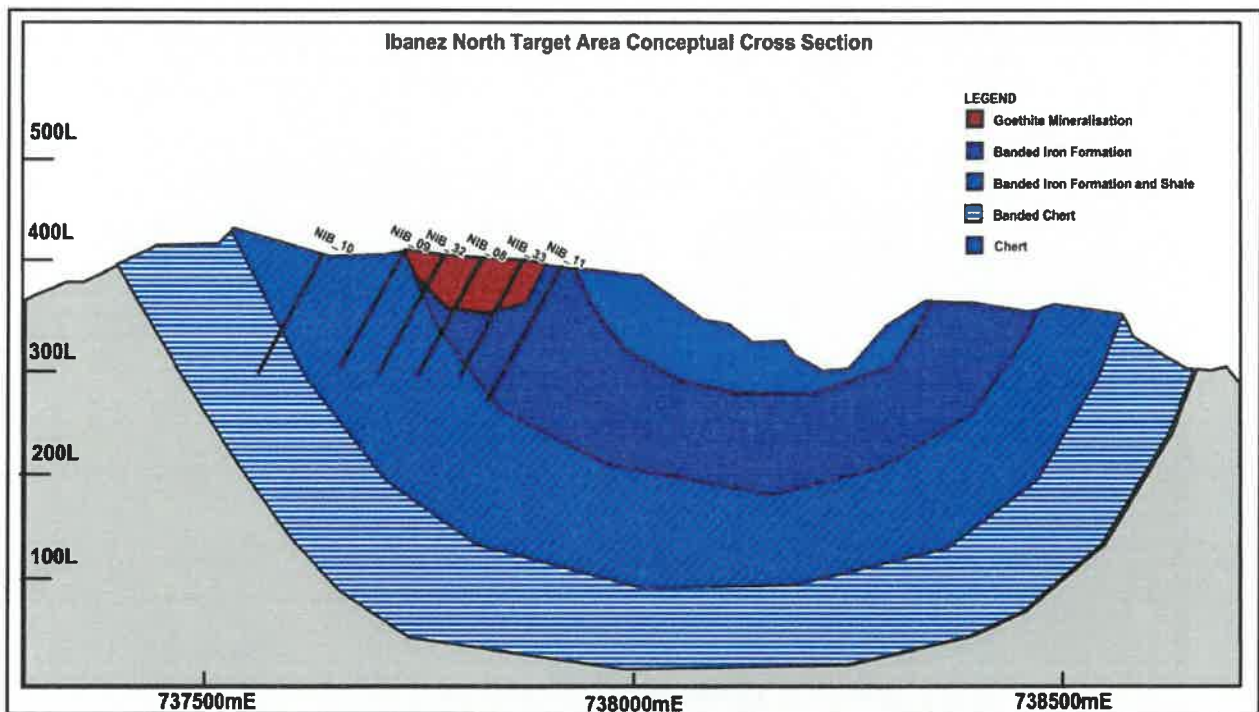
Massive goethite with minor hematite and some relict bedding visible

5.2.2 Ibanez North (E45/2922)

This prospect area lies along strike to the southwest from the Webber North mineralisation. The mineralisation extends for 440m as one continuous enriched unit. Relict bedding is often present and observed dipping at approximately 60° to the SE.

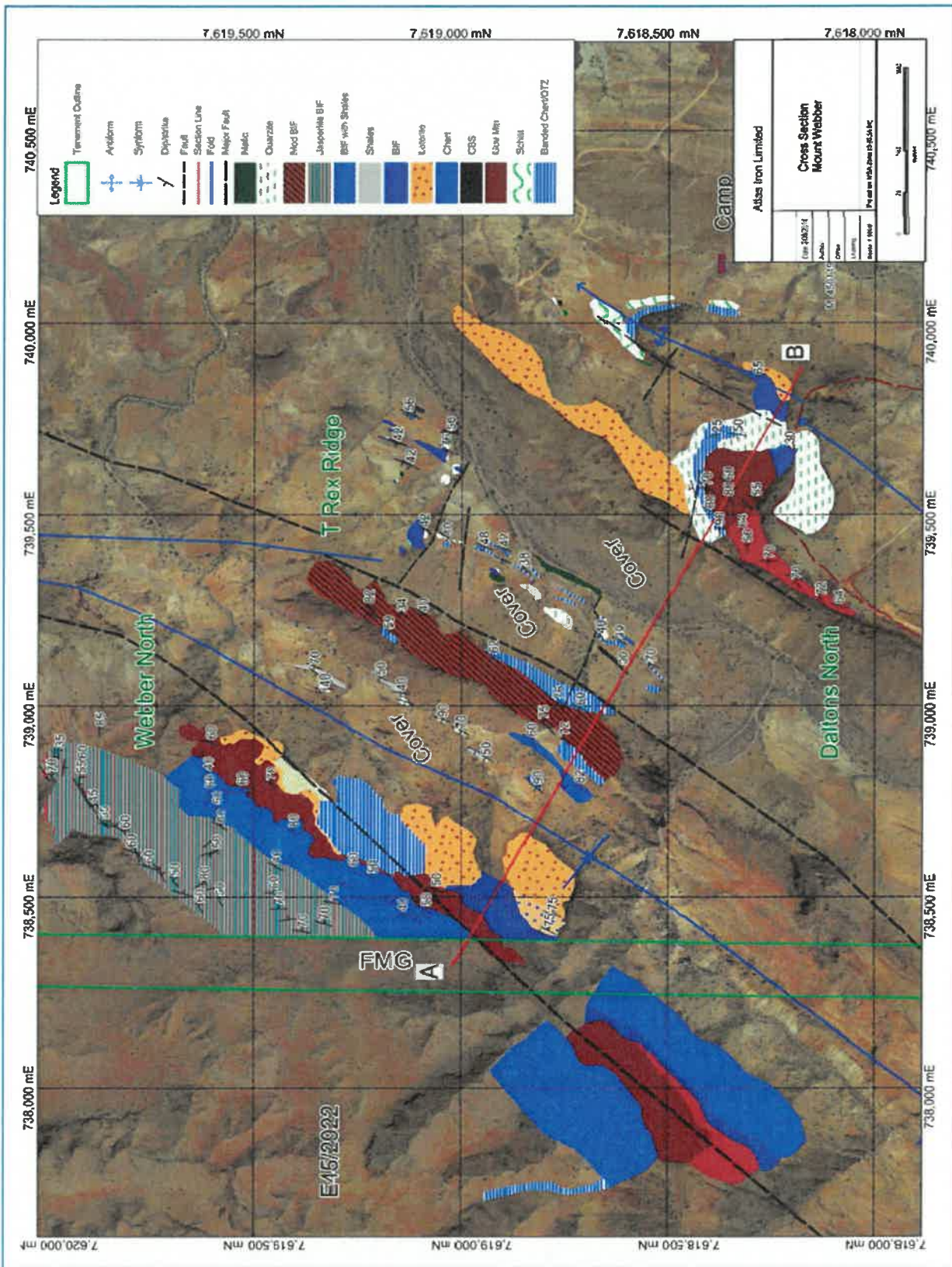


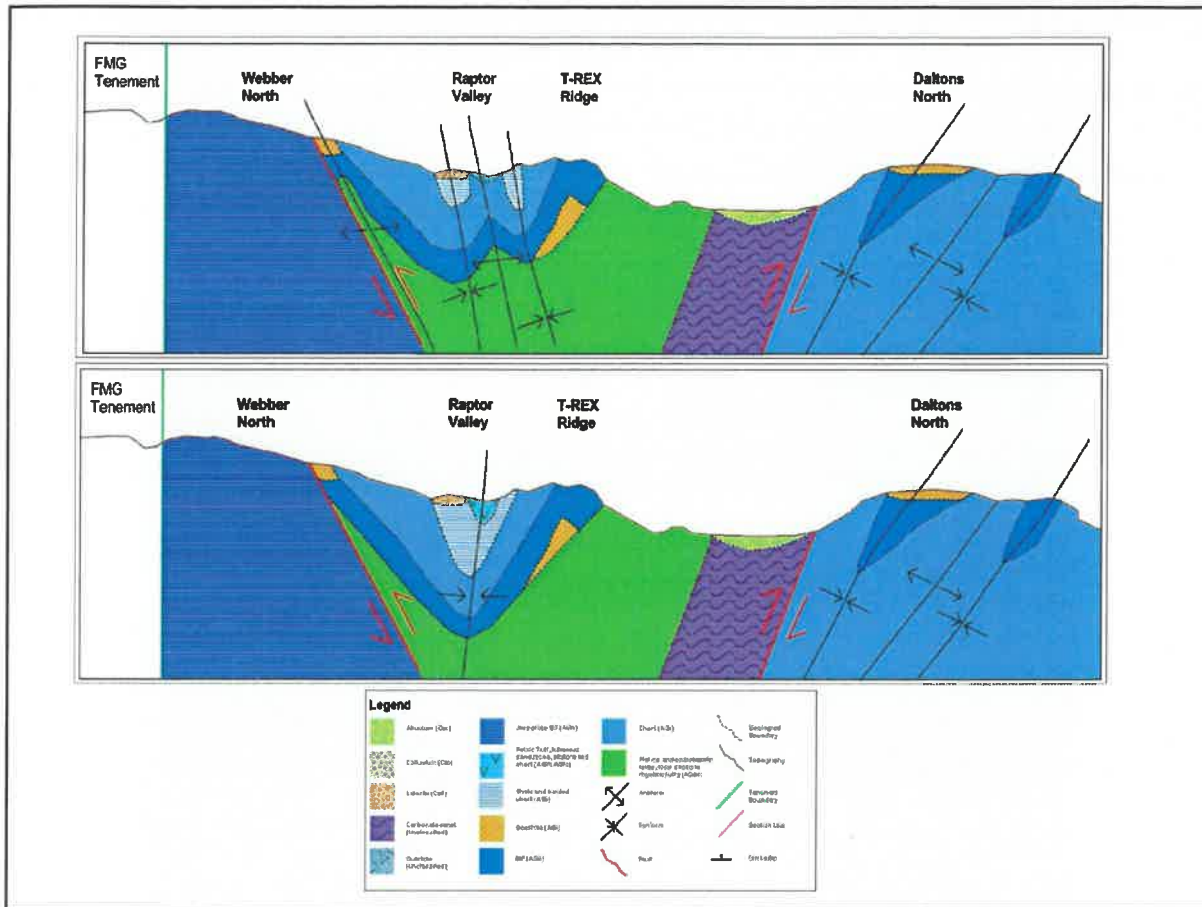
Ibanez North looking south



S1: Conceptual cross section through the Ibanez North area

Figure 7b: Webber North, Daltons North and T Rex Ridge Mapping





S2: Geological cross section between Webber North and Daltons North

5.2.3 Location 6 North (E45/2187)

Surface mapping commenced at the northern end of the target area moving south and focusing on three areas: Area 1, 2 and 3 and the surrounding flat areas to the east. Overall, little mineralisation was present from surface and dip/strike readings were difficult to obtain due to the broken brecciated nature of the BIF. Generally the beds appeared to be dipping steeply to the east with an average strike of 170° and dip 60° to the NE.



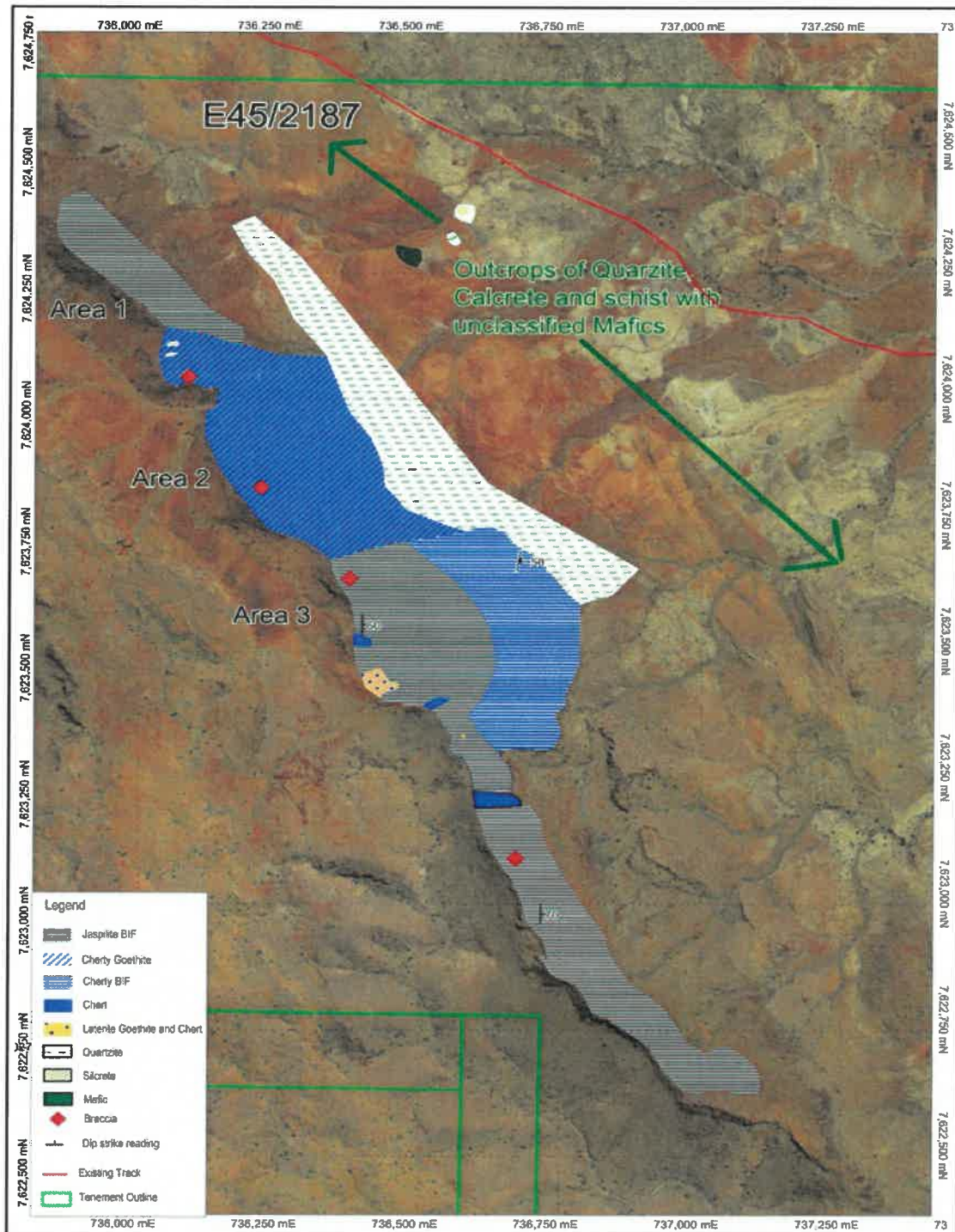
Locality 6 North Target Areas looking south

Area 1 – This thin 10m wide 400m long N-S trending ridge hosts thinly bedded jaspilite BIFs’ of the inferred Pincunah Hill Formation which dips to the east in this location. Structural readings were difficult to gather due to the broken and brecciated BIF; black and white banded cherts were also observed.

Area 2 - Composed mainly of cherty goethite and minor jaspilitic BIF’s with some patches of grey silcrete. This area has stronger hydraulic brecciated BIFs’ with large irregular clasts of chert ranging in size from 1 cm to 20cm. As previously suggested by Meg Weathermen et al, this is a good indicator for fluid movement but no mineralisation was mapped. Area was highly deformed with numerous thin quartz veining.

Area 3 - The longest narrow ridge of the Pincunah Hill Formation (1.4 km in length) within the Locality 6 North target area. Consisting almost entirely of silica rich jaspilitic BIF’s dipping to the east. Hydraulic breccias were also present. Small areas of laterite with goethite and chert were present to the north. Massive silica rich BIF was observed to the east of the ridge.

To the east of the target area parallel to the ridge, the boundary between the Pincunah Hill Formation and Pilbara Supergroup was marked by a wedge of quartzite dipping east; moving further east on the plains numerous outcrops of quartzite, calcrete, schist and unassigned mafics were present along with quartzite scree.



7c: Geology Mapping of Locality 6 North Target area

5.3 Mineral Resource Estimate

The Mt Webber DSO Project comprises the Fender, Gibson, Ibanez and Daltons deposits. The Atlas project is part of a 70:30 Joint Venture with Altura Mining Limited (Altura). Atlas acquired the remaining 25% of the iron rights in the Daltons Project from Haoma Mining in March 2012.

The Daltons deposit is located to the north of the Gibson deposit, separated by tenement boundary M45/1197-I and M45/1209-I (Figure 13) and is hosted by BIF that forms part of the Archaean Pincunah Member, together with chert, tuff, shale and siltstone units and considered to be ≥ 3240 Ma. The synformal structures host to the mineralised BIF have been thickened by intraformational folding, which has increased permeability and therefore the degree of mineralisation (Crossing, 2008).

Iron enrichment is predominantly goethite with minor hematite which has replaced silica in the BIF to varying degrees. The bulk of the mineralisation is constrained mostly to within the upper BIF unit which is overlain by a well-developed hydrated zone (hardcap) that varies in depth from 10m to 30m.

A minor update to the Daltons mineral resource estimate was completed by Atlas in March 2014. This update incorporated additional RC drilling data from late 2013. This drilling added an additional 900Kt to the total resource base at Daltons and converted a further 3Mt of Inferred material into an Indicated resource classification.

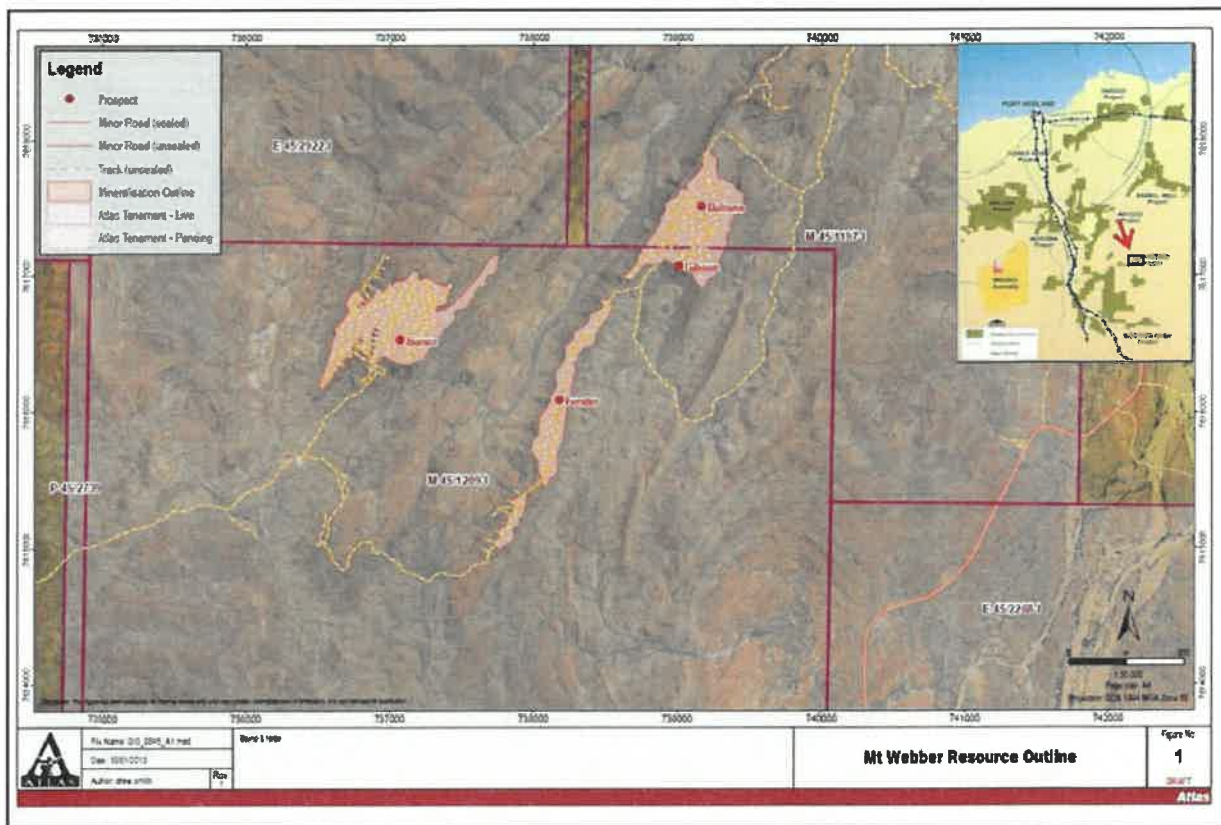


Figure 13: Location of Dalton's Deposit M45/1197-I



The **Daltons North** prospect was originally discovered by Giralia Resources NL in 2009 on M45/1197 but no resource calculation was estimated at the time.

A maiden resource for the Daltons North prospect was completed by Atlas in September 2014 resulting in an additional 0.47Mt @ 55.1% Fe of Indicated resource and 27 Kt @ 55.5% Fe of Inferred resource at 50% Fe cut-off (Table 6; Appendix IX). The mineral resource is constrained by the heritage boundary to the east and the environmentally sensitive bat cave to the north.

Table 6: Daltons North Resource (≥50% Fe) Table by Classification as at September 2014

Daltons North Resource Table >50% cut-off by Resource Classification															
Resource Classification	Volume (m ³)	Density (t/m ³)	Tonnes	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	S (%)	LOI (%)	MnO (%)	CaO (%)	MgO (%)	TiO ₂ (%)	K ₂ O (%)	Na ₂ O (%)
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	167,813	2.79	467,774	55.05	8.90	2.26	0.090	0.016	8.12	0.690	0.498	0.194	0.045	0.051	0.049
Inferred	11,133	2.45	27,287	55.52	12.21	1.59	0.090	0.045	6.12	0.436	0.079	0.125	0.031	0.019	0.048
Total	178,945	2.77	495,062	55.08	9.08	2.22	0.090	0.018	8.01	0.676	0.475	0.190	0.044	0.049	0.049

Note: The Atlas Mineral Resource was estimated within constraining wireframe solids based on a nominal lower cut-off grade of 50% Fe and 15% SiO₂. The resource is quoted from blocks above the specified cut-off grade % Fe. Differences may occur due to rounding. CaFe calculated using $CaFe = Fe\% / (100 - LOI\%) * 100$.

5.4 Heritage Surveying

Heritage surveys were carried out from the 13th to the 15th May 2014 over Ibanez North (E45/2922), Locality 6 North (E45/2187), access track on E45/2186 and two regional targets within E45/2187.

A site identification heritage assessment was conducted within E45/2186 (M45/1197) and E45/2187 between during May 2014 (Figure 8). The survey party comprised three (3) Njama Traditional owner representatives and three (3) heritage consultants from Terra Rosa Cultural Resource Management. Mt Webber E45/2187 Exploration Survey Areas 2-4 were completed (encompassing thirteen survey areas).

- Heritage assessment of thirteen survey areas – E45/2187, Exploration Survey Area 2, Area 3, Area 4 and Mt Webber E45/2186, Exploration Survey Area 2 Area 3
- Mt Webber North Exploration Survey Area 2, Area 3, Area 4, Area 6, Area 7, Area 8
 - Daltons Exploration Survey Area 5

Were completed and archaeologically and ethnographically cleared for works to proceed.

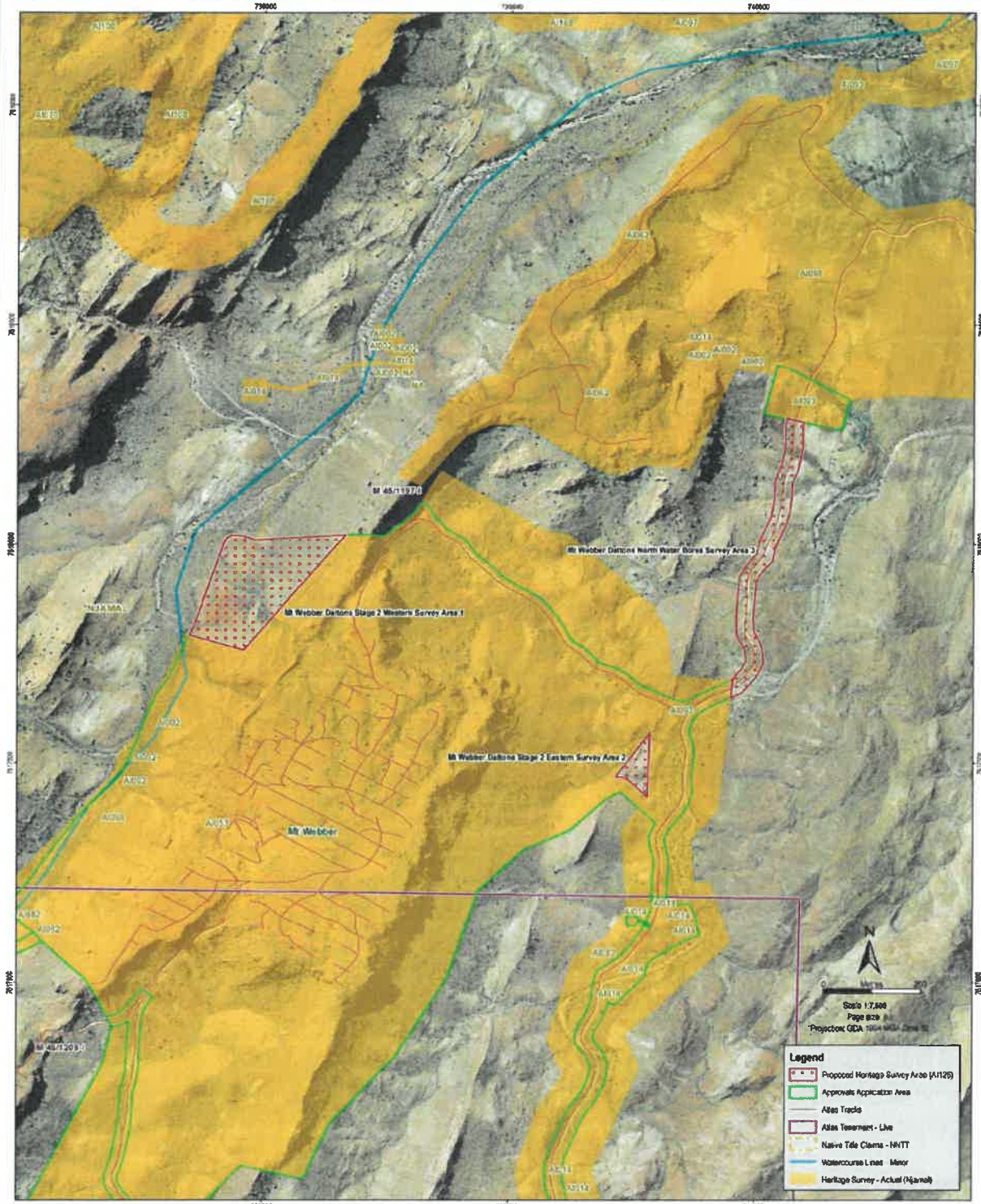
Heritage assessment of Mt Webber E45/2187 Exploration Survey Area 1 was not commenced due to time restraints.



The Traditional Owners requested:

- That no disturbance, ie. drilling, occur to the bed of the creek lines and waterways in the survey areas
- for Atlas to develop a water management plan collaboratively with the Njamal Owners and their representatives YMAC
- that two Njamal representatives be present to monitor all ground disturbing works

The results of the heritage assessment is shown in Figure 8a.



Legend

- Proposed Heritage Survey Area (A1125)
- Approvals Application Area
- Atlas Tracks
- Atlas Tenement - Live
- Native Title Claims - NNTT
- Watercourse Lines - Minor
- Heritage Survey - Actual (Njanel)

File Name: GIS_1350_A1.mxd
 Date: 17/04/2014
 Author: Ben Stephenson

Document Number (ODMS number only)
 Series & Note
 Disclaimer: This figure has been produced for internal review only and may contain inaccuracies or omissions. It is not intended for publication.

**Proposed Heritage Survey (A1125)
 Mt Webber - Stage 2**

Figure No
8



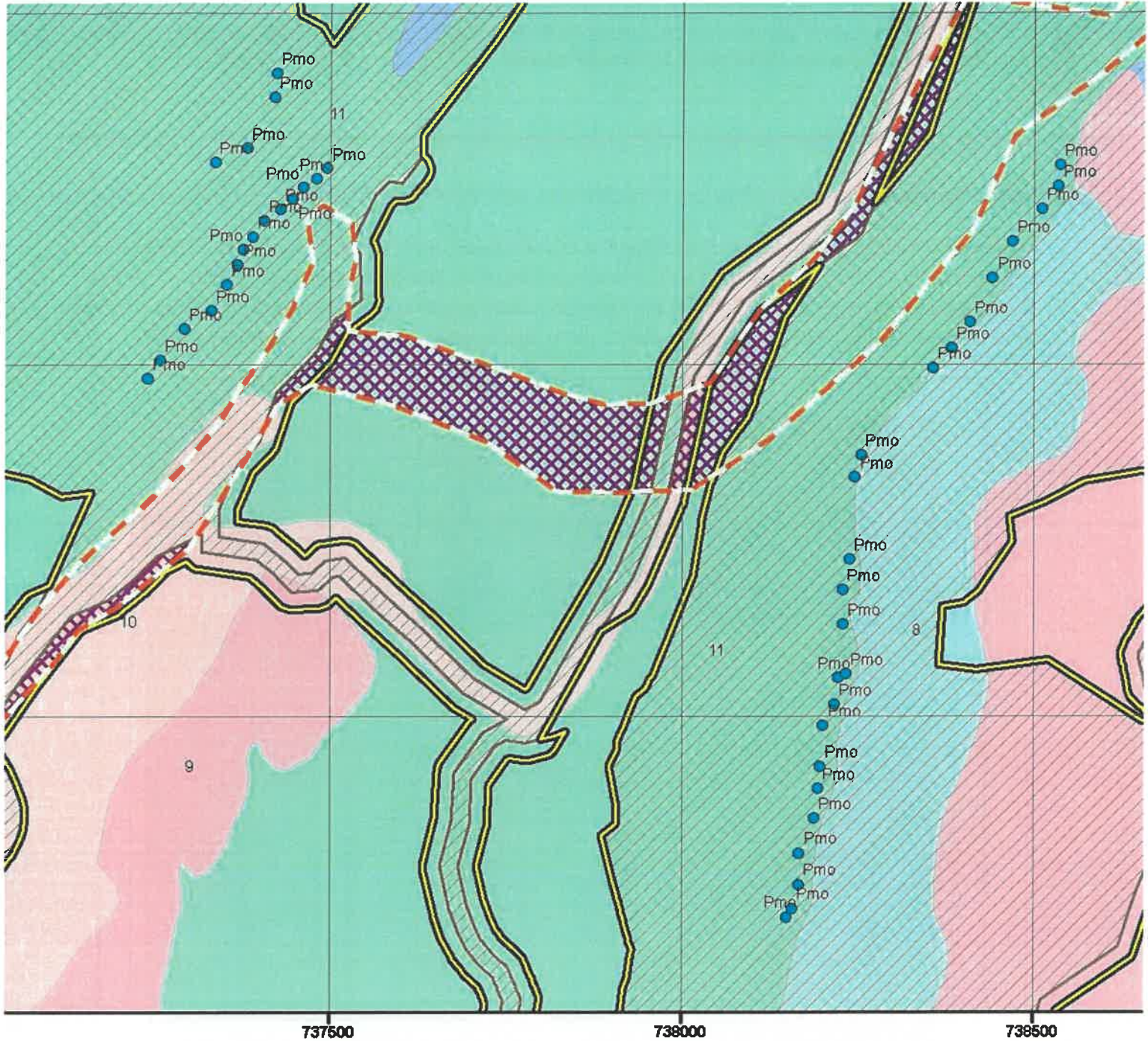
Figure 8a: Heritage assessment results May 2014

5.5 Environmental Surveying

5.5.1 Flora and Vegetation

A revised flora and vegetation impact assessment was undertaken by Woodman Consulting during 2014 in the area of the proposed Dalton's Ramp (area of 27.8 ha) which will connect the Ibanez and Dalton's ore bodies. The ramp is proposed to reduce the haulage distance and avoid areas of environmental and heritage significance.

Construction of the Dalton's Ramp may result in areas of the currently approved project not being cleared. This impact assessment is required to support approvals for the proposed operation. The location of the ramp is shown in Figure 9 with the detailed report attached as Appendix X.



Conservation Significant Flora

- Pmo *Ptilotus mollis* (P4)

to Clear
tion Area
Footprint

rees of *Corymbia hamersleyana* over tall sparse shrubland dominated by *Acacia inaequilatera* over low sparse shrubland of mixed *stobbsiana* over low hummock grassland to closed hummock grassland dominated by *Triodia wiseana* on red, brown, red-brown and and silty loam over ironstone, granite or calcrete on hill crests, slopes and undulating plains.

sparse shrubland of mixed *Acacia* species dominated by *Acacia inaequilatera* over low shrubland to sparse shrubland of mixed sp *inophylla* and *S. glutinosa* subsp. *glutinosa* over low hummock grassland to closed hummock grassland dominated by *Triodia wis* ed, brown, red-brown and orange clay loam, sandy loam, silty loam and loam over ironstone and granite on hill crests, hill slopes

rees of *Corymbia hamersleyana* and/or *Eucalyptus leucophloia* subsp. *leucophloia* over tall sparse shrubland of mixed species d over low sparse shrubland of mixed species including *Indigofera monophylla* and *S. glutinosa* subsp. *glutinosa* over over low hun ck grassland dominated by *Triodia epactia* and/or *Triodia wiseana* over low isolated clumps of tussock grasses including *Cymbc* ed-brown and orange sand, sandy loam, silty loam and clay loam over predominantly granite and sometimes ironstone on hill slop ins and drainage lines.

odland to isolated trees of *Corymbia hamersleyana* and/or *Eucalyptus leucophloia* subsp. *leucophloia* over tall sparse shrubland . *cia inaequilatera* and *Grevillea wickhamii* over low sparse shrubland of mixed species including *Goodenia stobbsiana* over low hu

5.5.2 Terrestrial Fauna

A revised flora and vegetation impact assessment was undertaken by MWH during 2014 in the area of the proposed Dalton’s Ramp. A total of four (4) broad fauna habitats – Rocky Ridge and Gorge, Rocky Foothills, Stony Rise and Drainage Line occur within the Application Area and all have the potential to be impacted upon by the Project. Figure 10 and Appendix X present the spatial location and detailed report respectively.

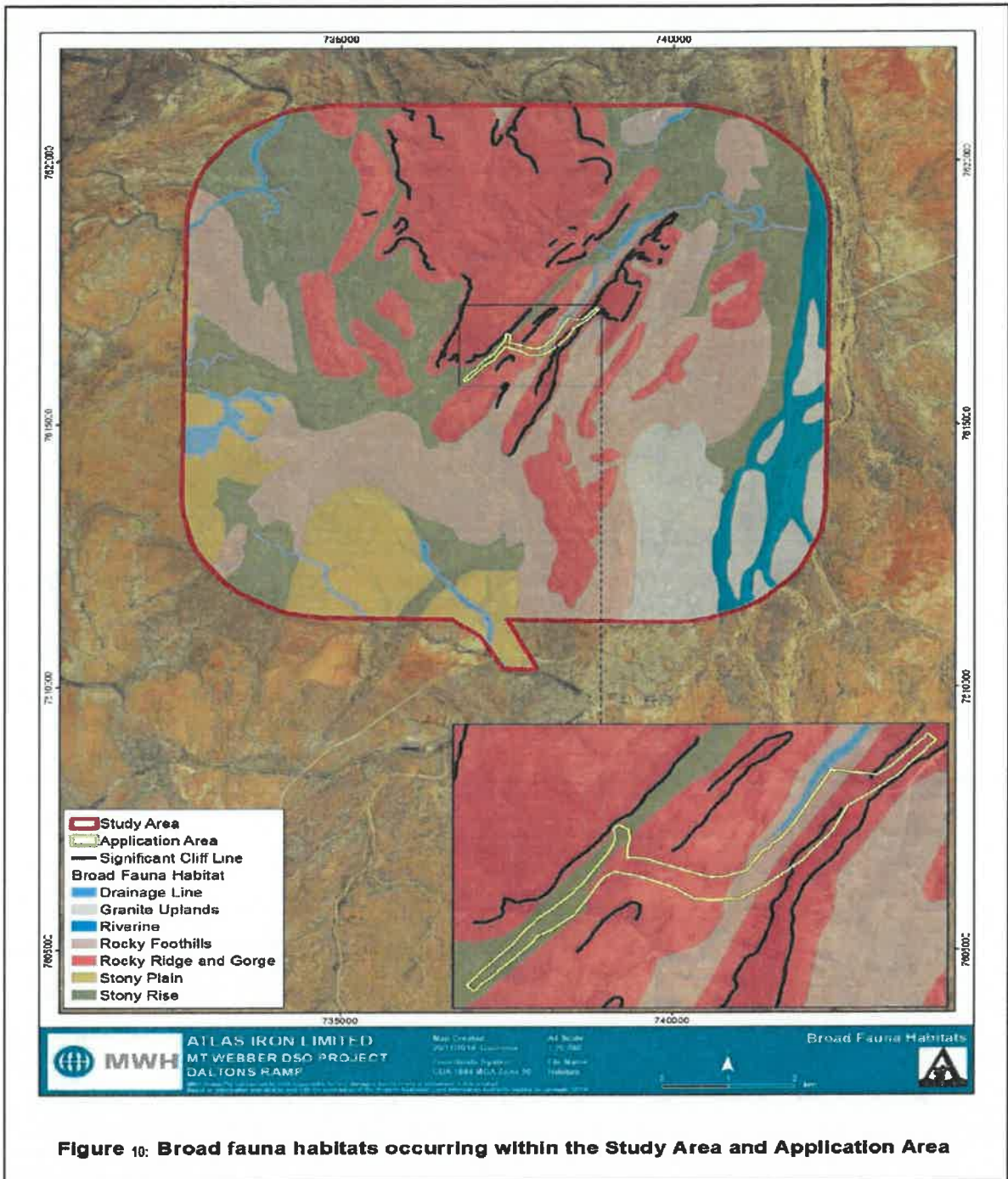


Figure 10: Broad fauna habitats occurring within the Study Area and Application Area



5.5.3 Northern Quoll and Pilbara Leaf-nosed Bat and Ghost Bat Monitoring

MHR Australia Pty Ltd was commissioned by Atlas to undertake an initial monitoring survey for the Northern Quoll (*Dasyurus hallucatus*) and the Pilbara Leaf-nosed Bat and Ghost Bat in the vicinity of the Mt Webber Project. The surveys, covering an area of 9,072 ha, were conducted in June/July 2014 as part of an annual monitoring programme prescribed by the Significant Species Management Plan developed for the Project. Appendix X presents the detailed reports.

1. Objectives of the Northern Quoll survey within the Study Area were to:

- Obtain quantitative data on Northern Quoll demographics and distribution
- Gather information on the physiology and morphology of Northern Quolls
- Install photo monitoring points to record any habitat change and
- Obtain baseline Northern Quoll population data that comparisons can be made against during future surveys

During the Survey only one individual was captured and is consistent with the low trap success observed during the baseline study.

2. Objectives of the Pilbara Leaf-nosed Bat and Ghost Bat Survey within the Study Area were to:

- Obtain quantitative data on Pilbara Leaf-nosed Bat occurrence and activity
- Gather information on the type, condition and characteristics of caves used by bats and
- Summarise the baseline Pilbara Leaf-nosed Bat activity data to allow comparison with those recorded during future surveys, and where necessary interpret the outcomes in light of Project development, seasonal fluctuation or other environmental variables such as fire.

Recording bat activity using an echolocation recorder occurred at ten sites. Pilbara Leaf-nosed Bats were detected at all sites. Ghost Bats were detected at two previously recorded sites, MW-AN-27 and MW-AN-17 and for the first time at site MW-AN-25.



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WAMEX open file reports : Items 1320, 1834, 1972, 2877, 10412



7. GLOSSARY OF TERMS

Abbreviation	Description	Used As
AGSO	Geoscience Australia	Organisation
Al ₂ O ₃	Aluminium Oxide	Chemical Compound
AMAG	Aeromagnetic	Geophysical Survey Type
AMIRA	Australian Mineral Industry Research Association	Organization
ArcGIS	Company name	Proprietary map production software
ASCII	American Standard Code for Information Interchange	International standard
Atlas	Atlas Iron Limited	Company Name
BCM	Bank cubic metres	Measurement of weight - material moved
BIF	Banded Iron Formation	Geological term
BID	Bedded Iron Deposit	Geological term
BLEG	Bulk Leach Extractable Gold	Geochemical Analytical Technique low detection Gold
CaFe	Calcined Iron	Chemical calculation to account for loss on ignition (LOI); increases % Fe
CET	Centre for Exploration Technology	An unincorporated JV collaboration between the University of Western Australia, Curtin University and the Government of WA
CID	Channel Iron Deposit	Geological term
CGM	Concatenated Graphics Metafile	File type
CSA	CSA Global Pty Ltd	Company Name
CSIRO	Commonwealth Scientific and Industrial Research Organisation	Organization
DAT	Data file	File format
DATAMINE	Company name	Proprietary software mineral resource modelling
DDH	Diamond drillhole	Drilling Type
DMP	Department of Mines and Petroleum Western Australia	Organization
DSO	Direct Shipping Ore	Term
ECW	Enhanced Compressed Wavelet	File format



Abbreviation	Description	Used As
EM	Electromagnetic	Geophysical Survey Type
EP	Environmental Protection Act	Department of Mining and Petroleum Act
EPS	Encapsulated Postscript	File format
ER Mapper	Company name	Proprietary software, desktop image processing
ESRI	Company name	Proprietary software, geographic information system
F3	Fold	Structural Term
Fe	Iron	Chemical Element
GC	Grade Control	Drilling term
GDF2	General Data Format (Version 2)	National standard
GEOTIFF	Geo-referenced Tagged Image File Format	File type
GIF	Graphics Interchange Format	File type
g/cc	grams per cubic centimetre	Density measurement
Glpa	Gallons per annum	Hydrology Term
GML	Geography Mark-up Language	International standard
GRAV	Gravity	Geophysical technique
GSWA	Geological Survey of Western Australia	Organization
GXF	Grid Exchange Format	International standard
JPG, JPEG	Joint Photographic Experts Group	File type
Kt	Kilo tonnes	Measure of weight
LAS	Log ASCII Standard	International industry standard
LIS	Logging International Standard (binary format)	International industry standard
LOI	Loss on Ignition	Inorganic analytical chemical technique
LYR	ESRI layer file	File format
m	Metre	Measurement of length
mag	Magnetic	Geophysical term
MapInfo	Company name	Proprietary map production software
mdh	Metres down hole	Geological abbreviation
Abbreviation	Description	Used As



MGA	Map Grid Australia	Spatial specification using UTM projection relative to the Geodetic Datum of Australia 1994
MRT	Mineral Exploration Reporting Templates	Preferred software for producing compliant metadata headers for tabular data files
Ma	Million Years	Term
Mt	Million tonnes	Term
NA	Not applicable	Term
NTD	Native Title Determination	Term
P	Phosphorous	Chemical Element
PoW	Permit of Work	Exploration Regulatory Requirement before any work on tenure can commence
PDF	Portable Document Format	File format
PDS	Picture Description System	File format
PNG	Portable Network Graphics	File type
PNTS	Pilbara Native Title Service	Organisation
RC	Reverse Circulation	Drilling Type
ROM	Run of Mine	Mining Operation Term
S	Sulphur	Chemical Element
SDTS	Spatial Data Transfer System	International standard
SEG	Society of Exploration Geophysicists	Organization
SGML	Standard Generalized Mark-up Language	International standard
SHP	ESRI shape data file	File format
SiO ₂	Silica	Chemical Compound
SIROTEM	CSIRO Transient Electro Magnetics	Geophysical method developed by CSIRO
SPS	Shell Processing System	International standard
SURPAC	Company name	Proprietary software for mineral resource modelling
TAB	MapInfo data file	File format
TEM	Transient Electro Magnetics	Geophysical technique
TIF, TIFF	Tagged Image File Format	File type
Abbreviation	Description	Used As



TMI	Total Magnetic Intensity	Geophysical measurement
TMM	Total Material Moved	Operational Term of weight
TMM BCM	Total movable material in cubic metres	Operational Term of weight
TXT	Text	File format
UTM	Universal Transverse Mercator	International spatial specification / map projection
VMS	Volcanic Massive Sulphide	Ore type
VULCAN	Company name	Proprietary software for mineral resource modelling
WOR	MapInfo workspace file	File format

