



MANTLE ACQUIRES 289 MILLION TONNE JORC INFERRED COAL RESOURCE

ASX ANNOUNCEMENT

23 AUGUST 2013

Mantle Mining Corporation Limited (ASX: MNM) is pleased to report the acquisition of an exploration tenement in the Latrobe Valley containing a large, JORC Compliant Inferred Resource of Brown Coal:

Highlights

- Exploration Licence (EL) 5210 is strategically located immediately adjacent to the main Latrobe Valley S7 Exempt area (and major operating coalmines) just north of Mantle's existing large EL tenement package.
- EL 5210 contains two deposits of brown coal, of coal quality consistent with typical Latrobe Valley Coal. One deposit has already been drilled and estimated to report a 289 million tonne JORC Compliant Inferred Coal Resource. (Figure 2, Table 1 and attached JORC Compliant Resource Estimate).

Mantle wishes to note that the joint venture with Syngas Ltd, as referred to in the attached JORC Compliant Resource Estimate Report, has since been terminated.

- Total consideration for the tenement to the vendor, Resolve Exploration and Mining, consists of a back-end vendor royalty of \$0.80 / tonne clean coal sold, convertible to a \$5 million payment spread over the first 2 years of commercial production in 4 tranches in either cash or Mantle shares at the vendor royalty holder's option.
- The second deposit has also been drilled and Esso have previously put together a report, which estimates a total target of approximately 220 million tonnes (Figure 3). Although this deposit is yet to be reported as a range of tonnages as required under the JORC Code to report a JORC Compliant Exploration Target level of confidence, Mantle views the conceptual size of the deposit as a material piece of information.

Mantle wishes to note that "the potential quantity and grade of the potential Exploration Target is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource, and that it is uncertain if further exploration will result in the determination of a Mineral Resource."

- Detailed work plans have already been lodged with, and approved by, the relevant state government department for a major drill program designed in accordance with the principles and guidelines of the JORC Code, in order to deliver upgrades to the existing JORC Resource (to Measured and Indicated status) as well as the second deposit to deliver a maiden JORC Resource there.

For further information please contact:

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About Mantle's Latrobe Valley Coal Project

Mantle is an Australian based minerals exploration company that is focussed on a range of in high demand commodities. Mantle's principal activities are to acquire exploration tenements and locate economically developable deposits of coal and gold. It is Mantle's intention to progress mineral deposits through feasibility and into mining operations, to the benefit of all stakeholders (Figure 1).

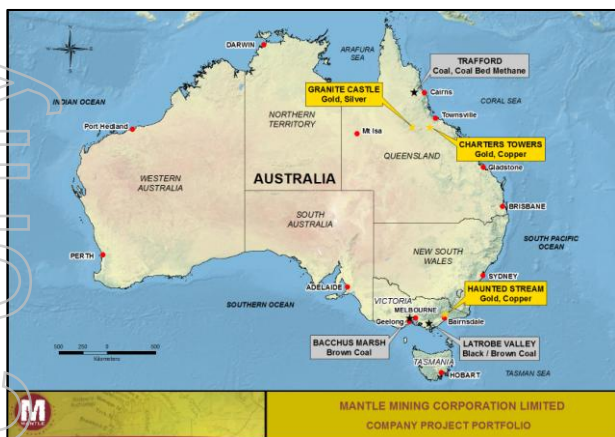


Figure 1: Mantle's project locations

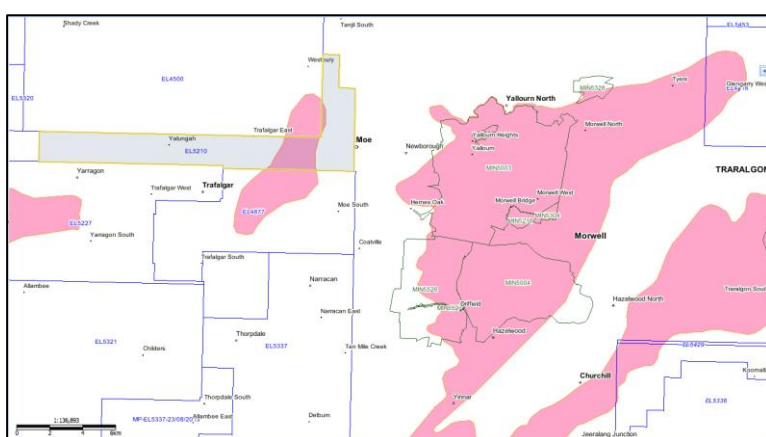


Figure 2: EL5210, Latrobe Valley mines and Mantle's EL5337

Region	Grid Mean Thickness (m)	Area (km2)	Density (Gm/cc)	Tonnage (Mt)
Yarragon A seam	7.73	5.51	1.25	53
Yarragon B seam north	11.33	3.39	1.25	48
Yarragon B seam south	17.06	8.84	1.25	188
Total				289

Table 1: EL5210 JORC Compliant Inferred Resources

JORC Resource Competent Person's Statement:

The information compiled in this report relating to resources is based on information compiled by Gordon Saul, who is a member of the Australian Institute of Geoscientists and who is employed by Resolve Geo Pty Ltd. Gordon has sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Gordon Saul consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

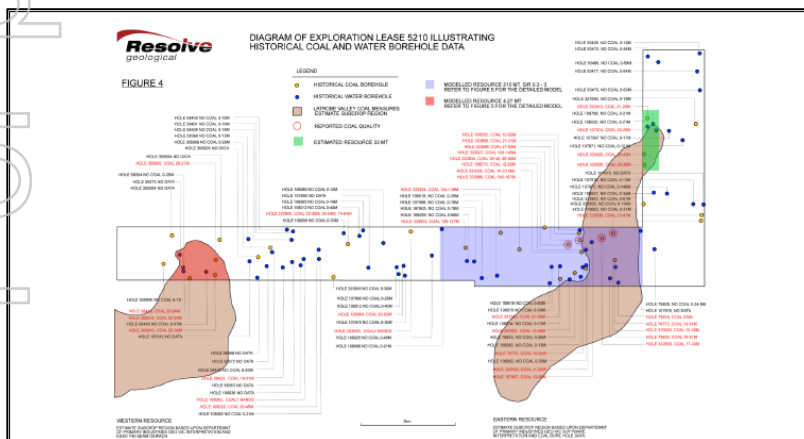


Figure 3: Holes used in JORC Resource modelling.

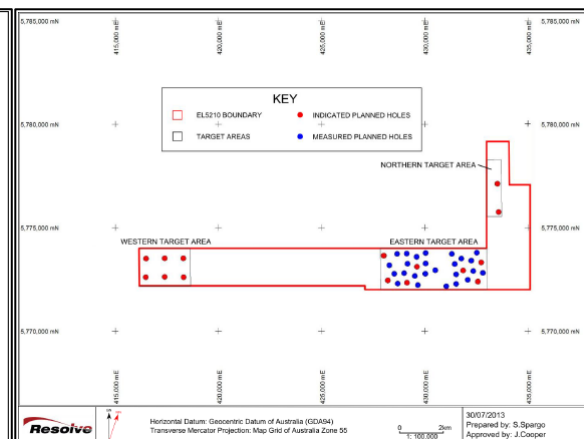


Figure 4: Holes planned for JORC Upgrade.

Mantle has a portfolio of exploration licences and licence applications in the highly prospective Gippsland basin of Victoria, approximately 150km east of Melbourne (Figures 5 and 6).

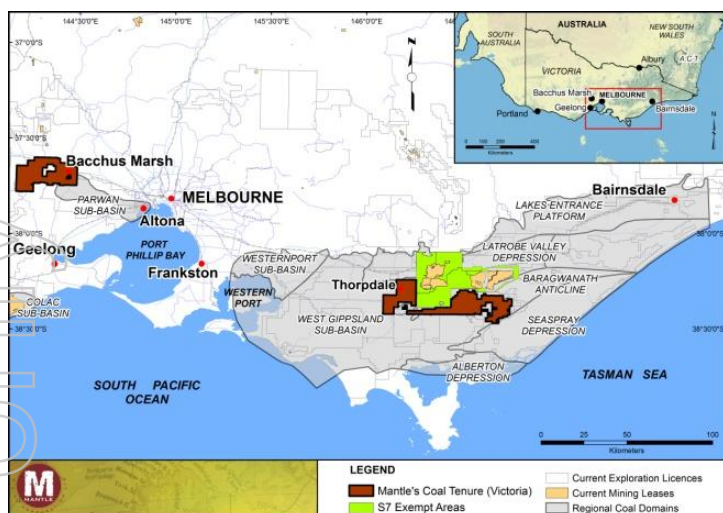


Figure 5: Mantle's Victorian coal projects.

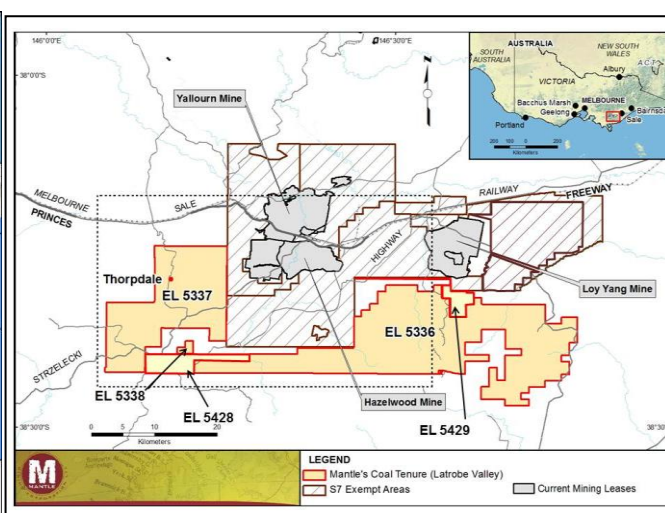


Figure 6: Mantle's Latrobe Valley coal project.

The ELs are immediately adjacent to the main Latrobe Valley depression which hosts one of the largest, and cheapest to mine, deposits of brown coal in the world. Current brown coal mine production in the Latrobe Valley is in excess of 65Mtpa, for feed to mine mouth power stations.

Historically, black coal was first extracted from the Thorpdale region in 1875 at Ryan's Coal Mine. By 1889 black coal mining in the Thorpdale region had extended as far as Scarlett's in the south. This area was mined intermittently until 1959. By 1876, a large number of brown coal mines were operating in the Thorpdale region. The first was at Mirboo Collieries Company Mine with a shaft in to a 50m thick seam at 40m depth. Smaller operations got underway at Haswell and Campbells Mines (Figure 7).

Mantle is currently exploring for extensions of these historic coal mines and seeks to define new black coal deposits and apply brown coal upgrade technology to develop new export opportunities. Mantle has modelled a large portion of the onshore Gippsland coal basin by developing a detailed database of all historic, publically available drill holes.

Long sections have been modelled extending from Wonthaggi in the south-west, through the Latrobe Valley, all the way to Longford in the far east. Specifically, the brown and black coal deposits within and immediately surrounding the main Latrobe Valley depression have been modelled with detailed cross sections (Figure 8).

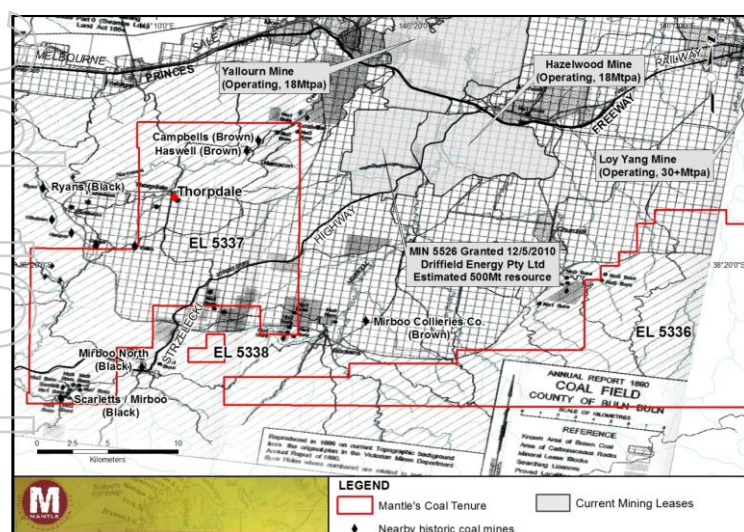


Figure 7: Tenements over historic coal regions and mines.

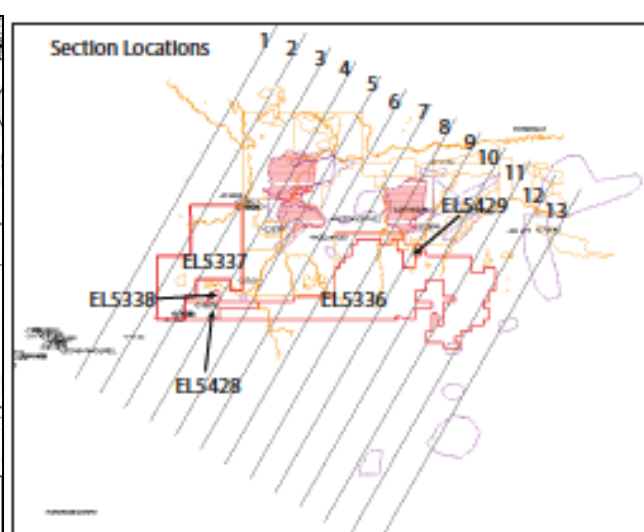


Figure 8: Latrobe Valley model cross sections plan.

Over recent decades, highly mechanised mining methods, cleaner coal utilisation technologies and increased international demand fundamentals have emerged. These developments have enhanced the prospects for Victoria's

coal deposits to find their place in the emerging era of lower greenhouse gas emission energy mix. From the Victorian government website at: dpi.vic.gov.au/earth-resources/coal/coal-allocation:

"The Victorian Government is committed to fully exploring opportunities to develop the state's coal resources for the benefit of all Victorians. The government is currently promoting the state's brown coal deposits as part of a drive to find new ways to develop this world class resource"

"An initial market assessment conducted in 2012 confirmed local and international interest in Victoria's unallocated brown coal for development. The process will now move into a deeper market engagement process in the first half of 2013 to further promote the development opportunity and to gain a more detailed understanding of market conditions and interest."

Mantle is currently undertaking a broad evaluation of historic mining in the west, south and central Gippsland Basin. This work will lead into regional coal seam correlations to be followed by development of a detailed geologic and stratigraphic model. Priority field exploration targets will then be developed for initial ground proofing.

General Competent Person's Statement:

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Mark Maxwell who is an Employee of Mantle Mining Corporation Ltd. Mr Maxwell is a Member of the Australasian Institute of Mining and Metallurgy 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 a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Maxwell consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.



June 2010

Resolve Exploration and Mining

JORC Report

Inferred Resource Estimation EL 5210 Yalungah

Prepared by:

Alan Hansen

Reviewed by:

Jill Cooper

Gordon Saul

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Disclaimer

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Executive Summary

A substantial inferred resource of 289Mt has been calculated for EL 5210 (Yalungah). The target Yarragon A and B brown coal seams have been assessed to contain a JORC compliant inferred resource of 53.24Mt and 236.51Mt respectively. Estimates were prepared using a minimum mining thicknesses of 4 metres in any given seam intersection providing coal quality results from a cored hole. Coal quality is comparable to other producing coal mines within the Latrobe Valley with ash is averaging *ca.* 7%, total moisture *ca.* 63%, Specific energy (adb) *ca.* 23 MJ/kg and volatiles (adb) range from 46 – 51%. Depth of cover to coal tonnage ratios range from 0.3 to 4.5. Infrastructure is excellent; the tenement is bisected by the Princess Highway and the tier 1 rail line running from Melbourne to Morwell. Planned core holes to further define the continuity of the deposit are ongoing.

1. Tenement Introduction

Resolve Geo Pty Ltd holds 100% of EL 5210 (Yalungah) covering 52.51 km² within the Gippsland Basin, Victoria. It is located approximately 125km south east of Melbourne, to the west of the township of Moe (Figure 1). Resolve Geo Pty Ltd entered into a joint venture agreement with Syngas Ltd, an Australian leader in Synfuel production effective from the 15th of September 2009. Syngas will earn 70% interest on completion of a Pre-Feasibility Study. This shareholding can be increased to 100% on completion of a Definitive Feasibility Study.

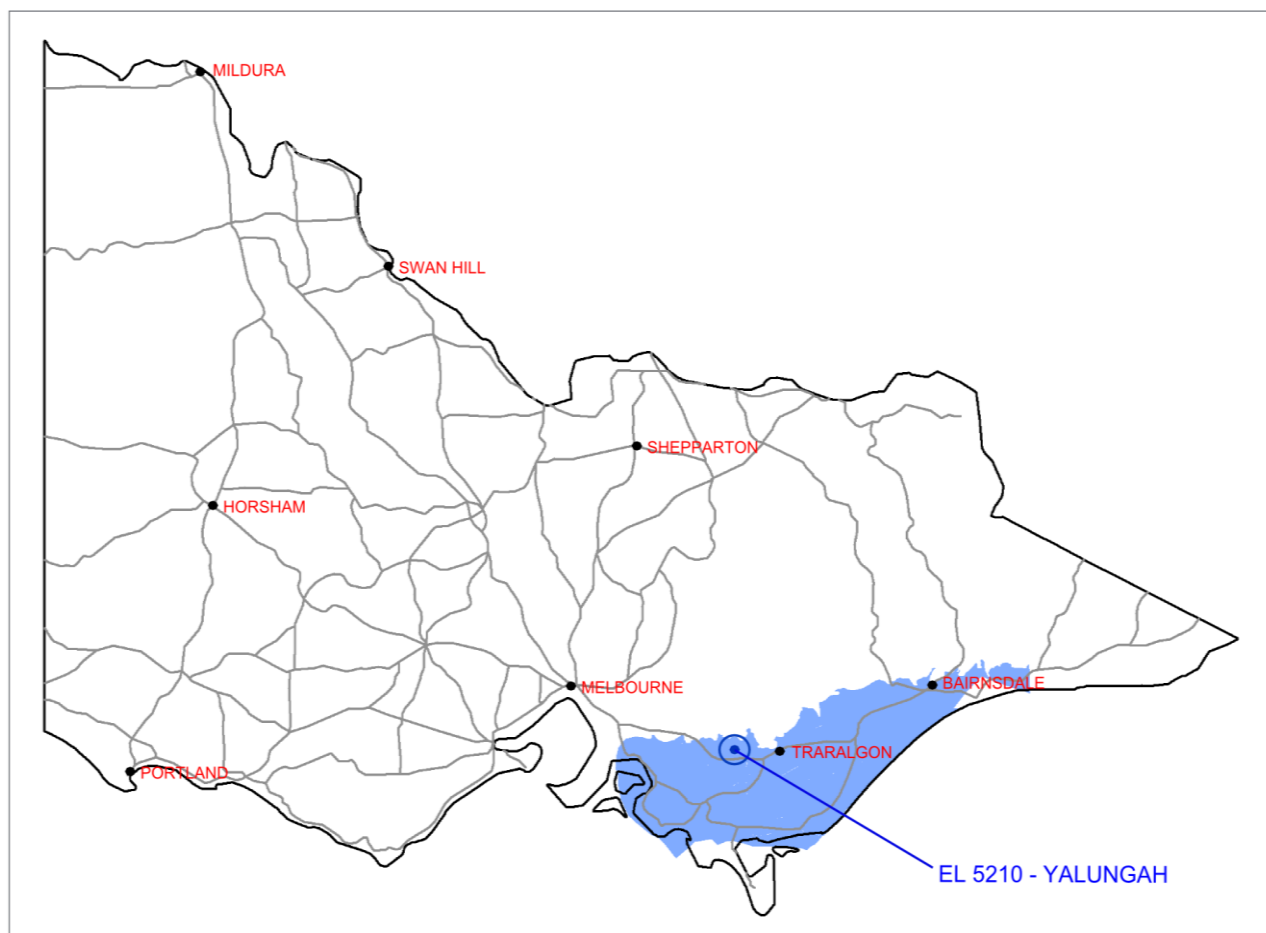


Figure 1 : Regional map of EL 5210 Yalungah, located within the northern section of the Gippsland basin.

2. Geology

The Tertiary brown coal deposits within the Yalungah lease form part of the Moe Swamp sub-basin which lies on the northern boundary of the Gippsland Basin, separated from the Latrobe Valley depression by the Hunted Hill fault block. The elongate basin is bound to the south by the Yarragon Monocline and to the west by the Darnum Fault. Tertiary sediments are stratigraphically correlative to those found in the Latrobe Valley which support a number of coal mining and power generation developments, including the large Yallourn coal mining complex. Land use in the

area is dominated by pastoral dairy farming. Infrastructure is excellent with the Gippsland Highway traversing the southern portion of the lease, with a tier 1 rail line situated adjacent to this highway.

3. Drilling & Points of Observation

A total of 30 historical coal boreholes have been drilled within EL5210. The majority of these holes were drilled between 1965 and 1985 by the Victorian State Electricity Commission and Esso Australia Ltd. The holes were rotary drilled commonly using a diamond core bit. Data collected from all these holes have been collated and presented in a digital format by Geo Eng Pty Ltd. Fifteen of the boreholes within the eastern section of the Yalungah lease have proximate coal quality recorded. The coal quality data derived from these 15 core holes form the basis for the interpretations and conclusions in this estimation. An additional 59 water bores have been drilled throughout the lease, whilst these have not been used as a points of observation they have helped to confirm seam continuity, along with the remaining coal boreholes that did not report coal quality analysis. All bore hole locations are shown in Figure 2, points of observation are shown in Figure 3.

Drill holes that can be classified as valid points of observation for the determination of the inferred resource can be summarized as follows;

- Coal core hole intersecting greater than 4 metres of coal.
- Raw proximate coal analysis completed
- Survey coordinates provided
- Logged by a geologist

4. Coal Seam Identification

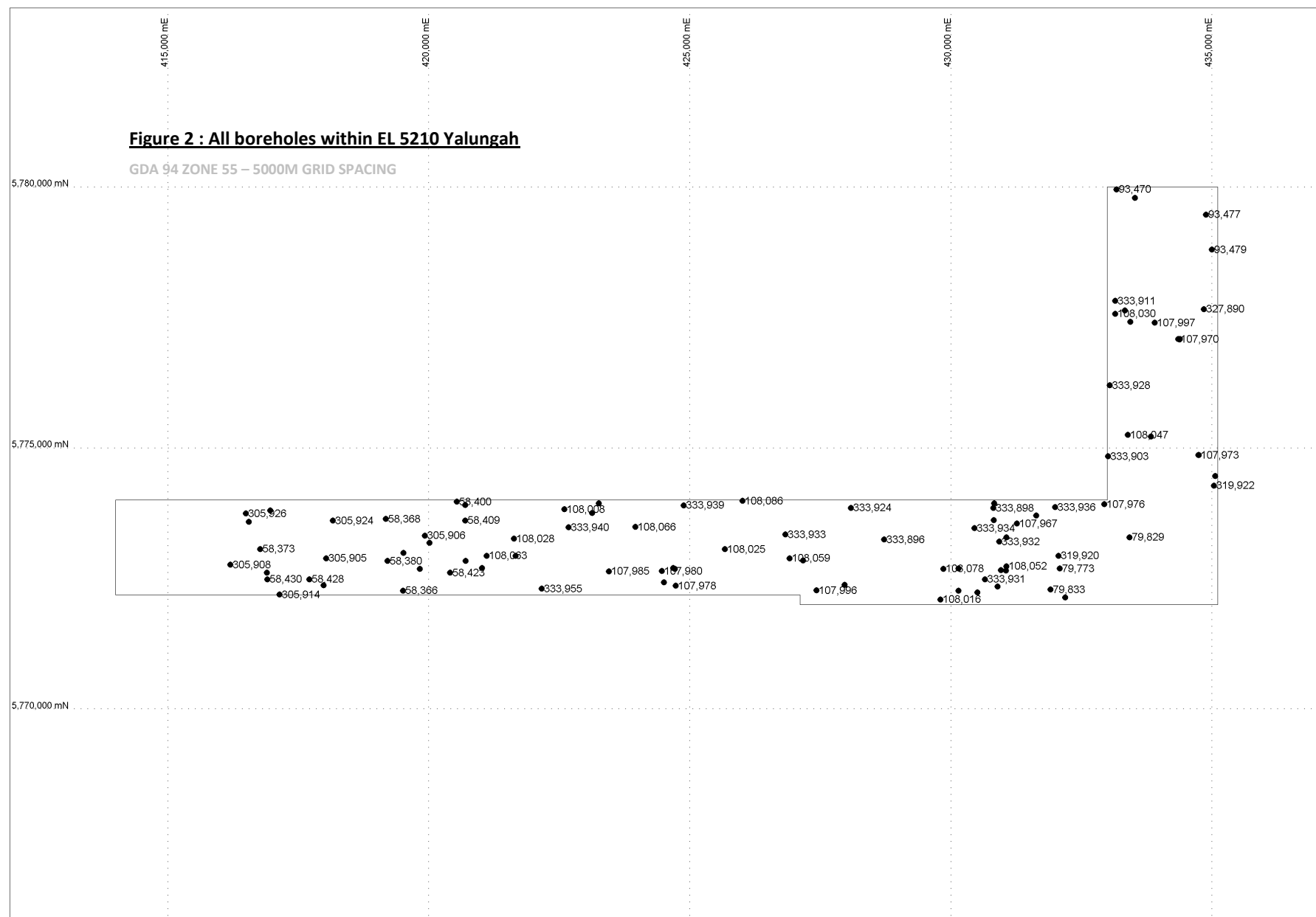
Historical reporting of the region typically divides the Yarragon Brown Coal Formation into an upper and lower seam, the Yarragon A and Yarragon B Seams respectively. These seams are correlatable throughout the Moe Swamp sub-basin portion of EL5210. Relative levels and coal intersections from the 15 points of observation have been modelled in Micromine Pty Ltd's "Micromine" software, to enable a 3D interpretation of the seams. The Yarragon B seam is shown to be continuous throughout the eastern portion of the lease (Figure 4). The B Seam dips to the west at $ca. 3^{\circ}$ and appears to split and thin west of hole 333896 (Figure 4). Eastward the seam decreases in dip east of hole 333894, and sub-crops east of hole 333926. More exploration work needs to be completed in this area to fully understand the seam geometry. The footprint of the Yarragon A seam is smaller, sub-cropping east of hole 333894 within the eastern portion of the lease. The Yarragon A Seam dips westward at $ca. 3^{\circ}$ (Figure 4).

Hole	Easting	Northing	RL (m)	Depth (m)	Top Yarragon A Seam (m)	Base Yarragon A Seam (m)	Thickness (m)
333934	430455	5773463	61	81.4	38.2	44.2	6
319959	429209	5771077	105.5	101.9	42.2	54	11.8
333927	429607.4	5774060	56.3	221.1	128.3	134.3	6
333896	428727.2	5773247	56.8	185.5	140	144	4
333923	430146.6	5772265	75.4	105.8	51.4	66.5	15.1
333898	430817.1	5773847	57	65	21.5	31.8	10.3
333894	430824.3	5773620	59.1	121.3	15.5	19.5	4

Table 1 : Yarragon A seam points of observation.

Hole	Easting	Northing	RL (m)	Depth (m)	Top Yarragon B Seam (m)	Base Yarragon B Seam (m)	Thickness (m)
333931	430650.1	5772481	79.3	47.8	10.8	38.2	27.4
333934	430455	5773463	61	81.4	56	80.2	24.2
319959	429209	5771077	105.5	101.9	60.2	96.6	36.4
333927	429607.4	5774060	56.3	221.1	135.5	140.4	4.9
333896	428727.2	5773247	56.8	185.5	155.5	162	6.5
333923	430146.6	5772265	75.4	105.8	68.5	97.5	29
333932	430925.9	5773204	64.2	32.5	11	23.5	12.5
333930	431060.2	5772650	77.7	32	11	20	9
333898	430817.1	5773847	57	65	36.8	64.2	27.4
333894	430824.3	5773620	59.1	121.3	20.5	52.1	31.6
333929	432964	5776580	79	60	23.8	43.4	19.6
333936	432003	5773862	60.5	48	21.2	38.5	17.3
333928	433043	5776196	79.2	60	21.7	29.8	8.1
333905	432705	5776096	82.2	44	19.1	32.6	13.5
333911	433154	5777816	69.6	55	21.4	27.5	6.1

Table 2 : Yarragon B Seam Points of Observation.



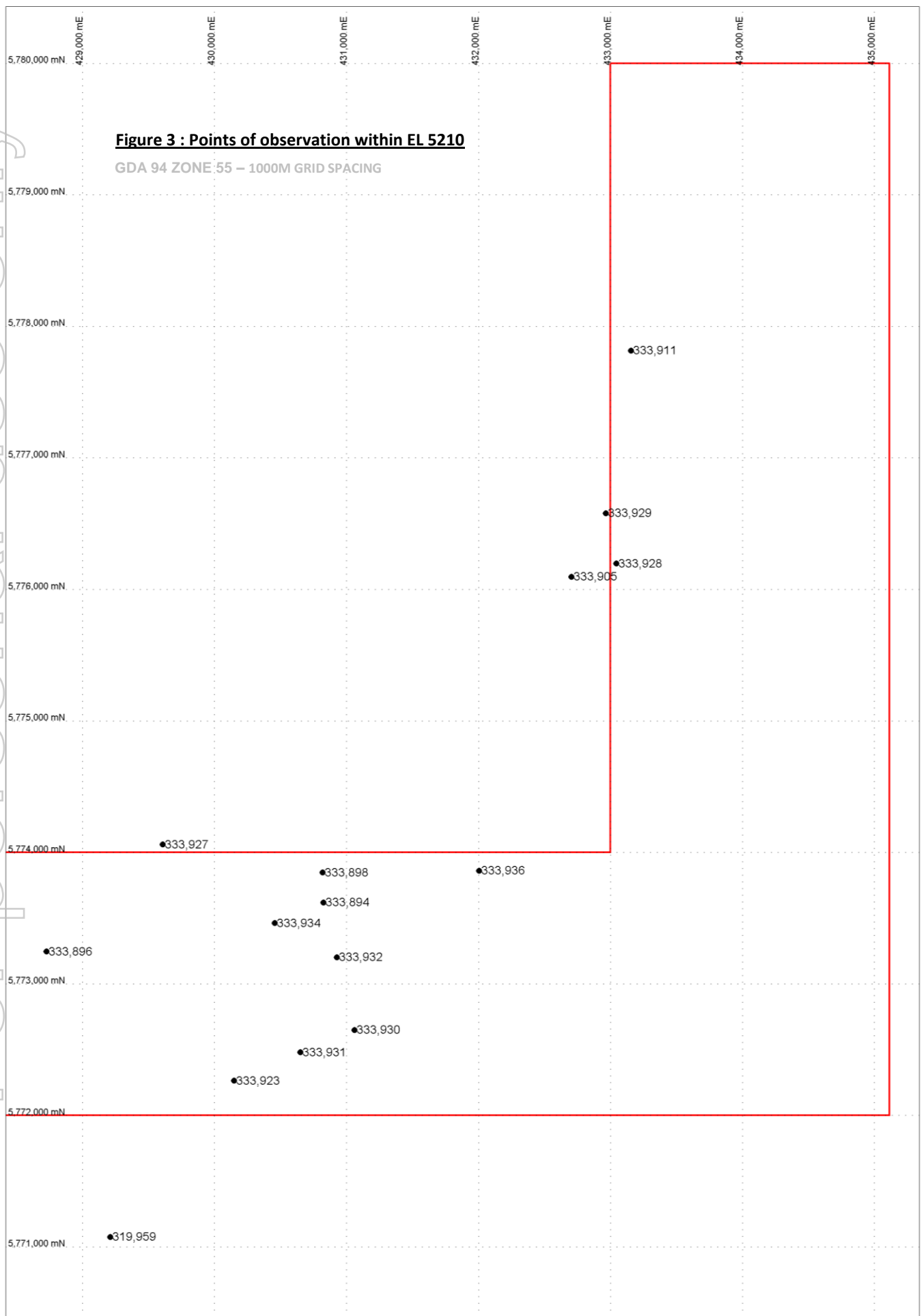
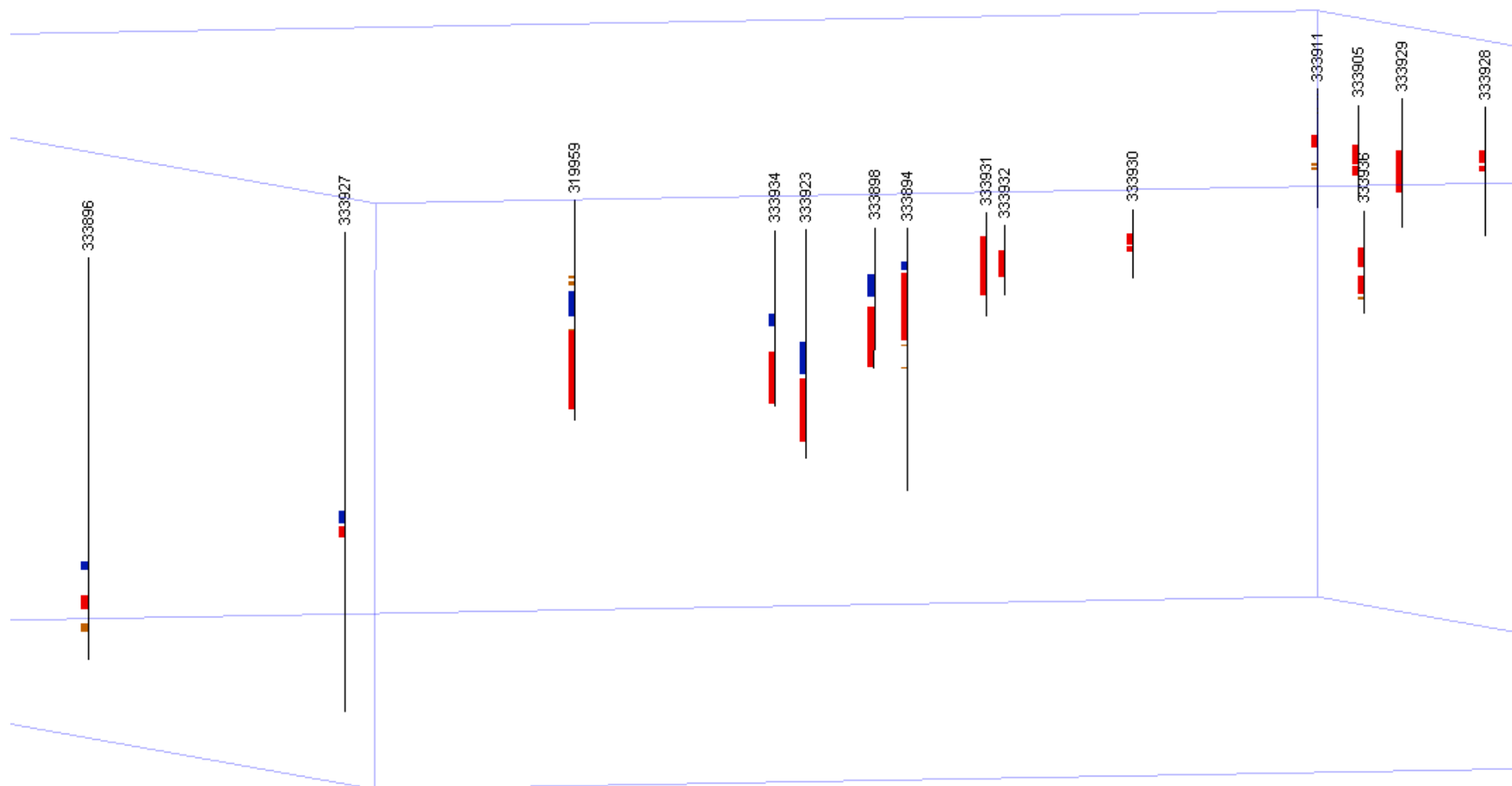


Figure 4 : Spatial 3D model of the Yarragon A and the Yarragon B seams within the eastern portion of EL 5210

Yarragon A seam ■
Yarragon B seam ■



6. Coal Quality

Coal quality within the modelled seams is presented in Table 3 below. Coal quality is comparable to other producing coal mines within the Latrobe Valley with ash is averaging *ca.* 7%, total moisture *ca.* 63%, Specific energy (adb) *ca.* 23 MJ/kg and volatiles (adb) range from 46 – 51%. The coal quality parameters presented below appear to indicate a wide range of uses for this material, including as feed stock for domestic electricity generation, hydrogenation to synthetic fuels, and potential feed stock for the petrochemical industry.

	HOLE	ASH%	TOTAL MOISTURE %	AL2O3%	Ca%	Cl%	Fe (total)	Mg%	KO2%	SiO2%	S%	TiO2%	Na%	VOLATILES (ADB)	SE (ADB) MJ/Kg
SEAM A	319959	4.11	59.87	1.25	0.15	0.10	0.30	0.13	0.00	1.23	0.43	0.01	0.08	51.50	24.16
	333894	10.60	65.40	1.58	0.58	0.11	0.73	0.42	0.00	4.74	0.30	0.05	0.11	50.90	22.96
	333934	4.30	66.00	0.27	0.55	0.06	0.91	0.36	0.00	0.51	0.27	0.00	0.06	51.50	24.15
	333927	9.80	60.80	0.79	0.21	0.01	0.37	0.46	0.10	0.03	6.12	0.06	0.03	55.80	22.16
	333896	5.40	58.60	0.17	0.71	0.04	1.23	1.26	0.27	0.01	0.83	0.01	0.06	51.80	23.98
	333923	6.00	62.47	0.64	0.39	0.09	0.55	0.29	0.00	2.91	0.36	0.03	0.06	51.58	23.19
	333898	9.34	62.48	1.00	0.65	0.11	0.85	0.44	0.00	3.54	0.32	0.02	0.12	51.08	23.07
YARRAGON SEAM B	333936	6.92	65.18	0.78	1.02	0.08	0.68	0.43	0.01	2.32	0.16	0.09	0.11	50.39	23.75
	333894	7.40	65.09	1.12	0.69	0.07	0.84	0.33	0.02	2.49	0.13	0.05	0.06	50.92	24.32
	333934	6.04	63.96	0.70	0.74	0.06	0.78	0.37	0.01	1.28	0.26	0.01	0.05	50.53	24.15
	333931	4.82	66.18	0.46	0.56	0.07	0.72	0.34	0.00	1.06	0.49	0.01	0.06	51.53	24.41
	319959	5.17	62.15	0.86	0.21	0.08	0.38	0.23	0.01	2.32	0.33	0.04	0.08	51.06	24.41
	333927	15.61	57.09	2.65	0.74	0.04	1.25	1.26	0.27	0.10	8.65	0.22	0.04	46.80	20.94
	333896	5.02	58.07	0.45	0.65	0.04	1.04	1.13	0.25	0.01	0.69	0.01	0.05	51.90	24.01
	333923	6.43	63.11	0.86	0.44	0.07	0.58	0.31	0.02	2.33	0.23	0.05	0.06	52.03	23.87
	333932	6.11	64.70	1.47	0.31	0.07	0.47	0.29	0.03	2.75	0.33	0.09	0.12	50.60	24.15
	333930	9.25	67.39	3.00	0.16	0.09	0.30	0.28	0.06	3.05	1.44	0.17	0.10	50.29	23.49
	333898	7.90	64.40	1.12	0.69	0.07	0.97	0.36	0.03	2.64	0.17	0.05	0.06	51.23	23.75
	333929	6.45	64.31	0.69	0.44	0.07	1.08	0.33	0.01	2.07	0.21	0.03	0.08	51.29	23.69
	333928	10.81	65.26	2.70	0.25	0.11	0.56	0.34	0.06	5.62	0.00	0.15	0.17	48.78	22.95
	333905	11.17	65.99	2.79	0.24	0.09	0.57	0.27	0.09	6.12	0.36	0.18	0.08	48.87	23.25
	333911	7.25	66.82	1.33	0.34	0.07	1.16	0.23	0.04	2.54	0.10	0.03	0.08	51.60	23.54

Table 3 : Coal quality reported as weighted averages for each seam and point of observation. Reported on an air dried basis (ADB).

7. Modelling

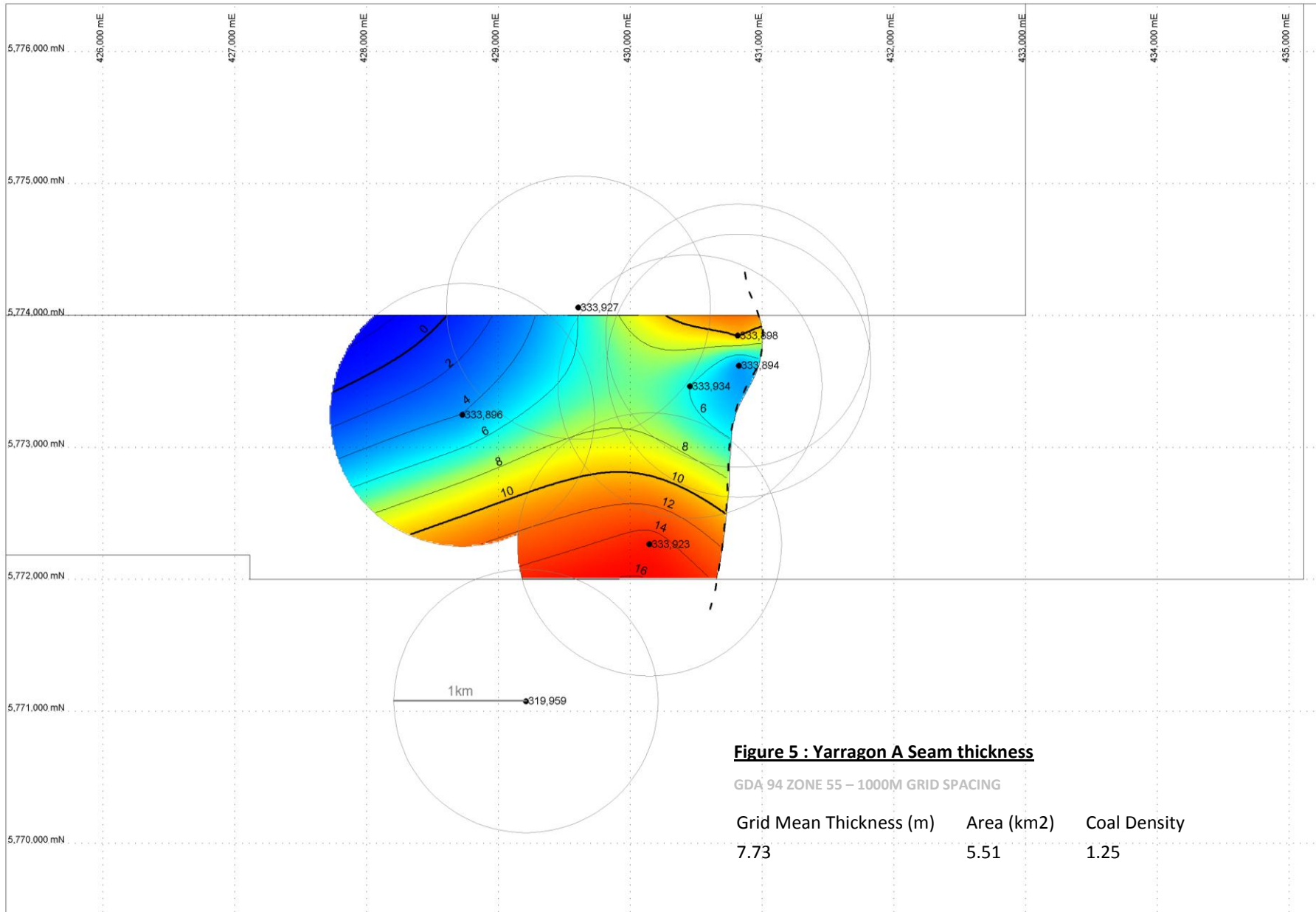
To gain an accurate resource estimation each seam has been modelled individually. The Yarragon A Seam is shown in Figure 5. The Yarragon B Seam has been split into two separate areas (north and south)(Figures 6 & 7). Inferred resources have been extrapolated to a maximum of 1000m beyond any point of observation. A minimum of 3 adjacent interconnecting radii has been used to ensure continuity throughout the estimate. Points of observation are therefore no further than 2000m apart.

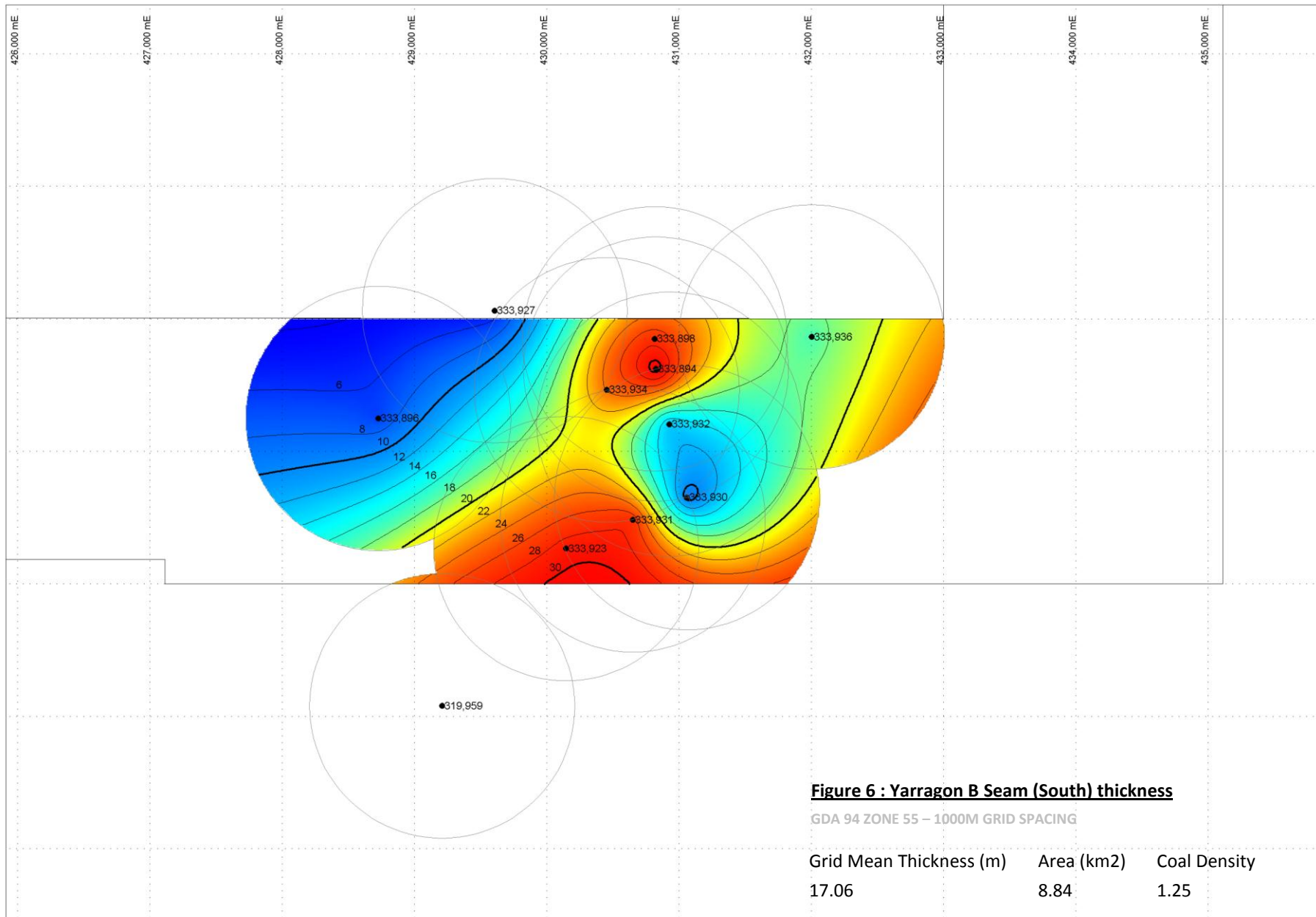
An in-situ coal density of 1.25 g/ml has been used in these calculations based on work carried out by Esso Australia Ltd within the Moe Swamp Basin. Their work under exploration licence EL 1080 (Trafalgar) comprised 3 drilling programs totalling 100 holes to outline the thickness and extent of the Latrobe Valley coal measures. The average in-situ mass per unit volume used in Esso Australia's regional resource estimation was a density of 1.25 g/ml.

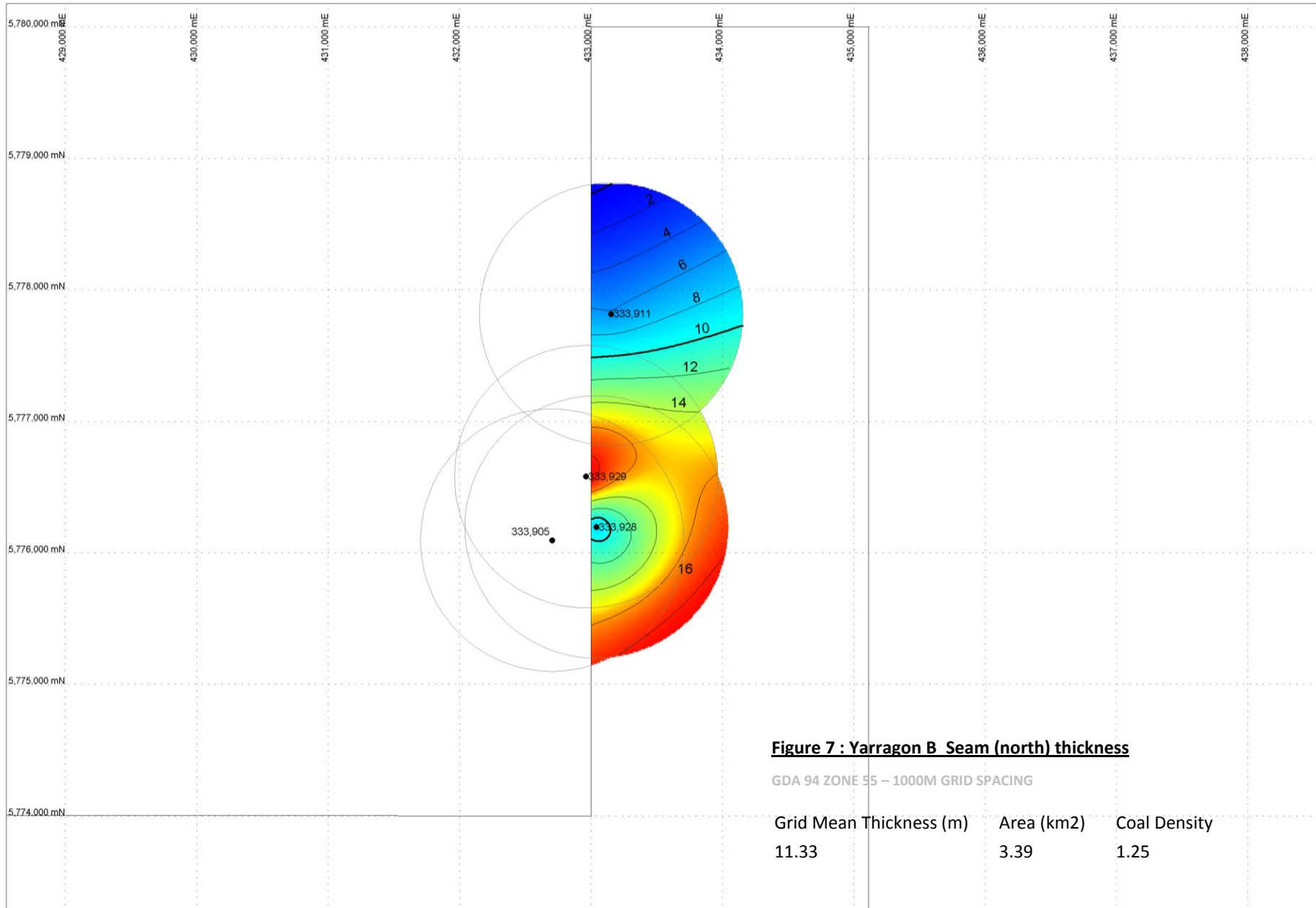
The Yarragon A seam resource has been clipped to an inferred sub-crop line, as shown in Figure 5. Interpretation using the Micromine 3D model suggests the Yarragon A Seam sub-crops between boreholes 333894 and 333932 (Figure 5).

All models are projected and displayed in GDA 94 Zone 55. Thickness contours are displayed in metres.

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8. Inferred Resource

An estimated in situ resource of 289 Mt has been calculated using the Pitney Bowes "Mapinfo Encom Discover" modelling system. A total of 64Mt has been calculated for the Yarragon A Seam. A total of 46 Mt (North) and 180 Mt (South) have been calculated for the Yarragon B Seam.

Region	Grid Mean Thickness (m)	Area (km ²)	Density	Tonnage (Mt)
Yarragon A seam	7.73	5.51	1.25	53
Yarragon B seam north	11.33	3.39	1.25	48
Yarragon B seam south	17.06	8.84	1.25	188
Total				289

Table 4 Table illustrating the in-situ resource calculations

9. Depth to seam

Figure 8 shows the approximate depth of cover for the Yarragon A Seam within EL5210. Figures 9 and 10 show the approximate depth of cover for the Yarragon B Seam within the north eastern and south eastern portions of EL5210 respectively. Thickness contours are in metres.

Signed

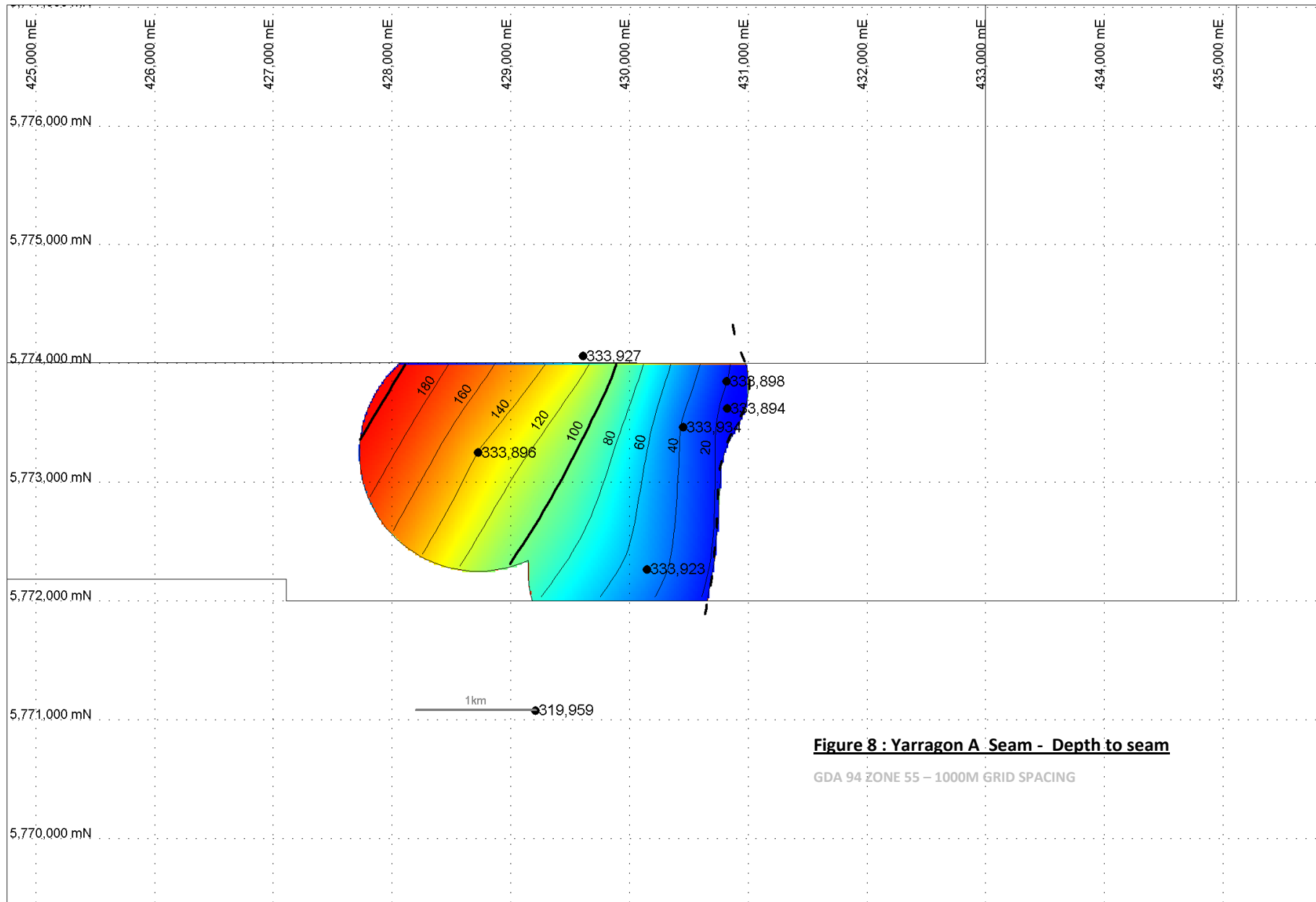


Gordon Saul

Date: 9th of June, 2010

JORC Statement

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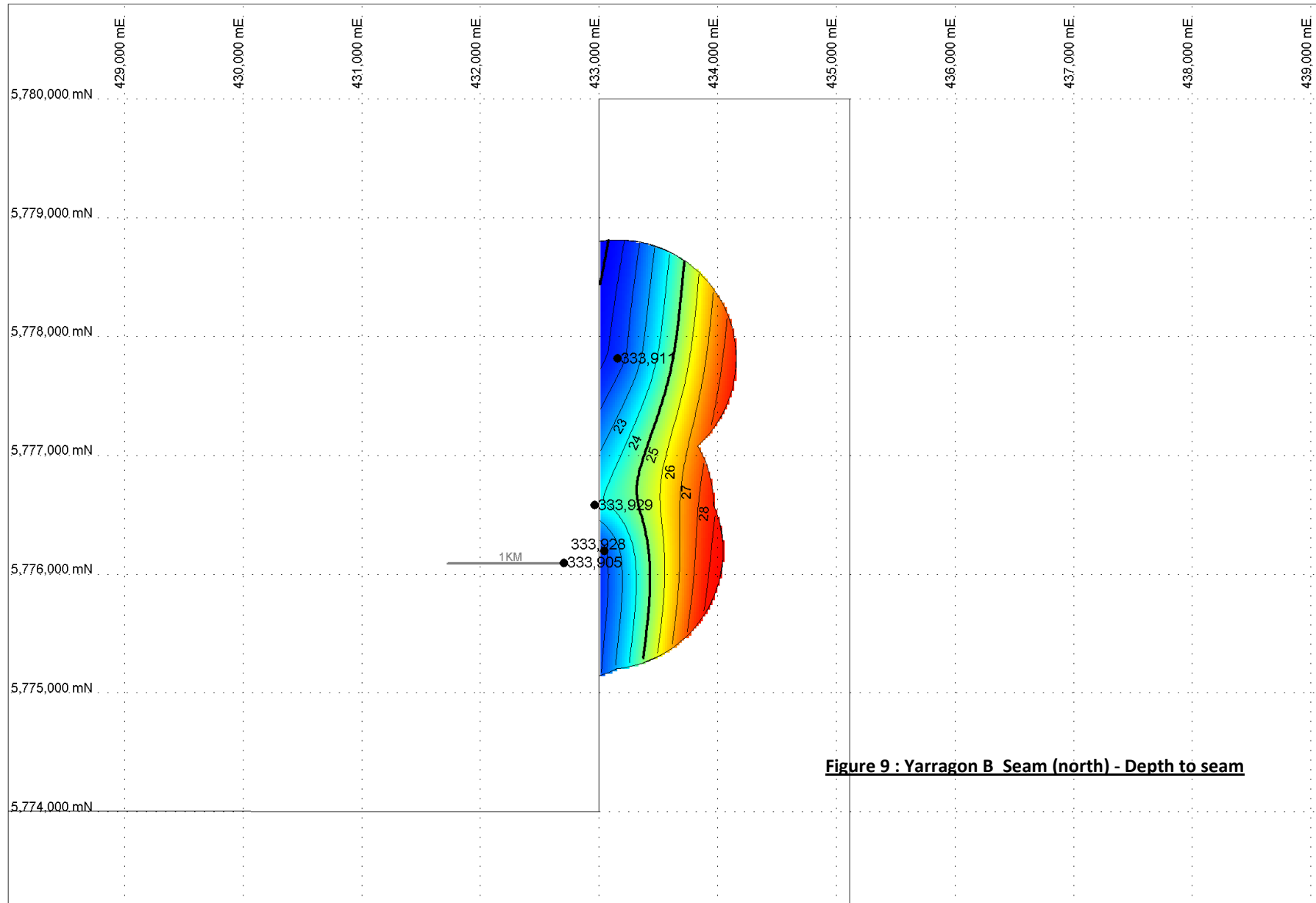


Figure 9 : Yarragon B Seam (north) - Depth to seam

