

## Historical Data Review outlines Iron Potential over West Bachelor and Moonford Projects in the Northern Territory and Queensland

Eclipse Metals Limited (ASX: EPM) is pleased to announce the preliminary open-file desktop results from the West Bachelor Iron Project situated in the Northern Territory and Moonford Iron Project in Queensland.

### Highlights

- The West Bachelor Iron Project desktop data review outlined the highly prospective nature of the Mt Tolmer and Table Top Iron prospects. The Mt Tolmer historical rock chip program has yielded iron assay up to **61.8% Fe** from surface along with 20% to 40% Fe over the Tabletop prospect. Historical metallurgical studies conducted during the 1970's over the Tabletop Prospect indicate magnetic beneficiation of the iron mineralisation appears feasible.
- The Moonford Iron project is located approximately 13 kilometres from Monto Township rail-line, about 133 rail kilometres from the port of Gladstone. There is approximately 18 sq km of favourable iron bearing lithology (Evergreen Formation - Oolitic ironstone) within the EL area. There are over 18 historical percussion holes intersecting limonite mineralisation below 2 m over overburden ranging from 30.42 to 40.29% Fe.
- Shallow iron mineralisation over both projects warrants the implementation of work programmes.

The West Bachelor project is located approximately 61km south of Darwin and 174km north-west of Katherine in the Northern Territory. The Giants Reef Fault passes through the tenement in a NE-SW direction with the Burrell Creek Formation and the Depot Creek Sandstone dominating the main formations within the Exploration Licence area. The Project has the following prospects:

1. **Mt Tolmer Iron Prospect**
2. **Table Top Iron Prospect**
3. **Goodwill Tin Prospect: 7.6 t of SnO<sub>2</sub> concentrate was produced**
4. **Bamboo Creek: 0.245t of tantalite concentrate was produced**

The Mt Tolmer prospect is situated in rugged country on the south-west edge of the Tabletop Plateau. The iron ore occurrence appears to have been developed in three different environments. The west part of the main deposit is a steeply dipping tabular body, apparently emplaced within the Burrell Creek Formation, although its contacts with the latter are entirely obscured by large ironstone boulders and scree.

### ECLIPSE METALS LTD

Eclipse Metals Limited is an Australian company with a portfolio (over 24,000 km<sup>2</sup>) of quality iron, manganese, gold, uranium and base metal projects in the highly prospective Archaean and Proterozoic metallogenic provinces of the Northern Territory, Queensland and New South Wales of Australia.

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The eastern extension of this deposit is a flat-lying body occurring at the unconformity between the slates and the ferruginous sandstone, while the two small isolated occurrences to the west and north of the main deposit are developed entirely within ferruginous sandstone, probably along minor shear zones.

The iron mineralisation consists of two main types of material:

1. Dense, fine grained hematite showing concretionary structures in some part and slicken-siding in others.
2. Strongly cellular material generally composed of a mixture of hematite and limonite and usually containing a small admixture of sand grains.

Historical composite of chip samples of the two types were collected from the western portion of the main deposit which returned the following assay results:

Type of Material	Total Iron %	Phosphorus %	Copper %	Sulphur %
Type 1: Dense Hematite	61.8	0.19	0.0058	0.015
Type 2: Cellular Material	56.7	0.15	0.0046	0.025

Both types of material are present in all of the three types of environment listed above. The proportions vary widely from point to point within each of the occurrences, but the cellular type of material is always predominant.

The Table Top Iron Prospect is a deposit of laterite development on part of the surface of a plateau consisting of flat-lying Upper Proterozoic quartz sandstone (Depot Creek Sandstone). The prospect is situated 13.7 km north east of the Mount Tolmer Iron Ore Prospect.

The Plateau surface underlain by the weathering profile which contains the laterite forming the prospect covers an area of 103 km<sup>2</sup>.

In 1970, 16 historical auger holes were drilled, samples from which were subjected to density separation beneficiation test-work carried out by the NT Mines Administration Branch at Mt Wells Battery. The surface drilling indicates the following:

1. Thickness of more than 1.5 metres of laterite is forecast over 13 to 26 sq. km of the plateau surface.
2. The laterite is up to 6 metres thick.
3. The laterite contains 20 to 40% Fe and 0.07% to 0.26% P – the bulk of the laterite appears to contain 20-30% Fe.
4. The bulk of the iron present in the laterite appears to be hematite.
5. Iron oxides occur as concretions and fragments up to 2mm in diameter within a fine grained matrix and cement.

The beneficiation tests at the Mt Wells Battery were performed on material crushed to -0.4mm with the bulk of the material crushed to -0.2mm. Through density separation of Wilfley Tables followed by desliming in cyclones upgraded the iron content of the sample from 29.6% Fe to 41.4% Fe. Phosphorus content of the concentrate was 0.21%.

"LC Quartz rich" was the only sample which appeared amenable to gravity treatment. The minus 6mm plus 150 um fraction gave a heavy mineral product containing 92.6% of the iron mineralisation at a grade of 54.03% Fe (see in below in Table 1). Recovery of iron was good up to 12mm however grade was low at 44.48% Fe indicating incomplete liberation. Higher grades than 54% Fe could most likely be obtained by crushing finer than 6mm however sample TT-1 indicated only slight improvement in recovery for no significant change in grade on reducing the grind size from minus 6mm plus 150 um to minus 600um plus 75um.

Table 1: Heavy Liquid Separation

Sample	Minus 6mm +150um Sinks (+ 2.9 SG)			Minus 6mm +150um Floats (+ 2.9 SG)			-150um			Head	
	Wt %	Fe %	% Dist of Fe	Wt %	Fe %	% Dist of Fe	Wt %	Fe %	% Dist of Fe	Fe % Calc	Fe % Assay
LC Quartz Rich	30.9	54.03	92.60	59.9	0.96	3.2	9.2	14.72	4.2	18.1	17.87
TT-1	68.3	44.43	74.10	21.6	30.7	16.2	10.1	39.75	9.7	41	42.16
TT-4	72	35.10	77.60	19.8	24.17	14.7	8.2	30.6	7.7	32.6	33.06
MS-4	54.9	40.65	63.60	9.4	4.86	1.3	35.7	34.59	35.1	35.1	35.57
BT-E	45.4	47.93	76.40	33.9	3.71	4.4	20.6	26.55	19.2	28.5	28.73
RJN-1	65	31.05	71.30	13	9.98	4.6	22	31.02	24.1	28.3	27.9

Beneficiation of the ore samples by magnetic separation appears feasible. Sample RJN yielded 34.6% recovery at a grade better than 60% Fe (Refer to Table 1). Iron recovery in this test is possibly low due to overgrinding of the potential ore (80% minus 53 um) causing losses due to the difficulty of recovering fine particles by magnetic separation.

Table 2: Magnetic Separation – Sample RJN

Product	Flux Strength	Wt %	Fe %	% Dist of Fe
Primary Magnetics	720	8.5	58.6	16.6
Secondary Magnetics	860	8.4	<b>64.65</b>	18
Tertiary Magnetics	960	47.1	28.04	43.8
Non Magnetics		36	18.07	21.6
Feed		100	30.1	

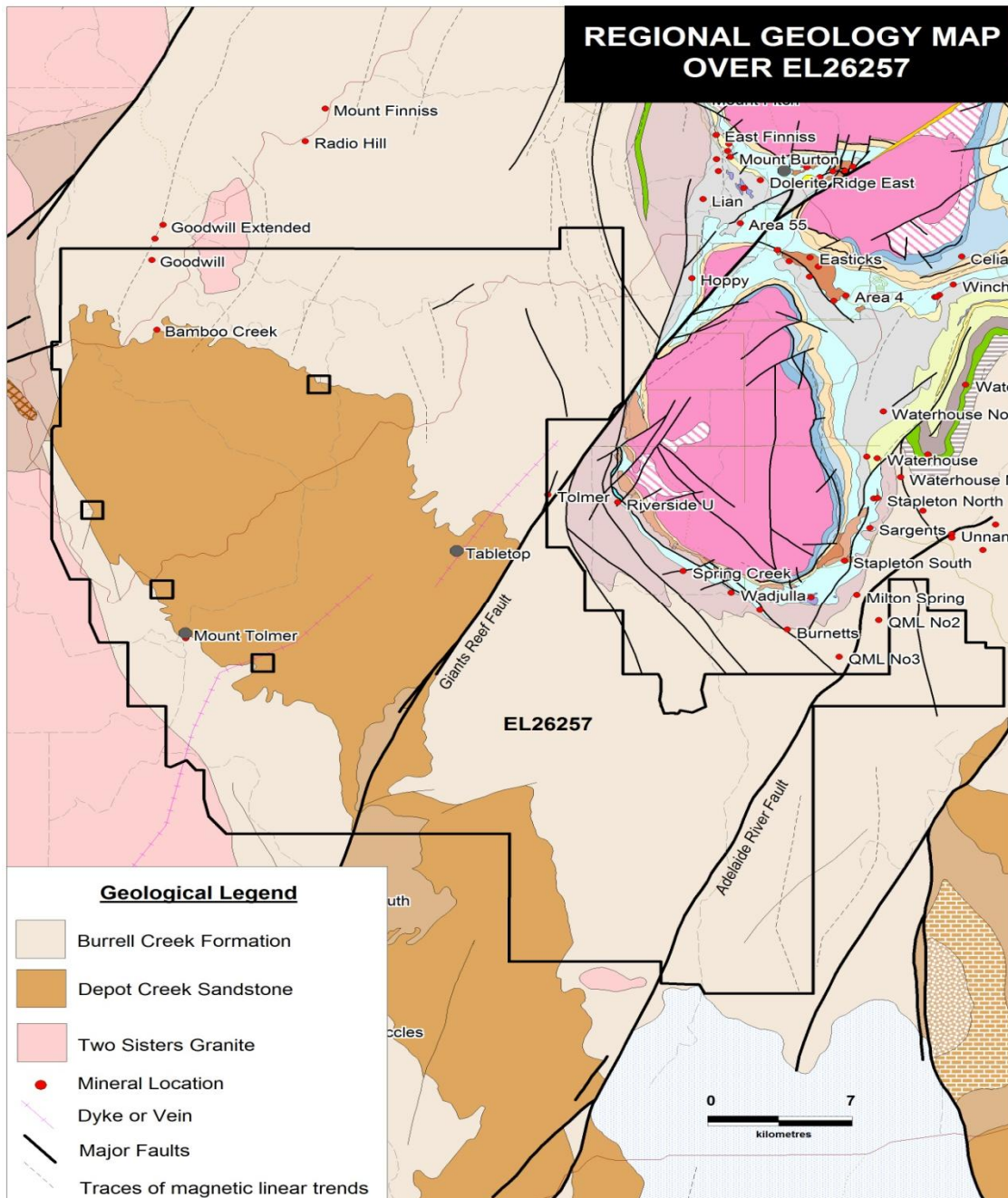


Figure 1: West Bachelor Project Regional Geology

**The Moonford project** (held by Walla Mines) is located approximately 15km north-west of Moonford in Queensland. The project comprises one Exploration Permit for Minerals (EPM18596) which covers a total area of 127.4 km<sup>2</sup>. The project is approximately 13 kilometres from Monto Township rail-line, and around 133 rail kilometres from the port of Gladstone. There is approximately 18sq.km of favourable iron bearing lithology (Evergreen Formation - Oolitic ironstone) within the EPM area.

In 1984, a total of 18 historical percussion holes were drilled for 218.25m with all samples assayed for Fe<sub>2</sub>O<sub>3</sub>%, SiO<sub>2</sub>%, Al<sub>2</sub>O<sub>3</sub>% and P<sub>2</sub>O<sub>5</sub>%. The primary ore mineral is limonite in a formation which is relatively flat lying and forms gently dipping beds.

The iron mineralised intervals from Site 1 commence from 0.5m to 8.5m with an average thickness of 3.4m grading at 51.9 Fe<sub>2</sub>O<sub>3</sub>% (36.29%Fe).

Site Number	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P <sub>2</sub> O <sub>5</sub> %	LOI
Site 1	36.29	16.7	9.5	1.84	13

## Historical Percussion Drilling over Moonford Site 1 Intersections

Hole No.	From Mineralised Zone (m)	To Mineralised Zone (m)	Length (m)	Grade (Fe%)
Hole 1	2	4.3	2.3	40.15
Hole 2	3.5	4.5	1	36.37
Hole 3	5.5	10.5	5	34.97
Hole 4	5	9.5	4.5	32.17
Hole 5	6	7.5	1.5	39.31
Hole 6	8.5	12.5	4	37.00
Hole 7	6.5	10	4.5	36.02
Hole 8	4	7.5	3.5	37.21
Hole 9	5	9	4	26.30
Hole 10	3.5	7.5	4	36.51
Hole 11	3	6.5	3.5	38.19
Hole 12	2	5.5	3.5	40.29
Hole 13	0.5	4.5	4	37.49
Hole 14	1	4	3	37.00
Hole 15	1	4.5	3.5	39.87
Hole 16	0.5	4	3.5	38.19
Hole 17	3	6.5	3.5	37.42
Hole 18	3.5	7.5	4	34.34

The iron mineralised intervals from Site 2 commence from 0.5m to 5.5m with an average vertical width of 4.61m grading at 45.3 Fe<sub>2</sub>O<sub>3</sub>% (31.68%Fe).

Site Number	(Fe%)	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P <sub>2</sub> O <sub>5</sub> %	LOI
Site 2	31.68	23	9.9	1.4	12.6

## Historical Percussion Drilling over Moonford Site 2 Intersections

Hole No.	From Mineralised Zone (m)	To Mineralised Zone (m)	Length (m)	Grade (Fe%)
Hole 1	1.5	6	4.5	32.80
Hole 2	2.5	5.5	3	34.90
Hole 3	3	6.5	3.5	27.70
Hole 4	0.5	5	4.5	33.22
Hole 5	5	9.5	4.5	32.52
Hole 6	3.5	10	7.5	30.42
Hole 7	5	9.5	4.5	30.77
Hole 8	3	8.5	5.5	32.59
Hole 9	5.5	9.5	4	30.07

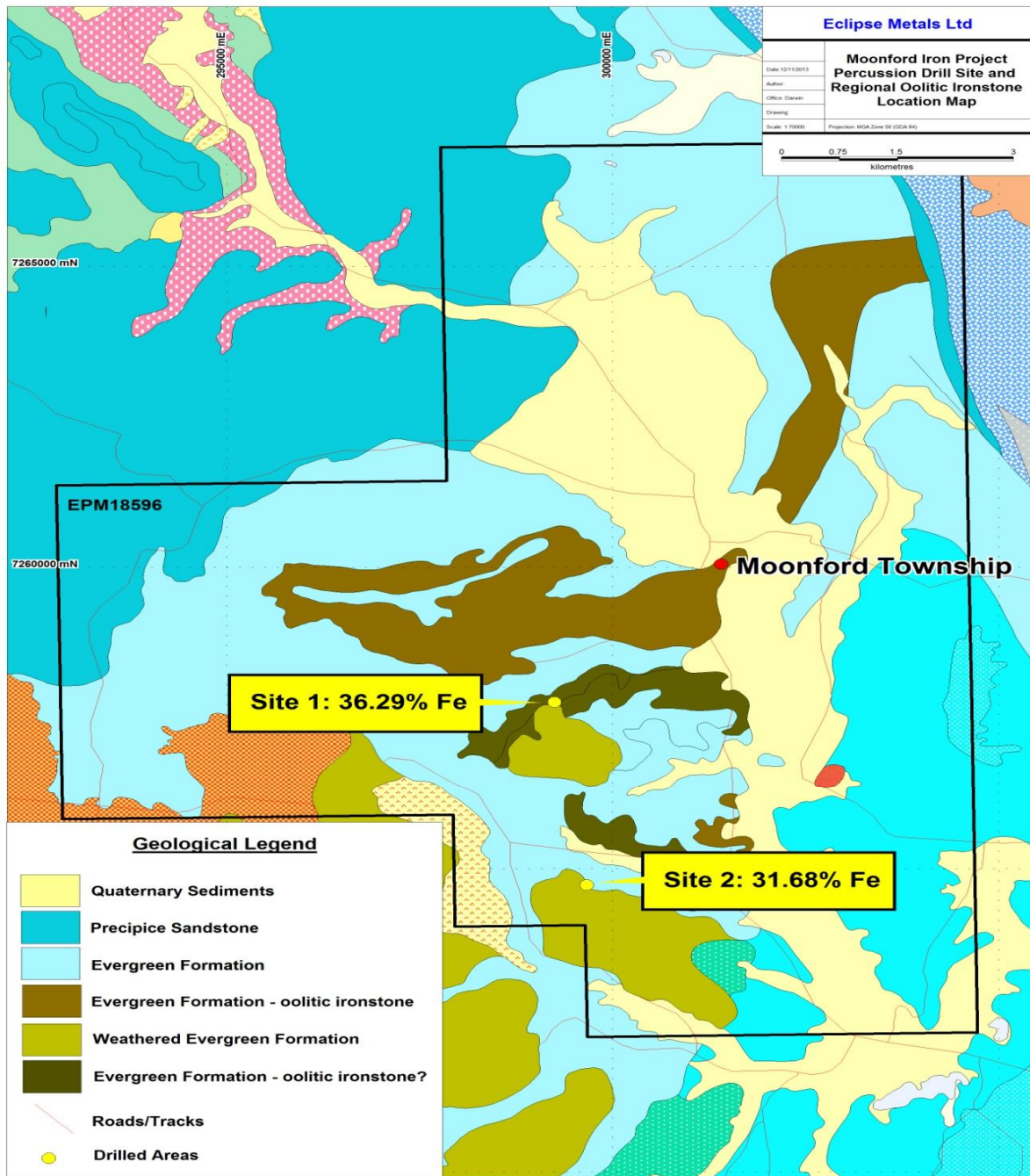


Figure 2: Moonford Project showing Drilling Sites and Regional Geology

In commenting on these positive results, Rod Dale, geological consultant and Director of Eclipse Metals Ltd, said:

“We are very encouraged by the excellent results from preliminary sampling over the West Bachelor and Moonford Iron Projects. Based on these results we are currently planning coordinated surface sampling programmes to better understand the extent and nature of this iron mineralisation. Surface rock-chip sampling and geological mapping will be completed over the Mt Tolmer and Table Top prospect in the short term with a view to commencing more detail exploration programmes once the Company has secured funding and as the season permits”.

“The work programme over the Moonford Iron Project will concentrate on detail geological mapping and surface rock-chip sampling over the entire iron outcropping areas to facilitate planning of a drilling programme of the mineralised zones. At this stage the true extent of the iron bearing areas is largely unknown with less than 7% of the Exploration Permit having been systematically explored”.

For and on behalf of the Board



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*The information in this report that relates to Exploration Results together with any related assessments and interpretations is based on information compiled by Kastellco Geological Consultancy on behalf of Mr Giles Rodney (Rod) Dale. Mr Dale is a fellow of the Australasian Institute of Mining and Metallurgy. Mr Dale is a Director of the company. Mr Dale has sufficient experience relevant to the styles of mineralisation under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Dale consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

#### **References**

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