



## Eneabba Gas Limited

ABN 69 107 385 884

**ASX Announcement**  
**24 September 2009**

### **MAIDEN JORC COMPLIANT STATEMENT FOR ONE OF THE TEN SARGON TENEMENTS CONFIRMS COAL RESOURCE IN EXCESS OF 160 MILLION TONNES - SIGNIFICANT ENERGY POTENTIAL FOR WESTERN AUSTRALIA**

Australian energy company Eneabba Gas Limited (ASX: ENB) (“EGL”) has now received the first detailed resource statement from its coal tenements in the Perth Basin in Western Australia (see the attached Map of Sargon Group Target Area), which confirm the presence of a significant coal resource with considerable energy potential.

The attached Report from leading independent consultants Xenith Consulting Pty Ltd is the third in the series. The first was 5 August 2009, which delineated the initial “sweet spot” in tenement E 70 / 2758. On 19 August 2009 the second Report covered the whole of the Sargon Tenements and reported

*“The large size of the overall Sargon group tenements when combined with the encouraging exploration results from tenement E 70 / 2758 suggest that the Mid West area could host a number of coal mineralisation targets suitable for Underground Coal Gasification (“UCG”) technology.”*

This third JORC Stage I report, now gives the overall report under the classified JORC compliant coal resources which has the two elements, Indicated and Inferred :

Total Ytd Inferred	Million Tonnes	MJ /kg	PJ insitu
	128	16	<b>2,036 PJ</b>
Total Ytd Indicated	Million Tonnes	MJ / kg	PJ insitu
	33	16	<b>524 PJ</b>
<b>TOTAL</b>	<b>161</b>		<b>2,561 PJ</b>

Due to the nature of coal, all data includes the total potential energy as PJ in this part of the Sargon tenements. As indicated in the attached Xenith report, the Sargon coal has an average insitu energy content of 16 MJ/Kg (arb), and an average ash content of 20% (arb) and appears consistent throughout the tenement. As per the second paragraph, this initial area may well, as reported by Xenith, be one of many such areas across the Sargon tenements.

Exploration within the Sargon target area for this year is due to be completed within a week or so and as such the final data, including laboratory analysis and reports will take time to be completed. This final JORC Resource report is likely to be available in late October 2009.

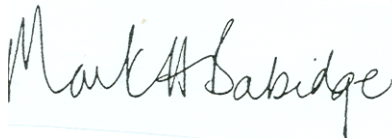
To place this JORC compliant resource in perspective the publicly announced details of the Gorgon Project under the Barrow Island Act (WA) 2003 “State Agreement”, reserves **2,000 PJ** total, for the Domgas market over the whole life of the Gorgon Project.

In situ coal in various operations within Australia and overseas, suitable for UCG, have yielded a potential range of recoverable energy of some 50.0% - 58.0 % plus.

Eneabba Gas Limited is the only Company in the Mid West of Western Australia that has capability with all its regulatory approvals and project in place with the following infrastructure surrounding this significant potential energy resource

Main Highway	Brand Highway & Midlands Highway as our property boundaries
Gas	Dampier Bunbury Natural Gas Pipeline access as the Parmelia pipeline runs through freehold land of ENB
Rail	250 metres from our property boundary
Power	within 18 kms of the 132 kV line
Port	Geraldton port 65 kms, proposed Oakajee deep water port 85 kms

Eneabba Gas is focused on the development of the 168MW gas-fired Centauri 1 Power Station on Company-owned land near Dongara in the Mid West of Western Australia. Eneabba Gas proposes to market power from Centauri 1 to the fast growing Mid West region of Western Australia.



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**Managing Director**  
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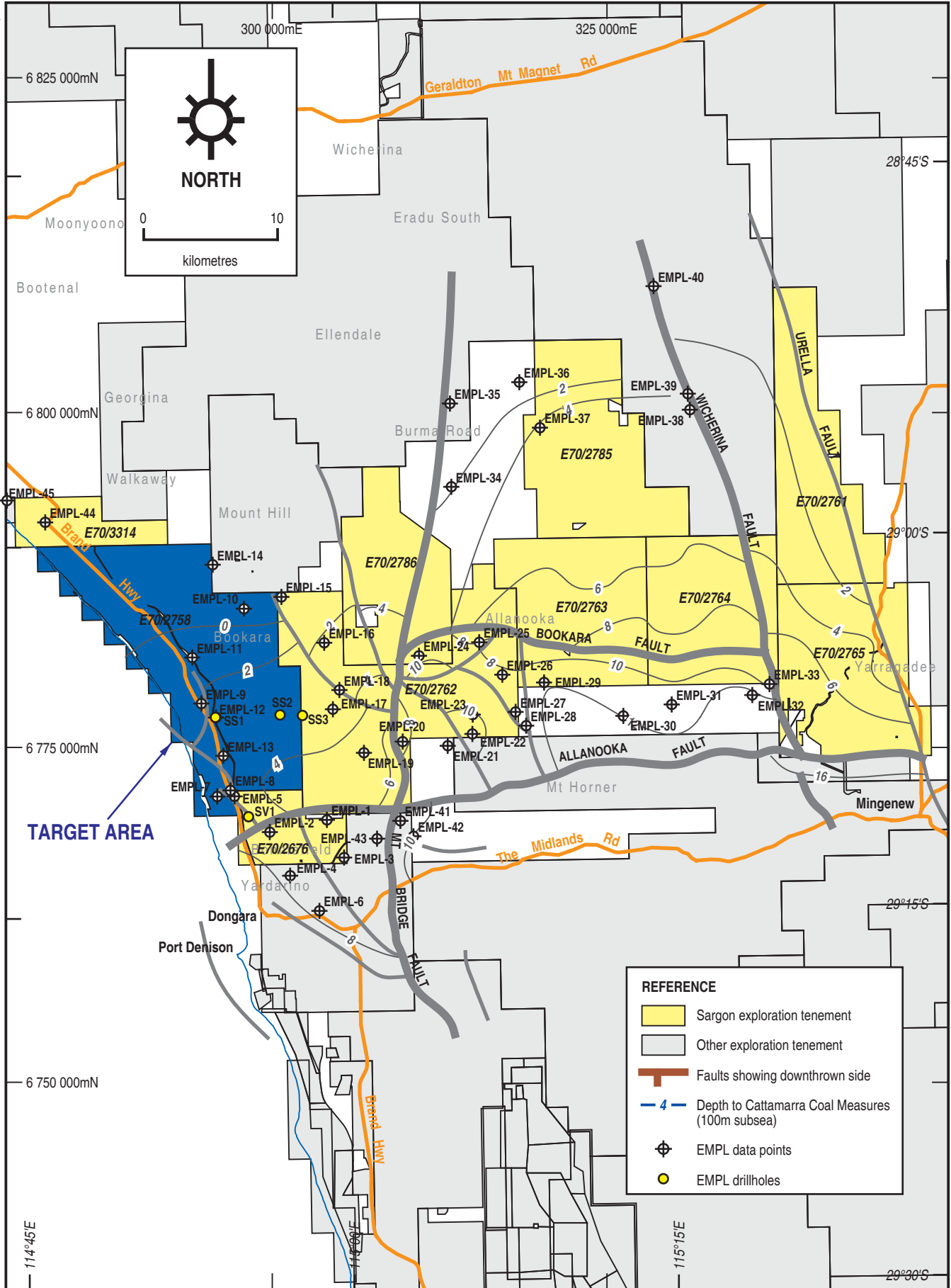
Website: [www.eneabbagas.com.au](http://www.eneabbagas.com.au)

#### **Competent Persons Statement**

*\*\* The information in this report relating to coal resources based on information compiled by Mr Troy Turner who is a member of the Australasian Institute of Mining and Metallurgy, and is a full time employee of Xenith Consulting Pty Ltd.*

*Mr Turner is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves."*

*Mr Turner consents to the inclusion in the report of the matters based on the information, in the form and context in which it appears.*



**REFERENCE**

- Sargon exploration tenement
- Other exploration tenement
- Faults showing downthrown side
- 4 — Depth to Cattamarra Coal Measures (100m subsea)
- EMPL data points
- EMPL drillholes



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**SARGON GROUP  
 TARGET AREA**

Auth: M. Babidge	Project: 3206
Datum: GDA94 (MGA Zone 50)	Date: Sep 2009

EMPL09-002.dgn

24 September 2009

Mr. Mark Babidge  
Managing Director  
Eneabba Mining Pty Ltd

Re: Initial JORC Compliant Resource Statement.

Dear Mark,

Please find attached our executive summary report on the coal resource statement for lease E70/2758 in the Midwest region of Western Australia.

Yours faithfully

A handwritten signature in blue ink that reads "T Turner".

Troy Turner  
**Xenith Consulting**



**Eneabba Mining Pty Ltd  
Sargon Project E70/2758  
Initial Resource Statement  
Executive Summary**



**September 2009**

## Document Issue Approval

<b>Project &amp; Document No:</b>	<b>Date:</b>
Eneabba Mining Pty Ltd	24/9/09
<b>Title:</b>	<b>Revision No:</b>
E70/2758 – Initial Resource Statement Executive Summary	1
<b>Client:</b>	
Eneabba Mining Pty Ltd	

	Name	Position	Signature	Date
Prepared by:	Troy Turner	Mining Consultant	<i>T Turner</i>	24/9/09
Reviewed by:	John Thrift	Mining Consultant		24/9/09
Approved by:	Ken Hill	Managing Director		24/9/09

## Distribution

Organisation	Attention	No of hard copies	No of electronic copies	Actioned <sup>1</sup>
Eneabba Mining Pty Ltd	Mark Babidge	1	1	

1 – To be initialed and dated by the person who actions the issue of the documents.

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## 1. EXECUTIVE SUMMARY

Xenith Consulting Pty Ltd ("Xenith") has been commissioned by Eneabba Mining Pty Ltd ("Eneabba") to report an initial JORC compliant coal resource estimate for the Sargon Coal project tenement E70/2758, which is located near Dongara on the Western Australian coastline approximately 350 Km North of Perth.

This report summarises the methodology and results of the coal resource estimate, as at 24<sup>th</sup> September 2009, and incorporates all exploration results received up to 18<sup>th</sup> September 2009. Xenith has created the geological and coal quality models in the Mincom "*Minescape*" software package.

Eneabba holds 10 tenements in the North Perth Basin of Western Australia. These tenements cover an extensive area of 1,150 Sq.Km and extend approximately 50 Km inland from the Western Australian coast. The tenement E70/2758 has been the focus for the current coal exploration program and it covers an area of approximately 210 Sq.Km.

The Eneabba lease E70/2758 and surrounding tenement areas are shown in Figure 1-1. Lease E70/2758 is located approximately 20 kilometres to the North of the Dongara township, and approximately 40 kilometres South of the major mid-western township of Geraldton, on the Brand highway.

The E70/2758 area lies within the North Perth Basin, which contains two coal bearing units being the Jurassic age Cattamarra Coal Measures and the older Permian age Irwin River Coal Measures. The Cattamarra Coal Measures were identified early in the exploration program as the primary coal resource target, due to the wider distribution of this unit and the optimum burial depth to be a potential Underground Coal Gasification ("UCG") target.

The Cattamarra coal measures are interpreted to subcrop in the northern part of the lease, with the main coal seams within the drilled out area of the lease occurring at depths of between 160 and 410 metres. The seams dip towards the South at relatively shallow dips of 2-3 degrees. Within the lease area the coal seams have been identified during previous exploration campaigns by numerous conventional oil and gas exploration companies as far back as the 1960's with these wells providing extensive geological data as background information for the current drilling program.

The overburden sequence of the coal seams within the area consists of a number of units in down hole order as follows –

- Pliostocene Limestone and other young sediments
- Yarragadee Formation (unconformable to the overlying limestone and consists generally of coarse grained friable sandstones and interbedded siltstones).

- Cadda Formation (consists generally of shale and siltstone rock types grey to brown in colour and described as hard and calcareous).

The coal seams which have been targeted during exploration in the lease area have been informally named the A to D seams.

- The A and B seams are very thin (generally <0.50m) and have not been considered in any further evaluation.
- The C seam has an average thickness of 1.32 metres.
- The D seam has an average thickness of 2.53 metres.
- The C to D interburden (consisting of a carbonaceous mudstone band) averages 1.26 metres thick, and has a sharp contact with both the C and D seams.

Seventeen (17) exploration drillholes have been drilled by Eneabba at the project area since May 2009, with a further 4 to 5 holes expected to be completed to finalise the 2009 exploration program. Twenty (20) holes are now included in the geological model with a total of four (4) historical holes, which were drilled by Eneabba during 2007. Of the total 20 holes in the model, 18 holes are HMLC or HQ size partially cored drillholes with remaining 2 holes being rotary open holes.

All of the 18 core holes have been geophysically logged and samples taken for laboratory analysis. All the core holes have intersected the C and D seams which are considered the primary coal resource target seams.

Drill hole spacing across the deposit is less than 2000 metres, with the holes in the Northern part of the lease generally at less than 1000 metres between holes.

All of the recently drilled core holes have been ply sampled and analysed for proximate analysis, and relative density with some specific energy results for selected seam composites. The Preston Sanders formula has been applied to the relative densities to convert them to an insitu basis.

A 1.00 metre seam thickness limit has been applied to the model to determine which seams can be included in the resource. Any areas where the coal seams are less than 1.00 metre in thickness have not been included. A maximum in-seam parting thickness of 0.30 metres has been used in the geological model, with any stone bands greater than this excluded from the resource. All seams are truncated at the Base of Weathering surface as the upper limit, which ranges in depth from 40 to 110 metres.

Drill holes which were classified as valid points of observation for determining resource status can be summarised as follows –

1. The entire seam was cored.
2. Core recovery for the particular seam was greater than 95%.
3. The holes were geophysically logged, and
4. Ash and relative density analysis as a minimum was completed.

Resource polygons were then drawn around the observation points based on the categories, and then resources were calculated from the geological model.

The coal resources are stated as measured status where points of observation were no more than 500 metres apart. Measured resources were extrapolated a maximum of 250 metres beyond a point of observation. A minimum of three adjacent points of observation were required to define any measured resources. The zones of influence around each point were based on 250 metre radii and these zones had to touch or overlap to be included.

The coal resources are stated as indicated status where points of observation were no more than 1000 metres apart. Indicated resources were extrapolated a maximum of 500 metres beyond a point of observation. A minimum of three adjacent points of observation were required to define any indicated resources.

The coal resources are stated as inferred status where points of observation were no more than 2000 metres apart. Inferred resources are only extrapolated at a maximum of 1000 metres beyond a point of observation to achieve sufficient confidence based on the structural geology of the area where discreet fault blocks have been interpreted within the North Perth Basin which control the lateral extent of the coal measures.

The C and D seam resource category area is shown in Figure 1-2.

All coal quality data has been modeled on an as received basis due to the sub-bituminous rank and the sample preparation procedure. All quality results have then been standardised to a 26% insitu moisture basis, including Relative density for the Preston Sanders formula.

The insitu raw ash for the C seam averages 22.4% and for the D seam averages 18.5%.

The C seam volatile matter averages 24.0 % and the D seam averages 26.7%.

The insitu specific energy of the C seam averages 15.02 Mj/Kg and the D seam averages 16.30 Mj/Kg. (All coal quality averages are quoted at a standard 26% moisture basis).

The high air dried moisture which averages 17.7% for these seams confirms the sub-bituminous rank of the Cattamarra Coal Measures in this area.

The coal deposit contained within lease E70/2758 is estimated to contain a total coal resource of **161 Million tonnes**, in accordance with the JORC code and guidelines.

Of the total resource 33 Million tonnes are in the Indicated category with the remaining 128 Million tonnes in the Inferred category.

The C and D seam thickness plots are shown in Figure 1-3 and Figure 1-4.

The overburden thickness of the C seam is shown in Figure 1-5.

Table 1.1 – Lease E70/2758 JORC Resource Estimate Summary

Seam	Av. Coal Thickness (m)	Coal Volume Cu.m (x 10 <sup>6</sup> )	Coal Area (Ha)	Coal Mass Tonnes Insitu (x 10 <sup>6</sup> )	Coal RD Insitu	Raw Ash (26% Moist)	Volatile Matter (26% Moist)	Specific Energy Mj/Kg (26% Moist)
<b>C Seam</b>								
Measured	-	-	-	-	-	-	-	-
Indicated	1.34	8.5	633	12.4	1.46	22.3	23.9	15.01
Inferred	1.28	29.2	2,285	41.9	1.43	22.5	24.1	15.03
<b>D Seam</b>								
Measured	-	-	-	-	-	-	-	-
Indicated	2.28	14.5	636	20.8	1.43	18.8	26.7	16.29
Inferred	2.69	61.4	2,282	86.2	1.40	18.2	26.8	16.31
<b>Sub Total</b>		<b>114</b>		<b>161</b>				
<b>Summaries</b>							<b>Insitu Energy</b>	
<b>Total Measured</b>		-		-				
<b>Total Indicated</b>		<b>23</b>		<b>33</b>	<b>15.81 Mj/Kg</b>	<b>524</b>	<b>Insitu PJ in Indicated tonnes</b>	
<b>Total Inferred</b>		<b>91</b>		<b>128</b>	<b>15.89 Mj/Kg</b>	<b>2,036</b>	<b>Insitu PJ in Inferred tonnes</b>	
<b>TOTAL (Both Seams)</b>		<b>114</b>		<b>161</b>		<b>2,561</b>	<b>Total Insitu PJ</b>	

Figure 1-1 – Lease E70/2758 Tenement Location

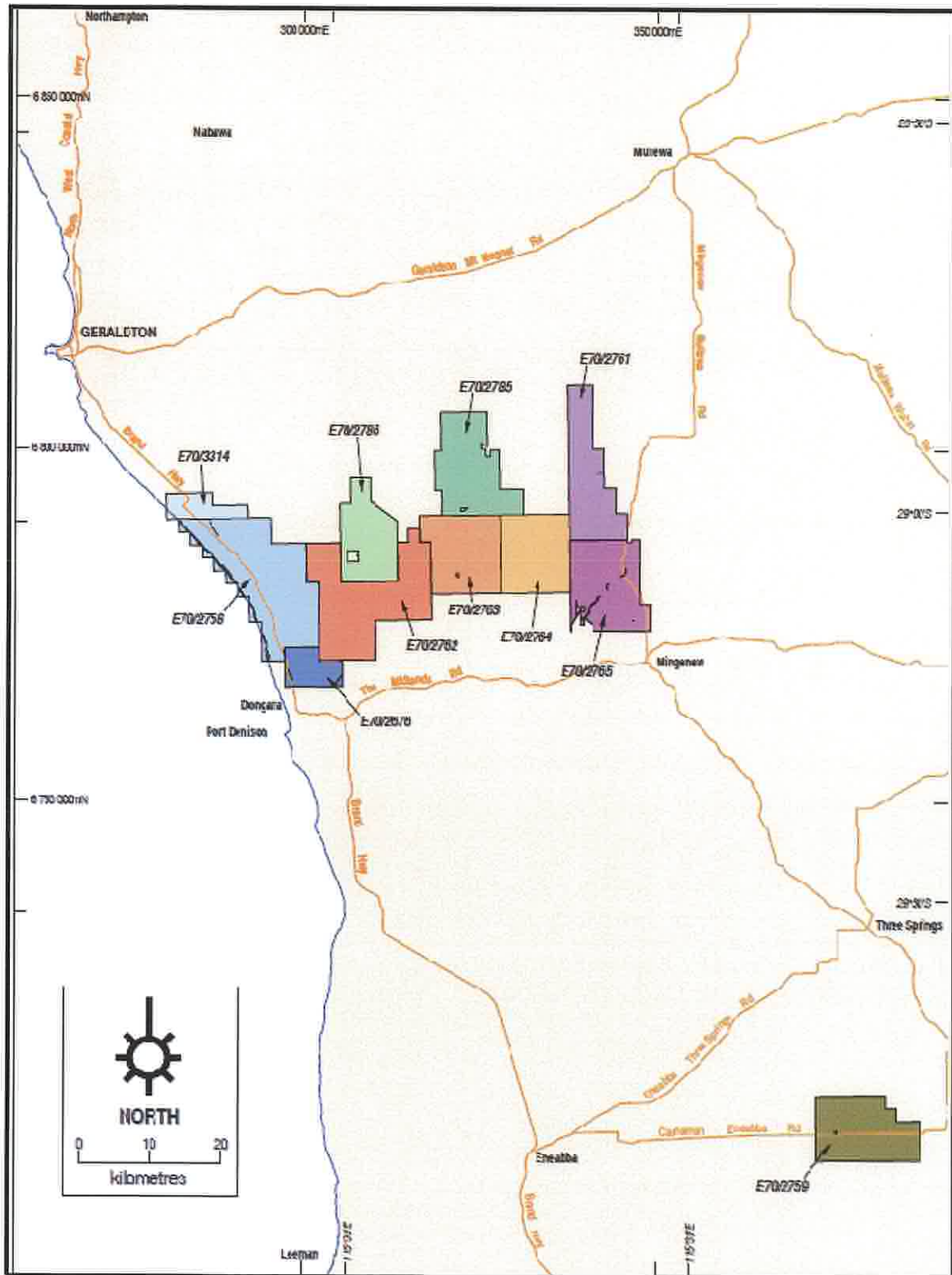


Figure 1-2 – C and D Seam Resource Areas

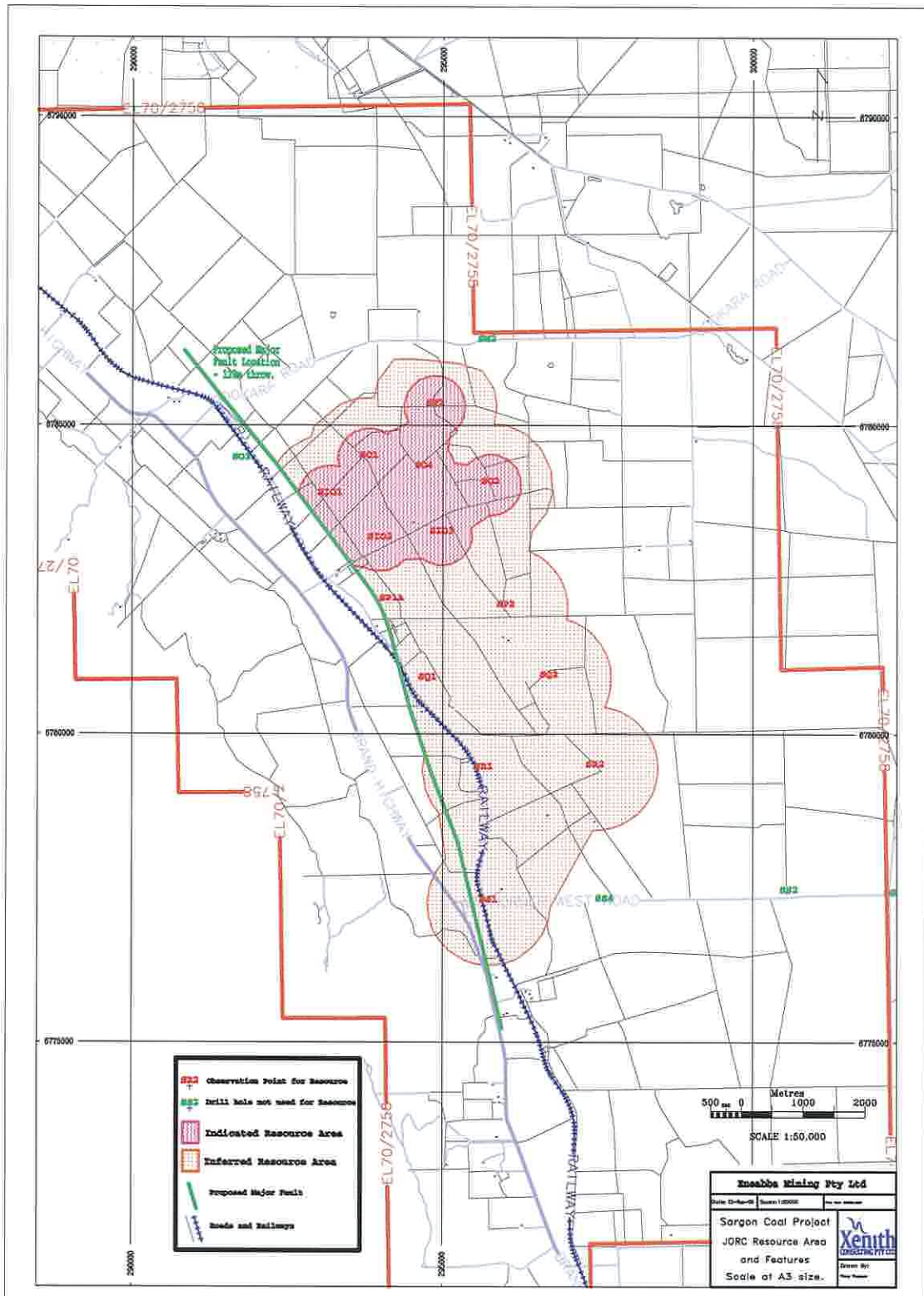


Figure 1-3 – C Seam Thickness Contour

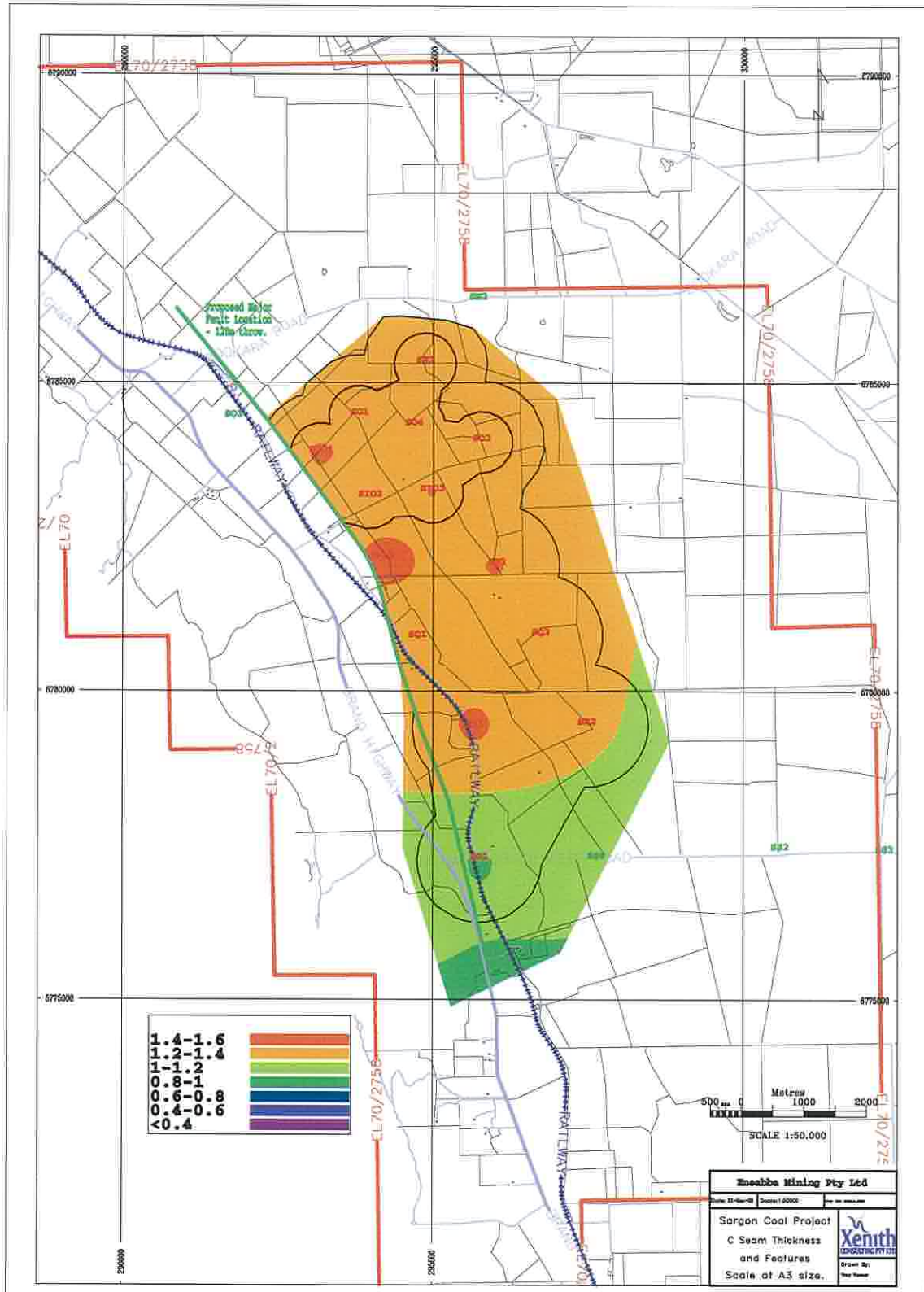


Figure 1-4 – D Seam Thickness Contour

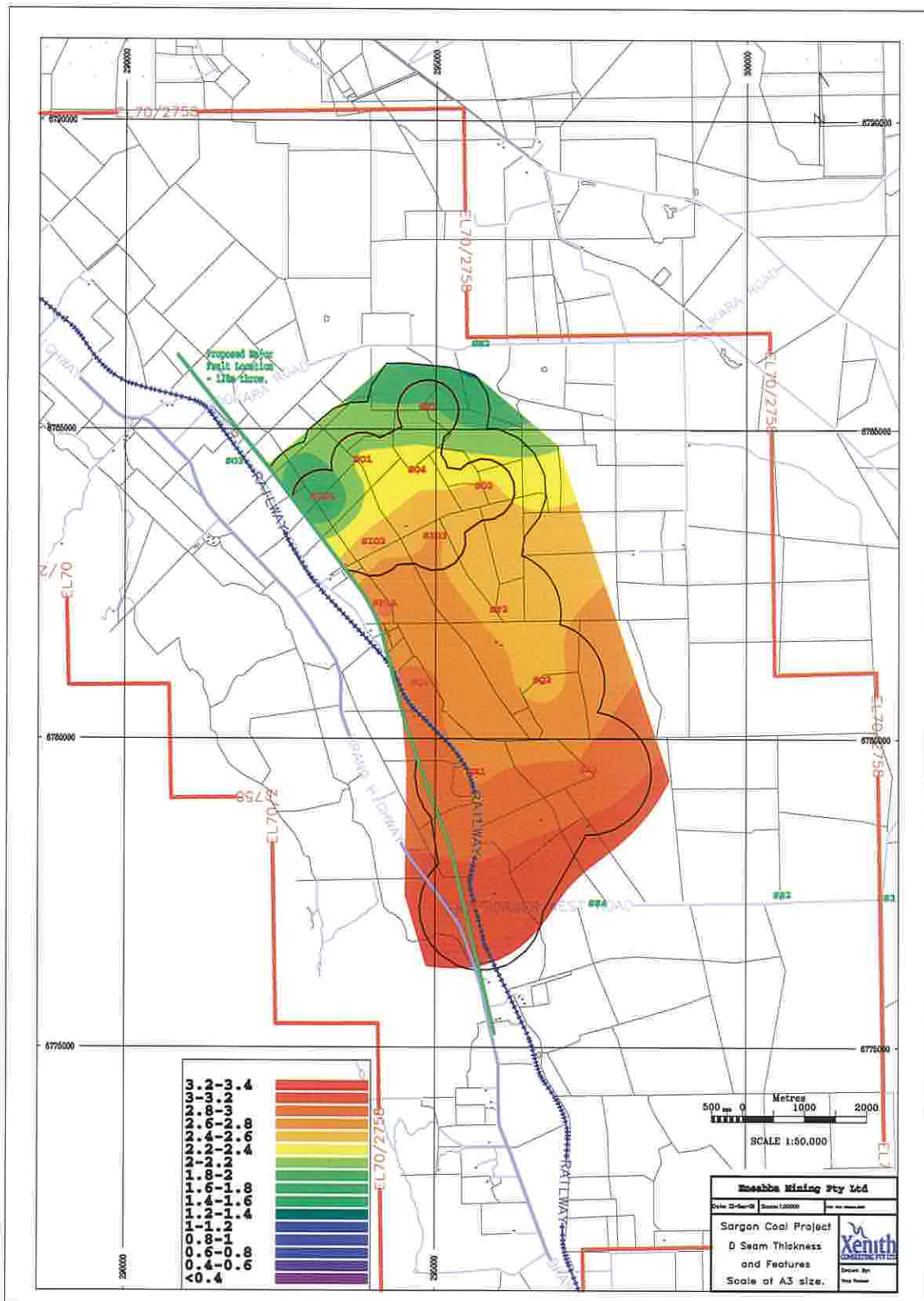
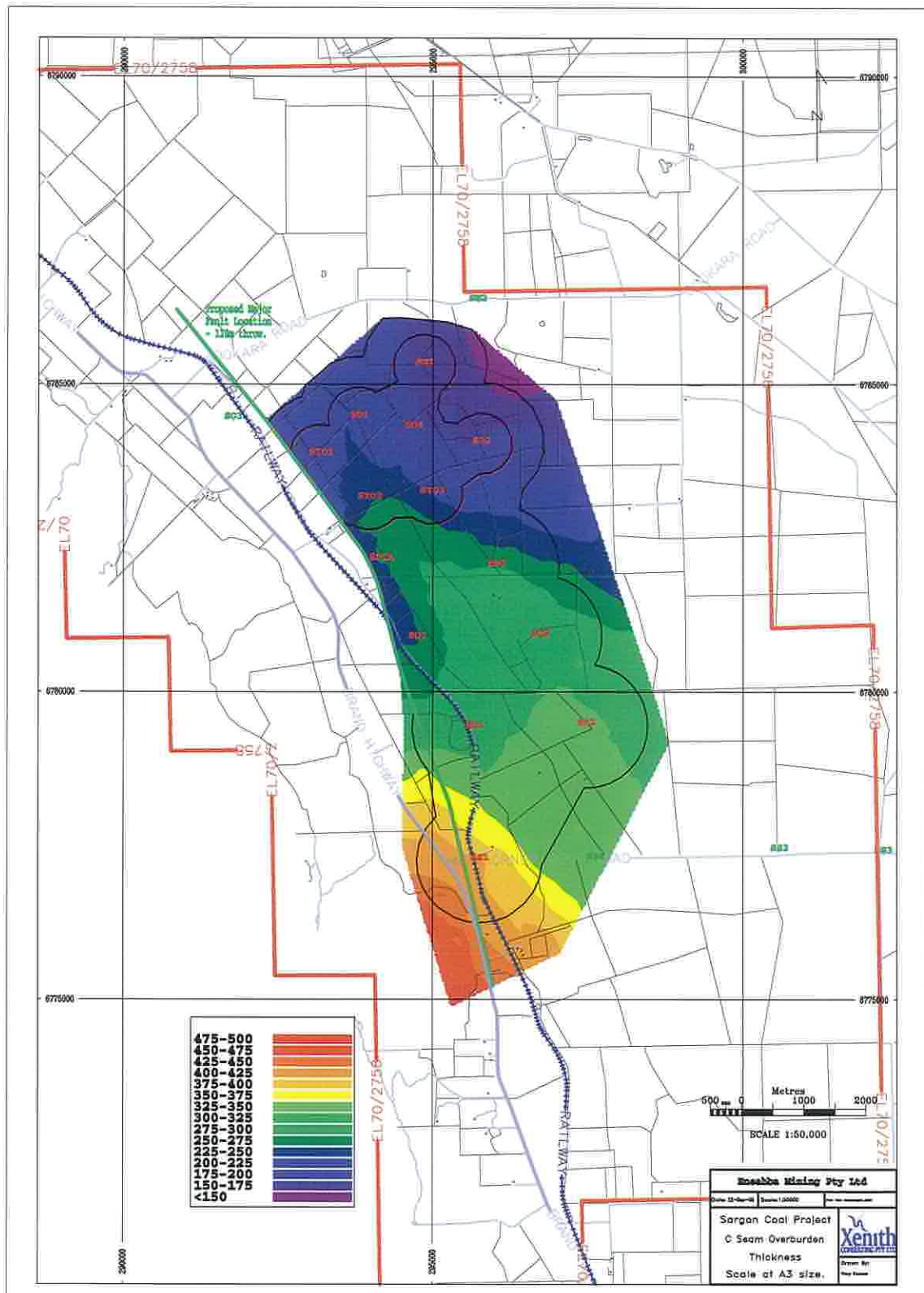




Figure 1-5 – C Seam Overburden Thickness



## 2. JORC STATEMENT

The information in this report relating to coal resources is based on information compiled by Mr Troy Turner who is a member of the Australasian Institute of Mining and Metallurgy and is a full time employee of Xenith Consulting Pty Ltd.

Mr Turner is a qualified geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as Competent Person as defined in the 2004 Edition of the *"Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves."*

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Troy Turner

M AusIMM

227689.