Polo Resources LLC
JORC Standard Resource Estimation
Of the
Erds Coal Project,
Mongolia

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OCTOBER 2009

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Executive Summary

"Polo Resources" LLC (The Company) commissioned Micromine Pty Ltd (Micromine) to complete a JORC standard technical report on the Erds project (the project). For this study Mr. Gary Ballantine (GeoCheck Pty Ltd) was commissioned by Micromine to act as their "competent person" (CP) and coal expert in the preparation of the document.

The Erds coal project is located in the sub province of Altanshiree of the Dornogovi province. The project is approximately 430km South-east of Ulaanbaatar, it is close to rail and power infrastructure and is around 140km from the border of China. The deposit style for the project is a rift basin, which coincides with the Jurassic–Cretaceous intracontinental rift evolution. Deposits in the project area are hosted in the Huhteeg Formation, which contains thick coal seams.

The area has undergone a series of exploration campaigns and the results indicate potential for large scale, multi bench, and open-cut operations.

Micromine designed a resource development program in order to collect sufficient data of a high enough standard to allow a JORC compliant resource estimate, which was subsequently conducted in May 2009. The resource estimation process included performing quality checks on the geological and assay information and modelling coal seam morphology, moisture, ash, volatiles, fixed carbon, sulphur, relative density and specific energy on an air dry basis. The resource estimation work was carried out under the supervision of Mr. Gary Ballantine, who acted as the Competent Person (as defined by the JORC guidelines) for the project, assessing the points of observation from the data and supervising the model methodology and results, which are stated in this report. Resource estimation was based on modelling of morphology of the seams by gridding, followed by interpolation of coal quality data and categorisation of resources based upon points of observation.

Boreholes drilled in the 2009 exploration campaign were cored from near surface and all boreholes were geophysically logged to check coal depths and thickness in situ. Coal seam continuity was interpreted from cross sections and nine major seam groups identified with further subdivision into 60 plies. The resource estimate excludes weathered coal (typically 12 to 28 metres below surface) and resources outside the tenement boundary.

Total Indicated and Inferred rounded resources (air dry basis) are estimated as follows –

Class	Volume m3	Tonnes t	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
Indicated	162,955,539	254,000,000	1.56	26.13	3,658.65	19.26	29.71	24.9	1.33
Inferred	356,869,903	553,000,000	1.55	24.95	3,734.28	19.24	29.7	26.11	1.27
Total	519,825,442	807,000,000	1.55	25.32	3710.46	19.25	29.70	25.73	1.29

The total volume of unclassified material is **99,515,333m^3**

The 'as received' or 'insitu' resources are stated in section 9 of this report.

Analytical work shows that the low rank Erds coal can be classified as "Lignite A" according to the ASTM classification system, or a "Brown Coal" in the Australian classification system. The test work to date suggests the coal would be suitable for mine mouth feedstock for local coal fired power generation.

From a 10kg composite sample for detail testing, indications are that the coal is suitable for power generation with a favourable Hardgrove Index, but high sulphur (1.86%) and moderate ash fusion temperatures (1,150 to 1,300 degrees C).

The geotechnical parameters of the deposit need further assessment. Preliminary observations show sediments overlying the coal have weak rock strength, which may place constraints on potential future pit designs. However, defect spacing and bedding plane shears do not appear to be an issue based on the core logging observations. Overall the Erds coal deposit has very good potential for development into a large scale mine with a low strip ratio, producing a low rank thermal coal product.

1 Introduction

This document reports the results of the resource estimation of the prospectivity for the Erds Coal project (The Project), by Micromine Consulting, as commissioned by Mr. Tony Bainbridge, Chief Operating Officer of "Polo Resources" LLC (The Company).

For this study Mr. Gary Ballantine (GeoCheck Pty Ltd) was commissioned by Micromine to act as their "competent person" (CP) and coal expert in the preparation of the document.

Micromine Consulting has relied upon information supplied by the company relating to the project. This information included all the lithology information, downhole wireline traces (digital and hard copy), sections, plans and assay files. References for these data sources are listed in the reference section of this report. Where figures from these sources are used they are referenced as such.

Mr Jesse Tam (Company Geologist), Mr. Tsogkhuu Iderzana (Micromine) and Mr.Gary Ballantine conducted a site visit on the 15th July 2009 documenting all previous work and collecting information and results.

Mr. Gary Ballantine carried out QA/QC analysis, the laboratory inspection and overall data preparation and supervision for the resource estimation. Mr. Gary Ballantine is the competent person for the project.

Micromine Resource consultant Mr. Dennis Soloshenko was responsible for block modelling and resource estimation.

Micromine consultants David Allmark and Matthew Godfrey were responsible for report compilation and Micromine Asia CEO Mr. Dean O'Keefe was responsible for project management and final compilation of this report.

1.1 Scope of work

Polo Resources LLC requested Micromine Consulting (MMC) to complete a full Resource estimation JORC compliant report for the Erds Coal project. The report will be completed by staff from Micromine Australia, Micromine Mongolia, and a coal qualified person. Other study sections such as legal standing, environmental, processing, mine planning and safety are outside of the Micromine scope of work which is confined to the geology and resource study only. Micromine is not responsible for the amount of data available, or the level of the study, or the outcome of any stock exchange submission. Micromine will independently compile all available data and will impartially report the findings.

The itemized scope of work is as follows –

- Validate the digital database supplied by Polo Resources LLC in Excel file format. This will include collar, downhole survey, coal quality, and recovery and downhole geophysical data for all drillholes.
- Establish points of observation
- Adjust depth of intervals to match geophysics
- A coal competent person will perform a site visit and evaluate all available data.
- Correlate seams and sample and CQ QAQC.
- Gridded seam estimation and categorization of resources. Compile resource statement.
- Complete the full JORC compliant resource report by the coal competent person and resource estimation staffs.

1.2 Reliance on Other Experts

Micromine Consulting has relied upon information that has been prepared by non qualified persons during the preparation of this report. Micromine Consulting are not in a position to, and do not, verify the accuracy of, or adopt as their own, the information and data supplied by others. All information provided in this report with the exception of observations and interpretations made on the basis of the Erds Coal project visit, rely on such data as provided by non qualified persons. For the resource estimation all data was supplied by "Polo Resources" LLC that were collected by the company geologists. Micromine Consulting is not responsible for any issues related to the project such as economics, processing, environmental, legal standing, ownership makeup, property liabilities or other related legal matters.

2 Location and access

2.1 Location and Access

The project is located in Altanshiree Soum of Dornogovi Province, Mongolia, and is located approximately 430 km southeast of Ulaanbaatar (UB), Capital of Mongolia (Figure 2-1). The project area is 75 km and 106 km respectively from "Ayrag" and "Sainshand" railway stations of the Ulaanbaatar-Zamiin Uud railway system. Access is via duel carriage sealed road along the Ulaanbaatar (UB) – Choyr road and can be travelled at good highway speeds (100km/h). Just before the township of Choyr (230km from UB) the road degrades into an unsealed road with travelling speeds reduced to 40 to 60 km/h for the remaining 100km to the township of Ayrag and then another 100km due east to the project area. The area is crossed by numerous bush tracks and is approximately 80km from unsealed roads.

The area has undergone a series of exploration campaigns and the results indicate potential for large scale, multi bench, and open-cut operations.

The coal measures are that of the Middle Cretaceous-aged Huhteeg and Barunbayan formations.

Figure 2-1: Location of the Erds Coal Project.

3 General Information

3.1 Climate and Physiography

The morphology of the project area consists of undulating bare ridges and lower dry grass land areas. The area is elevated to an average relative level of 1,100 meters above sea level with approximately 100 meters of relief. The project area belongs to steppe region according to Mongolian geographic regioning. Relief of the area consists of usually flat land and small hills at elevations between 1,115 to 1,228 metres above sea level.

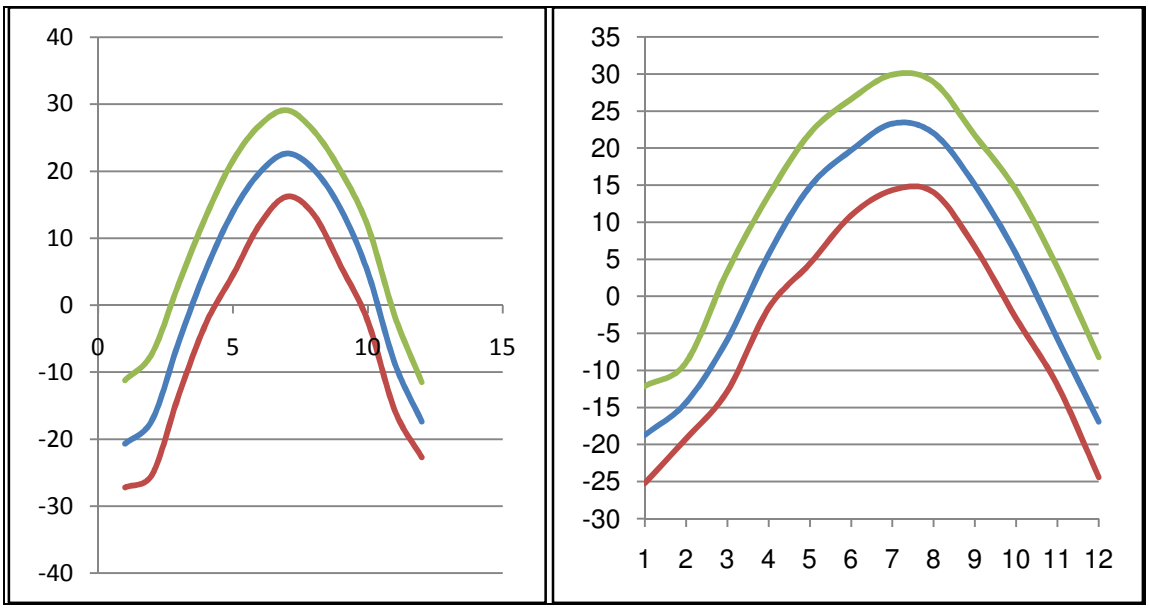
The desert-like-steppe regions are usually arid and warm having average precipitation of 90-120 mm per year with around 80 percent of total precipitation occurring from July to August. The region has a continental harsh, very arid climate having sharp difference in daily, monthly and yearly temperatures. Average lowest temperature of the area is minus 17 to minus 25 degrees centigrade during January and average highest temperature is 25 to 35 degrees centigrade during July as determined by Sainshand metereological station (Table 3-1 and Figure 3-1).

Severe drought has occurred continuously in the Altanshiree soum area since 1999 according to local people and government. Average wind speeds for the area are around 3.3 to 3.6 metres per second, although winds reach speeds of 15 to 30 metres per second on about 30 days per year (typically during spring), generating severe dust storms and topsoil erosion.

Solar radiation and solar ray data around the project area were read from the meteorological station of Sainshand city. The solar radiation period is 3,050 to 3,150 hours per year around the project area, which is quite high for the region. Solar radiation period is highest in June at 300 to 310 hours and lowest in December at around 195 to 210 hours. Soil composition differs among the area. Top soil thickness is 0.05 to 0.2 metres, sometimes reaching 0.4 metres. Sage brushes can be found at the mountain slopes and skirts as well as nutritious gobi plants such as Allium polyrhizum, Allium mongolicum and Stipa sp, and Cleistogenes sp. is abundant around the area. Bushy plants such as Caragana leucophloea, Achnatherum splendens, Amygdalus sp. and Salsola sp. are found around the gobi-like region. Moreover, carnivores are abundant besides other herbivores, rodents, insects, reptiles and birds. Carnivores such as Vulpes vulpes (Red fox), Vulpes corsac (Corsac fox), Felis manul (Manul cat), Meles meles (Badger), Hemeichinus sp. (Hedgehog) and rarely Canis lupus (Grey wolf) and herbivores such as Gazelle subgutturosa (Goitred Gazella), Procapra gutturosa (Mongolian gazelle) and Marmota sp. inhabit the project area. Permanent bird species that inhabit the area are Buteo sp., Aegypius monachus, Falco sp., Raven sp., Accipiter sp. and Tadorna ferruginea, Anthropoides sp. migrate to the area during warm season.

Table 3-1: Monthly average air temperature (°C).

	1	2	3	4	5	6	7	8	9	10	11	12	Year
Altanshiree	-20.7	-17.2	-5.4	5.3	13.9	19.8	22.6	20.2	14.3	4.9	-	-	2.6
Urgun	-18.7	-14.3	-5.8	5.7	14.8	19.7	23.3	22	15	5.7	-	-	3.7
Delgerekh	-18.8	-15.1	-6	4.8	12.9	18.6	20.1	19.8	12.3	3.6	-	-	2.4
Sainshand	-18.3	-14.4	-4.5	6.1	14.2	20.6	23.2	21.1	13.7	4.4	-	-	3.5



a) b)

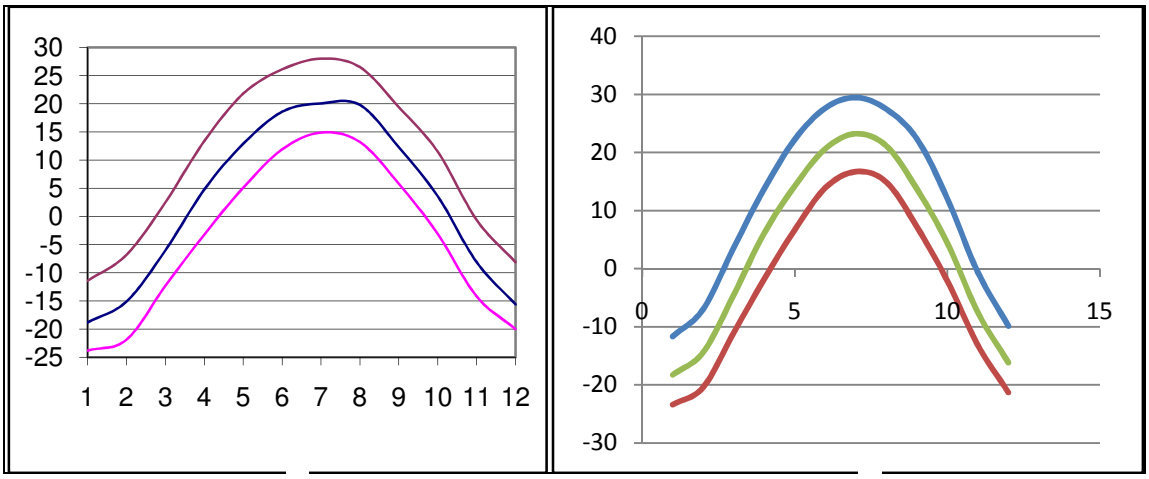


Figure 3-1: Graphs of minima (red), maxima (blue) and average (green) temperatures for a) Altanshiree, b) Urgun, c) Delgerekh, and d) Sainshand stations.

3.2 Local Resources and Infrastructure

The Erdenetsogt area is remote and sparsely populated with the land use currently for grazing. The area is crossed by bush tracks and is approximately 80 km from unsealed roads. A regional high voltage 110v power line (Borundur to Altanshiree) is located approximately 14km away and the border of China lies some 140km to the southeast.

Altanshiree soum has a population of around 1,300 belonging to 4 bahgs, 47.4 thousand livestocks and is connected to a central power station, covering an area of 7,200 square km. Most of the residents of the soum are engaged in animal husbandry and (small percentage) work for local governments, cultural and service companies. There is a secondary school having a capacity of 320 pupils, a dormitory having a capacity of 60 pupils, a hospital with 10 beds, kindergarden having a capacity of 50 children, cultural center having a capacity of 200 persons, a local museum, a library, grocery shops and banks located in the soum center.

The project area is approximately 30km from an underdeveloped major underground reservoir found by the original explorers of the project. Nearby wells (within 5 km) is a source of potable water, some four metres below the ground surface.

3.3 Mineral tenure

All mineral tenure information is contained in APPENDIX 13, including 13045X, coordinates, issue date and expiration date.

4 Regional Geology

4.1 Regional setting

The project area is situated in the north-eastern part of the East Gobi Basin (Figure 4-1).

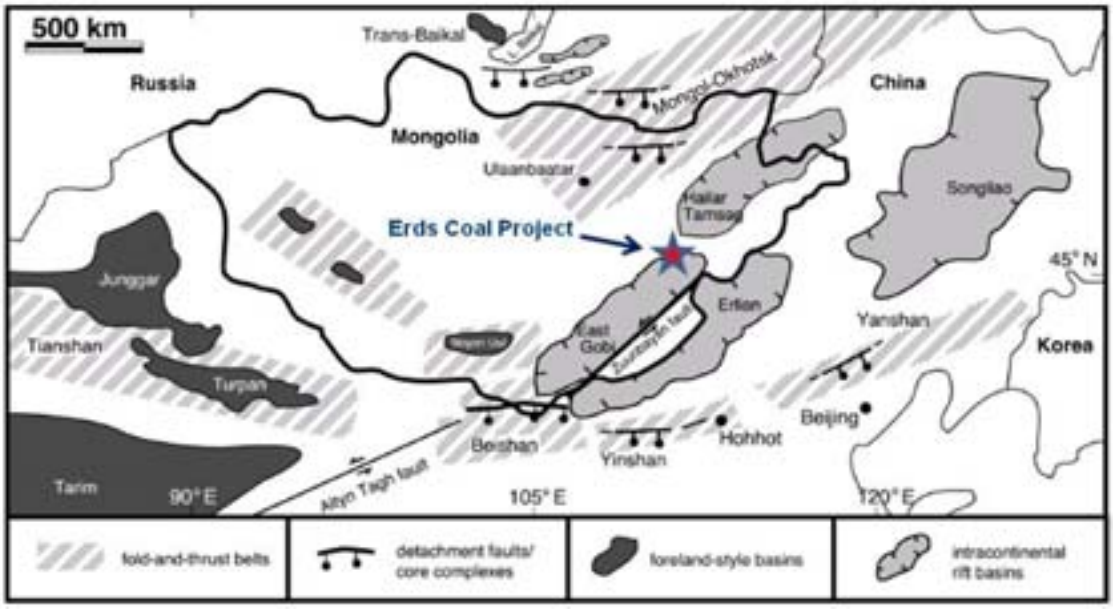


Figure 4-1: Location map of the East Gobi Basin.

Source: (Graham et al. 2001).

This area reflects Jurassic–Cretaceous intracontinental rift evolution. The rifting (extensional) period initiated in the late Jurassic, continued through to the early Cretaceous (Neocomian Epoch) and peaked in the mid Cretaceous (end of the Albian Age, Figure 4-2). This was the period of coal accumulation, forming in rift valley depressions from the ongoing extensional phase. The mid to late Cretaceous, a period of compressional or transpressional inversion caused structural rejuvenation along basin margins in particular along the Zuunbayan fault (Graham et al. 2001, Figure 4-1). This would have stalled the coal forming period and caused folding and faulting to the basin.

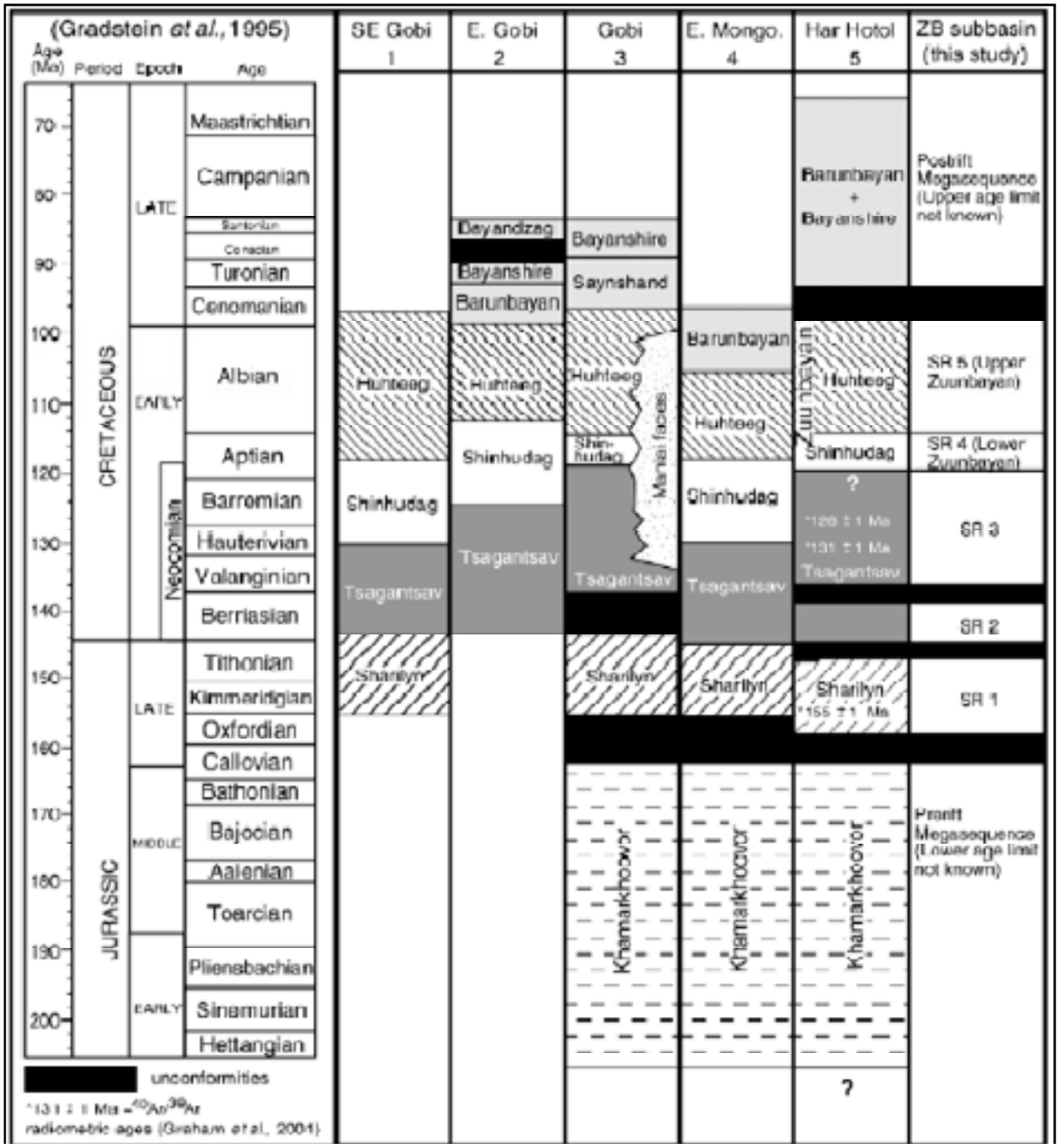


Figure 4-2: Comparison of Stratigraphic nomenclature used in southern Mongolia.

Source: (Graham et al. 2001).

4.2 Regional Stratigraphy

The general stratigraphy for the Erds deposit consists of the early Cretaceous sediments of the Tsagantsav and Shinehudag Formations. Overlying these formations are the coal-bearing sediments of the Middle Cretaceous Huhteeg and Barunbayan Formations.

The Tsagantsav Formation consists of fluvial and lacustrine sediments mixed with occasional bimodal volcanics and conglomerates. The Shinehudag Formation consists of fine-grained lithologies, including some organic-rich laminated shales and marly horizons representing

deeper-water lacustrine environments. Volcanic flow units are absent, and ash fall tuffs are few and undated (Graham et al., 2001) (Figure 4-2).

Overlying these formations are the coal-bearing sediments of the Middle Cretaceous Huhteeg and Barunbayan Formations. The local mapping indicates that the unit K1ht contains the coal measures in the project area (Figure 4-3) and this would equate to the Huhteeg Formation. Unconformably overlying the Huhteeg Formation was a series of unconsolidated thin soils, sands and sand clays.

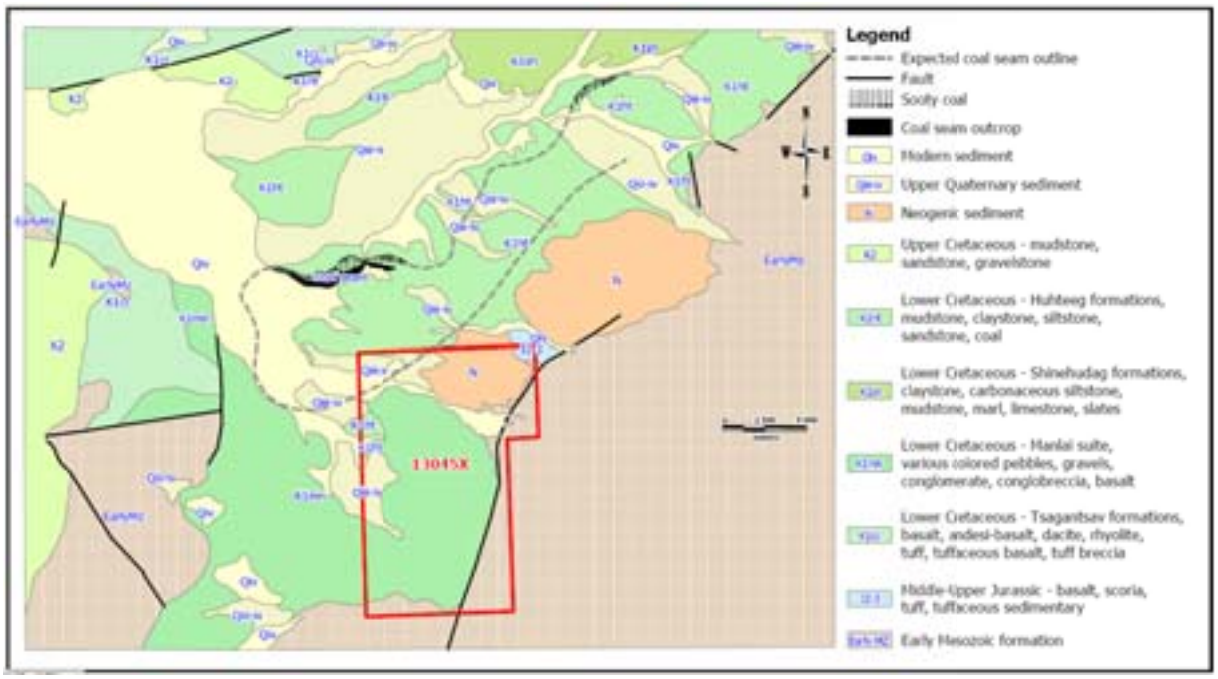


Figure 4-3: Local Geological Map

4.3 Deposit Type

The style of deposit is known as a rift basin (Figure 4-5), formed during the Jurassic–Cretaceous intracontinental rift evolution.

In the early rifting phase coarser layers of sediments comprise the basal units and are typically coarse sandstones and conglomerates. Along the fault scarp (Figure 4-5); alluvial fans can be formed due to the higher energy environments caused from steeper dips. Due to the high energy environment at these early stages little to no coal formation occurs. The Lower Barunbayan member is comprised of the sediments that would be expected at the early stage of rifting and the limited thin coal formation.

Referring to, the basal sediments observed in boreholes 105 and 106; illustrate the early alluvial fan sediments of coarse sandstone and conglomerates (Figure 4.4).

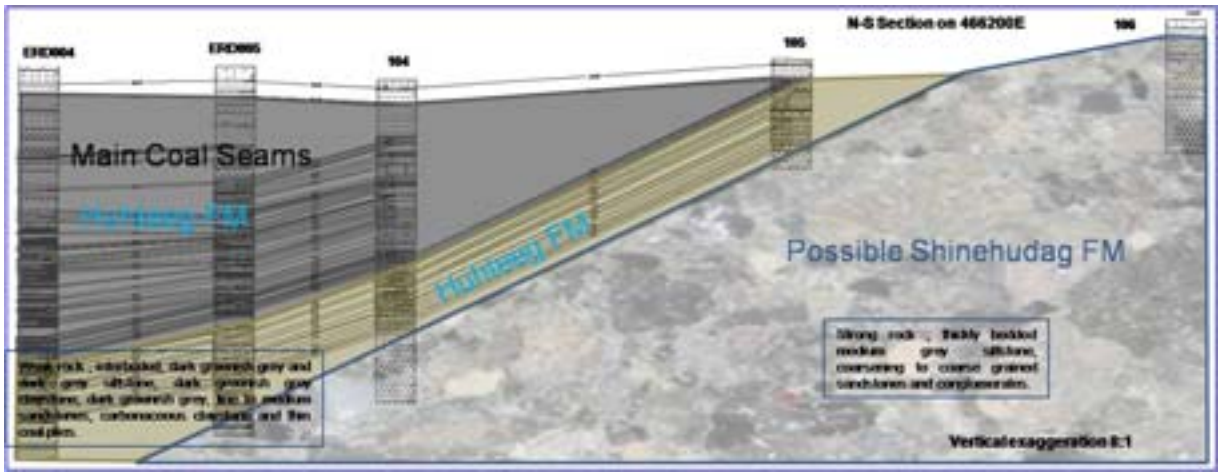


Figure 4-4: Local Stratigraphy Section

As the basin fills the energy regime is less so the sediments become finer grained such as fine grained sandstone, siltstone, claystone and carbonaceous sediments. This is also the time for coal formation. It is not uncommon that the centres of these basins allow very stable conditions for thick peat accumulation. On the basin verges there may be frequent interruption from flooding sediments that may periodically interrupt peat accumulation. The results of these intra-basin mechanisms are thick coal and carbonaceous sediments deposit to the centre of the basin with seam thickness and lateral continuity degrading closer to the basin edges. The Upper Barunbayan member in the Tsaidam deposit represents the coal forming member with a series of 3 coal units interbedded with fine and carbonaceous sediments.

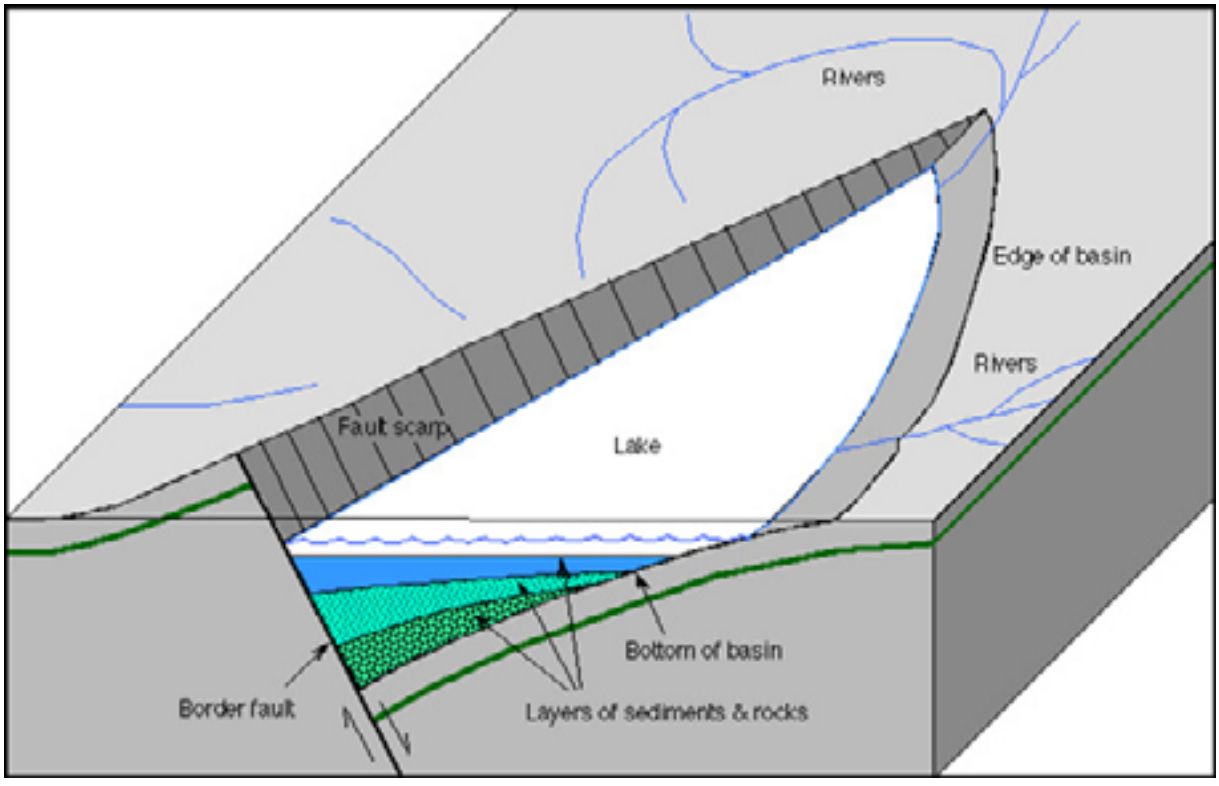


Figure 4-5: Model of Rift Basin deposit (Esterle Presentation 2007)

Post rift inversion causing folding and faulting is not uncommon to rift environments. The type example often discussed in connection to rift basin deposits is the Blair Athol (Figure

4-6) deposit in the Bowen Basin, Australia. Many similar attributes that Blair Athol exhibits are observed in the Erds deposit.

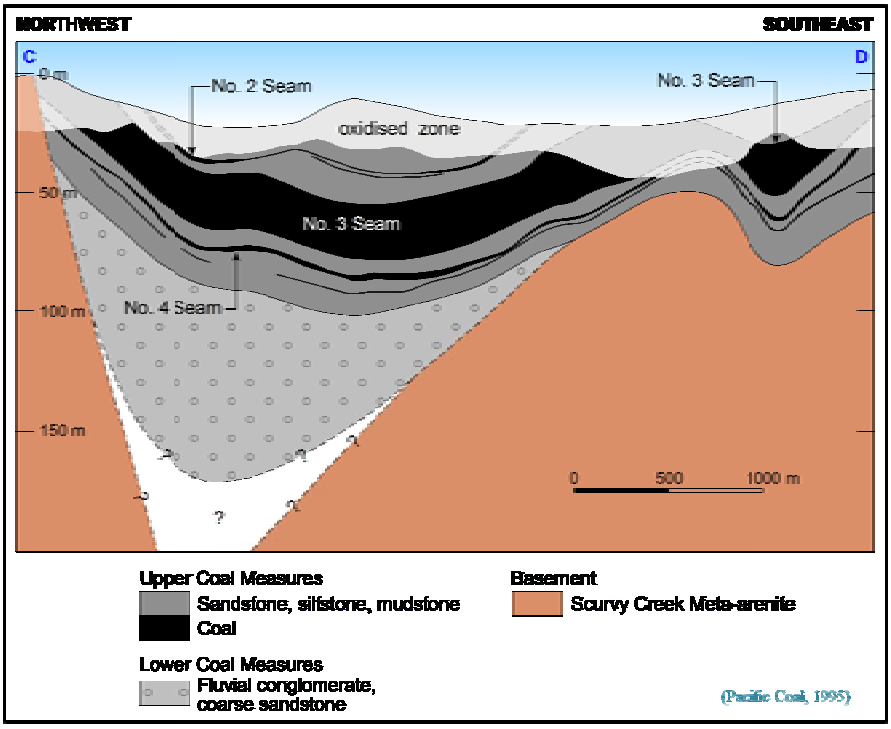


Figure 4-6: Example of a type typical Rift Basin – Blair Athol (Bowen Basin, Australia)

5 Local Geology

5.1 Stratigraphy

Reviewing the geological observations made from the available boreholes, a typical geological profile was constructed to illustrate the typical stratigraphic sequence in the thick seam part of the basin (Figure 4-4).

The top of the sequence was described as a thin layer of unconsolidated soils, clays and clayey sands, these unconsolidated sediments unconformably overly the Huhteeg Formation.

The Huhteeg Formation in the project area contained very thick coal seams with the maximum thickness near the location of borehole ERD005 (Figure 4-4). Although no closely spaced drilling defined the subcrop, the coal subcrops between boreholes 105 and 106. This subcropping trend would follow most likely the old geological mapping trend of north-east (Figure 4.3). This also represents the edge of the coal basin.

The sediments overlying the thick coal seams consist mainly of weak, dark greenish grey siltstones and dark grey mudstones, with minor thin coal plies. The sediments underlying the thick coal seams are; weak, mainly dark greenish grey siltstones, dark greenish grey and dark grey mudstones, dark greenish grey, fine to medium grained sandstones, carbonaceous mudstones and minor coal seams. Underlying the coal measure as evident from borehole 106, the sediments are hard, medium grey, thick sandstones and conglomerates. These sediments represent distinct change and could belong to a lower formation like the Shinehudag formation. These sediments represent high energy; basin fill sediments (Figure 4-4 and Figure 5-1).

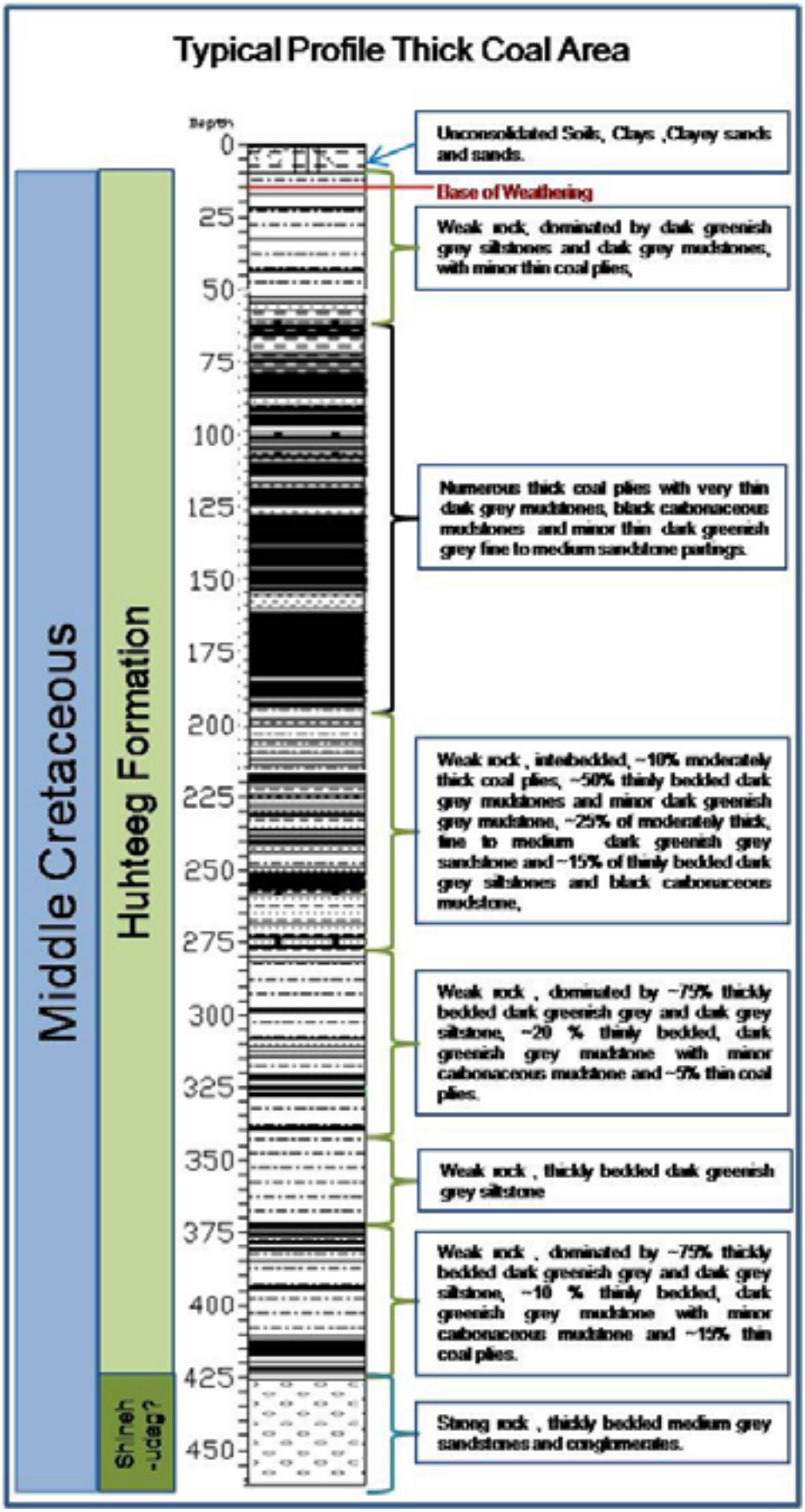


Figure 5-1: Local Stratigraphy Profile

5.2 Structure

From the regional geology (Figure 4.3), the outline of the coal seam subcrop for the basin appears to form part of an east-west striking rift basin. This basin has been subsequently gently folded in a north-south direction and may indicate the effects of late Cretaceous inversion tectonism.

Within the project area, the bedding slopes on the South-eastern boundary indicate apparent dips from 1 to 4 degrees (APPENDIX 1). It also appears from this trend that this would equate to the fault scarp (Figure 4-5) that would have originally formed the basin depression. Moving away from the basin limits, it would be expected the dips become low to flat. Refer to Figure 5-2 to best illustrate the current basin morphology.

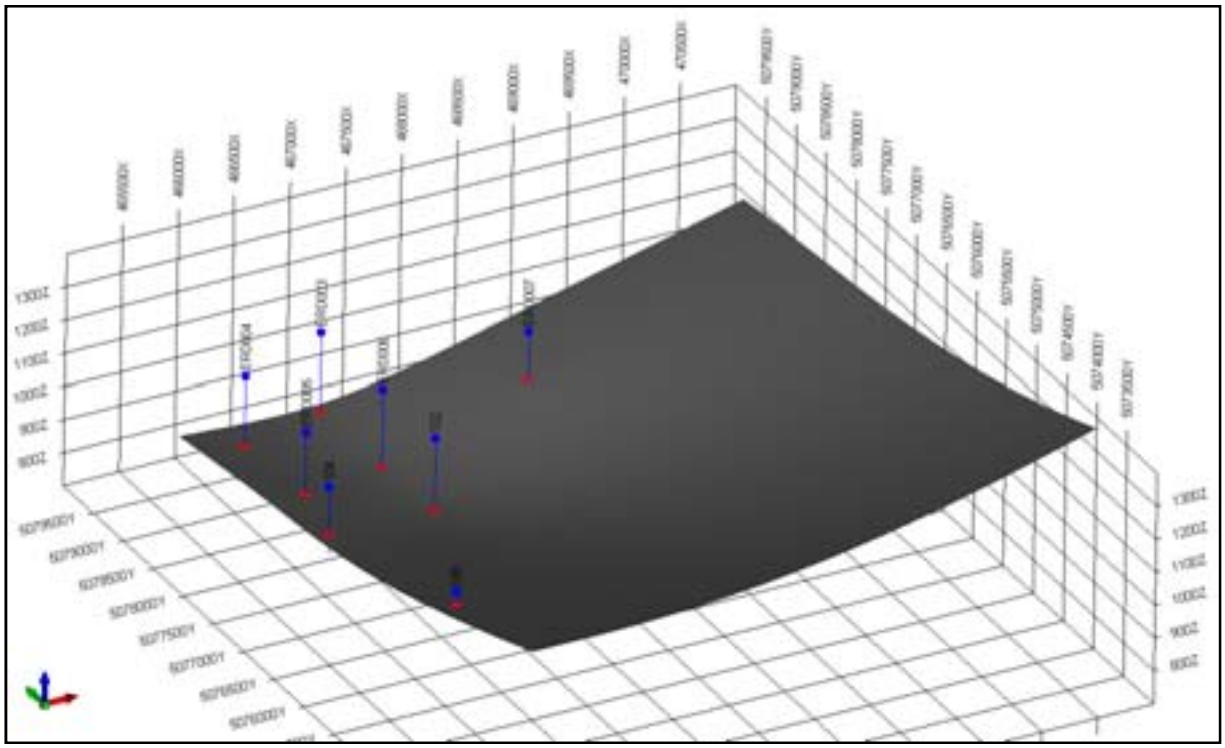


Figure 5-2

The boreholes were not logged for defects although some comments on shearing or calcite veins were mentioned in the lithology log. However, these comments are too general in nature to report on.

5.3 Intrusives

Volcanic rocks were mapped and were shown in the local geology map (Figure 4.3). These rocks were referred to as Middle to Upper Jurassic volcanic rocks (J2-3) towards the south-east and Lower Cretaceous Tsagantsav formation (K1cc) to the west and far north of the region.

The Jurassic rocks were described as consisting of basalt, scoria, tuff and tuffaceous sediments. The Tsagantsav formation rocks were described as consisting of basalt, andesi-basalt, dacite, rhyolite, tuff, tuffaceous basalt and tuff breccias.

From all the available drilling and mapping that was completed in the license area there have been no observations of intrusives.

5.4 Coal Seams

The boreholes drilled in the 2009 exploration campaign were fully cored from close to surface and included coal seams that occur in the Erdenetsogt project. The core was logged in detail and the coal was described by both depth and colour. All coal seams greater than half a metre were sampled and analysed. All boreholes were geophysically logged and these logs were used to check coal depths and thickness (APPENDIX 2).

Based on sections (APPENDIX 1), coal seam continuity was interpreted from borehole to borehole with these seams being named. Where seams split into smaller plies these plies were named. A list of all the coal seams and plies is shown in Table 5-1.

Table 5-1: Table summarising seam and ply relationships and thickness

Main Seam	First Order Ply	Second Order Ply	Seam Thickness (Max 'm')	Seam Thickness (Min 'm')	Seam Thickness (Avg 'm')
800	840	842	0.0	0.7	0.1
		841	na	na	na
	830	832	na	na	na
		831	0.0	2.0	0.2
	820	822	na	na	na
		821	0.0	1.0	0.1
	810	814	0.0	2.9	0.6
		813	0.0	1.0	0.3
		812	0.0	1.0	0.4
		811	0.0	1.9	0.3
700	770	773	0.0	0.5	0.1
		772	0.0	1.7	0.4
		771	0.0	1.7	0.2
	760	762	0.0	1.7	0.4
		761	0.0	1.9	0.6
	750	753	0.0	2.1	0.7
		752	0.0	2.3	0.7
		751	0.0	2.4	0.7
	740	743	0.0	1.0	0.3
		742	0.0	4.2	1.3
		741	0.0	4.1	0.9
	730	733	0.0	1.5	0.7
		732	0.0	2.9	1.2
		731	0.0	3.4	1.5
	720	724	0.0	1.5	0.7
		723	0.0	1.2	0.6

		722	0.0	1.4	0.7
		721	0.0	1.5	0.6
	710	714	0.0	1.0	0.4
		713	0.0	2.7	0.7
		712	0.0	1.9	0.7
		711	0.0	1.1	0.4
600	640		0.0	3.0	0.8
	630		0.0	1.5	0.5
	620		0.0	4.3	1.4
	610		0.0	2.4	1.3
500	530		0.0	5.3	1.6
	520		0.0	2.4	1.2
	510	512	0.0	2.7	0.8
		511	0.0	2.1	0.6
400	440	444	0.0	2.4	1.0
		443	0.0	2.1	0.7
		442	0.0	1.8	0.5
		441	0.0	0.8	0.3
	430		0.0	2.9	0.7
	420	424	0.0	2.0	0.8
		423	0.0	1.6	0.7
		422	0.0	1.6	0.8
		421	0.0	1.7	0.8
	410		0.0	2.1	1.2
300	340		0.0	4.0	2.1
	330		0.0	4.9	2.0
	320		0.0	5.9	2.6
	310		0.0	3.7	2.1
200	203		0.0	4.8	1.8
	202		0.0	4.0	1.4
	201		0.0	4.8	2.9
100	103		0.0	3.6	1.8
	102		0.0	3.3	2.1
	101		0.0	2.4	1.5
50			0.0	0.8	0.3

*na = Seams are observed in other parts of the Erdene Tsogt basin.

The North-west corner of the lease area contained a series of thick coal seams that subcropped and continue to the north of the lease. The sequence was thickest near borehole ERD005 with

the bottom seam being named seam 100 and the top seam being named 700. Over lying seam 700 were numerous thin seams which were labelled as part of the seam 800 series (Table 5-1).

5.4.1 Weathering

The base of weathering was observed by field geologists in the chip samples of the open-hole sections for the boreholes listed Table 5-2.

Table 5-2: Table summarising estimated base of weathering.

Borehole	Estimated Base of Weathering
102	18.0
104	15.0
105	12.9
ERD003	15.0
ERD004	19.0
ERD005	19.0
ERD006	18.0
ERD007	28.0

The affects of weathering on coal can sometimes not be visible, but with analysis, can be demonstrated by increased volatile levels or decrease in calorific value compared with similar coals for the same ash.

The resource estimate will exclude weathered coal. In order to make a decision regarding which coal was weathered, the coal quality parameters of the coal less than 50 metres in depth, was examined in detail. The calorific values and volatile matter values were compared against ash for samples within the first 50 metres of each borehole (Figure 5-3).

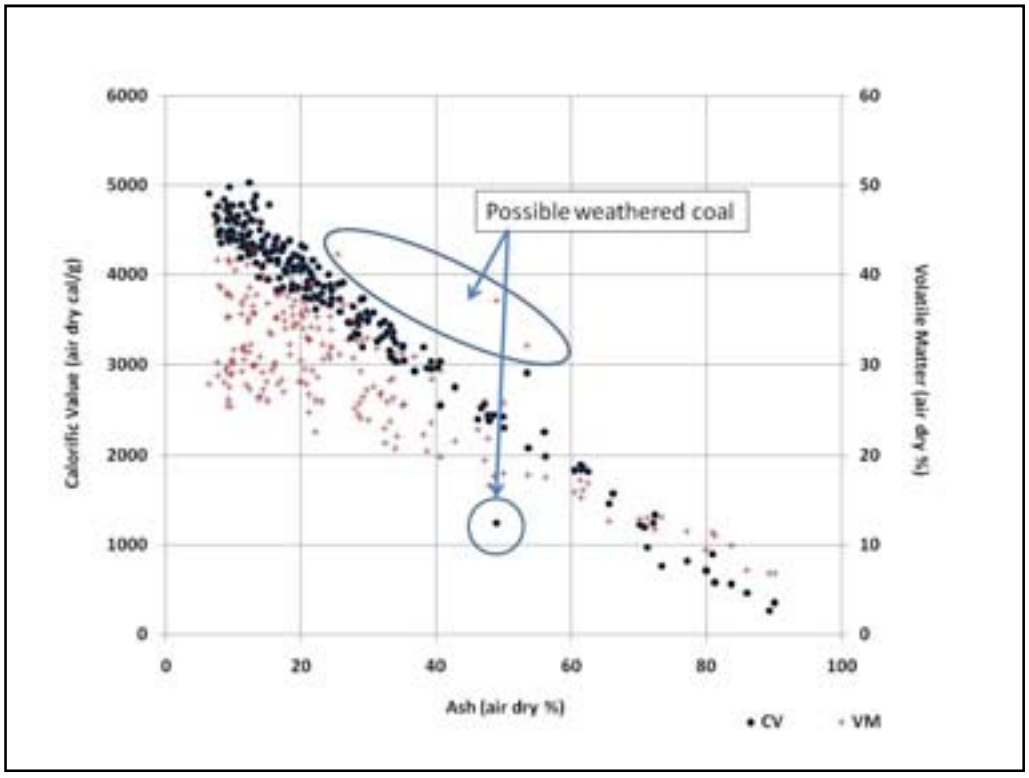


Figure 5-3: Graph of Volatile Matter and Calorific Value against Ash to determine potential weathered coal.

These relationships of calorific value, volatile matter and ash in Figure 5-3 shows that for the coal (less than 50% air dry ash), these relationships were as expected and the coal does not appear to be affected by weathering.

However, 3 coal samples show anomalous high volatile matter and/or very low calorific values in relation to its ash content. It is suggested that these 3 samples are affected by weathering as a result of an increase in clay minerals and bonded water content. The bonded water reports in the "volatile matter" of the proximate analysis. The effect is abnormal high "volatile matter". The lower than normal calorific values are due to a deficiency in hydrogen-carbons in the weathered coal samples.

It is the consideration of the Competent Person that there is no reason to make allowances in any of the boreholes for weathered coal. Based on the analytical results, the effects of weathering are minimal.

5.5 Coal Quality

In this section, the coal quality is discussed in general terms with reference to the analytical data on a sample basis.

5.5.1 Available data

The new analytical data set from 5 boreholes is attached in APPENDIX 4. The analytical data is shown for each sample on an air dry basis. The data also shows that the linear core recoveries for all of the samples were at least 95%.

The old analytical data set from 5 boreholes is shown in APPENDIX 5. The available data does not include relative densities and there is no record of core recoveries.

A problem with two data sets from two different laboratories is that the same standards and procedures in analysing the samples were not identical and the data sets are therefore not on a comparable level. Two options of addressing this problem are available:

- Discard the old data and only use the new data set, which has the best confidence level for estimating coal resources.
- Make adjustments to the data set with the lower confidence level so that it can be accepted that both data sets are on a comparable level.

For the purpose of estimating a Coal Resource the second of the two options mentioned above will be followed.

The new analytical data reflects the expected high moisture content of this rank and type of coal deposit and the laboratory applied internationally accepted standards in analysing the coal. On this basis, the new data is accepted and the old data with lower moisture values will be adjusted to match the distributions of the analytical results from the new boreholes.

The advantage of this approach is that the old data can then be used on a comparable level for a resource estimate, even if it is only for an unclassified resource category due to the absence of core recovery data for the old boreholes.

5.5.2 Estimating relative density values for the old data

Figure 5-4 shows the correlation between the ash (air dry) and relative density (air dry) values from the new boreholes and this relationship will be used to estimate relative densities for the old borehole samples according to the following relationship:

RDad = 0.0105 * Ashad + 1.2983

5.5.3 Comparing the old data with the new data

Figure 5-5 shows the distribution of the total moisture and the air dry moisture for the old and the new boreholes with trend lines for each data set. Although the correlation between total and air dry moisture is poor, the plot shows that the air dry moisture of the old data is underestimated when compared with the new data. The low moisture is not expected for this rank and type of coal deposit and as mentioned above, the old data will be adjusted to match the distribution of the new data.

Figure 5-6 shows the relationship between the calorific value and the ash on an air dry basis for both data sets. The plot shows that the calorific value of the old data set is overestimated when compared to the new data set. The higher calorific values for the old boreholes correlate with the lower air dry moisture values of the old data set. It is therefore expected that an adjustment of the air dry moisture will correct the overstated calorific values for the old data set.

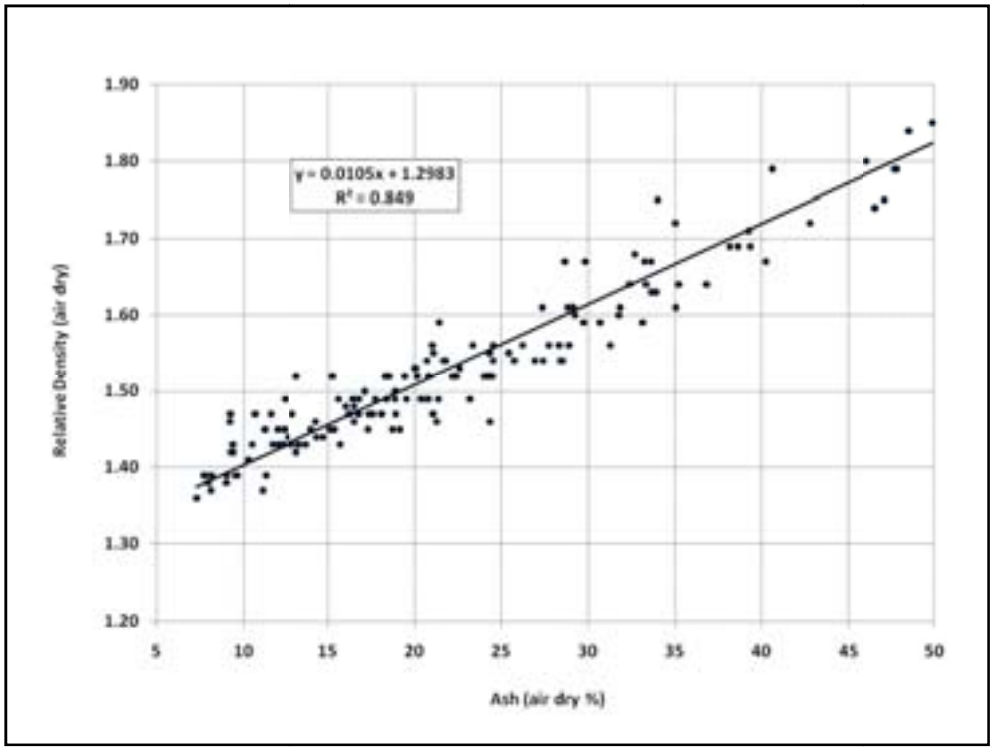


Figure 5-4: Relationship between ash and relative density for the new boreholes.

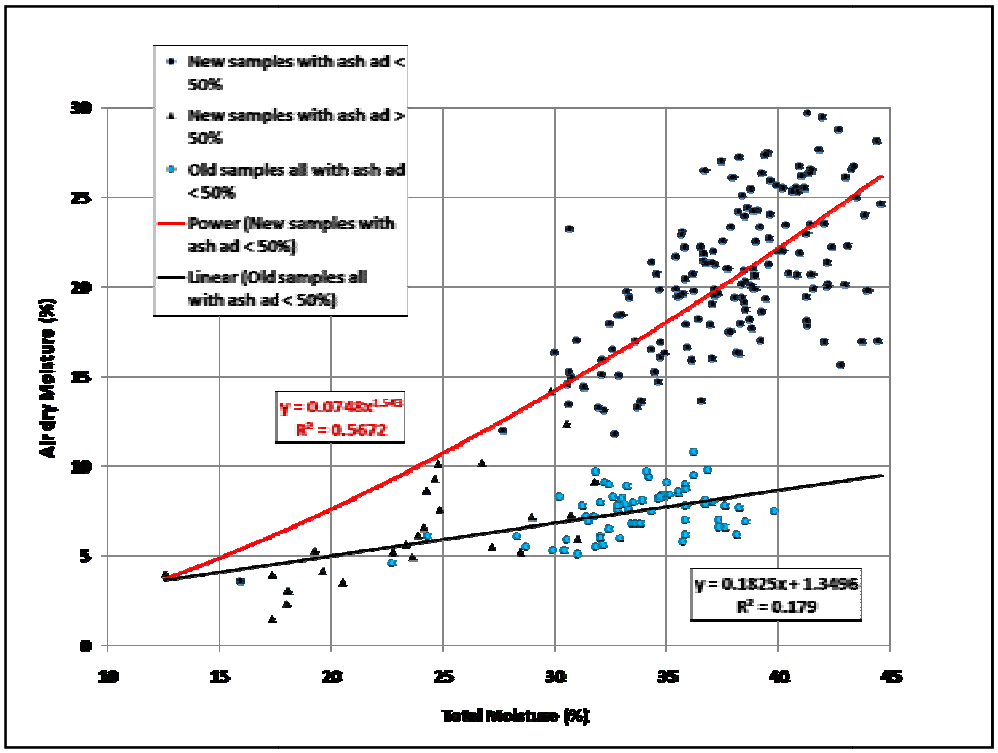


Figure 5-5: Relationship between total moisture and air dry moisture.

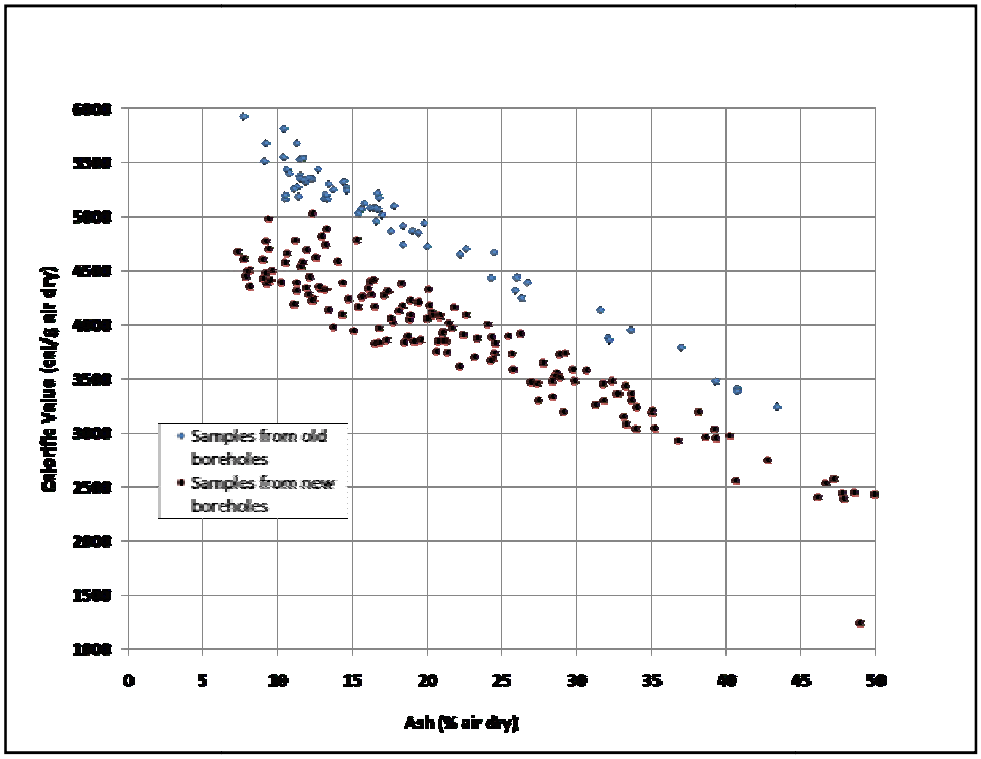


Figure 5-6: Relationship between calorific value and air dry ash.

5.5.4 Adjusting the old data set to a comparable level with the new data set

Figure 5-5 in the previous section shows that the distribution of total moisture for the samples from the old boreholes is generally about 5% lower when compared to the new data set. The plot also shows that air dry moisture is understated and that the amount by which it is understated increases with an increase in total moisture content.

The adjustment of old values is illustrated in Figure 5-7 where an old value at A is adjusted to a value at C so that the new value at C is comparable to the new data set. Assume for sample A total moisture = 30% and air dry moisture = 5%.

In the first step of the adjustment, 5% is added to the old total moisture value and A moves from 30 to 35% at B. The adjusted or new total moisture value is now 35% (at B).

In the second step the air dry moisture content is adjusted. The air dry moisture value of B (5%) is then compared with the predicted air dry value according to the trend line (black) for the old data set. The predicted air dry moisture for B is about 7.8% and the position of B is 2.8% points (7.8 – 5%) below the trend line. The air dry moisture of B is then adjusted to the position of C where the air dry moisture is 15.6 and the position of C is 2.8% lower than the predicted air dry moisture according to the trend line (red) of the new data set.

This procedure is repeated for each data point from the old data set and the result is that distribution of the old values is adjusted to a new distribution, which is comparable with the distribution of the new values as shown in Figure 5-8.

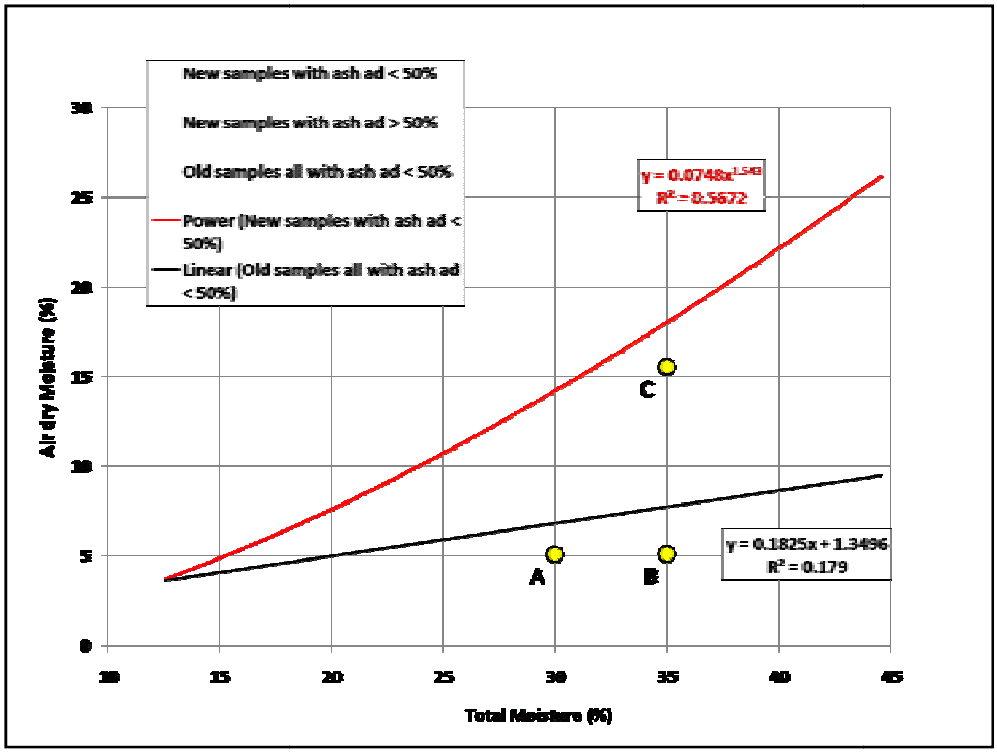


Figure 5-7: Adjusting the old data set.

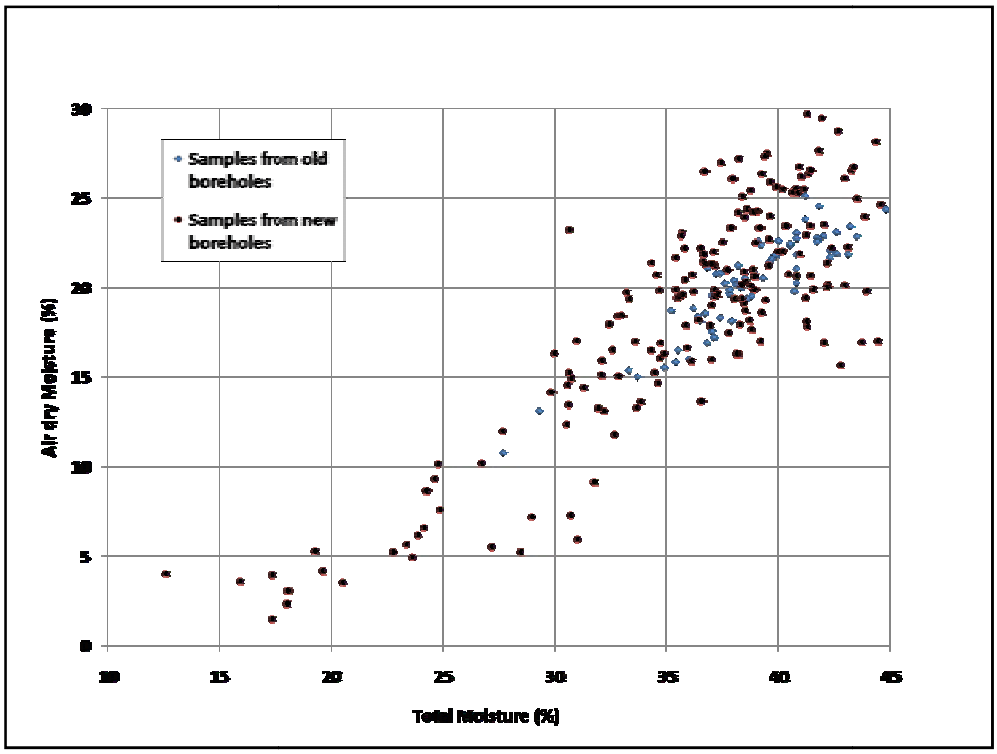


Figure 5-8: Relationship between air dry moisture and total moisture after adjustment of the old data.

After the air dry moisture values have been adjusted the proximate analyses, calorific value and sulphur values are recalculated on the new air dry moisture basis.

The result is that the adjusted calorific value of the old data set now also matches the distribution of the new data set as shown in Figure 5-8. The adjusted old analytical results with the new analytical results are shown in APPENDIX 6 on an air dry basis.

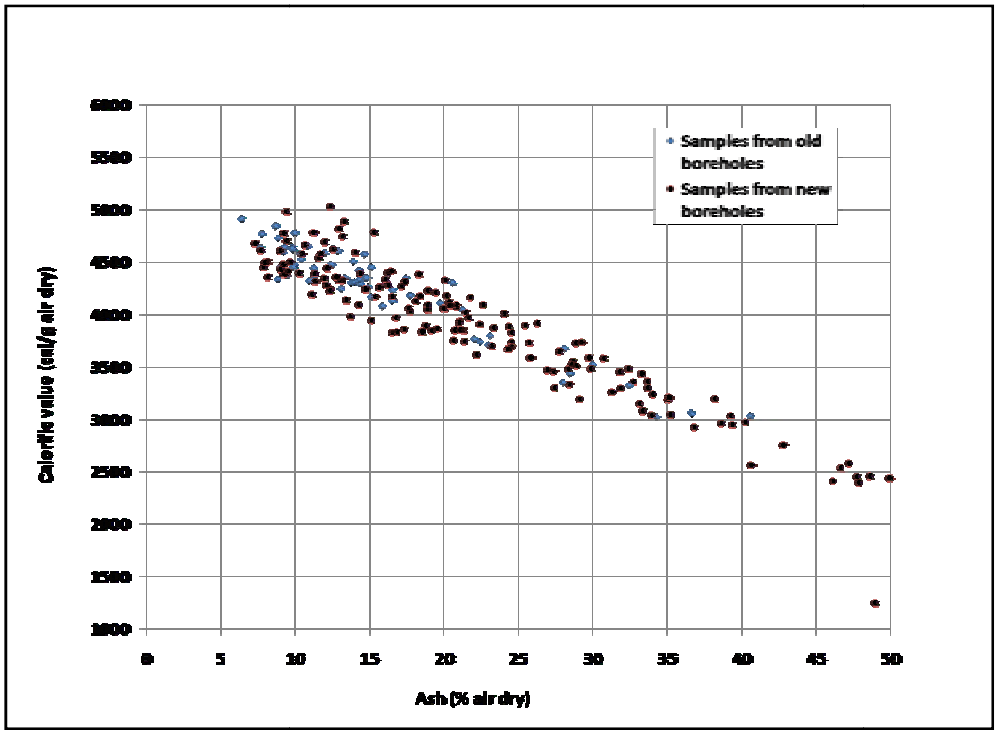


Figure 5-9: Relationship between calorific value and ash (air dry) after adjustment of the moisture values for the old data.

5.5.5 Estimating in situ relative densities

For the estimation of coal resources, the air dry relative density values are adjusted to in situ relative density values according to the Preston Sanders formula:

Din situ = Dair dry *(100 – Mair dry)/{100 + Dair dry*(Min situ – Mair dry) – Min situ}

Where D = relative density, M = moisture.

Note that the total moisture content of the coal is assumed to be the in situ moisture content of the coal. APPENDIX 7 shows the coal quality parameters on an as received basis, it is on a total moisture content basis. The points of observation based on analytical data, coal ply correlations and core recoveries are included in APPENDIX 8.

5.5.6 General coal characteristics

The classification system of the American Society for Testing and Materials (ASTM) is shown in Figure 5-10. The lower rank coals are classified according to the gross calorific value on a moist, mineral matter free basis. Note that moist refers to coal containing its natural inherent moisture (taken in this report to be total moisture), but not including visible water on the surface of the coal.

Class/Group	Fixed Carbon Limits (Dry, Mineral-Matter-Free Basis), %		Volatile Matter Limits (Dry, Mineral-Matter-Free Basis), %		Gross Calorific Value Limits (Moist,[B] Mineral-Matter-Free Basis)				Agglomerating Character
					Btu/lb		MJ/kg[C]		
	Equal or Greater Than	Less Than	Greater Than	Equal or Less Than	Equal or Greater Than	Less Than	Equal or Greater Than	Less Than	
Anthracitic:									
Meta-anthracite	98	...	...	2	...	...	...	...	nonagglomerating
Anthracite	92	98	2	8	...	...	...	...	
Semianthracite[D]	86	92	8	14	...	...	...	...	
Bituminous:									
Low volatile bituminous coal	78	86	14	22	...	...	...	...	commonly agglomerating[E]
Medium volatile bituminous coal	69	78	22	31	...	...	...	...	
High volatile *A* bituminous coal	...	69	31	...	14 000[F]	...	32.557	...	
High volatile *B* bituminous coal	...	...	...	...	13 000[F]	14 000	30.232	32.557	
High volatile *C* bituminous coal	...	...	...	...	11 500	13 000	26.743	30.232	
					10 500	11 500	24.418	26.743	agglomerating
Subbituminous:									
Subbituminous *A* coal	...	...	...	...	10 500	11 500	24.418	26.743	nonagglomerating
Subbituminous *B* coal	...	...	...	...	9 500	10 500	22.09	24.418	
Subbituminous *C* coal	...	...	...	...	8 300	9 500	19.30	22.09	
Lignitic:									
Lignite *A*	...	...	...	...	6 300[G]	8 300	14.65	19.30	
Lignite *B*	...	...	...	...	...	6 300	...	14.65	

[A] This classification does not apply to certain coals, as discussed in Section 1.
[B] Moist refers to coal containing its natural inherent moisture but not including visible water on the surface of the coal.
[C] Megajoules per kilogram. To convert British thermal units per pound to megajoules per kilogram, multiply by 0.0023255.
[D] If agglomerating, classify in low volatile group of the bituminous class.
[E] It is recognized that there may be nonagglomerating varieties in these groups of the bituminous class, and that there are notable exceptions in the high volatile C bituminous group.
[F] Coals having 69 % or more fixed carbon on the dry, mineral-matter-free basis shall be classified according to fixed carbon, regardless of gross calorific value.
[G] Editorially corrected.

Figure 5-10: The ASTM classification system of coal by rank.

Source: American Society for Testing and Materials

From the analytical data gross calorific value on a moist, mineral matter free basis and the fixed carbon on a dry, mineral matter free basis were calculated according to the Parr formulae:

FC dry, mmf = 100(FC – 0.15S)/(100-(M + 1.08A + 0.55S))

CV moist, mmf = 100(CV – 50S)/(100-(1.08A + 0.55S))

Where mmf is mineral matter free and the following parameters were taken from the proximate, calorific value and sulphur determinations on an as received basis.

FC = Fixed carbon (%)

M = Total moisture (%)

A = Ash (%)

S = Sulphur (%)

CV = Calorific value (BTU/lb)

Figure 5-11 shows the relationship between the gross calorific value on a moist, mineral matter free basis and the dry, mineral matter free fixed carbon content of the coal. The gross calorific value is generally in the range 14 – 19 MJ/kg (3,300 - 4,500 cal/g). According to the ASTM classification, the coal is classified as “Lignite A” or “Brown Coal” according to the Classification and Coding of Australian Coal.

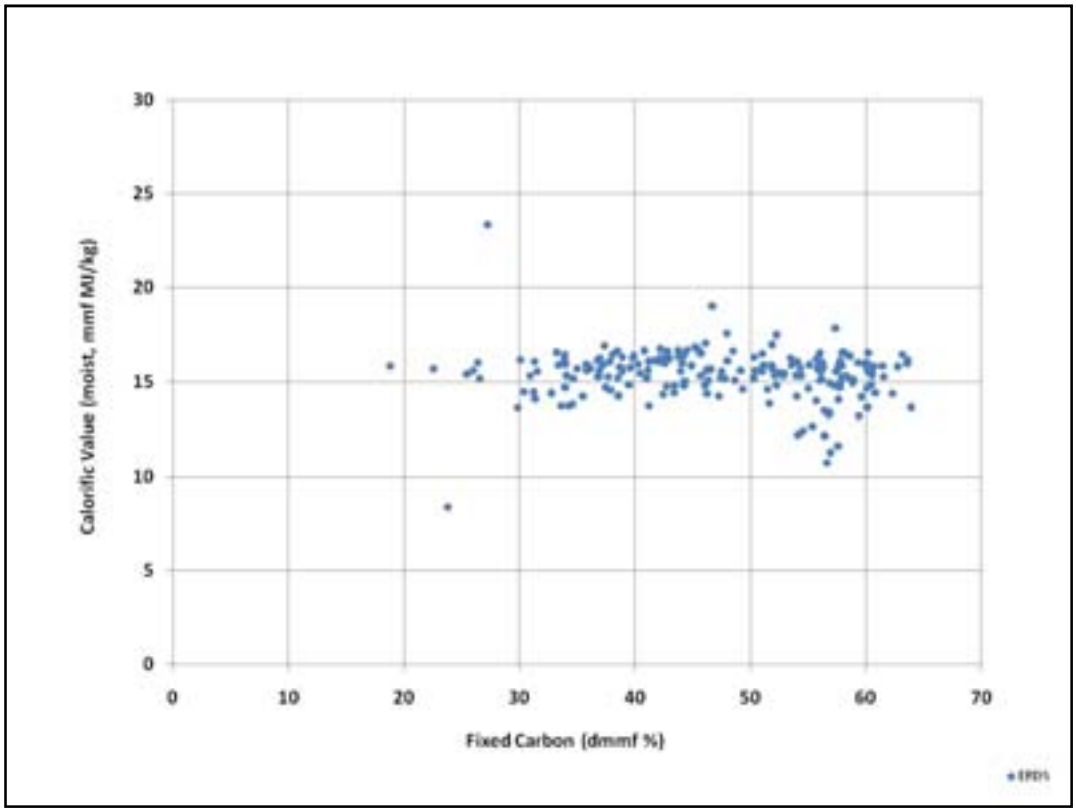


Figure 5-11: Coal rank and classification.

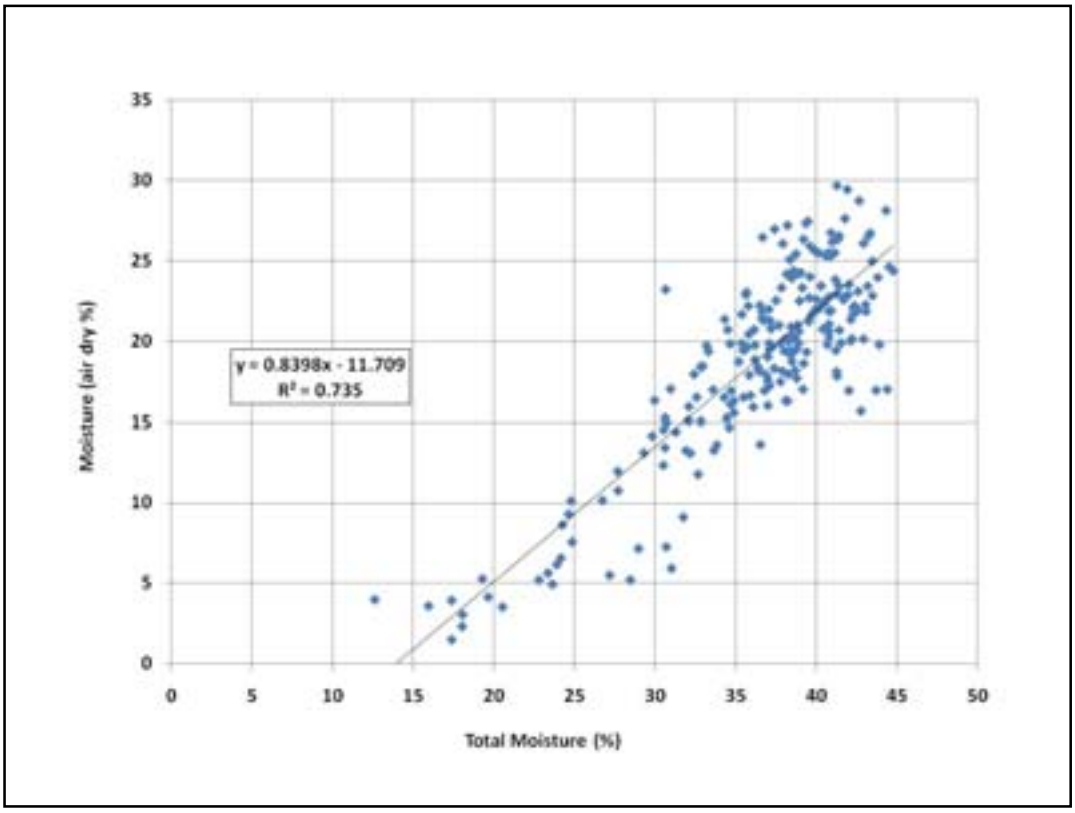


Figure 5-12: Distribution of air dry moisture and total moisture

Figure 5-12 show the distributions of air dry and total moisture. The air dry moisture varies from 1 to 30%, mostly between 15 and 30%. The total moisture varies from 13 to 45%, mostly between 30 and 45%.

Figure 5-13 shows the relationship between calorific value and ash. The calorific value varies from 2,200 to 5,000 cal/g for coal (less than 50% ash air dry). There is a relative good correlation between the two parameters.

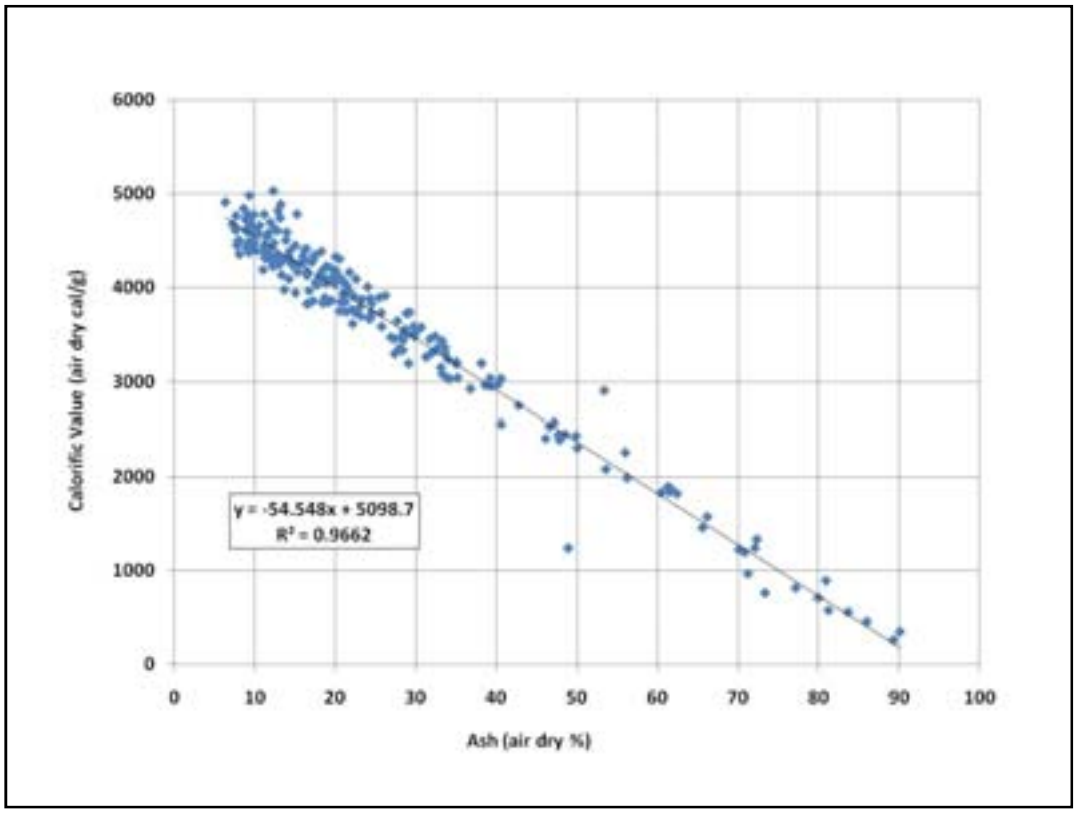


Figure 5-13: Relationship between calorific value and ash.

Figure 5-14 show the distributions of volatile matter and ash. The volatile matter for coal (less than 50% ash) is between 20 and 50%.

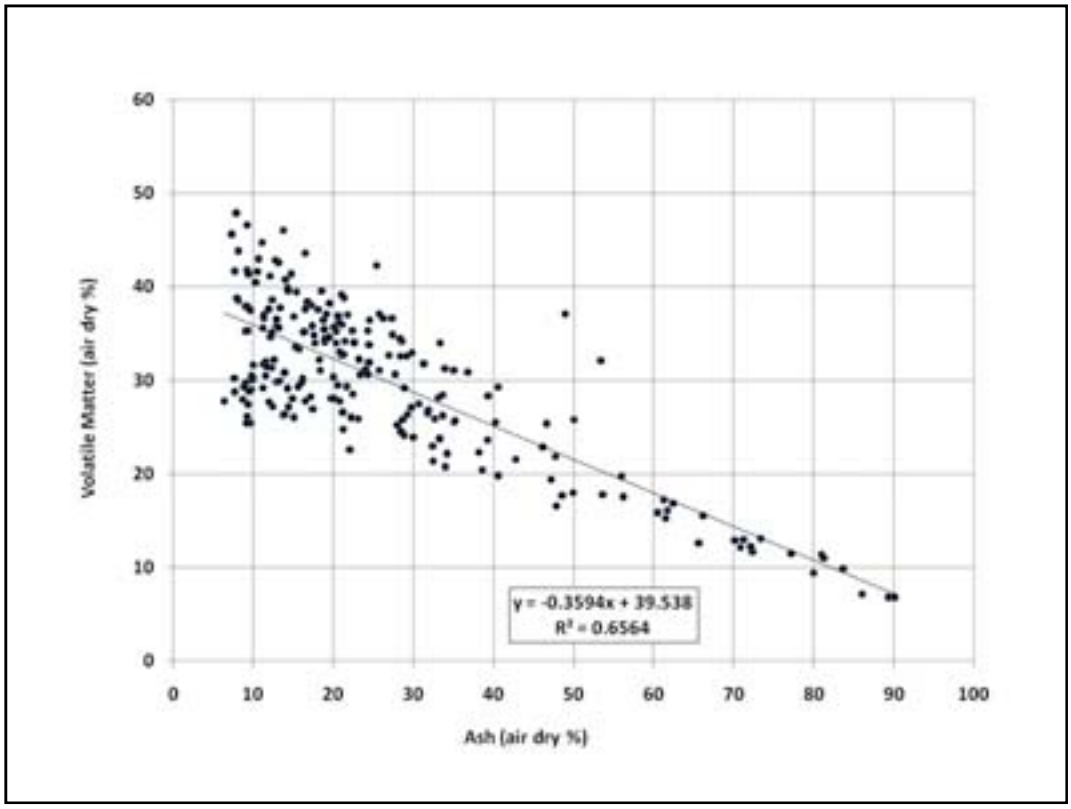


Figure 5-14: Relationship between volatile matter and ash.

From the 178 samples from the new boreholes, 158 samples were selected to prepare a 10kg composite sample for detailed testing. Indications are that the coal is suitable for power generation with a favourable Hardgrove Index, but high sulphur (1.86%) and moderate ash fusion temperatures (1,150 to 1,300 degrees C).

The selected samples for the composite and the detailed analytical results from analyses as well as the applicable Analytical Standards are attached in Appendices 9 and 10.

General conclusions from the analytical results are as follows:

- The results of the analytical work shows that the low rank coal can be classified as "Lignite A" according to the ASTM classification system, or a "Brown Coal" in the Australian classification system.
- The test work to date established the very basic characteristics of the coal and it appears to be suitable for mine mouth feedstock for a local coal fired power generation and possibly also for producing synthetic fuels.
- Further test work needs to define the spatial distribution of chemical and physical characteristics in more detail to assess mining options, marketing opportunities or possible risks.

5.6 Geotechnical Issues

The geotechnical issues for this project need to be in line with a very large open-cut deposit.

One of the main critical issues will be rock strength. The sediments overlying the coal appear from borehole observations to have weak rock strength. Also with such thick coal seams, coal strength will be important. With depth, coal will form part of the mining benches and bench highwalls.

No information was recorded for defect spacing and bedding plane shears. It would be recommended that all subsequent drilling, log cores on a geotechnical basis so this information is available for mine planning and highwall design.

Insitu stress may become an issue once the pits become very deep. Some early information may be necessary so appropriate overall batter angles can be determined for the highwall design.

With such a large open cut mine expected, hydrology issues will need to be well understood. No hydrology information was made available for this report. From nearby wells, the standing water level is quite close to the surface, within 10 meters. It would be recommended that a hydrology program be undertaken to fully understand all the hydrology issues that may face any potential mining operation.

5.7 Mining potential

The mining potential for this deposit is very good. There are very large coal seams that subcrop close to surface. The strip ratio will be very low, with the coal quality suggesting a low rank thermal coal product.

The mine will best lend itself to a very large scale, multi bench, truck and shovel open-cut operation.

6 Exploration History

6.1 Exploration History Summary

- 1963 – 1966 field mapping on a scale of 1:200000 was completed in the area under the supervision of V.I. Mormili and A.I. Rasskazchikov. The results of this work can be viewed in Figure 4.3.
- 1986 and 1987, Russian and Mongolian exploration expeditions completed 375 cubical meter of trenching, a 36.5 meter sample pit, and 576 meters of drilling, resulting in the discovery of a thick occurrence of coal north of the project area.
- 2007, 6 fully cored boreholes were completed by Mongol Gazar LLC. The locations of these boreholes are shown in Figure 6-1. A total of 1094 metres were drilled on an approximately 2000 metre spacing (Table 6-1).
- 2008, Polo Resources drilled borehole 108, shown in Figure 6-1. The depth of this borehole was 230 metres and it was fully cored (Table 6-1).
- 2009, Polo Resources commissioned further exploration over the Erds License. A total of 5 partially cored boreholes were completed with 2 boreholes twinning two previously drilled boreholes, (ERD003 twinned 103 and ERD006 twinned 101). A total of 1,198 metres were drilled (Table 6-1) on an approximately 1,000 metre triangular grid in the North-west corner of the license (Figure 6-1).

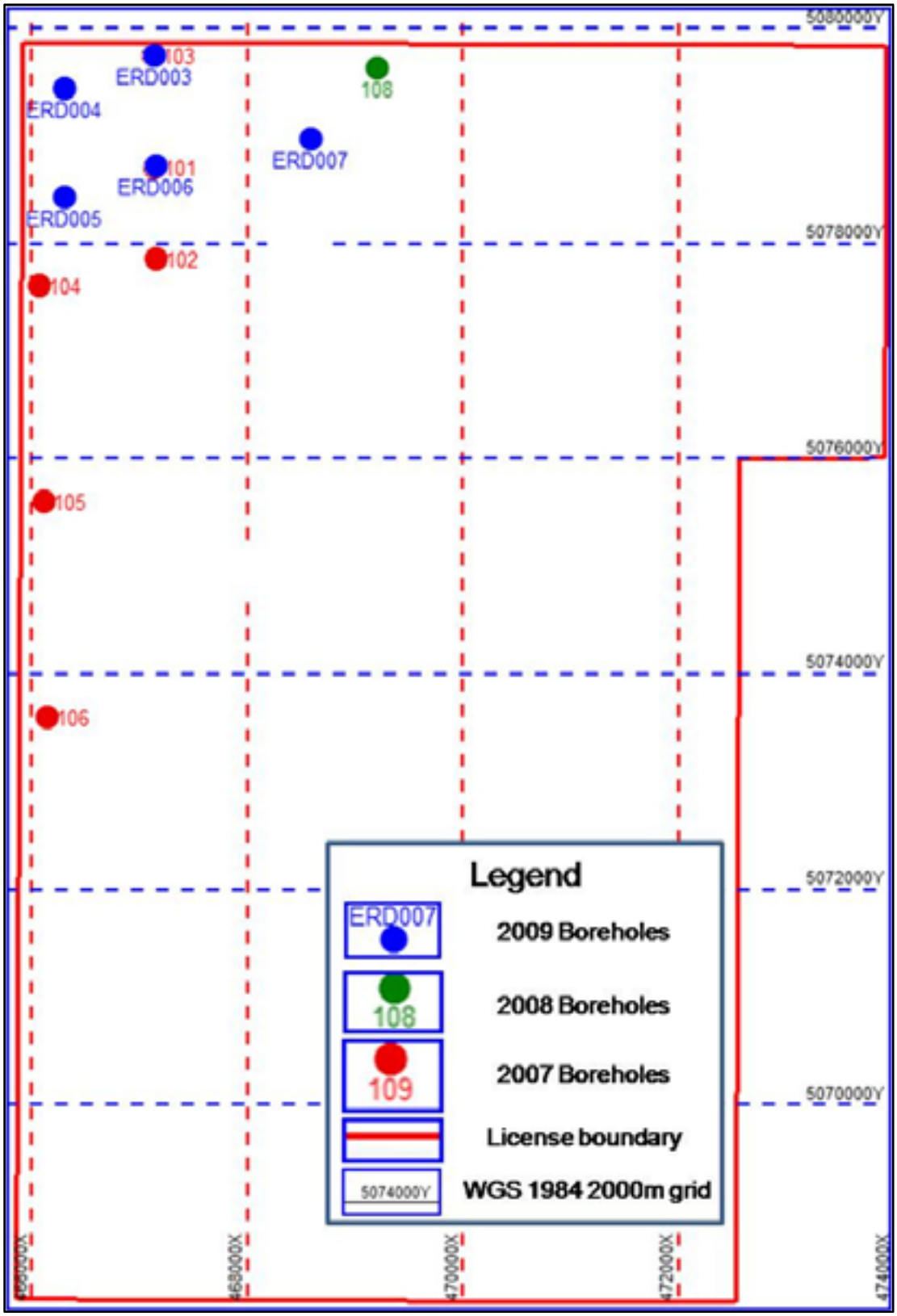


Figure 6-1: Borehole locations.

Table 6-1: Drilling details for 2007 to 2009 Campaigns.

Borehole	StartDate	EndDate	Drilling Campany	Diamond Core metres	OpenHole metres	Total
101	na	Mid-late 2007	Erd Geo LLC	250		250
102	na	Mid-late 2007	Erd Geo LLC	245		245
103	na	Mid-late 2007	Erd Geo LLC	238		238
104	na	Mid-late 2007	Erd Geo LLC	206		206
105	na	Mid-late 2007	Erd Geo LLC	70		70
106	na	Mid-late 2007	Erd Geo LLC	85		85
2007 Campaign by Mongol Gazar LLC				1094	?	1094
108	6/07/2008	12/07/2008	Ellehcor	230	0	230
2008 Campaign by Polo Resources LLC				230	0	230
ERD003	18/05/2009	20/05/2009	Ellehcor	223	28	251
ERD004	20/05/2009	22/05/2009	Ellehcor	148	103	251
ERD005	22/05/2009	24/05/2009	Ellehcor	155	81	236
ERD006	24/05/2009	26/05/2009	Ellehcor	206	56	262
ERD007	26/05/2009	28/05/2009	Ellehcor	169	30	198
2009 Campaign by Polo Resources LLC				900	298	1198

7 QA/QC Analysis

7.1 Drilling Method

The drilling equipment used in the 1980's campaign was Russian made. The condition and age of the drilling equipment used and the experience of the drilling crews was unknown. The boreholes appear to have been fully cored.

In 2007, the drilling company Erd Geo LLC completed six boreholes for Mongol Gazar LLC. The condition and age of the drilling equipment used and the experience of the drilling crews was unknown. The boreholes appear to have been fully cored.

In 2008, the drilling company Ellehcor LLC completed borehole 108 for Polo Resources LLC. A Korean made, Power 6000 track mounted top drive drilling rig was supplied. The drilling crew was experience in this type of drilling. All drilling was done on water with HQ triple tube diamond drilling used for the coring section.

In 2009, the drilling company Ellehcor LLC completed 5 boreholes for Polo Resources LLC. A Korean made, Power 7000 track mounted top drive drilling rig was supplied (Figure 7-1). All drilling was done on water with 123 millimetre polycrystalline diamond bits being used for the openhole sections and HQ triple tube diamond drilling used for the coring section.

Figure 7-1: Power 7000 track mounted top drive drilling rig.

Most of boreholes were open holed to a depth (openhole metres in

Table 6-1) with a polycrystalline diamond blade bit. The borehole was cased with HW size threaded steel casing. The remainder of the borehole was cored using a HQ (61mm) sized diamond bit. The casing was removed at the completion of the borehole.

7.2 Borehole survey

From verbal information supplied by the Company, Company surveyors using a Total Station survey device surveyed and pegged the license corners. The borehole locations were surveyed using a hand held GPS.

A field visit by the Competent Person was undertaken on the 14th and 15th of July 2009. All the borehole sites were visited and those still demonstrating evidence of having been drilled were checked for survey accuracy using 2 handheld GPS. Table 7-1 below records the differences in location from the company surveyed results and the field visit. APPENDIX 11 shows site photographs of the boreholes visited.

Table 7-1: Survey comparison.

	Reported Survey			Field Checked GPS			Difference		
Borehole	Easting	Northing	Elevation	Easting	Northing	Elevation	Easting	Northing	Elevation
104	466080	5077600	1005	466187	5077635	1007	-107	-35	-2
105	466130	5075590	1019	466171	5075616	1019	-41	-26	0
ERD003	467153	5079731	1019	467156	5079730	1019	-3	1	0
ERD004	466310	5079420	1013	466313	5079421	1010	-3	-1	3
ERD005	466311	5078422	1013	466312	5078418	1010	-1	4	3
ERD006	467157	5078707	1020	467163	5078707	1016	-6	0	4
ERD007	468596	5078951	1032	468600	5078948	1032	-4	3	0

The 2009 boreholes align well with the company surveyed locations; however the older boreholes demonstrate some variance and should be resurveyed. The borehole collars that were used for modelling were listed in Table 7-2.

Table 7-2: Borehole survey collars (WGS84 North Zone 104).

Borehole	Easting	Northing	Elevation	Total Depth	Azimuth	Inclination
101	467150	5078700	1015	250.0	0	90
102	467160	5077840	1020	250.0	0	90
103	467140	5079740	1010	238.0	0	90
104	466080	5077600	1005	202.0	0	90
105	466130	5075590	1019	70.0	0	90
106	466160	5073585	1045	88.0	0	90
ERD003	467153	5079731	1019	250.7	0	90
ERD004	466310	5079420	1013	250.9	0	90
ERD005	466311	5078422	1013	236.6	0	90
ERD006	467157	5078707	1020	261.6	0	90
ERD007	468596	5078951	1032	198.3	0	90

The Topography used for the modelling was provided by The Company as a shape file from MapInfo. The source and accuracy was unknown. No other survey data other than the borehole collars was supplied.

It is recommended to conduct a topographic survey using Differential GPS or any other precise instrument.

7.3 Geophysics

The geophysics company used for the 2007 and 2008 drilling programs was GE & S LLC. The equipment and experience of the operators used was unknown. The information supplied to the Competent Person were scanned hard copy logs (APPENDIX 2), showing Natural Gamma and High-resolution Density.

The geophysics company used for the 2009 drilling program was Monkarotaj LLC. They supplied an experienced operator and equipment similar to the one shown in Figure 7-2.

Figure 7-2: Geophysical logging truck

The system used by Monkarotaj LLC was made by Auslog Pty Ltd. The geophysical logs that were produced included Caliper, Short Spaced Density (SSD), Long Spaced Density (LSD), Resistivity (PR), Gamma, Deviation and Sonic (Travel time). Hard copy logs were supplied to the field geologists with a set of digital Log ASCII Standard (LAS) files. The boreholes with geophysics from the 2009 drilling program were shown in APPENDIX 2.

7.4 Logging and Sampling Procedure

The logging and sampling procedure for the 2007 and 2008 drilling programs was unknown. Only depth and lithology were recorded from the cores. Handling of the core and time of exposure to the elements was unknown.

The samples for the 2007 program were delivered to the laboratory of mining research institute. There appears to be no analyses for the borehole 108 which was drilled in 2008.

The 2009 drilling program had no logging procedure supplied. The core was logged and sampled onsite in a protected container (Figure 7-3). The geological information that was collected, recorded, depth, lithology, colour and some qualifiers. The coal was sampled using the procedure shown in APPENDIX 3. As described by the Polo Resources LLC geologist to the Competent Person on the field visit, the core was logged and sampled as soon as possible after coring. This was to minimise the loss of moisture.

Some potential for moisture loss was indicated in the 2007 program by the difference in moisture between the 2007 and 2009 analytical results (chapter 5.5.3).

Figure 7-3: Container for core logging and sampling.

Figure 7-4: Logging container.

The samples for the 2009 program were delivered for analysis to the SGS laboratory in Mongolia. The samples were prepared in the SGS Mongolia laboratory then shipped to the SGS China laboratory for analysis. Certificates of accreditation are shown in APPENDIX 12. No laboratory inspection was arranged for the Competent Person.

7.5 Analytical Method

No analytical procedure was cited for the 2007 program, but based on quality results the Proximate, Total Moisture, Sulphur and Calorific value were analysed. 43 samples from this program were used for the Resources report (APPENDIX 5).

178 samples (APPENDIX 4) from the 2009 program were analysed by SGS Mongolia Minerals, Ulaanbaatar. The laboratory indicated that the analytical work was done according to the following Analytical Standards:

- As received sample mass ASTM D2013
- Total Moisture ASTM D3302
- Inherent Moisture ISO 11722
- Ash ISO 1171
- Volatile Matter ISO 562
- Fixed Carbon ISO 1213-2
- Gross Calorific Value ISO 1928
- Total Sulphur ISO 19579
- Relative Density AS 1038.21

8 Resource Estimation Methodology

Erds deposit contains a large number of splitting and merging plies. Therefore it was decided to use modelling method that involves modelling of elevation grid of the major ply and then modelling thickness grids for all plies and partings. Then thicknesses of the plies and partings are stacked on top/below the elevation grid of the major ply forming 3D block model.

To create accurate and reliable 3D models of coal seams it was decided to use kriging algorithm with semivariogram modelling for gridding of the seam elevation and thickness data.

Kriging is a geostatistical gridding method for constructing a minimum-error-variance linear estimate at a location where the true value is unknown. This method produces accurate maps from irregularly spaced data, such as coal seam elevation points. Kriging, attempts to express trends suggested in the data, so that, for example, low points might be connected along bottom of the basin rather than isolated by bull's-eye type contours. Kriging is a very flexible gridding method that can be custom-fit to any data set by specifying the appropriate semivariogram model. It incorporates anisotropy and underlying trends in an efficient and natural manner.

8.1 Software Used

The Erds Project Coal resource estimate was prepared using MICROMINE version 11.0.5 and Microsoft Excel 2007.

8.2 Database Compilation

Micromine Consulting was provided with Erds project database in a combination of Excel spreadsheets, Mapinfo and Micromine files. Table 8-1 summarises the supplied data. Import of the various data sets into MICROMINE proceeded without incident.

Table 8-1: Summary of Supplied Data

Category	Amount
Boreholes	8
Ply thickness records (used for thickness modelling)	330
Points of observation (used for quality modelling)	151
Base of weathering points	8

Topography information was provided in Mapinfo and Tenement boundary was in JPEG format.

8.3 Data Validation

The main validation issue is related to collar elevation data. When the collars were displayed together with topography it appears that most of the boreholes were above or below the surface up to 3m, which shows the inaccuracy either of the collar or the topography survey.

It is recommended to conduct survey of boreholes using Differential GPS or any other precise instrument. Inaccurate collar information can lead to incorrect modelling of seam morphology and consequently to loss (or groundless gain) of resource volume and tonnage.

8.4 Exploratory Data Analysis

Table 8-2 and

Table 8-3 summarise the statistical properties of the coal quality parameters for the Points of Observation based on Air Dried and As Received values.

Table 8-2: Descriptive statistics. AD based values.

	RD AD g/cc	IM %	ASH %	VM %	FC %	CV Kcal/kg	S %
Minimum	1.37	10.77	6.38	17.83	10.56	1,961	0.33
Maximum	2.00	29.46	57.12	47.89	42.96	4,982	3.60
No of points	152	152	152	152	152	152	152
Mean	1.54	19.97	23.03	31.07	25.92	3,832	1.40
Variance	0.02	17.97	124.38	39.80	59.42	385,599	0.41
Std dev	0.12	4.24	11.15	6.31	7.71	620.97	0.64
Coeff. of variation	0.08	0.21	0.48	0.20	0.30	0.16	0.46

Table 8-3: Descriptive statistics. AR based values.

	RD AD g/cc	IM %	ASH %	VM %	FC %	CV Kcal/kg	S %
Minimum	1.24	26.95	4.67	14.14	8.94	1,652	0.26
Maximum	1.66	44.54	47.29	37.09	33.15	3,853	2.78
No of points	152	152	152	152	152	152	152
Mean	1.38	37.54	18.03	24.31	20.12	2,987	1.09
Variance	0.01	14.83	79.01	27.44	31.67	214,628	0.24
Std dev	0.08	3.85	8.89	5.24	5.63	463.28	0.49
Coeff. of variation	0.06	0.10	0.49	0.22	0.28	0.16	0.45

8.5 Data Processing

Since the Gridding method was selected for seam morphology modelling, each borehole was required to contain an interval for each ply, even if the ply was 'pinched out' and was not traced by the borehole. Also in order to use modelling method, where major ply grid and set of thicknesses grids are used to produce the model, each borehole should contain intervals with all stone partings even if interval equals 0.

The following approaches were employed to pre-process the data and insert 0-length (dummy) intervals:

Temporary grid for the most presentable ply 201 was generated. Grid was generated for the midpoint of the interval and is based on all available data.

If a borehole did not contain some top/bottom plies from series of plies (like 300, 400 etc), 0-intervals were inserted on top/below of the upper/lower existing ply from the series. For example borehole 104 did not contain plies 771, 772 and 773. Therefore 0-intervals for those plies were inserted on top of the ply 762.

If a borehole did not contain plies in between series, 0-intervals were inserted at the half distance between existing plies. For example borehole ERD007 did not contain ply 430. Therefore 0-interval for that ply was inserted at the depth of 93.36m between plies 440 series and 420 series.

In case the borehole was too shallow to intersect the coal seam or coal seam appeared above weathering level, 0-intervals were not inserted.

Stone parting intervals were added to all ply groups for each borehole even in cases when parting thickness was 0. Naming convention for the partings is the following:

p_TopPlyName-BottomPlyName.

Plies 842, 831 and 821 were not processed because they are situated above all other plies and in order to insert 0-intervals it would require temporary grids. However those plies have only one single interval and therefore it is impossible to build a grid based on only one point.

As a result of the processing, each borehole contained intervals for all plies and all stone partings. Therefore it was possible to use the thickness modelling method described further in this report.

8.6 Geostatistics

The purpose of geostatistical analysis was to generate a series of semivariograms that can be used as the input weighting mechanism to the Kriging algorithm. To be able to conduct reliable geostatistical analysis it is required to have a sufficient number of points.

The omnidirectional semivariograms together with their model for midpoints of ply 201 and its thickness are shown on Figure 8-1 and Figure 8-2.

When the kriging algorithm is used the weights of the values on the distances beyond semivariogram range are minimal if the semivariogram was modelled using spherical, exponential or gaussian models. Therefore the linear model was used to model the semivariograms for the seam elevations. In this case all the values within the search ellipse will have some weight and will be used for the block estimation.

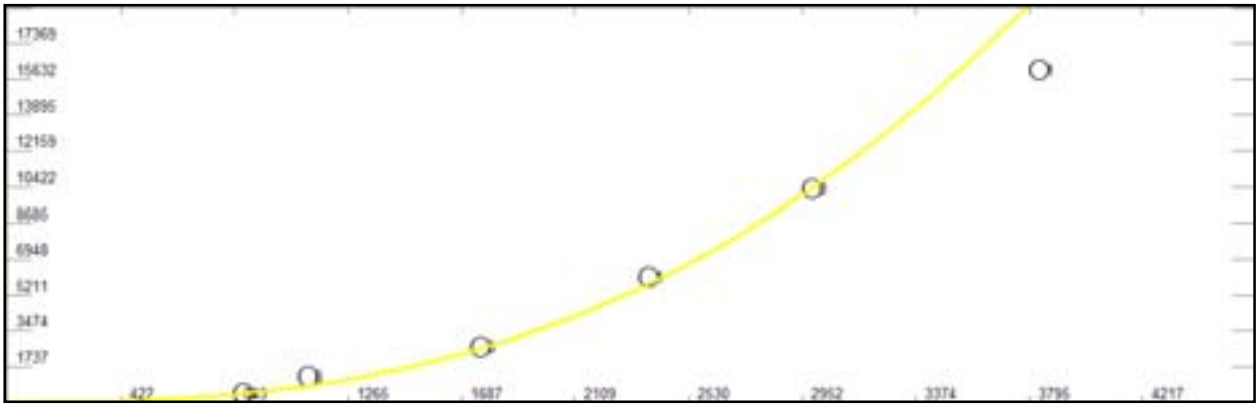


Figure 8-1: Omnidirectional semivariogram. Ply 201. RL.

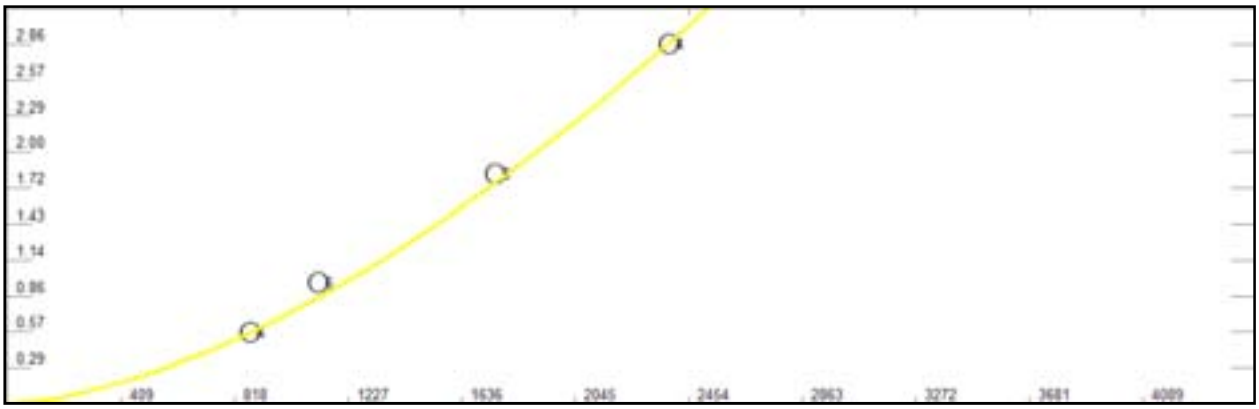


Figure 8-2: Omnidirectional semivariogram. Ply 201. Thickness.

Omnidirectional variogram for ply 201 thickness (Figure 8-2) was used for modelling thicknesses of all plies and partings.

Geostatistical analysis for quality data and density was conducted. None of the values produced reliable semivariograms due to the insufficient number of points. It was decided to use Inverse Distance Weighting algorithm with a power of two for modelling of all coal quality parameters and density.

To be able to separate weathered coal it was decided to generate a grid of the base of weathering. Therefore an omnidirectional semivariogram was constructed in order to use kriging algorithm for gridding of the base of weathering elevations (Figure 8-3).

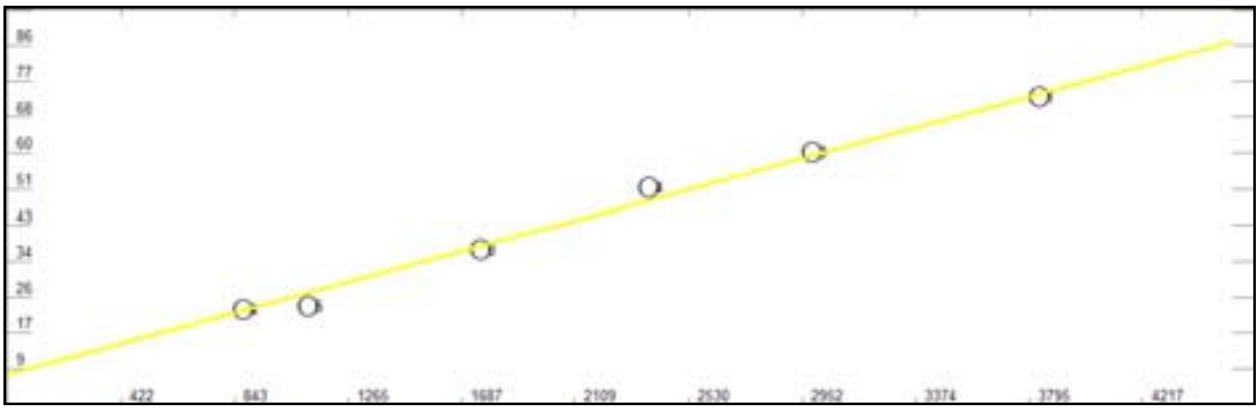


Figure 8-3: Omnidirectional semivariogram. Base of weathering RL.

8.7 Gridding

The cell size of 50 x 50m was selected for the grid to be able to get a reliable model of the seam shape. Gridding with exact interpolation using kriging was employed to generate grids for RL of midpoint of the borehole intervals for the ply 201, base of weathering and thickness. Exact interpolation can honour data points exactly only when the data point falls directly on a grid cell being interpolated. With kriging this means that the coincident data point carries a weight of essentially 1 and all other data points carry a weight of essentially 0. In this case if midpoint of intersection of borehole and ply falls on the interpolated cell then this cell gets the elevation value of this point.

Exactly the same grid limits were used for all grids. All thickness grids were generated using semivariogram model for ply 201.

Search radius of 5,000m with a maximum of 10 points was used for gridding to be able to cover the whole project area.

An example of the grid for RL of midpoints of ply 201 together with original data points is shown on Figure 8-4.

Base of weathering elevation grid was built using kriging with corresponding semivariogram model.

Ply 842, 831 and 821 were not modelled because they were traced only by one borehole and to generate elevation grid it is required to have at least three points.

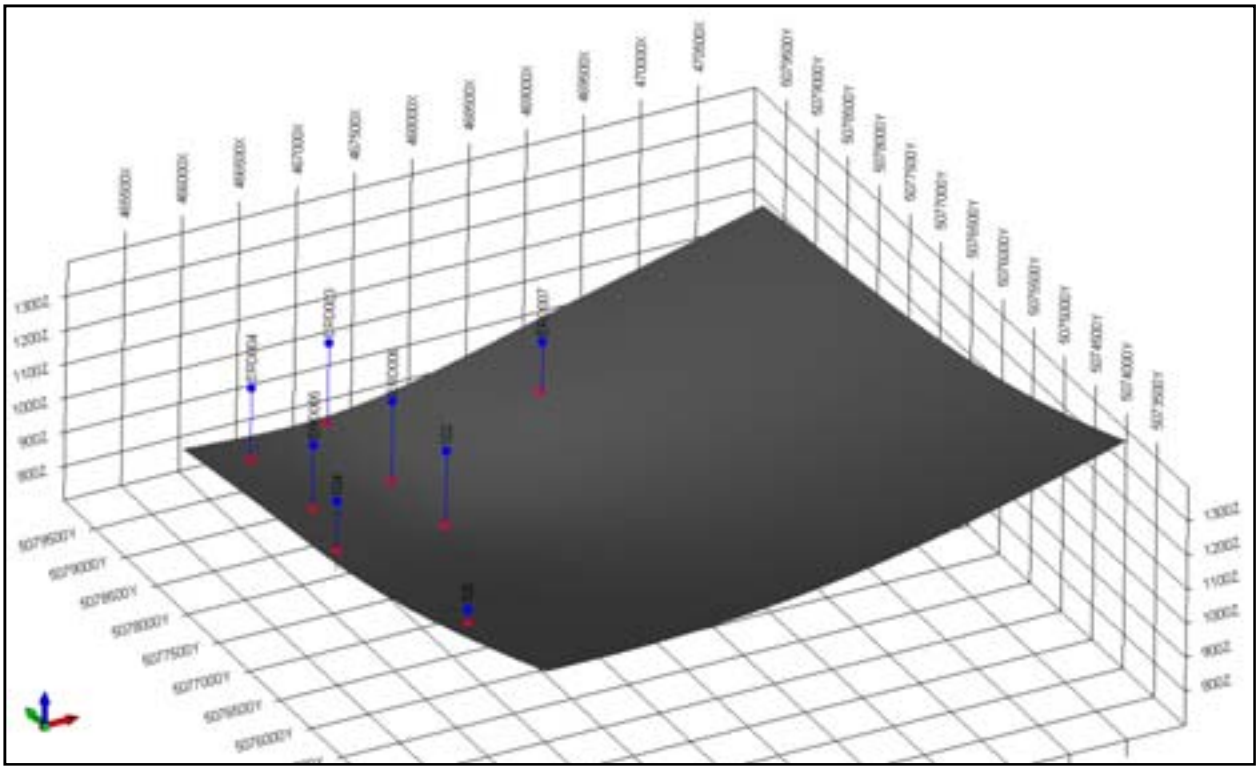


Figure 8-4: Ply 201 RL grid.

8.8 Block Modelling

The 3D gridded seam block model was generated by stacking thicknesses grids on top and below of the major ply elevation grid, where the centroid of the block by East and North is X and Y values from the grid file, block size by East and North is 50 x 50 (grid cell size), centroid of the block by RL is Z value from RL grid and block size by RL is Z value from thickness grids.

Base of weathering grid was converted into digital terrain model (DTM). Blocks above this DTM were removed from block model (Figure 8-5). The tenement boundary outline was assigned to the block model and blocks outside license area were also removed from the model.

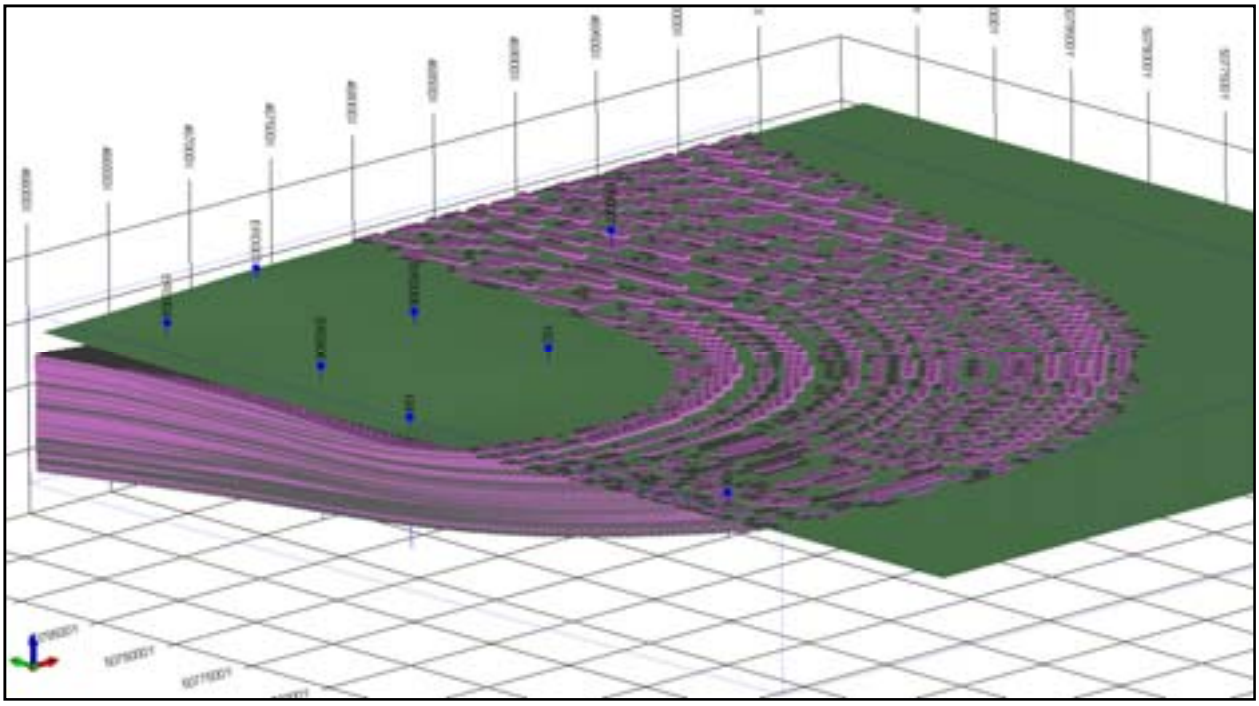


Figure 8-5: Ply block model and base of weathering DTM.

The resulting block model that was used for quality interpolation and resource classification is shown in 3D on Figure 8-6; Figure 8-7 represents Easting section 466225 and Figure 8.8 shows Northing section 5078850.

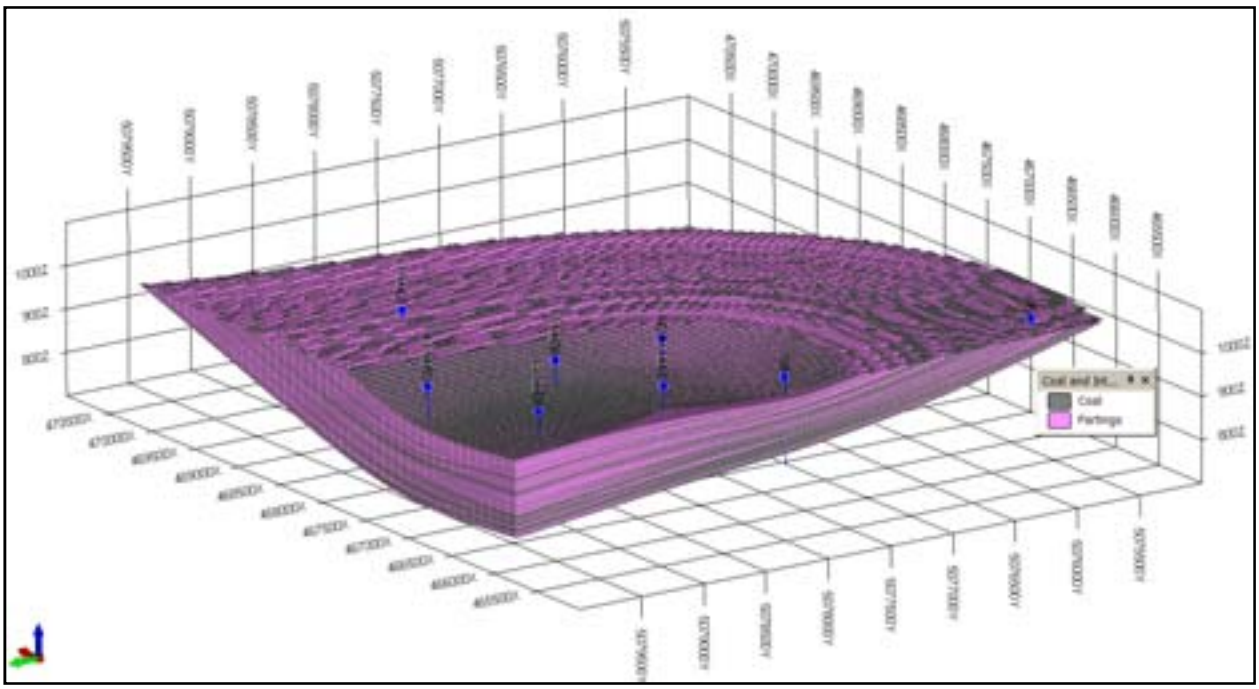


Figure 8-6: Block model. 3D view.

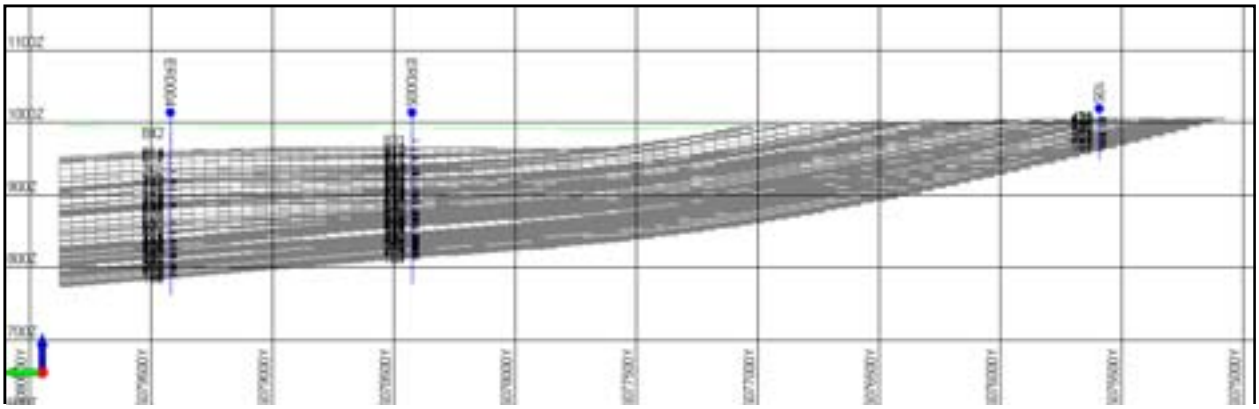


Figure 8-7: Block model. Section E 466225.

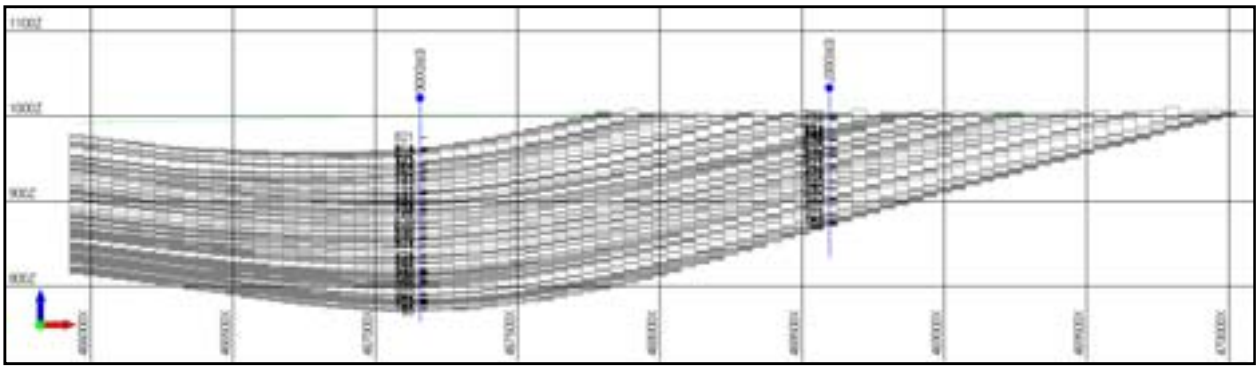


Figure 8-8: Block model. Section N 5078850.

8.9 Grade Interpolation, Seam Coding and Resource Classification

Only borehole intervals that were marked as Point of Observation were used for coal quality interpolation. Geostatistical analysis for quality data has shown that reliable variograms can not be derived because of insufficient amount of data. Therefore the Inverse Distance Weighting algorithm with a power of two was utilised for the interpolation of all quality parameters and density.

Quality interpolation was conducted for each ply separately. One run with 5000m was used to interpolate all the blocks in the model. Filters were applied to make sure that the only points of observation for the selected ply are used for the interpolation of that ply's blocks. When all blocks in the block model were interpolated Seam Coding and Classification routines were performed.

Because the drilling grid size is approximately 1,000m x 1,000m no blocks can be classified as Measured. Zones of influence outlines were generated using 550m for Indicated and 2,000m for Inferred Resources. Outlines were generated for each ply separately using only points of observation belonging to that ply. All outlines were visually checked and corrected if necessary. Figure 8-9 shows original and corrected outlines of zones of influence. Each set of outlines was assigned to corresponding ply blocks in the block model.

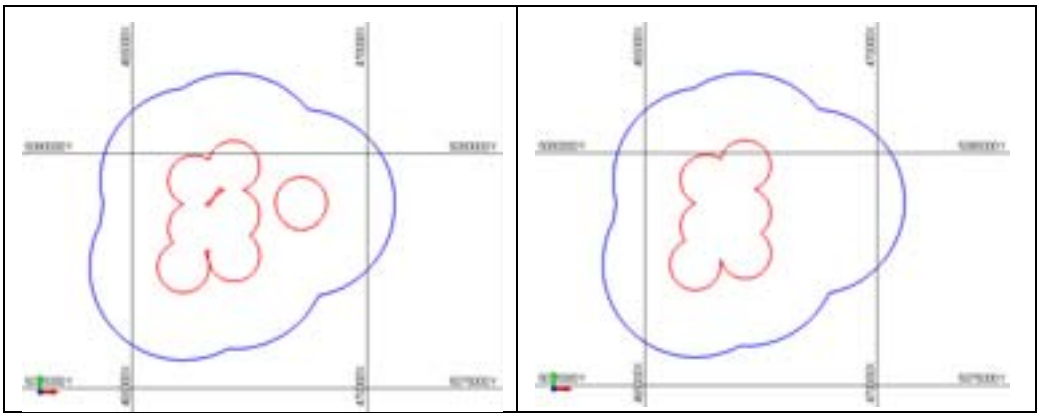


Figure 8-9: Original and corrected zone of influence outlines.

After all blocks in the block model were populated, seam coding routine was conducted. The following rule was used for seam coding:

- No Maximum seam thickness
- Minimum seam thickness to be included in the Resource = 0.5m
- Maximum Stone Parting thickness to be included in the Resource = 0.5m

After coding was completed, stone partings that were included into the block model were assigned the values based on analysis results provided by client (Table 8-4):

Table 8-4: Default quality values and density for partings

AD		AR	
RD	2.56	RD	2.05
IM	1.49	TM	17.36
ASH	90.10	ASH	75.58
VM	6.85	VM	5.75
FC	1.56	FC	1.31
CV	355	CV	298
S	0.04	S	0.03

9 Resource Statement

The Erds project Resource Report is based on the estimated seam thicknesses and quality characteristics in the block model spatially constrained by tenement boundary, weathering DTM and modelling parameters. The total Resource statement is shown in Table 9-1 for Air Dry based values and in Table9-2 for As Received values. Table 9-3 shows Resource statement separately for each seam for Air Dry based values and Table 9-4 for As Received based values.

The total volume of unclassified material is **99,515,333m^3**

Table 9-1: Total Resource. Air Dry basis.

Class	Volume m3	Tonnes t	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
Indicated	162,955,539	254,200,771	1.56	26.13	3,658.65	19.26	29.71	24.9	1.33
Inferred	356,869,903	552,791,233	1.55	24.95	3,734.28	19.24	29.7	26.11	1.27
Total	519,825,442	806,992,004	1.55	25.32	3710.46	19.25	29.70	25.73	1.29

Table 9-2: Total Resource. As Received basis.

Class	Volume m3	Tonnes t	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
Indicated	162,955,539	226,827,164	1.39	20.42	2,885.66	36.53	23.49	19.56	1.05
Inferred	356,869,903	493,451,081	1.38	19.46	2,924.43	36.84	23.34	20.36	1.00
Total	519,825,442	720,278,245	1.39	19.76	2912.22	36.74	23.39	20.11	1.02

Table 9-3: Resource by Seam, air dry basis.

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
50	Inferred	2,795,005	4,474,236	1.60	33.72	3,300.88	16.43	29.72	20.13	1.13
	Indicated	4,992,163	7,224,130	1.45	16.06	4,196.98	22.51	34.73	26.70	1.43
101	Inferred	14,531,775	21,640,539	1.49	19.93	4,028.38	20.59	31.68	27.80	1.65
	Indicated	7,138,019	10,630,604	1.49	19.81	4,089.07	20.16	31.46	28.56	1.84
102	Inferred	18,360,641	27,728,426	1.51	22.02	3,992.64	18.92	29.95	29.12	1.74
	Indicated	4,292,301	6,363,876	1.48	18.53	3,950.55	23.18	34.45	23.84	1.67
103	Inferred	7,061,275	10,616,437	1.50	18.57	4,209.67	18.40	32.31	30.72	2.00
	Indicated	7,255,283	11,265,678	1.55	24.83	3,714.49	19.93	30.49	24.74	1.57
201	Inferred	13,592,865	21,050,341	1.55	23.66	3,816.54	19.43	29.99	26.91	1.56
	Indicated	1,603,671	2,541,194	1.58	30.47	3,350.69	19.43	29.34	20.76	0.97

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
202	Inferred	7,161,227	11,142,531	1.56	26.95	3,523.66	20.60	30.74	21.71	0.99
	Indicated	1,276,231	1,872,167	1.47	19.75	3,869.73	23.23	34.32	22.70	1.07
203	Inferred	4,514,715	6,598,505	1.46	18.93	3,910.79	23.48	34.81	22.78	1.03
	Indicated	8,340,509	12,680,698	1.52	23.68	3,757.28	20.26	31.46	24.59	1.59
310	Inferred	17,555,875	26,721,139	1.52	23.45	3,773.95	20.02	31.08	25.44	1.51
	Indicated	8,407,378	12,963,788	1.54	24.64	3,722.16	20.09	29.94	25.32	1.22
320	Inferred	8,320,896	12,829,841	1.54	24.68	3,704.88	19.88	29.52	25.91	1.12
	Indicated	3,353,309	5,297,174	1.58	29.56	3,532.82	17.95	29.00	23.48	1.37
330	Inferred	15,751,185	25,454,979	1.62	32.95	3,332.85	16.69	27.11	23.24	1.30
	Indicated	1,882,570	2,874,650	1.53	20.89	4,070.35	19.95	35.47	23.69	0.97
340	Inferred	6,149,524	9,529,018	1.55	24.04	3,856.63	18.89	33.26	23.81	0.95
	Indicated	3,669,000	5,673,170	1.55	24.61	3,777.11	19.43	28.81	27.15	0.89
410	Inferred	11,394,381	17,646,758	1.55	24.62	3,762.17	19.48	28.30	27.61	0.82
	Indicated	413,780	658,100	1.59	27.40	3,701.11	16.51	35.23	20.87	1.79
421	Inferred	849,773	1,309,024	1.54	21.85	3,985.24	17.58	29.36	31.22	1.52
	Indicated	512,479	824,138	1.61	31.64	3,361.27	17.25	30.13	20.98	0.85
422	Inferred	740,288	1,188,807	1.61	28.79	3,541.47	16.94	27.31	26.96	0.80
424	Inferred	6,151,230	8,963,362	1.46	16.53	4,306.27	21.25	32.19	30.03	1.09
	Indicated	1,911,968	2,789,825	1.46	16.60	4,175.99	19.35	34.96	29.09	1.34
430	Inferred	1,681,609	2,462,234	1.46	17.06	4,149.51	19.15	35.56	28.23	1.37
441	Inferred	791,800	1,136,127	1.43	12.32	4,592.85	21.29	32.18	34.21	2.26
	Indicated	58,149	89,161	1.53	22.03	3,885.24	19.77	25.75	32.45	1.93
443	Inferred	1,672,562	2,648,045	1.58	26.54	3,654.25	18.40	25.30	29.77	1.75
	Indicated	1,942,206	3,214,885	1.66	31.81	3,491.74	16.31	23.46	28.42	1.05
444	Inferred	11,309,826	17,922,555	1.58	25.57	3,841.28	17.83	25.53	31.07	1.31
	Indicated	1,409,351	2,176,199	1.54	23.75	3,603.52	22.53	32.74	20.98	1.24
511	Inferred	382,569	592,305	1.55	23.87	3,637.42	21.83	30.99	23.30	1.24
	Indicated	1,691,536	2,484,373	1.47	14.91	4,489.26	20.47	30.95	33.67	1.83
512	Inferred	1,349,817	1,965,865	1.46	13.51	4,528.83	20.94	30.07	35.48	1.66
	Indicated	3,668,257	5,408,598	1.47	16.60	4,240.98	19.65	29.14	34.61	0.81
520	Inferred	16,386,833	24,198,985	1.48	16.89	4,231.80	19.62	29.46	34.04	0.80
	Indicated	4,319,435	6,854,202	1.59	28.13	3,618.25	17.09	25.32	29.45	1.07
530	Inferred	9,189,522	14,395,468	1.57	26.12	3,676.21	18.37	28.45	27.06	1.09
	Indicated	2,045,339	3,151,960	1.54	22.89	3,639.56	23.55	32.78	20.78	2.49
610	Inferred	14,178,177	20,931,485	1.48	16.77	4,197.67	20.11	31.69	31.43	1.25
	Indicated	3,139,267	4,823,870	1.54	22.54	3,856.77	20.59	30.62	26.25	1.71
620	Inferred	13,130,160	19,780,938	1.51	19.50	4,054.75	20.83	30.64	29.03	1.72
	Indicated	1,211,132	1,863,044	1.54	21.98	3,756.16	22.58	37.09	18.35	1.68

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
630	Inferred	25,667	39,072	1.52	20.71	3,834.97	22.87	37.73	18.69	1.77
	Indicated	1,593,778	2,359,071	1.48	16.83	4,223.72	20.82	30.17	32.18	1.34
640	Inferred	69,652	103,019	1.48	16.64	4,243.34	20.75	30.32	32.30	1.45
711	Inferred	1,676,771	2,818,233	1.68	28.41	3,358.35	15.63	34.83	21.13	1.82
713	Inferred	38,900	69,019	1.77	43.90	2,668.35	16.13	25.06	14.91	1.17
	Indicated	217,763	317,530	1.46	15.47	4,241.22	21.14	26.56	36.83	1.43
714	Inferred	86,704	129,080	1.49	18.28	4,132.21	20.37	28.83	32.51	1.41
721	Inferred	3,607,211	5,514,049	1.53	21.52	3,928.59	21.27	36.55	20.67	1.22
	Indicated	658,225	1,071,798	1.63	31.11	3,508.63	15.39	28.92	24.57	1.47
722	Inferred	875,608	1,267,294	1.45	13.84	4,143.00	25.91	39.51	20.74	1.17
723	Inferred	1,129,848	1,781,166	1.58	27.41	3,614.90	17.33	26.73	28.53	0.73
	Indicated	1,007,841	1,654,861	1.64	30.79	3,453.30	17.05	26.09	26.06	1.29
724	Inferred	3,970,431	6,272,253	1.58	26.85	3,612.95	18.81	28.95	25.40	1.11
	Indicated	1,475,455	2,393,103	1.62	31.15	3,266.34	19.08	28.55	21.22	1.16
731	Inferred	9,695,345	15,685,632	1.62	30.65	3,309.48	19.00	27.29	23.06	1.04
	Indicated	2,296,704	3,524,870	1.53	23.95	3,671.63	19.21	31.59	25.25	1.29
732	Inferred	5,419,835	8,316,829	1.53	23.80	3,680.73	19.47	30.22	26.51	1.18
742	Inferred	20,055,086	29,538,636	1.47	19.04	3,791.05	25.25	38.51	17.20	1.63
	Indicated	1,016,566	1,615,613	1.59	28.64	3,515.44	18.62	31.39	21.35	1.34
751	Inferred	1,248,802	1,984,134	1.59	28.53	3,520.42	18.67	31.51	21.30	1.35
	Indicated	1,347,870	2,533,506	1.88	48.24	2,353.69	14.22	21.97	15.57	1.65
752	Inferred	1,054,232	1,994,934	1.89	48.61	2,335.01	14.09	21.69	15.61	1.66
101-50	Inferred	20,675	32,106	1.55	27.89	3,586.40	19.04	29.13	23.94	1.16
	Indicated	143,790	221,141	1.54	25.83	3,716.72	19.17	29.13	25.87	1.20
102-101	Inferred	3,982,614	6,402,150	1.61	32.18	3,422.36	16.83	27.58	23.41	1.44
	Indicated	2,808,570	4,150,309	1.48	18.47	4,045.24	20.95	29.92	30.66	1.58
103-101	Inferred	721,088	1,110,053	1.54	25.09	3,749.66	18.43	27.84	28.65	1.48
	Indicated	2,888,324	4,492,366	1.56	27.27	3,564.09	19.86	31.61	21.26	1.59
103-102	Inferred	77,833	124,241	1.60	30.76	3,468.25	17.31	28.81	23.12	1.52
	Indicated	4,310,698	7,101,461	1.65	34.37	3,186.81	17.59	28.90	19.14	1.52
201-102	Inferred	354,101	588,217	1.66	36.00	3,122.87	17.02	27.89	19.09	1.46
	Indicated	1,469,199	2,498,359	1.70	36.96	3,049.44	16.53	26.92	19.59	1.60
201-103	Inferred	206,943	354,335	1.71	38.75	2,972.84	16.08	26.31	18.87	1.51
202-201	Indicated	891,618	1,385,183	1.55	24.68	3,646.90	21.41	31.34	22.57	1.53
203-201	Indicated	1,571,529	2,428,132	1.55	25.60	3,567.02	21.75	30.91	21.73	1.59
	Indicated	232,222	384,293	1.65	37.21	2,956.15	18.15	26.74	17.91	0.97
203-202	Inferred	304,936	468,426	1.54	25.98	3,558.62	21.21	31.66	21.14	0.96
	Indicated	4,257,270	6,443,088	1.51	22.48	3,758.10	22.08	32.63	22.81	1.39

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
310-201	Inferred	208,055	313,224	1.51	21.43	3,811.80	22.37	32.96	23.24	1.42
	Indicated	24,039	39,661	1.65	37.13	3,004.84	17.85	26.89	18.13	1.06
310-202	Inferred	155,592	241,244	1.55	27.34	3,504.38	20.48	30.94	21.24	0.99
310-203	Indicated	97,097	148,524	1.53	25.92	3,584.31	20.67	32.30	21.11	0.99
	Indicated	1,890,445	2,918,261	1.54	25.74	3,625.88	19.28	30.08	24.91	1.12
320-310	Inferred	335,033	521,981	1.56	26.75	3,584.62	18.95	28.70	25.60	1.06
330-202	Inferred	216,056	344,556	1.59	31.35	3,320.83	18.60	28.66	21.39	0.98
330-203	Inferred	100,104	162,353	1.62	34.03	3,196.74	17.49	27.40	21.08	0.96
330-310	Inferred	194,496	321,052	1.65	36.04	3,116.50	16.22	25.70	22.04	1.01
330-320	Inferred	319,788	524,631	1.64	34.99	3,167.31	16.48	26.00	22.52	1.00
	Indicated	1,274,465	2,047,171	1.61	31.09	3,409.09	18.43	29.11	21.37	1.07
340-320	Inferred	19,794	31,388	1.59	28.97	3,542.87	18.67	29.68	22.68	1.21
	Indicated	2,763,484	4,523,528	1.64	33.86	3,318.21	16.36	28.19	21.60	1.03
340-330	Inferred	1,175,359	1,957,292	1.67	37.36	3,087.69	15.40	25.67	21.57	1.03
	Indicated	4,510,227	6,839,902	1.52	23.31	3,738.81	20.45	32.27	23.97	1.10
410-201	Inferred	580,484	885,208	1.52	23.92	3,716.16	20.37	31.58	24.13	1.10
	Indicated	862,392	1,318,274	1.53	25.03	3,648.93	19.87	31.36	23.74	1.03
410-202	Inferred	2,968,551	4,585,324	1.54	26.18	3,599.36	19.75	30.54	23.54	1.02
	Indicated	2,017,178	3,163,931	1.57	29.09	3,445.99	18.42	29.80	22.69	0.98
410-203	Inferred	2,100,116	3,324,852	1.58	29.96	3,418.57	18.31	28.75	22.97	0.98
	Indicated	589,494	944,167	1.60	31.89	3,319.42	17.25	28.05	22.80	0.99
410-310	Inferred	1,627,427	2,642,163	1.62	33.37	3,262.17	16.90	26.73	23.00	0.96
	Indicated	1,977,508	3,168,334	1.60	31.76	3,338.21	17.26	28.44	22.53	1.02
410-320	Inferred	149,420	239,500	1.60	31.29	3,385.25	17.74	28.50	22.46	1.07
	Indicated	486,259	818,003	1.68	39.00	2,975.08	15.09	24.44	21.47	0.91
410-330	Inferred	305,895	510,036	1.67	37.32	3,077.75	15.55	25.03	22.10	0.91
410-340	Inferred	4,349,591	7,087,032	1.63	33.16	3,312.34	16.96	26.97	22.91	0.77
	Indicated	6,347,420	10,552,397	1.66	34.43	3,274.08	14.55	25.77	25.25	1.03
422-421	Inferred	8,164,310	12,885,822	1.58	26.80	3,736.14	16.52	26.61	30.07	0.97
424-421	Inferred	6,542,808	9,963,940	1.52	22.87	3,962.66	18.41	25.91	32.81	0.93
424-422	Inferred	246,474	409,786	1.66	36.81	3,191.75	15.30	21.95	25.93	0.66
430-424	Inferred	581,999	908,061	1.56	27.60	3,624.99	16.91	31.54	23.96	1.13
	Indicated	106,761	183,442	1.72	41.06	2,964.51	14.27	20.48	24.20	1.50
442-441	Inferred	1,563,355	2,815,071	1.80	48.02	2,616.83	12.28	18.98	20.72	1.32
	Indicated	667,534	1,151,226	1.72	40.12	3,010.65	14.60	23.02	22.25	1.18
443-441	Inferred	1,239,765	2,100,549	1.69	36.47	3,212.43	15.12	24.70	23.71	1.20
	Indicated	1,406,964	2,458,651	1.75	39.15	3,033.74	14.64	23.73	22.49	0.85
443-442	Inferred	49,978	85,738	1.72	37.32	3,139.77	14.97	24.18	23.53	1.06

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
444-424	Inferred	132,717	211,081	1.59	29.15	3,585.13	16.58	29.33	24.93	1.32
444-430	Indicated	565,366	894,473	1.58	28.40	3,633.16	16.05	30.55	25.00	1.50
	Indicated	4,823,056	8,054,321	1.67	35.65	3,282.35	15.51	24.49	24.35	1.24
444-441	Inferred	2,342,086	4,172,437	1.78	44.16	2,811.02	13.29	20.29	22.25	0.99
	Indicated	146,683	266,621	1.82	45.97	2,696.29	12.91	20.57	20.54	0.82
444-442	Inferred	2,292,435	3,944,844	1.72	37.39	3,175.45	15.02	22.32	25.27	0.97
444-443	Inferred	222,936	397,569	1.78	44.59	2,801.16	13.04	20.00	22.38	0.96
512-430	Indicated	1,004,371	1,557,796	1.55	25.08	3,790.48	18.01	28.22	28.70	1.40
512-441	Indicated	2,747,282	4,289,667	1.56	26.12	3,735.94	18.33	25.25	30.31	1.41
	Indicated	1,474,720	2,211,264	1.50	19.89	4,019.55	20.65	26.35	33.11	1.22
512-511	Inferred	3,314,127	4,917,422	1.48	18.19	4,135.92	20.93	26.32	34.56	1.25
	Indicated	3,538,419	5,337,903	1.51	20.22	4,008.92	21.13	28.91	29.74	1.49
530-520	Inferred	93,577	141,048	1.51	20.21	4,013.60	21.11	29.60	29.07	1.59
610-530	Inferred	7,592,046	11,771,225	1.55	24.77	3,795.54	17.51	28.29	29.43	0.96
	Indicated	1,209,159	1,771,422	1.47	16.92	4,251.50	20.43	28.36	34.28	1.55
630-620	Inferred	3,737,996	5,450,595	1.46	15.23	4,323.02	21.21	30.06	33.51	1.79
	Indicated	1,800,859	2,753,159	1.53	22.86	3,780.06	21.60	32.28	23.26	1.45
640-620	Inferred	5,218,643	7,884,574	1.51	20.26	3,935.81	21.98	32.58	25.18	1.54
	Indicated	2,497,795	3,915,656	1.57	26.12	3,720.99	19.09	30.86	23.93	1.54
640-630	Inferred	446,654	712,237	1.59	29.04	3,475.11	19.59	30.68	20.69	1.25
711-620	Inferred	61,738	99,635	1.61	30.13	3,325.96	19.87	31.15	18.85	1.18
711-640	Inferred	5,855	9,790	1.67	30.50	3,278.36	16.62	31.36	21.52	1.15
712-620	Inferred	166,997	275,139	1.65	33.44	3,145.18	19.19	30.29	17.08	1.07
712-711	Inferred	83,104	165,738	1.99	56.83	1,907.86	10.38	22.03	10.77	0.56
713-620	Inferred	54,820	92,970	1.70	38.02	2,910.86	17.99	28.58	15.42	0.99
713-711	Inferred	2,473,221	4,057,717	1.64	30.27	3,470.37	18.00	28.76	22.97	1.57
	Indicated	957,272	1,504,817	1.57	27.74	3,395.93	22.55	33.79	15.92	1.09
714-620	Inferred	1,262,049	2,064,254	1.64	33.01	3,364.04	16.82	25.51	24.66	1.42
714-630	Indicated	350,959	565,265	1.61	31.39	3,226.76	20.97	31.82	15.83	1.02
	Indicated	587,563	940,825	1.60	30.33	3,425.30	18.56	27.81	23.30	1.11
714-640	Inferred	3,814,385	6,279,891	1.65	32.05	3,370.67	17.61	27.40	22.94	1.36
714-711	Inferred	1,632,483	2,799,930	1.72	37.63	3,047.54	16.13	27.10	19.14	1.24
	Indicated	6,501,768	10,162,820	1.56	24.97	3,720.43	20.62	32.46	21.94	1.36
714-712	Inferred	142,434	272,780	1.92	54.99	2,175.10	11.75	19.80	13.47	0.81
714-713	Inferred	12,600	23,937	1.90	53.68	2,253.32	12.00	19.73	14.59	0.88
721-620	Inferred	187,103	314,610	1.68	36.98	2,966.36	18.38	29.49	15.16	0.97
721-711	Inferred	350,984	621,813	1.77	42.03	2,651.11	15.62	29.29	13.06	0.76
721-714	Inferred	993,239	1,568,300	1.58	27.69	3,540.82	20.22	33.82	18.27	1.08

SEAM	CLASS	VOLUME m3	TONNES	RD t/m3	ASH %	CV KCAL/KG	IM %	VM %	FC %	S %
722-711	Inferred	27,890	46,852	1.68	35.38	2,961.35	18.54	32.37	13.71	0.80
722-721	Inferred	6,891	11,213	1.63	33.55	3,131.19	20.31	32.79	13.35	0.85
723-721	Inferred	2,627,231	4,243,526	1.62	31.66	3,375.70	17.93	29.96	20.45	1.01
723-722	Inferred	2,860,463	4,473,759	1.56	27.10	3,562.30	19.55	31.26	22.09	0.99
	Indicated	1,421,565	2,399,071	1.69	37.10	3,141.96	14.32	23.06	25.53	0.74
724-722	Inferred	4,527,925	7,555,336	1.67	36.66	3,093.74	16.29	26.23	20.83	0.81
724-723	Inferred	3,116,189	4,748,775	1.52	23.93	3,683.89	21.39	33.31	21.37	1.07
731-724	Inferred	154,381	263,673	1.71	38.82	2,938.08	16.13	24.68	20.37	0.97
732-724	Inferred	498,821	816,696	1.64	32.70	3,242.13	17.64	26.25	23.41	0.99
	Indicated	3,242,403	5,202,707	1.60	29.36	3,426.10	18.66	22.65	29.34	0.59
732-731	Inferred	9,614,202	15,315,981	1.59	28.37	3,455.24	19.07	25.28	27.28	0.81
742-724	Inferred	386,604	631,686	1.63	33.31	3,172.89	18.74	29.09	18.86	1.29
742-731	Inferred	44,965	74,158	1.65	35.52	3,023.66	18.72	29.58	16.18	1.33
	Indicated	2,344,287	3,797,340	1.62	32.11	3,230.08	18.94	33.00	15.94	1.51
752-751	Inferred	3,549,862	5,978,416	1.68	36.87	3,012.59	17.18	29.54	16.41	1.40

Table 9-4: Resource by Seam, as received basis.

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
50	Inferred	2,795,005	4,029,906	1.44	27.61	2,711.95	31.46	24.40	16.55	0.93
	Indicated	4,992,163	6,657,882	1.33	13.15	3,397.16	37.16	28.16	21.53	1.17
101	Inferred	14,531,775	19,803,877	1.36	16.33	3,243.91	35.79	25.57	22.31	1.34
	Indicated	7,138,019	9,674,546	1.36	15.92	3,259.42	36.25	25.16	22.66	1.46
102	Inferred	18,360,641	25,115,011	1.37	17.62	3,165.10	35.57	23.81	23.00	1.37
	Indicated	4,292,301	5,836,371	1.36	15.04	3,202.99	37.73	27.99	19.23	1.35
103	Inferred	7,061,275	9,639,671	1.37	14.85	3,344.02	35.06	25.70	24.39	1.57
	Indicated	7,255,283	10,127,957	1.40	19.85	2,977.84	35.89	24.52	19.75	1.27
201	Inferred	13,592,865	18,886,979	1.39	18.87	3,024.61	36.03	23.88	21.21	1.25
	Indicated	1,603,671	2,294,468	1.43	24.89	2,731.58	34.27	23.92	16.93	0.79
202	Inferred	7,161,227	10,098,317	1.41	22.09	2,859.49	35.33	24.96	17.62	0.81
	Indicated	1,276,231	1,719,020	1.35	16.02	3,139.47	37.73	27.83	18.43	0.86
203	Inferred	4,514,715	6,056,740	1.34	15.27	3,160.31	38.19	28.12	18.42	0.83
	Indicated	8,340,509	11,479,300	1.38	19.08	3,027.10	35.78	25.40	19.74	1.29
310	Inferred	17,555,875	24,139,106	1.38	18.83	3,026.90	35.85	24.97	20.35	1.21
	Indicated	8,407,378	11,692,065	1.39	19.79	2,980.12	35.97	23.96	20.27	0.98
320	Inferred	8,320,896	11,560,144	1.39	19.77	2,952.97	36.05	23.52	20.66	0.89
	Indicated	3,353,309	4,758,394	1.42	23.55	2,822.75	34.51	23.23	18.71	1.09
330	Inferred	15,751,185	22,634,306	1.44	26.05	2,647.40	33.96	21.58	18.40	1.03

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
	Indicated	1,882,570	2,553,085	1.36	15.93	3,091.09	39.15	26.91	18.00	0.74
340	Inferred	6,149,524	8,458,895	1.38	18.46	2,941.61	38.01	25.34	18.19	0.73
	Indicated	3,669,000	5,038,177	1.37	18.97	2,912.09	37.90	22.23	20.90	0.69
410	Inferred	11,394,381	15,683,274	1.38	19.08	2,909.79	37.70	21.91	21.31	0.64
	Indicated	413,780	578,523	1.40	21.07	2,806.82	36.28	26.71	15.94	1.36
421	Inferred	849,773	1,162,709	1.37	17.02	3,020.64	36.94	22.39	23.65	1.17
	Indicated	512,479	730,937	1.43	25.11	2,657.42	34.48	23.96	16.46	0.68
422	Inferred	740,288	1,048,004	1.42	22.65	2,736.00	35.35	21.28	20.72	0.62
424	Inferred	6,151,230	8,085,558	1.31	12.68	3,291.26	39.77	24.64	22.92	0.83
	Indicated	1,911,968	2,500,189	1.31	12.12	3,135.37	39.84	26.05	21.99	1.00
430	Inferred	1,681,609	2,202,376	1.31	12.46	3,105.90	39.83	26.48	21.22	1.02
441	Inferred	791,800	1,019,180	1.29	9.09	3,391.72	41.86	23.87	25.17	1.63
	Indicated	58,149	78,923	1.36	16.88	2,975.93	38.54	19.70	24.87	1.48
443	Inferred	1,672,562	2,321,223	1.39	20.36	2,802.99	37.40	19.38	22.84	1.34
	Indicated	1,942,206	2,762,871	1.42	23.85	2,614.45	37.30	17.52	21.32	0.79
444	Inferred	11,309,826	15,610,281	1.38	19.15	2,859.24	38.70	18.95	23.19	0.98
	Indicated	1,409,351	1,940,488	1.38	18.29	2,801.83	39.96	25.45	16.29	0.96
511	Inferred	382,569	527,555	1.38	18.43	2,827.48	39.38	24.08	18.11	0.97
	Indicated	1,691,536	2,220,704	1.31	11.13	3,355.76	40.55	23.13	25.20	1.36
512	Inferred	1,349,817	1,760,101	1.30	10.07	3,392.25	40.80	22.49	26.65	1.23
	Indicated	3,668,257	4,841,604	1.32	12.48	3,205.98	39.30	21.96	26.26	0.62
520	Inferred	16,386,833	21,632,721	1.32	12.67	3,189.97	39.45	22.13	25.75	0.61
	Indicated	4,319,435	6,111,906	1.42	22.44	2,851.80	34.35	19.91	23.30	0.82
530	Inferred	9,189,522	12,902,454	1.40	20.88	2,911.66	35.11	22.56	21.45	0.84
	Indicated	2,045,339	2,826,257	1.38	18.04	2,858.49	39.89	25.65	16.42	1.93
610	Inferred	14,178,177	18,933,877	1.34	13.09	3,263.22	37.84	24.66	24.40	0.97
	Indicated	3,139,267	4,341,663	1.38	17.75	3,057.17	37.20	24.40	20.65	1.34
620	Inferred	13,130,160	17,879,424	1.36	15.35	3,186.33	37.77	24.19	22.69	1.34
	Indicated	1,211,132	1,663,891	1.37	17.13	2,952.50	39.31	29.17	14.39	1.32
630	Inferred	25,667	35,066	1.37	16.22	3,020.93	39.36	29.73	14.69	1.39
	Indicated	1,593,778	2,115,805	1.33	12.75	3,208.45	39.89	22.97	24.39	1.03
640	Inferred	69,652	92,699	1.33	12.78	3,239.57	39.42	23.25	24.55	1.11
711	Inferred	1,676,771	2,456,605	1.47	22.41	2,627.55	33.58	27.48	16.53	1.41
713	Inferred	38,900	60,294	1.55	36.13	2,156.81	31.52	20.33	12.02	0.95
	Indicated	217,763	285,026	1.31	11.64	3,203.05	40.48	20.06	27.82	1.08
714	Inferred	86,704	114,893	1.33	13.67	3,116.83	40.05	21.82	24.46	1.07
721	Inferred	3,607,211	4,904,555	1.36	16.26	3,031.11	39.62	28.46	15.66	0.93
	Indicated	658,225	919,144	1.40	22.63	2,618.79	37.49	21.57	18.31	1.09

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
722	Inferred	875,608	1,160,582	1.33	10.75	3,353.78	40.53	32.11	16.61	0.94
723	Inferred	1,129,848	1,572,562	1.39	21.16	2,806.61	35.96	20.84	22.04	0.57
	Indicated	1,007,841	1,421,254	1.41	22.98	2,590.21	37.88	19.57	19.56	0.96
724	Inferred	3,970,431	5,497,962	1.38	20.34	2,776.07	37.93	22.37	19.36	0.85
	Indicated	1,475,455	2,083,258	1.41	23.79	2,491.38	38.24	21.83	16.14	0.89
731	Inferred	9,695,345	13,649,609	1.41	23.36	2,520.03	38.30	20.83	17.51	0.80
	Indicated	2,296,704	3,127,458	1.36	18.16	2,785.33	38.73	23.93	19.18	0.97
732	Inferred	5,419,835	7,360,363	1.36	17.96	2,778.01	39.22	22.81	20.01	0.89
742	Inferred	20,055,086	26,816,154	1.34	14.86	2,983.77	41.32	30.38	13.45	1.26
	Indicated	1,016,566	1,426,606	1.40	22.26	2,715.63	37.00	24.18	16.56	1.03
751	Inferred	1,248,802	1,752,002	1.40	22.17	2,718.39	37.06	24.26	16.51	1.04
	Indicated	1,347,870	2,140,997	1.59	37.99	1,854.74	32.42	17.32	12.27	1.30
752	Inferred	1,054,232	1,682,520	1.60	38.36	1,838.49	32.27	17.06	12.31	1.31
101-50	Inferred	20,675	28,963	1.40	21.85	2,965.15	34.36	24.08	19.71	0.98
	Indicated	143,790	198,519	1.38	20.09	2,975.00	35.94	23.37	20.59	0.96
102-101	Inferred	3,982,614	5,745,062	1.44	25.83	2,809.59	32.34	22.64	19.18	1.18
	Indicated	2,808,570	3,739,271	1.33	14.20	3,130.90	38.95	23.26	23.59	1.22
103-101	Inferred	721,088	992,384	1.38	19.44	2,952.24	36.12	21.98	22.46	1.16
	Indicated	2,888,324	4,061,928	1.41	21.77	2,914.84	35.02	25.86	17.34	1.29
103-102	Inferred	77,833	111,178	1.43	24.33	2,825.51	33.39	23.50	18.78	1.24
	Indicated	4,310,698	6,306,942	1.46	27.44	2,616.10	33.17	23.71	15.68	1.24
201-102	Inferred	354,101	520,912	1.47	28.70	2,562.59	32.80	22.88	15.62	1.19
	Indicated	1,469,199	2,195,295	1.49	29.46	2,490.14	32.60	22.03	15.90	1.31
201-103	Inferred	206,943	310,625	1.50	30.86	2,429.17	32.26	21.54	15.34	1.23
202-201	Indicated	891,618	1,253,036	1.41	19.86	2,987.75	36.00	25.66	18.48	1.26
203-201	Indicated	1,571,529	2,215,250	1.41	20.84	2,967.36	35.40	25.68	18.08	1.33
	Indicated	232,222	344,175	1.48	30.41	2,469.26	32.32	22.31	14.96	0.81
203-202	Inferred	304,936	424,524	1.39	20.83	2,901.62	36.12	25.80	17.25	0.78
	Indicated	4,257,270	5,862,755	1.38	18.06	3,067.12	36.72	26.61	18.61	1.14
310-201	Inferred	208,055	285,585	1.37	17.36	3,101.73	36.92	26.82	18.90	1.16
	Indicated	24,039	35,372	1.47	29.86	2,509.17	32.59	22.41	15.14	0.88
310-202	Inferred	155,592	217,663	1.40	21.77	2,857.77	35.70	25.22	17.32	0.81
310-203	Indicated	97,097	133,856	1.38	20.29	2,911.00	36.38	26.18	17.15	0.80
	Indicated	1,890,445	2,618,690	1.39	20.31	2,886.42	35.95	23.92	19.82	0.90
320-310	Inferred	335,033	467,280	1.39	21.10	2,859.68	35.60	22.88	20.42	0.85
330-202	Inferred	216,056	307,742	1.42	24.77	2,692.22	34.69	23.23	17.31	0.79
330-203	Inferred	100,104	144,089	1.44	26.74	2,589.71	34.02	22.18	17.04	0.78
330-310	Inferred	194,496	283,090	1.46	28.36	2,505.13	33.30	20.64	17.70	0.81

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
330-320	Inferred	319,788	463,571	1.45	27.55	2,528.73	33.74	20.74	17.97	0.80
	Indicated	1,274,465	1,815,108	1.42	24.29	2,709.67	35.61	23.12	16.98	0.86
340-320	Inferred	19,794	27,955	1.41	22.71	2,804.03	35.86	23.49	17.93	0.96
	Indicated	2,763,484	3,981,146	1.44	26.40	2,595.25	34.67	22.05	16.89	0.81
340-330	Inferred	1,175,359	1,719,162	1.46	29.30	2,437.33	33.42	20.27	17.01	0.81
	Indicated	4,510,227	6,167,683	1.37	18.21	2,963.47	37.26	25.58	18.96	0.87
410-201	Inferred	580,484	797,991	1.37	18.82	2,950.59	36.98	25.09	19.11	0.88
	Indicated	862,392	1,186,229	1.38	19.58	2,887.52	36.86	24.82	18.74	0.81
410-202	Inferred	2,968,551	4,120,082	1.39	20.61	2,862.29	36.42	24.30	18.68	0.81
	Indicated	2,017,178	2,823,742	1.40	22.68	2,727.40	35.82	23.58	17.92	0.78
410-203	Inferred	2,100,116	2,962,583	1.41	23.46	2,717.13	35.46	22.85	18.22	0.78
	Indicated	589,494	837,282	1.42	24.91	2,622.59	34.95	22.15	17.99	0.78
410-310	Inferred	1,627,427	2,335,288	1.44	26.14	2,586.71	34.45	21.18	18.23	0.76
	Indicated	1,977,508	2,808,736	1.42	24.77	2,615.55	35.31	22.28	17.64	0.80
410-320	Inferred	149,420	212,320	1.42	24.44	2,663.54	35.48	22.42	17.65	0.84
	Indicated	486,259	716,014	1.47	30.55	2,345.40	33.28	19.27	16.90	0.71
410-330	Inferred	305,895	446,968	1.46	29.20	2,420.60	33.74	19.69	17.36	0.71
410-340	Inferred	4,349,591	6,230,653	1.43	25.78	2,580.67	35.37	21.01	17.84	0.60
	Indicated	6,347,420	9,222,005	1.45	26.93	2,547.50	33.29	20.15	19.62	0.81
422-421	Inferred	8,164,310	11,370,936	1.39	20.75	2,857.59	35.86	20.44	22.96	0.75
424-421	Inferred	6,542,808	8,852,278	1.35	17.51	3,017.52	37.75	19.78	24.96	0.71
424-422	Inferred	246,474	357,070	1.45	28.61	2,496.82	33.93	17.20	20.27	0.52
430-424	Inferred	581,999	801,078	1.38	20.84	2,766.67	36.85	23.97	18.33	0.86
	Indicated	106,761	158,078	1.48	31.95	2,305.17	33.30	15.92	18.83	1.16
442-441	Inferred	1,563,355	2,399,437	1.53	37.75	2,038.54	31.30	14.81	16.14	1.01
	Indicated	667,534	989,069	1.48	31.03	2,339.73	33.80	17.88	17.28	0.91
443-441	Inferred	1,239,765	1,800,412	1.45	27.70	2,448.60	35.42	18.83	18.05	0.91
	Indicated	1,406,964	2,086,978	1.48	29.58	2,324.73	35.06	18.15	17.22	0.65
443-442	Inferred	49,978	73,135	1.46	28.25	2,396.37	35.36	18.43	17.96	0.81
444-424	Inferred	132,717	184,570	1.39	22.02	2,716.07	36.88	22.21	18.89	0.99
444-430	Indicated	565,366	779,210	1.38	21.22	2,702.02	37.44	22.77	18.57	1.11
	Indicated	4,823,056	6,969,915	1.45	27.40	2,519.95	35.10	18.80	18.69	0.95
444-441	Inferred	2,342,086	3,547,842	1.51	34.35	2,160.24	32.93	15.60	17.12	0.76
	Indicated	146,683	225,463	1.54	35.75	2,082.03	32.50	15.88	15.87	0.63
444-442	Inferred	2,292,435	3,371,786	1.47	28.69	2,408.29	35.21	16.91	19.19	0.73
444-443	Inferred	222,936	337,831	1.52	34.72	2,142.00	32.84	15.30	17.13	0.74
512-430	Indicated	1,004,371	1,374,501	1.37	18.93	2,886.29	37.73	21.43	21.90	1.06
512-441	Indicated	2,747,282	3,787,148	1.38	19.89	2,875.63	37.35	19.39	23.38	1.08

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
	Indicated	1,474,720	1,981,967	1.34	15.19	3,118.65	38.68	20.41	25.72	0.94
512-511	Inferred	3,314,127	4,412,775	1.33	13.86	3,188.61	39.20	20.26	26.68	0.96
	Indicated	3,538,419	4,769,409	1.35	15.60	3,092.19	39.15	22.24	23.01	1.14
530-520	Inferred	93,577	125,893	1.35	15.55	3,073.05	39.50	22.61	22.34	1.20
610-530	Inferred	7,592,046	10,546,655	1.39	19.52	2,990.95	34.98	22.30	23.20	0.75
	Indicated	1,209,159	1,605,466	1.33	12.96	3,300.77	38.42	22.03	26.60	1.20
630-620	Inferred	3,737,996	4,956,072	1.33	11.85	3,352.18	38.86	23.38	25.91	1.38
	Indicated	1,800,859	2,492,119	1.38	18.00	3,053.35	37.18	26.30	18.52	1.16
640-620	Inferred	5,218,643	7,147,691	1.37	16.05	3,142.98	37.85	26.21	19.89	1.22
	Indicated	2,497,795	3,491,648	1.40	20.41	2,927.93	36.50	24.50	18.60	1.20
640-630	Inferred	446,654	632,948	1.42	22.66	2,776.94	36.33	24.70	16.32	0.99
711-620	Inferred	61,738	89,032	1.44	23.79	2,739.14	35.08	25.77	15.36	0.97
711-640	Inferred	5,855	8,547	1.46	23.99	2,562.61	34.45	24.81	16.75	0.90
712-620	Inferred	166,997	244,738	1.47	26.38	2,619.47	34.24	25.29	14.09	0.88
712-711	Inferred	83,104	140,036	1.69	45.88	1,600.14	26.54	18.52	9.06	0.47
713-620	Inferred	54,820	82,156	1.50	30.13	2,446.01	32.97	24.05	12.85	0.83
713-711	Inferred	2,473,221	3,549,318	1.44	23.64	2,685.87	36.31	22.31	17.74	1.21
	Indicated	957,272	1,365,082	1.43	22.14	2,867.85	35.92	28.54	13.39	0.92
714-620	Inferred	1,262,049	1,819,272	1.44	25.70	2,670.31	34.50	20.28	19.53	1.12
714-630	Indicated	350,959	507,472	1.45	24.94	2,705.20	35.17	26.68	13.21	0.85
	Indicated	587,563	832,691	1.42	23.52	2,713.35	36.02	22.09	18.37	0.88
714-640	Inferred	3,814,385	5,499,486	1.44	25.07	2,629.33	35.65	21.43	17.86	1.06
714-711	Inferred	1,632,483	2,428,596	1.49	29.65	2,398.40	33.93	21.42	15.01	0.97
	Indicated	6,501,768	9,006,919	1.39	19.28	2,877.78	38.63	25.24	16.84	1.05
714-712	Inferred	142,434	230,985	1.62	44.01	1,758.11	29.12	16.04	10.84	0.65
714-713	Inferred	12,600	20,304	1.61	42.94	1,813.44	29.44	15.92	11.70	0.71
721-620	Inferred	187,103	278,334	1.49	29.21	2,487.05	33.44	24.74	12.61	0.81
721-711	Inferred	350,984	541,007	1.54	33.34	2,206.06	31.42	24.43	10.81	0.63
721-714	Inferred	993,239	1,391,464	1.40	21.24	2,822.57	37.28	27.10	14.38	0.86
722-711	Inferred	27,890	41,431	1.49	27.73	2,498.31	33.48	27.27	11.52	0.67
722-721	Inferred	6,891	9,980	1.45	25.89	2,647.90	35.20	27.65	11.25	0.72
723-721	Inferred	2,627,231	3,722,138	1.42	24.26	2,651.56	36.19	23.68	15.87	0.79
723-722	Inferred	2,860,463	3,970,565	1.39	20.70	2,825.76	37.07	24.98	17.25	0.78
	Indicated	1,421,565	2,071,918	1.46	28.66	2,432.36	33.73	17.85	19.76	0.57
724-722	Inferred	4,527,925	6,585,276	1.45	28.41	2,460.00	34.23	20.97	16.38	0.64
724-723	Inferred	3,116,189	4,248,050	1.36	18.40	2,908.33	38.49	26.48	16.63	0.85
731-724	Inferred	154,381	226,601	1.47	29.99	2,260.90	35.33	19.04	15.63	0.75

SEAM	CLASS	VOLUME	TONNES	RD	ASH %	CV KCAL/KG	TM %	VM %	FC %	S %
732-724	Inferred	498,821	710,764	1.42	25.06	2,489.02	36.81	20.18	17.95	0.76
	Indicated	3,242,403	4,528,845	1.40	22.28	2,597.54	38.29	17.18	22.23	0.45
732-731	Inferred	9,614,202	13,382,033	1.39	21.53	2,624.37	38.53	19.23	20.70	0.62
742-724	Inferred	386,604	549,379	1.42	25.48	2,429.75	37.80	22.34	14.37	0.99
742-731	Inferred	44,965	64,457	1.43	27.32	2,322.82	37.53	22.76	12.40	1.02
	Indicated	2,344,287	3,331,463	1.42	24.81	2,481.70	37.58	25.35	12.26	1.16
752-751	Inferred	3,549,862	5,195,495	1.46	28.70	2,337.83	35.64	22.89	12.77	1.09

10 Conclusions and recommendations

The Erds coal project occurs in a remote part of south-eastern Mongolia in the north-eastern part of the East Gobi Basin. It is nearby rail and power infrastructure with relatively close access to China.

All mineral tenure information is contained in APPENDIX 13, including 13045X, coordinates, issue date and expiration date.

The general Stratigraphy of the project consists of the early Cretaceous sediments of the Tsagantsav and Shinehudag Formations. Overlying these formations are the coal bearing sediments of the Middle Cretaceous Huhteeg and Barunbayan Formations.

The Huhteeg Formation in the project area contained very thick coal seams with the maximum thickness near the location of borehole ERD005.

The deposit style for the project is a rift basin, which coincides with the Jurassic–Cretaceous intracontinental rift evolution.

From the regional geology, the outline of the coal seam outcrop for the basin appears to form an east-west striking rift basin. This basin occurs in the top North-west corner of the license area. This basin has been subsequently gently folded in a north-south direction and may indicate the effects of late Cretaceous inversion tectonism. Within the project area, the bedding slopes on the South-eastern boundary indicate apparent dips from 1 to 4 degrees

Volcanic rocks were mapped and were shown in the local geology map. These rocks were referred to as Middle to Upper Jurassic volcanic rocks (J2-3) towards the south-east and Lower Cretaceous Tsagantsav Formation (K1cc) to the west and far north of the region. From all the drilling and mapping that was completed in the licence area (2007 to 2009) there have been no intersections of intrusives.

Boreholes drilled in the 2009 exploration program were partially cored from close to surface. All boreholes were geophysically logged and these logs were used to check coal depths and thickness.

Based on sections, coal seam continuity was interpreted. 9 major seam groups were identified and these groups were further subdivided into 60 plies.

The base of weathering was observed at depths between 12 to 28 metres.

The resource estimate will exclude weathered coal. In order to check the geologist field observations regarding which coal was potentially weathered, the coal quality parameters of the coal less than 50 metres in depth, was examined in detail. 3 coal samples show anomalous high volatile matter and/or very low calorific values in relation to its ash content. It is suggested that these 3 samples are affected by weathering as a result of an increase in clay minerals and bonded water content. However the effect is limited and it was the consideration of the Competent Person (as defined by the JORC guidelines) that there was no reason to make any further allowances in any of the boreholes for weathered coal.

The results of the analytical work, shows that the low rank Erds coal, can be classified as “Lignite A” according to the ASTM classification system, or a “Brown Coal” in the Australian classification system.

The test work to date established some broad characteristics of the coal and it would be suitable for mine mouth feedstock for a local coal fired power generation.

The geotechnical issues for this project need to be in line with a very large open-cut deposit.

The sediments overlying the coal appear from borehole observations to have weak rock strength. Also with such thick coal seams, coal strength will be important because with depth, coal will form part of the mining benches and bench highwalls.

The mining potential for this deposit is very good. There are very large coal seams that subcrop close to the surface. The strip ratio will be very low, with the coal quality suggesting a low rank thermal coal product.

The borehole collars were surveyed by Polo Resources LLC surveyors using a hand held GPS. Borehole collars were checked and the old 2007 co-ordinates were found to be suspect.

The coal logging and sampling was done onsite soon after coring, which minimised the potential for moisture loss.

The geological information that was collected, recorded, depth, lithology, colour and some qualifiers.

The available analytical data is limited to 178 analysed coal samples from 5 new boreholes and 43 analysed samples from 3 old boreholes. Analytical data comprises of total moisture, relative density, proximate composition, calorific value and sulphur content determinations.

From the 178 samples from the new boreholes, 158 samples were selected to prepare a 10kg composite sample for detail testing. Indications are that the coal is suitable for power generation with a favourable Hardgrove Index, but high sulphur (1.86%) and moderate ash fusion temperatures (1,150 to 1,300 degrees C).

A deposit of low rank coal (Lignite A or Brown Coal) has been identified by a number of cored boreholes. The level of confidence in the geological data is sufficient to estimate a Coal Resource according to the definitions and guidelines of the JORC Code. A conceptual or pre-feasibility study assessment of the project is recommended to determine the viability of producing coal from this project. The available geological information is sufficient for such an assessment. The available geological information does not suggest any resource characteristics that cannot be handled by conventional mining techniques. If the project is considered to be viable then further work to increase the confidence level in the resource estimates will be required as well as work to better define the geological, geotechnical and hydrological characteristics of the deposit. Specific recommendations based on recent experiences and the current state of the geological database regarding further work is:-

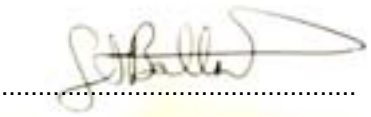
- That the borehole collar elevations are re-surveyed to clarify the discrepancy of the 2007 program.
- That a topographic survey using differential GPS or any other precise instrument is undertaken.
- Further core drilling and sampling will be required to reduce the borehole spacing to a level that is sufficient for the estimation of a Measured Resource.
- A detailed design and implementation of a seismic survey program to supplement the borehole information in defining the geological structure of the deposit.
- A detailed design and implementation of a geotechnical study to quantify and assess the geotechnical characteristics of the deposit. Future drilling programs must log the geotechnical state of all cores and do rock and coal strength testing for mine planning and high-wall designs.
- A detailed design and implementation of a hydrological study to quantify and assess the hydrological characteristics of the deposit.
- A detailed design and implementation of a coal quality test program to quantify and assess the spatial distribution of coal quality parameters such as ash fusion characteristics, combustion properties, spontaneous combustion, and the environmental chemistry of the coal and waste products.
- Further work is recommended to assess upgrading the quality of the coal product by de-watering and to assess possible uses in gas and petrochemical industries (Coal2Liquids).

11 Date and Signatures

October 2nd 2009:

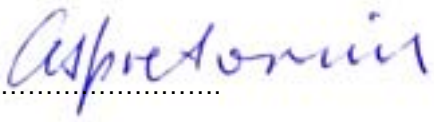
Signed by

Gary Ballantine
Coal competent person .....
GeoCheck Pty Ltd



Dean O'Keefe
Asia CEO .....
Micromine Pty Ltd

Andries Pretorious
Consultant .....
GeoCheck Pty Ltd



Denis Soloshenko
Consultant .....
Micromine Pty Ltd

David Allmark
Consultant.....
Micromine Pty Ltd

12 Statement of Qualifications

Mr. Gary Ballantine

The author of this report, Mr. Gary Ballantine, is employed as a senior consultant and coal expert for GeoCheck Pty Ltd. This is an Australian based company located at 24 Melaleuca Rd, Bundaberg, Qld, Australia 4670. Mr Ballantine has been a member of the "The Australian Institute of Mining and Metallurgy" since 1987 and has the following qualifications and relevant experience in the reporting of coal resources.

Graduated 1989 with "B Appl Sci" from "University of Southern Queensland" then 1990 with Graduate Diploma – Economic Geology from "James Cook University".

From 1990 to 2002 worked as a consultant on various exploration and mine sites projects in the Bowen Basin Australia on coking and thermal coal projects. Also has done work on coal bed methane and high wall mining projects.

From 2002 to 2005 worked as a coal specialist and consultant for Micromine Pty Ltd.

2005, was chief geologist for BHPB Mitsubishi Alliance's largest Bowen Basin mine, Blackwater, a producer of coking and thermal coal.

2006-2007 was Global Group Leader for BHPBilliton's coal specialist team.

2007 to present: Engaged by Micromine Pty Ltd as coal competent person for consulting and software development for coal. Formed GeoCheck consulting company, for general coal consulting.

13 References

1) Australasian Code for reporting of mineral resources and ore reserves (The JORC Code), 2004. *Minerals Council of Australia*. 16 p.

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4) Gilmer, A.K., Kent, R.J., Knight, B.D., Application of Geostatistical Methods in 3-D Modeling of Coal Resources, Buchanan County, Virginia

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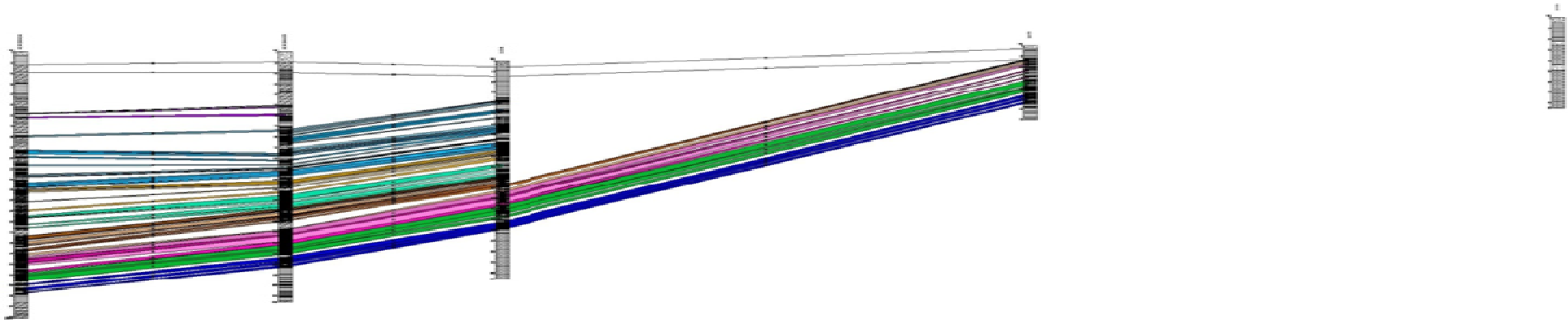
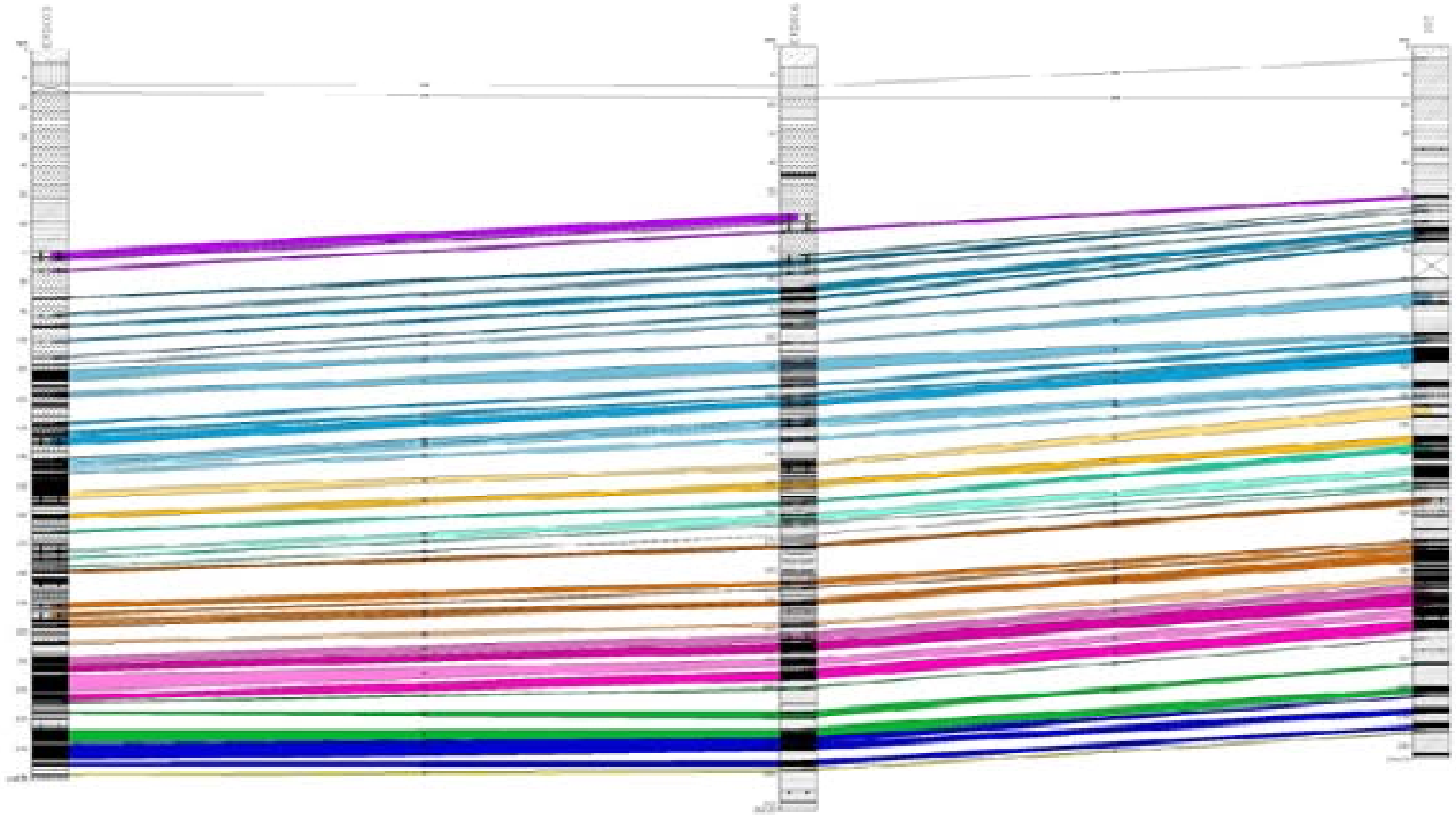
15 APPENDIX 1: Borehole Sections

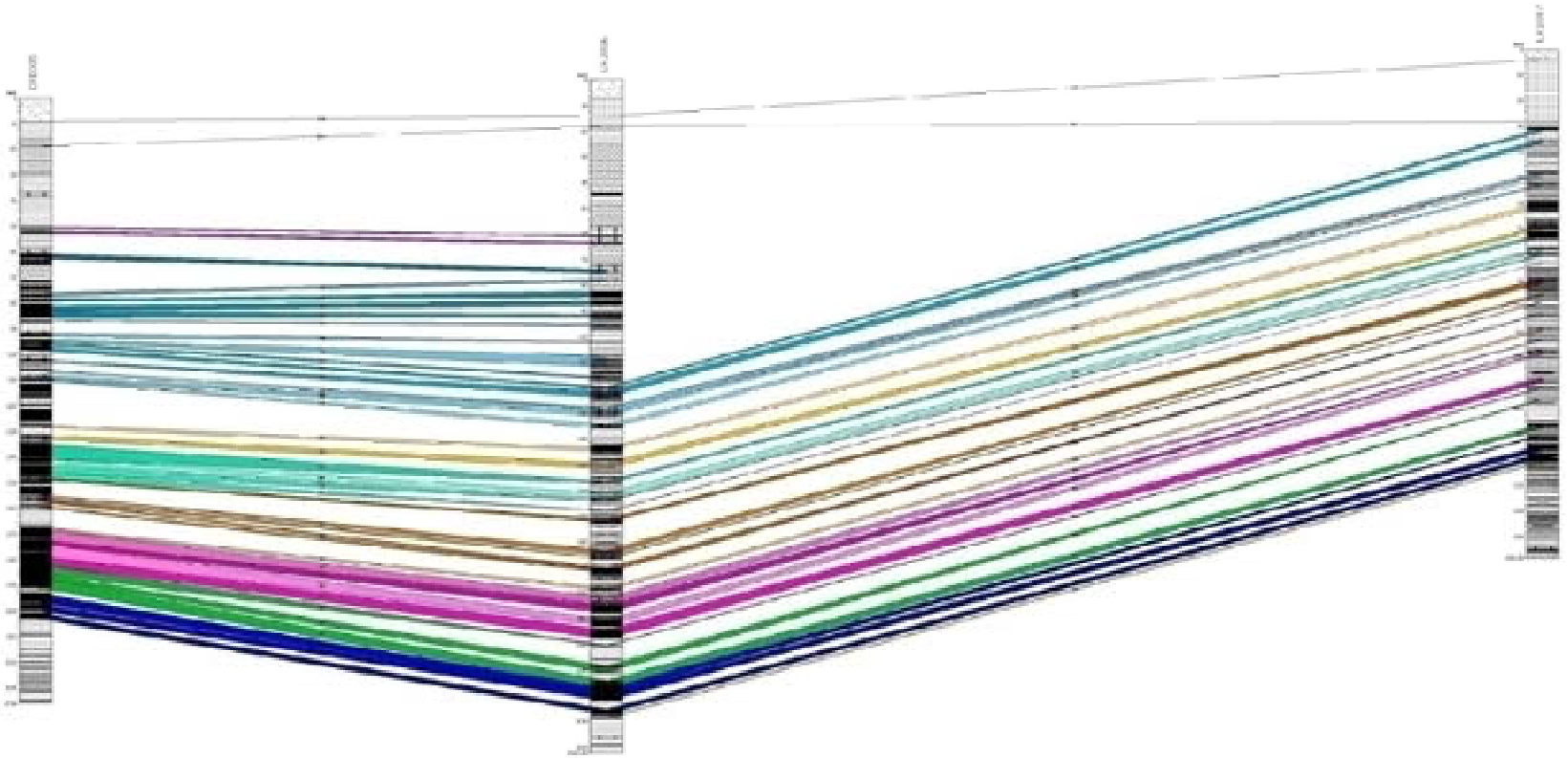
N-S Section 466200E, Vert 1: Horz 4 exaggeration



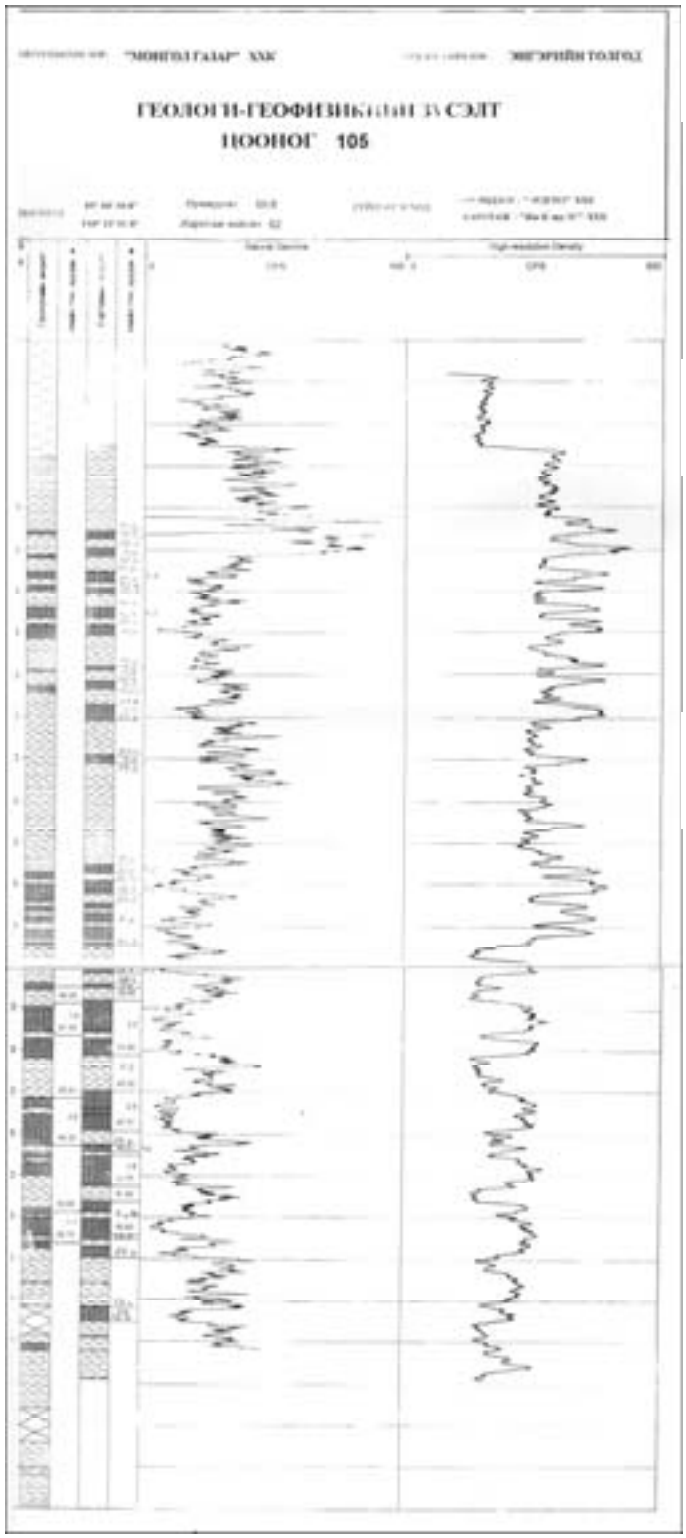
N-S Section 467200E, Vert 1 : Horz 4 exaggeration

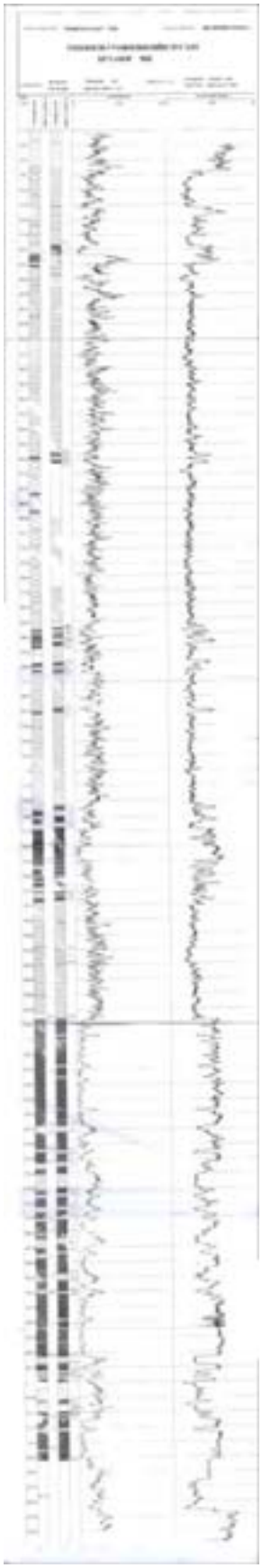


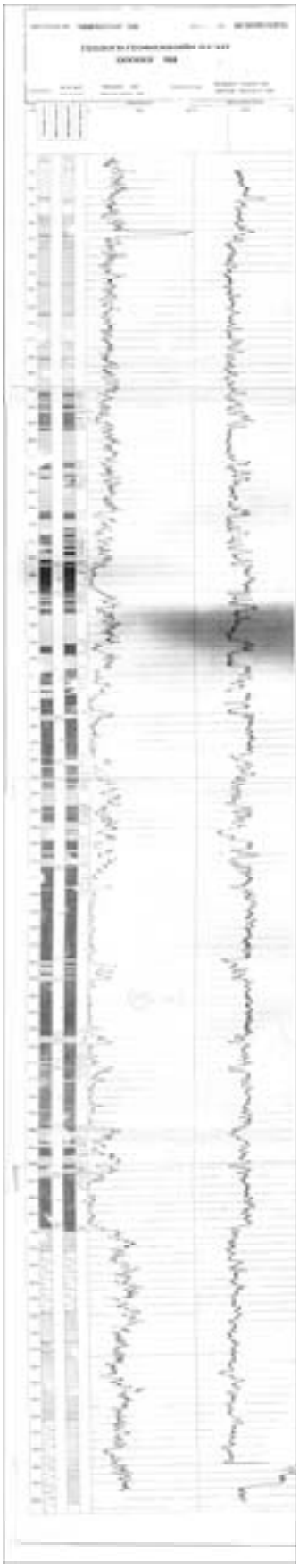
E-W Section through ERD5, ERD6 & ERD7, Vert 1 : Horz 4 exaggeration

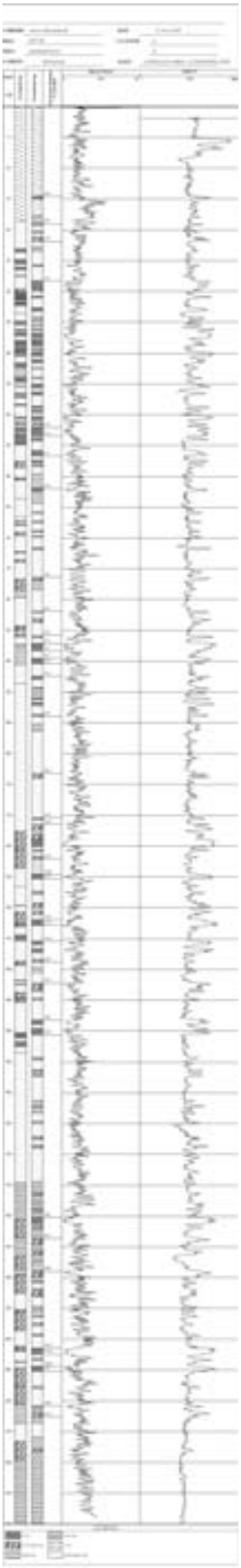


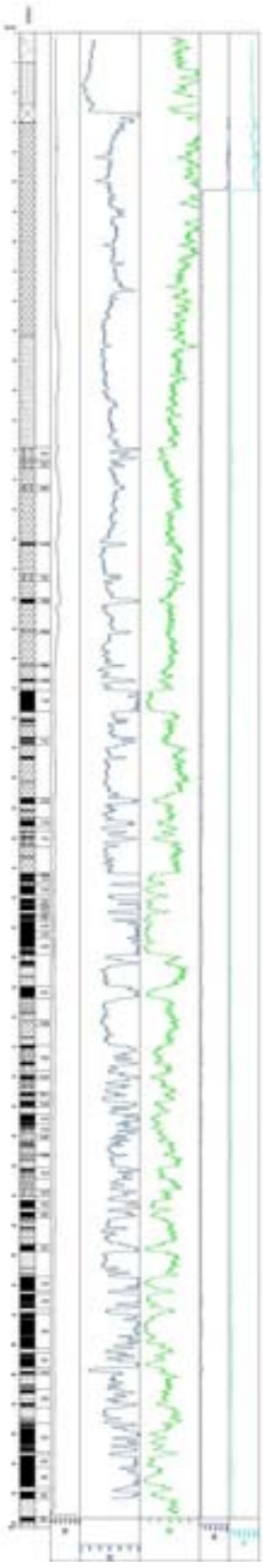
16 APPENDIX 2: Boreholes with Seams, Horizons and Downhole Geophysics

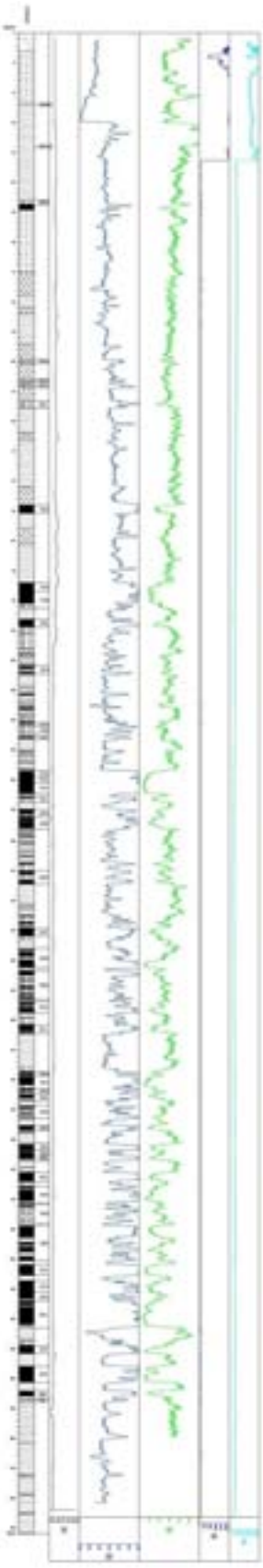


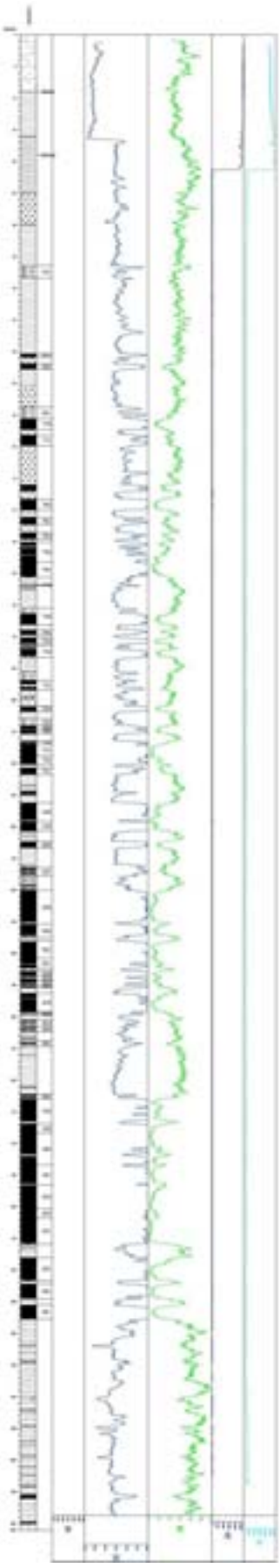


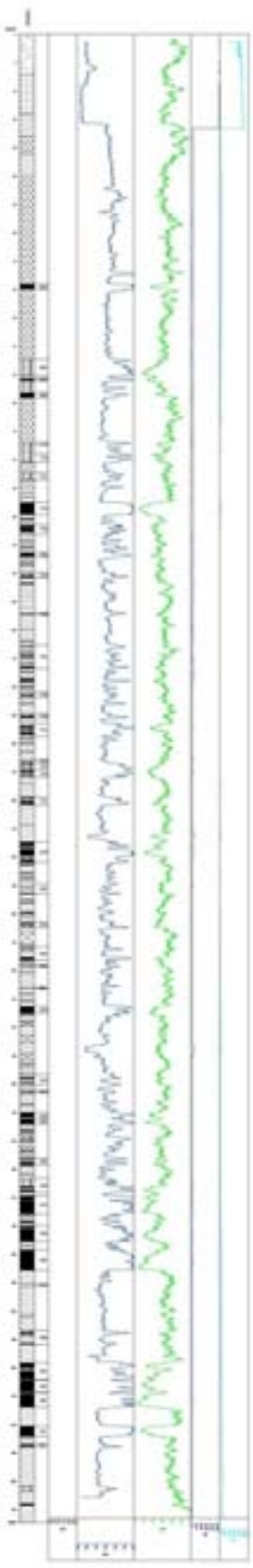


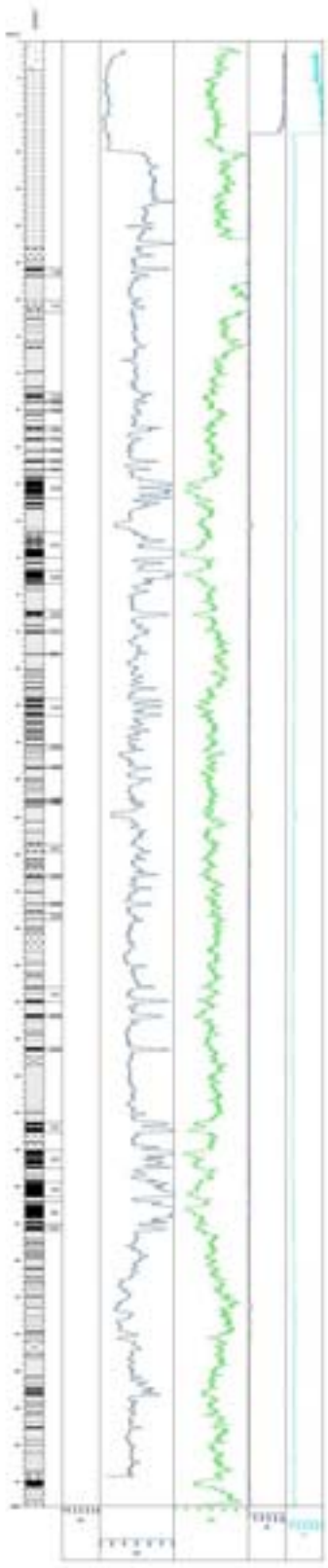












17 APPENDIX 3: Sampling Procedure

COAL SAMPLING STRATEGY FOR ERDS

RULES

Coal

If coal > 0.5 m, sample; if coal < 0.5 m, do not sample

If no partings > 0.1 m present, sample the entire run

If coal has many thin partings, sample the entire parted interval

Partings

If < 0.1 m, include in coal sample

If > 0.1 m and < 0.5 m, separate & sample entire parting

If > 0.5 m do not sample

Roof and Floor

Do not sample

SCHEMATIC DIAGRAM

		Upper roof / overburden - **no sample**
		Immediate Roof - **no sample**
> 0.5 m		Clean coal (> 0.5 m)
0.1 - 0.5 m		Medium parting (0.1 - 0.5 m)
> 0.5 m		Coal (> 0.5 m) with a few thin partings (< 0.1 m) - **include partings in coal sample**
		Immediate Floor - **no sample**
		Center of thick parting (> 0.5 m) - **no sample**

			Immediate Roof - **no sample**
	> 0.5 m		Clean coal (> 0.5 m)
			Coal (> 0.5 m) with many thin partings (< 0.1 m) - **include coal in partings sample**
	> 0.5 m		Clean coal (> 0.5 m)
			Immediate Floor - **no sample**
			Lower Floor - **no sample**

18 APPENDIX 4: Analytical Results from the New Boreholes

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD003	30001	108.50	108.95	39.63	25.92	14.29	39.97	19.82	2.48	4094	1.46
ERD003	30002	110.40	112.25	36.67	26.48	17.30	38.04	18.18	1.39	3860	1.45
ERD003	30003	112.25	113.90	39.48	27.48	16.51	43.65	12.36	1.14	3829	1.46
ERD003	30004	140.95	142.41	42.67	28.75	11.08	44.73	15.43	1.35	4191	1.37
ERD003	30005	142.41	142.97	24.78	10.14	65.61	12.62	11.63	0.65	1461	2.08
ERD003	30006	142.97	144.38	41.93	29.46	8.14	43.85	18.55	1.19	4356	1.39
ERD003	30007	145.08	145.89	41.79	27.65	9.26	46.62	16.46	1.15	4385	1.42
ERD003	30008	145.89	146.09	24.85	7.58	70.14	12.93	9.35	0.49	1228	2.11
ERD003	30009	146.09	147.15	41.00	26.20	10.26	40.51	23.03	1.31	4393	1.41
ERD003	30011	147.15	147.60	17.36	3.94	86.00	7.19	2.87	0.68	462	2.44
ERD003	30012	147.60	148.61	40.60	25.34	12.38	38.65	23.63	1.20	4243	1.49
ERD003	30013	148.61	148.81	15.93	3.59	48.94	37.10	10.37	0.25	1243	2.22

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD003	30014	148.81	150.82	38.22	27.22	15.09	36.85	20.83	1.12	3945	1.45
ERD003	30015	150.82	152.84	41.29	29.70	13.72	46.09	10.48	1.25	3979	1.43
ERD003	30016	152.84	153.29	37.42	26.99	13.37	37.79	21.84	1.03	4136	1.43
ERD003	30017	153.29	154.55	37.93	26.08	16.78	38.26	18.88	1.38	3967	1.49
ERD003	30018	159.99	160.94	38.37	25.09	22.19	26.07	26.65	0.69	3617	1.52
ERD003	30019	160.94	161.71	43.48	24.99	10.48	41.65	22.88	2.62	4576	1.43
ERD003	30021	172.56	173.06	41.29	17.83	22.60	34.06	25.50	0.63	4092	1.53
ERD003	30022	174.86	175.47	42.03	16.93	15.27	33.60	34.20	2.40	4783	1.52
ERD003	30023	179.17	180.08	35.85	17.90	34.01	20.79	27.29	0.78	3240	1.75
ERD003	30024	181.28	182.58	37.12	19.53	28.65	25.80	26.02	0.96	3555	1.67
ERD003	30025	182.58	182.78	30.69	7.27	61.69	16.13	14.92	0.66	1874	2.04
ERD003	30026	182.78	183.28	33.66	13.28	35.03	31.07	20.63	1.26	3188	1.72
ERD003	30027	183.28	183.69	31.75	9.13	60.51	15.91	14.45	0.52	1834	2.00
ERD003	30028	183.69	184.00	43.73	16.95	12.92	36.59	33.54	0.64	4817	1.47
ERD003	30029	184.00	184.79	32.67	11.79	49.91	18.01	20.30	0.38	2434	1.85
ERD003	30030	195.79	197.06	35.47	19.45	28.53	34.23	17.79	0.86	3522	1.54
ERD003	30031	197.72	198.69	38.80	17.69	25.44	42.28	14.58	1.73	3895	1.55
ERD003	30032	203.20	204.30	37.09	19.87	18.90	34.09	27.14	1.44	4227	1.50
ERD003	30033	208.60	209.60	40.93	21.90	10.64	43.02	24.44	0.70	4660	1.47
ERD003	30034	209.60	210.30	43.07	22.28	9.22	41.78	26.72	1.40	4774	1.47

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD003	30035	210.30	211.00	38.22	16.28	26.23	36.68	20.81	1.00	3916	1.56
ERD003	30036	211.50	212.20	43.25	26.56	7.29	45.64	20.51	1.21	4675	1.36
ERD003	30037	212.20	213.20	32.07	15.10	39.24	23.68	21.98	1.31	3036	1.71
ERD003	30038	213.20	213.85	38.50	18.73	18.29	32.24	30.73	1.79	4385	1.52
ERD003	30039	214.80	215.80	32.58	16.52	35.06	25.52	22.90	0.76	3210	1.61
ERD003	30040	215.80	216.80	41.15	25.52	8.99	37.91	27.57	1.35	4605	1.38
ERD003	30041	216.80	217.80	36.63	21.44	12.57	32.20	33.79	1.19	4621	1.44
ERD003	30042	217.80	218.80	32.42	17.95	24.04	31.21	26.80	0.75	4007	1.52
ERD003	30043	218.80	219.80	36.93	17.88	20.08	35.74	26.29	1.42	4328	1.53
ERD003	30044	219.80	220.65	32.84	15.05	33.63	28.47	22.85	2.14	3362	1.67
ERD003	30045	221.80	222.80	24.63	9.31	61.48	15.29	13.92	0.56	1841	1.94
ERD003	30046	222.80	223.80	38.97	22.52	14.35	39.62	23.52	1.47	4389	1.44
ERD003	30047	227.50	228.10	30.72	14.95	40.23	25.53	19.29	0.87	2974	1.67
ERD003	30048	233.20	234.40	29.82	14.17	50.06	25.82	9.94	0.88	2307	1.82
ERD003	30049	234.40	235.40	34.66	19.84	31.28	31.81	17.06	1.09	3262	1.56
ERD003	30050	235.40	236.40	31.28	14.42	46.63	25.41	13.54	0.63	2532	1.74
ERD003	30051	236.40	237.40	30.53	14.56	47.72	21.89	15.82	1.80	2445	1.79
ERD003	30052	237.40	238.00	37.70	21.00	24.32	35.33	19.34	1.11	3677	1.55
ERD003	30053	238.60	239.60	38.18	24.19	18.74	36.47	20.61	1.24	3893	1.45
ERD003	30054	239.60	240.60	38.49	23.93	19.14	37.15	19.78	1.69	3847	1.45

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD003	30055	240.60	241.55	33.20	19.73	33.93	31.29	15.05	1.53	3038	1.63
ERD003	30056	241.55	242.65	37.16	21.25	18.87	35.49	24.39	3.67	4050	1.49
ERD003	30057	242.65	243.90	35.39	21.68	21.07	32.68	24.57	1.67	3935	1.47
ERD003	30058	244.70	245.90	35.67	23.05	27.42	34.91	14.62	1.14	3299	1.54
ERD003	30059	248.95	249.70	32.83	18.41	24.35	31.92	25.33	1.51	3886	1.46
ERD004	14301	123.50	125.45	42.95	26.10	12.08	41.16	20.66	1.59	4281	1.43
ERD004	14302	125.45	127.25	44.35	28.15	7.84	47.89	16.13	0.93	4449	1.39
ERD004	14303	129.95	130.46	41.55	19.89	21.67	29.35	29.10	0.79	3969	1.54
ERD004	14304	131.80	132.82	38.86	21.01	27.35	36.65	14.99	1.74	3457	1.61
ERD004	14305	141.58	142.20	34.69	16.07	38.64	20.45	24.84	1.84	2961	1.69
ERD004	14306	149.60	150.95	39.56	22.71	29.13	32.58	15.57	3.56	3195	1.61
ERD004	14307	153.75	154.35	30.61	13.45	47.87	16.62	22.06	1.07	2391	1.79
ERD004	14308	154.95	156.25	44.54	24.63	12.13	34.69	28.55	2.84	4442	1.43
ERD004	14309	156.75	157.45	42.16	21.36	18.91	34.50	25.24	0.52	4090	1.47
ERD004	14311	162.85	163.75	40.43	20.76	16.19	30.27	32.78	2.08	4399	1.47
ERD004	14312	165.85	166.90	43.35	26.74	16.78	38.46	18.02	1.15	3835	1.47
ERD004	14313	173.65	174.15	41.44	20.69	11.97	27.69	39.65	1.16	4692	1.45
ERD004	14314	174.15	174.35	23.89	6.17	70.83	12.18	10.82	0.17	1200	2.20
ERD004	14315	174.35	175.85	38.44	20.90	20.82	27.83	30.45	1.05	4073	1.52
ERD004	14316	175.85	176.45	23.35	5.64	72.35	11.73	10.27	1.31	1336	2.15

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD004	14317	176.45	176.85	42.21	20.16	14.01	40.77	25.07	1.67	4589	1.45
ERD004	14318	176.85	177.35	31.92	13.27	48.56	17.73	20.44	0.94	2451	1.84
ERD004	14319	177.35	178.05	41.40	23.47	9.38	41.40	25.75	1.22	4702	1.42
ERD004	14321	182.65	183.50	38.50	20.32	20.32	33.99	25.37	0.93	4116	1.49
ERD004	14322	185.60	187.00	35.91	16.62	32.39	23.00	28.00	1.37	3483	1.64
ERD004	14323	187.00	188.50	27.68	11.98	40.62	29.30	18.11	0.96	2559	1.79
ERD004	14324	190.50	192.00	38.44	19.14	27.73	30.68	22.45	1.20	3647	1.56
ERD004	14325	193.45	195.30	38.32	20.15	24.53	31.96	23.36	0.96	3829	1.54
ERD004	14326	199.40	201.25	39.05	24.26	17.73	34.03	23.98	1.57	4028	1.49
ERD004	14327	203.00	203.80	36.64	21.87	18.10	37.59	22.45	1.54	4128	1.47
ERD004	14328	205.90	207.75	39.90	25.64	11.29	36.64	26.43	1.85	4391	1.39
ERD004	14329	208.60	210.50	35.79	22.20	23.19	32.27	22.35	1.21	3699	1.49
ERD004	14331	210.50	212.50	29.97	16.33	46.14	22.92	14.61	0.88	2406	1.80
ERD004	14332	212.50	214.30	38.75	25.44	11.94	37.63	24.99	2.55	4343	1.43
ERD004	14333	214.30	216.50	39.37	27.34	9.02	35.28	28.35	2.36	4428	1.39
ERD004	14334	219.40	220.80	35.63	22.90	21.27	32.77	23.06	1.28	3850	1.46
ERD004	14335	222.90	224.10	37.85	23.34	17.61	34.87	24.19	1.18	4061	1.47
ERD004	14336	224.10	225.60	33.31	19.38	25.71	31.08	23.82	1.80	3732	1.54
ERD004	14337	227.10	228.00	30.64	23.23	15.71	33.36	27.69	2.15	4265	1.43
ERD005	14338	80.95	83.10	36.41	18.19	36.81	30.91	14.09	1.43	2926	1.64

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD005	14339	83.10	84.40	41.24	22.94	21.36	38.88	16.82	1.50	3743	1.49
ERD005	14341	84.40	85.60	40.81	20.66	21.01	39.17	19.16	1.93	3923	1.56
ERD005	14342	91.40	93.10	43.83	23.98	20.61	36.89	18.53	1.90	3751	1.49
ERD005	14343	94.70	95.20	33.83	13.62	47.18	19.41	19.79	1.16	2573	1.75
ERD005	14344	96.10	96.45	24.15	6.58	72.12	12.28	9.02	1.15	1246	2.17
ERD005	14345	96.95	98.30	38.27	17.94	25.77	37.12	19.17	1.80	3587	1.54
ERD005	14346	101.90	102.50	38.02	19.39	33.32	34.00	13.29	1.70	3080	1.64
ERD005	14347	106.00	106.80	39.18	17.01	32.70	25.90	24.39	1.65	3360	1.68
ERD005	14348	109.00	109.50	41.27	18.10	19.43	34.62	27.86	1.99	4210	1.52
ERD005	14349	109.50	109.65	28.46	5.22	66.19	15.55	13.04	0.96	1577	2.08
ERD005	14351	109.65	110.20	42.15	20.03	16.44	35.26	28.27	1.52	4415	1.49
ERD005	14352	111.50	111.80	42.78	15.66	12.34	31.39	40.61	1.53	5029	1.45
ERD005	14353	111.80	112.00	28.97	7.17	61.31	17.28	14.25	1.07	1895	2.00
ERD005	14354	112.00	114.00	42.04	23.53	11.55	32.03	32.89	2.07	4539	1.47
ERD005	14355	114.00	115.15	38.11	16.31	28.85	24.17	30.67	1.47	3727	1.61
ERD005	14356	115.15	115.65	18.01	2.32	89.30	6.85	1.53	0.49	269	2.44
ERD005	14357	115.65	116.75	34.61	14.68	29.84	33.00	22.48	2.37	3483	1.67
ERD005	14358	121.20	123.20	39.22	18.62	20.15	28.10	33.13	2.04	4179	1.52
ERD005	14359	123.20	123.95	39.54	21.24	16.27	35.18	27.31	1.71	4281	1.47
ERD005	14361	123.95	124.15	12.59	3.99	53.41	32.16	10.44	0.61	2907	2.17

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD005	14362	124.15	125.65	39.61	24.02	15.36	39.46	21.16	2.04	4168	1.45
ERD005	14363	127.35	128.30	38.36	19.41	18.37	31.13	31.09	3.01	4176	1.49
ERD005	14364	135.10	137.10	39.96	22.00	15.63	29.35	33.03	1.15	4258	1.49
ERD005	14365	137.10	139.10	40.92	26.75	9.48	28.83	34.94	1.20	4412	1.39
ERD005	14366	139.10	140.10	38.90	19.87	16.05	29.77	34.31	1.84	4335	1.48
ERD005	14367	140.10	140.40	19.27	5.28	79.97	9.44	5.31	0.83	715	2.33
ERD005	14368	140.40	142.15	38.93	20.62	17.12	28.27	33.99	1.51	4270	1.50
ERD005	14369	143.10	145.10	40.17	22.02	11.67	31.51	34.81	1.17	4578	1.43
ERD005	14371	145.10	147.35	38.75	20.10	19.99	30.40	29.51	1.73	4057	1.53
ERD005	14372	147.35	147.80	22.78	5.22	77.19	11.53	6.06	0.56	821	2.27
ERD005	14373	147.80	148.65	43.93	19.79	9.37	35.31	35.53	1.44	4982	1.43
ERD005	14374	148.65	148.90	23.62	4.94	73.37	13.12	8.57	0.61	768	2.17
ERD005	14375	148.90	149.70	42.94	20.14	11.21	35.64	33.01	2.34	4780	1.45
ERD005	14376	149.70	150.00	27.18	5.51	62.44	16.91	15.15	0.73	1822	2.04
ERD005	14377	150.00	150.40	44.42	17.00	13.27	29.96	39.77	3.60	4886	1.43
ERD005	14378	151.30	152.00	38.71	18.18	24.52	36.44	20.86	1.68	3737	1.56
ERD005	14379	152.00	152.20	31.01	5.94	56.01	19.82	18.23	0.57	2260	1.89
ERD005	14381	152.20	154.20	41.22	19.44	13.15	42.64	24.77	1.67	4325	1.42
ERD005	14382	167.25	169.40	35.59	19.51	31.85	26.87	21.77	0.82	3296	1.61
ERD005	14383	169.40	171.40	36.10	15.91	28.89	29.23	25.98	0.94	3510	1.56

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD005	14384	171.40	173.40	32.19	13.10	42.78	21.61	22.50	1.10	2749	1.72
ERD005	14385	173.40	175.40	42.38	22.21	7.68	41.69	28.41	1.23	4610	1.39
ERD005	14386	175.40	177.40	34.72	16.92	33.14	28.19	21.75	1.05	3151	1.59
ERD005	14387	177.40	179.35	34.89	16.29	28.33	34.46	20.91	0.98	3482	1.56
ERD005	14388	179.35	181.35	41.35	26.36	8.12	38.54	26.98	1.02	4502	1.37
ERD005	14389	181.35	183.25	36.73	21.30	26.93	32.72	19.05	1.10	3472	1.54
ERD005	14391	183.25	185.25	41.42	26.56	7.95	38.82	26.67	0.82	4495	1.38
ERD005	14392	185.25	187.25	40.17	25.52	11.29	37.02	26.18	1.11	4316	1.39
ERD005	14393	187.25	189.25	40.77	25.54	9.21	37.93	27.32	1.98	4479	1.46
ERD005	14394	189.25	190.90	38.87	24.23	12.89	35.83	27.05	1.13	4328	1.43
ERD005	14395	193.00	194.95	38.59	24.40	18.52	39.56	17.51	1.36	3837	1.52
ERD005	14396	194.95	196.60	39.22	26.35	12.31	35.15	26.19	2.40	4226	1.43
ERD005	14397	197.20	199.50	35.81	20.44	20.79	33.08	25.68	1.23	4091	1.49
ERD005	14398	200.50	202.70	40.85	25.29	9.63	37.55	27.53	1.09	4499	1.39
ERD006	14399	82.50	84.60	39.14	23.34	14.72	41.42	20.52	1.65	4240	1.44
ERD006	14401	86.40	87.60	30.51	12.36	53.63	17.83	16.18	1.75	2083	2.00
ERD006	14402	91.40	92.10	34.30	16.51	33.65	26.26	23.58	1.09	3301	1.63
ERD006	14403	143.65	144.75	36.20	19.76	23.36	30.61	26.27	1.15	3875	1.56
ERD006	14404	171.25	172.50	36.53	13.64	38.17	22.32	25.86	0.96	3196	1.69
ERD006	14405	190.00	190.80	37.00	16.00	29.25	26.42	28.33	1.22	3737	1.60

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD006	14406	190.80	191.10	20.52	3.53	83.68	9.90	2.89	0.08	564	2.47
ERD006	14407	191.10	192.00	34.45	15.25	33.27	23.80	27.69	3.53	3434	1.67
ERD006	14408	204.70	206.70	33.59	16.98	31.77	26.54	24.71	1.55	3453	1.60
ERD006	14409	206.70	207.80	34.52	20.72	24.46	33.83	20.99	1.10	3688	1.52
ERD006	14411	210.45	212.70	32.97	18.45	35.21	25.71	20.63	1.46	3043	1.64
ERD006	14412	214.20	216.20	34.32	21.37	28.40	32.63	17.60	2.02	3334	1.54
ERD006	14413	216.20	217.80	37.06	22.00	16.51	37.65	23.85	2.47	4170	1.48
ERD006	14414	234.10	235.00	36.15	20.72	24.27	30.69	24.32	2.06	3668	1.52
ERD006	14415	235.00	235.50	24.25	8.64	71.25	13.00	7.11	0.64	972	2.17
ERD006	14416	235.50	236.13	26.73	10.17	56.24	17.59	15.99	3.28	1991	2.02
ERD006	14417	236.13	237.00	36.99	21.33	21.09	36.01	21.57	1.95	3854	1.55
ERD006	14418	237.00	237.15	18.04	3.05	80.94	11.42	4.58	5.97	898	2.50
ERD006	14419	237.15	239.20	36.51	22.23	20.72	36.20	20.85	1.52	3849	1.54
ERD006	14421	239.20	239.50	19.62	4.15	81.23	11.06	3.56	0.19	582	2.47
ERD006	14422	239.50	241.90	35.39	19.87	20.37	35.29	24.47	0.90	4086	1.49
ERD006	14423	245.25	247.05	37.28	19.64	17.37	35.85	27.15	1.49	4313	1.47
ERD007	14424	59.80	60.40	37.78	17.48	21.78	37.06	23.68	1.30	4163	1.54
ERD007	14425	60.40	60.60	17.36	1.49	90.10	6.85	1.56	0.04	355	2.56
ERD007	14426	60.60	61.35	37.00	19.03	22.38	35.34	23.25	1.56	3906	1.52
ERD007	14427	68.85	69.95	40.31	23.45	12.75	42.88	20.92	1.32	4355	1.43

Analytical results from the new boreholes.											
Note the air dry basis (ad) of the results.											
Depths corrected to match geophysics											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density (ad)**
		From	**To**								
ERD007	14428	71.75	72.85	37.51	22.54	19.53	38.25	19.68	1.09	3863	1.49
ERD007	14429	150.10	150.80	39.41	19.33	13.17	35.68	31.81	3.45	4742	1.52
ERD007	14431	154.40	156.40	32.10	15.94	30.69	27.53	25.84	1.08	3580	1.59
ERD007	14432	157.55	159.25	30.96	17.03	29.74	27.13	26.09	2.19	3586	1.59
ERD007	14433	160.45	160.95	30.62	15.25	39.33	28.40	17.03	0.90	2951	1.69
ERD007	14434	194.80	195.65	35.71	19.62	21.43	34.19	24.76	5.54	4018	1.59

19 APPENDIX 5: Analytical Results from the Old Boreholes

Analytical results from the old boreholes.											
Note the air dry basis (ad) of the results.											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density**
		From	**To**								
102	1	103.60	106.35	35.80	7.00	26.00	26.67	40.33	0.60	4438	
102	2	106.35	108.40	32.10	5.60	37.00	24.40	33.01	0.57	3795	
102	3	114.40	117.00	29.90	5.30	33.60	26.82	34.28	0.71	3953	
102	4	133.60	136.00	30.50	5.90	17.00	29.38	47.72	0.57	5015	
102	5	136.60	138.80	22.70	4.60	43.40	21.22	30.78	0.35	3246	
102	6	144.30	146.50	33.40	6.80	16.60	31.41	45.19	0.67	4959	
102	7	172.90	175.00	35.80	6.20	14.60	32.08	47.12	0.69	5266	
102	8	175.00	176.50	31.80	5.50	14.60	33.96	45.94	0.49	5241	
102	9	181.60	183.70	33.60	6.80	26.70	29.99	36.51	0.55	4394	
102	10	193.30	195.60	32.20	9.10	24.30	30.57	36.03	0.65	4435	
102	11	196.90	199.00	30.20	8.30	32.10	27.71	31.89	0.94	3883	
102	12	199.00	200.60	31.50	6.90	15.80	35.09	42.21	2.50	5124	
102	13	219.70	221.90	33.80	6.80	11.50	35.13	46.57	1.27	5531	
102	14	226.80	229.00	31.40	7.20	19.80	30.66	42.34	3.62	4940	

Analytical results from the old boreholes.											
Note the air dry basis (ad) of the results.											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density**
		From	**To**								
104	1	62.00	63.00	32.80	7.80	32.20	29.10	30.90	0.86	3861	
104	2	64.00	65.40	33.30	7.60	25.90	32.98	33.52	1.14	4319	
104	3	77.00	77.80	35.80	7.80	16.20	31.08	44.92	1.70	5079	
104	4	84.20	86.00	35.50	8.50	10.60	35.03	45.87	1.92	5437	
104	5	87.00	88.00	34.70	8.30	16.70	34.13	40.88	1.51	5068	
104	6	88.40	90.00	35.10	8.40	10.40	34.43	46.77	1.92	5551	
104	7	106.20	109.00	36.20	9.50	11.50	30.26	48.74	1.34	5353	
104	8	109.30	112.00	35.50	8.60	16.50	31.08	43.82	2.57	5080	
104	9	113.00	114.00	35.00	9.10	10.80	29.88	50.22	0.91	5400	
104	10	115.00	116.00	37.00	8.00	11.70	34.61	45.69	1.64	5540	
104	11	117.00	118.00	36.80	8.00	9.20	34.28	48.52	0.78	5677	
104	12	118.00	119.70	38.50	6.90	7.70	33.56	51.84	1.25	5925	
104	13	124.00	125.00	39.80	7.50	11.30	31.99	49.21	1.17	5676	
104	14	126.00	127.00	38.10	6.20	10.40	33.61	49.79	1.54	5812	
104	15	128.00	129.00	38.20	7.70	11.30	33.13	47.87	1.46	5275	
104	16	130.00	131.00	35.70	5.80	19.40	32.69	42.11	1.05	4851	
104	17	133.00	134.80	32.40	6.50	22.60	32.12	38.78	0.80	4704	
104	18	137.00	138.00	32.90	6.00	39.30	25.49	29.21	0.61	3481	
104	19	139.00	140.00	37.30	7.00	15.60	35.68	41.72	1.27	5068	
104	20	141.00	142.00	33.10	7.90	24.50	28.59	39.01	1.70	4669	

Analytical results from the old boreholes.											
Note the air dry basis (ad) of the results.											
Borehole Number	**Sample Number**	**Depth (m)**		**Total Moisture (%)**	**Moisture (% ad)**	**Ash (% ad)**	**Volatile Matter (% ad)**	**Fixed Carbon (% ad)**	**Sulphur (% ad)**	**Calorific Value (cal/g ad)**	**Relative Density**
		From	**To**								
104	21	142.20	143.20	37.60	6.60	17.80	33.57	42.03	2.62	5096	
104	22	143.40	144.00	35.80	8.70	13.30	37.52	40.48	1.90	5167	
104	23	152.10	154.00	36.70	8.10	11.90	37.68	42.32	2.44	5323	
104	24	154.00	156.00	37.30	6.60	13.40	34.88	45.12	2.96	5301	
104	25	156.00	158.00	37.60	7.80	11.80	36.10	44.30	1.55	5342	
104	26	158.00	159.40	36.70	7.90	9.10	36.02	46.98	1.34	5513	
105	3	40.00	41.40	32.00	6.00	13.20	34.82	45.98	0.67	5203	
105	2	45.00	47.30	24.30	6.10	22.20	31.91	39.79	1.85	4653	
105	1	52.60	53.80	31.20	7.80	11.10	34.71	46.39	1.07	5256	

20 Appendix 6: Combined Analytical Results from Old and New Boreholes

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.											
Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
102	1	103.60	106.35	40.80	21.07	22.07	22.63	34.23	0.51	3767	1.53
102	2	106.35	108.40	37.10	17.22	32.44	21.39	28.94	0.50	3328	1.64
102	3	114.40	117.00	34.90	15.55	29.96	23.92	30.57	0.63	3525	1.61
102	4	133.60	136.00	35.50	16.52	15.08	26.06	42.34	0.51	4449	1.46
102	5	136.60	138.80	27.70	10.77	40.59	19.84	28.79	0.33	3036	1.72
102	6	144.30	146.50	38.40	19.26	14.38	27.21	39.15	0.58	4296	1.45
102	7	172.90	175.00	40.80	20.27	12.41	27.27	40.06	0.59	4476	1.43
102	8	175.00	176.50	36.80	16.93	12.83	29.85	40.38	0.43	4607	1.43
102	9	181.60	183.70	38.60	19.40	23.09	25.94	31.57	0.48	3800	1.54
102	10	193.30	195.60	37.20	20.79	21.18	26.64	31.40	0.57	3865	1.52
102	11	196.90	199.00	35.20	18.73	28.45	24.56	28.26	0.83	3441	1.60
102	12	199.00	200.60	36.50	18.14	13.89	30.86	37.11	2.20	4505	1.44
102	13	219.70	221.90	38.80	19.53	9.93	30.33	40.21	1.09	4776	1.40
102	14	226.80	229.00	36.40	18.38	17.41	26.97	37.24	3.18	4345	1.48

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
104	1	62.00	63.00	37.80	19.87	27.98	25.29	26.85	0.75	3355	1.59
104	2	64.00	65.40	38.30	20.00	22.42	28.56	29.02	0.99	3739	1.53
104	3	77.00	77.80	40.80	21.87	13.73	26.34	38.06	1.44	4304	1.44
104	4	84.20	86.00	40.50	22.36	8.99	29.72	38.92	1.63	4613	1.39
104	5	87.00	88.00	39.70	21.62	14.27	29.17	34.94	1.29	4332	1.45
104	6	88.40	90.00	40.10	21.99	8.86	29.32	39.83	1.63	4727	1.39
104	7	106.20	109.00	41.20	23.84	9.68	25.46	41.02	1.13	4505	1.40
104	8	109.30	112.00	40.50	22.46	14.00	26.37	37.17	2.18	4309	1.45
104	9	113.00	114.00	40.00	22.63	9.19	25.43	42.75	0.78	4596	1.39
104	10	115.00	116.00	42.00	22.90	9.81	29.01	38.29	1.37	4643	1.40
104	11	117.00	118.00	41.80	22.76	7.72	28.78	40.74	0.65	4766	1.38
104	12	118.00	119.70	43.50	22.85	6.38	27.81	42.96	1.03	4910	1.37
104	13	124.00	125.00	44.80	24.39	9.24	26.15	40.22	0.96	4640	1.40
104	14	126.00	127.00	43.10	21.87	8.66	28.00	41.47	1.29	4841	1.39
104	15	128.00	129.00	43.20	23.44	9.37	27.48	39.71	1.21	4376	1.40
104	16	130.00	131.00	40.70	19.80	16.52	27.83	35.85	0.90	4130	1.47
104	17	133.00	134.80	37.40	18.32	19.74	28.06	33.88	0.70	4110	1.51
104	18	137.00	138.00	37.90	18.14	34.22	22.20	25.44	0.53	3031	1.66

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
104	19	139.00	140.00	42.30	22.10	13.07	29.89	34.94	1.06	4245	1.44
104	20	141.00	142.00	38.10	20.17	21.24	24.79	33.81	1.48	4047	1.52
104	21	142.20	143.20	42.60	21.91	14.88	28.06	35.14	2.19	4260	1.45
104	22	143.40	144.00	40.80	22.77	11.25	31.74	34.24	1.61	4371	1.42
104	23	152.10	154.00	41.70	22.79	10.00	31.66	35.56	2.05	4472	1.40
104	24	154.00	156.00	42.30	21.70	11.23	29.24	37.82	2.48	4444	1.42
104	25	156.00	158.00	42.60	23.11	9.84	30.10	36.94	1.29	4455	1.40
104	26	158.00	159.40	41.70	22.59	7.65	30.28	39.49	1.13	4634	1.38
105	3	40.00	41.40	37.00	17.56	11.58	30.54	40.32	0.59	4563	1.42
105	2	45.00	47.30	29.30	13.12	20.54	29.52	36.82	1.71	4305	1.51
105	1	52.60	53.80	36.20	18.85	9.77	30.55	40.83	0.94	4626	1.40
ERD003	30001	108.50	108.95	39.63	25.92	14.29	39.97	19.82	2.48	4094	1.46
ERD003	30002	110.40	112.25	36.67	26.48	17.30	38.04	18.18	1.39	3860	1.45
ERD003	30003	112.25	113.90	39.48	27.48	16.51	43.65	12.36	1.14	3829	1.46
ERD003	30004	140.95	142.41	42.67	28.75	11.08	44.73	15.43	1.35	4191	1.37
ERD003	30005	142.41	142.97	24.78	10.14	65.61	12.62	11.63	0.65	1461	2.08
ERD003	30006	142.97	144.38	41.93	29.46	8.14	43.85	18.55	1.19	4356	1.39
ERD003	30007	145.08	145.89	41.79	27.65	9.26	46.62	16.46	1.15	4385	1.42

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD003	30008	145.89	146.09	24.85	7.58	70.14	12.93	9.35	0.49	1228	2.11
ERD003	30009	146.09	147.15	41.00	26.20	10.26	40.51	23.03	1.31	4393	1.41
ERD003	30011	147.15	147.60	17.36	3.94	86.00	7.19	2.87	0.68	462	2.44
ERD003	30012	147.60	148.61	40.60	25.34	12.38	38.65	23.63	1.20	4243	1.49
ERD003	30013	148.61	148.81	15.93	3.59	48.94	37.10	10.37	0.25	1243	2.22
ERD003	30014	148.81	150.82	38.22	27.22	15.09	36.85	20.83	1.12	3945	1.45
ERD003	30015	150.82	152.84	41.29	29.70	13.72	46.09	10.48	1.25	3979	1.43
ERD003	30016	152.84	153.29	37.42	26.99	13.37	37.79	21.84	1.03	4136	1.43
ERD003	30017	153.29	154.55	37.93	26.08	16.78	38.26	18.88	1.38	3967	1.49
ERD003	30018	159.99	160.94	38.37	25.09	22.19	26.07	26.65	0.69	3617	1.52
ERD003	30019	160.94	161.71	43.48	24.99	10.48	41.65	22.88	2.62	4576	1.43
ERD003	30021	172.56	173.06	41.29	17.83	22.60	34.06	25.50	0.63	4092	1.53
ERD003	30022	174.86	175.47	42.03	16.93	15.27	33.60	34.20	2.40	4783	1.52
ERD003	30023	179.17	180.08	35.85	17.90	34.01	20.79	27.29	0.78	3240	1.75
ERD003	30024	181.28	182.58	37.12	19.53	28.65	25.80	26.02	0.96	3555	1.67
ERD003	30025	182.58	182.78	30.69	7.27	61.69	16.13	14.92	0.66	1874	2.04
ERD003	30026	182.78	183.28	33.66	13.28	35.03	31.07	20.63	1.26	3188	1.72
ERD003	30027	183.28	183.69	31.75	9.13	60.51	15.91	14.45	0.52	1834	2.00

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD003	30028	183.69	184.00	43.73	16.95	12.92	36.59	33.54	0.64	4817	1.47
ERD003	30029	184.00	184.79	32.67	11.79	49.91	18.01	20.30	0.38	2434	1.85
ERD003	30030	195.79	197.06	35.47	19.45	28.53	34.23	17.79	0.86	3522	1.54
ERD003	30031	197.72	198.69	38.80	17.69	25.44	42.28	14.58	1.73	3895	1.55
ERD003	30032	203.20	204.30	37.09	19.87	18.90	34.09	27.14	1.44	4227	1.50
ERD003	30033	208.60	209.60	40.93	21.90	10.64	43.02	24.44	0.70	4660	1.47
ERD003	30034	209.60	210.30	43.07	22.28	9.22	41.78	26.72	1.40	4774	1.47
ERD003	30035	210.30	211.00	38.22	16.28	26.23	36.68	20.81	1.00	3916	1.56
ERD003	30036	211.50	212.20	43.25	26.56	7.29	45.64	20.51	1.21	4675	1.36
ERD003	30037	212.20	213.20	32.07	15.10	39.24	23.68	21.98	1.31	3036	1.71
ERD003	30038	213.20	213.85	38.50	18.73	18.29	32.24	30.73	1.79	4385	1.52
ERD003	30039	214.80	215.80	32.58	16.52	35.06	25.52	22.90	0.76	3210	1.61
ERD003	30040	215.80	216.80	41.15	25.52	8.99	37.91	27.57	1.35	4605	1.38
ERD003	30041	216.80	217.80	36.63	21.44	12.57	32.20	33.79	1.19	4621	1.44
ERD003	30042	217.80	218.80	32.42	17.95	24.04	31.21	26.80	0.75	4007	1.52
ERD003	30043	218.80	219.80	36.93	17.88	20.08	35.74	26.29	1.42	4328	1.53
ERD003	30044	219.80	220.65	32.84	15.05	33.63	28.47	22.85	2.14	3362	1.67
ERD003	30045	221.80	222.80	24.63	9.31	61.48	15.29	13.92	0.56	1841	1.94

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD003	30046	222.80	223.80	38.97	22.52	14.35	39.62	23.52	1.47	4389	1.44
ERD003	30047	227.50	228.10	30.72	14.95	40.23	25.53	19.29	0.87	2974	1.67
ERD003	30048	233.20	234.40	29.82	14.17	50.06	25.82	9.94	0.88	2307	1.82
ERD003	30049	234.40	235.40	34.66	19.84	31.28	31.81	17.06	1.09	3262	1.56
ERD003	30050	235.40	236.40	31.28	14.42	46.63	25.41	13.54	0.63	2532	1.74
ERD003	30051	236.40	237.40	30.53	14.56	47.72	21.89	15.82	1.80	2445	1.79
ERD003	30052	237.40	238.00	37.70	21.00	24.32	35.33	19.34	1.11	3677	1.55
ERD003	30053	238.60	239.60	38.18	24.19	18.74	36.47	20.61	1.24	3893	1.45
ERD003	30054	239.60	240.60	38.49	23.93	19.14	37.15	19.78	1.69	3847	1.45
ERD003	30055	240.60	241.55	33.20	19.73	33.93	31.29	15.05	1.53	3038	1.63
ERD003	30056	241.55	242.65	37.16	21.25	18.87	35.49	24.39	3.67	4050	1.49
ERD003	30057	242.65	243.90	35.39	21.68	21.07	32.68	24.57	1.67	3935	1.47
ERD003	30058	244.70	245.90	35.67	23.05	27.42	34.91	14.62	1.14	3299	1.54
ERD003	30059	248.95	249.70	32.83	18.41	24.35	31.92	25.33	1.51	3886	1.46
ERD004	14301	123.50	125.45	42.95	26.10	12.08	41.16	20.66	1.59	4281	1.43
ERD004	14302	125.45	127.25	44.35	28.15	7.84	47.89	16.13	0.93	4449	1.39
ERD004	14303	129.95	130.46	41.55	19.89	21.67	29.35	29.10	0.79	3969	1.54
ERD004	14304	131.80	132.82	38.86	21.01	27.35	36.65	14.99	1.74	3457	1.61

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD004	14305	141.58	142.20	34.69	16.07	38.64	20.45	24.84	1.84	2961	1.69
ERD004	14306	149.60	150.95	39.56	22.71	29.13	32.58	15.57	3.56	3195	1.61
ERD004	14307	153.75	154.35	30.61	13.45	47.87	16.62	22.06	1.07	2391	1.79
ERD004	14308	154.95	156.25	44.54	24.63	12.13	34.69	28.55	2.84	4442	1.43
ERD004	14309	156.75	157.45	42.16	21.36	18.91	34.50	25.24	0.52	4090	1.47
ERD004	14311	162.85	163.75	40.43	20.76	16.19	30.27	32.78	2.08	4399	1.47
ERD004	14312	165.85	166.90	43.35	26.74	16.78	38.46	18.02	1.15	3835	1.47
ERD004	14313	173.65	174.15	41.44	20.69	11.97	27.69	39.65	1.16	4692	1.45
ERD004	14314	174.15	174.35	23.89	6.17	70.83	12.18	10.82	0.17	1200	2.20
ERD004	14315	174.35	175.85	38.44	20.90	20.82	27.83	30.45	1.05	4073	1.52
ERD004	14316	175.85	176.45	23.35	5.64	72.35	11.73	10.27	1.31	1336	2.15
ERD004	14317	176.45	176.85	42.21	20.16	14.01	40.77	25.07	1.67	4589	1.45
ERD004	14318	176.85	177.35	31.92	13.27	48.56	17.73	20.44	0.94	2451	1.84
ERD004	14319	177.35	178.05	41.40	23.47	9.38	41.40	25.75	1.22	4702	1.42
ERD004	14321	182.65	183.50	38.50	20.32	20.32	33.99	25.37	0.93	4116	1.49
ERD004	14322	185.60	187.00	35.91	16.62	32.39	23.00	28.00	1.37	3483	1.64
ERD004	14323	187.00	188.50	27.68	11.98	40.62	29.30	18.11	0.96	2559	1.79
ERD004	14324	190.50	192.00	38.44	19.14	27.73	30.68	22.45	1.20	3647	1.56

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD004	14325	193.45	195.30	38.32	20.15	24.53	31.96	23.36	0.96	3829	1.54
ERD004	14326	199.40	201.25	39.05	24.26	17.73	34.03	23.98	1.57	4028	1.49
ERD004	14327	203.00	203.80	36.64	21.87	18.10	37.59	22.45	1.54	4128	1.47
ERD004	14328	205.90	207.75	39.90	25.64	11.29	36.64	26.43	1.85	4391	1.39
ERD004	14329	208.60	210.50	35.79	22.20	23.19	32.27	22.35	1.21	3699	1.49
ERD004	14331	210.50	212.50	29.97	16.33	46.14	22.92	14.61	0.88	2406	1.80
ERD004	14332	212.50	214.30	38.75	25.44	11.94	37.63	24.99	2.55	4343	1.43
ERD004	14333	214.30	216.50	39.37	27.34	9.02	35.28	28.35	2.36	4428	1.39
ERD004	14334	219.40	220.80	35.63	22.90	21.27	32.77	23.06	1.28	3850	1.46
ERD004	14335	222.90	224.10	37.85	23.34	17.61	34.87	24.19	1.18	4061	1.47
ERD004	14336	224.10	225.60	33.31	19.38	25.71	31.08	23.82	1.80	3732	1.54
ERD004	14337	227.10	228.00	30.64	23.23	15.71	33.36	27.69	2.15	4265	1.43
ERD005	14338	80.95	83.10	36.41	18.19	36.81	30.91	14.09	1.43	2926	1.64
ERD005	14339	83.10	84.40	41.24	22.94	21.36	38.88	16.82	1.50	3743	1.49
ERD005	14341	84.40	85.60	40.81	20.66	21.01	39.17	19.16	1.93	3923	1.56
ERD005	14342	91.40	93.10	43.83	23.98	20.61	36.89	18.53	1.90	3751	1.49
ERD005	14343	94.70	95.20	33.83	13.62	47.18	19.41	19.79	1.16	2573	1.75
ERD005	14344	96.10	96.45	24.15	6.58	72.12	12.28	9.02	1.15	1246	2.17

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD005	14345	96.95	98.30	38.27	17.94	25.77	37.12	19.17	1.80	3587	1.54
ERD005	14346	101.90	102.50	38.02	19.39	33.32	34.00	13.29	1.70	3080	1.64
ERD005	14347	106.00	106.80	39.18	17.01	32.70	25.90	24.39	1.65	3360	1.68
ERD005	14348	109.00	109.50	41.27	18.10	19.43	34.62	27.86	1.99	4210	1.52
ERD005	14349	109.50	109.65	28.46	5.22	66.19	15.55	13.04	0.96	1577	2.08
ERD005	14351	109.65	110.20	42.15	20.03	16.44	35.26	28.27	1.52	4415	1.49
ERD005	14352	111.50	111.80	42.78	15.66	12.34	31.39	40.61	1.53	5029	1.45
ERD005	14353	111.80	112.00	28.97	7.17	61.31	17.28	14.25	1.07	1895	2.00
ERD005	14354	112.00	114.00	42.04	23.53	11.55	32.03	32.89	2.07	4539	1.47
ERD005	14355	114.00	115.15	38.11	16.31	28.85	24.17	30.67	1.47	3727	1.61
ERD005	14356	115.15	115.65	18.01	2.32	89.30	6.85	1.53	0.49	269	2.44
ERD005	14357	115.65	116.75	34.61	14.68	29.84	33.00	22.48	2.37	3483	1.67
ERD005	14358	121.20	123.20	39.22	18.62	20.15	28.10	33.13	2.04	4179	1.52
ERD005	14359	123.20	123.95	39.54	21.24	16.27	35.18	27.31	1.71	4281	1.47
ERD005	14361	123.95	124.15	12.59	3.99	53.41	32.16	10.44	0.61	2907	2.17
ERD005	14362	124.15	125.65	39.61	24.02	15.36	39.46	21.16	2.04	4168	1.45
ERD005	14363	127.35	128.30	38.36	19.41	18.37	31.13	31.09	3.01	4176	1.49
ERD005	14364	135.10	137.10	39.96	22.00	15.63	29.35	33.03	1.15	4258	1.49

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD005	14365	137.10	139.10	40.92	26.75	9.48	28.83	34.94	1.20	4412	1.39
ERD005	14366	139.10	140.10	38.90	19.87	16.05	29.77	34.31	1.84	4335	1.48
ERD005	14367	140.10	140.40	19.27	5.28	79.97	9.44	5.31	0.83	715	2.33
ERD005	14368	140.40	142.15	38.93	20.62	17.12	28.27	33.99	1.51	4270	1.50
ERD005	14369	143.10	145.10	40.17	22.02	11.67	31.51	34.81	1.17	4578	1.43
ERD005	14371	145.10	147.35	38.75	20.10	19.99	30.40	29.51	1.73	4057	1.53
ERD005	14372	147.35	147.80	22.78	5.22	77.19	11.53	6.06	0.56	821	2.27
ERD005	14373	147.80	148.65	43.93	19.79	9.37	35.31	35.53	1.44	4982	1.43
ERD005	14374	148.65	148.90	23.62	4.94	73.37	13.12	8.57	0.61	768	2.17
ERD005	14375	148.90	149.70	42.94	20.14	11.21	35.64	33.01	2.34	4780	1.45
ERD005	14376	149.70	150.00	27.18	5.51	62.44	16.91	15.15	0.73	1822	2.04
ERD005	14377	150.00	150.40	44.42	17.00	13.27	29.96	39.77	3.60	4886	1.43
ERD005	14378	151.30	152.00	38.71	18.18	24.52	36.44	20.86	1.68	3737	1.56
ERD005	14379	152.00	152.20	31.01	5.94	56.01	19.82	18.23	0.57	2260	1.89
ERD005	14381	152.20	154.20	41.22	19.44	13.15	42.64	24.77	1.67	4325	1.42
ERD005	14382	167.25	169.40	35.59	19.51	31.85	26.87	21.77	0.82	3296	1.61
ERD005	14383	169.40	171.40	36.10	15.91	28.89	29.23	25.98	0.94	3510	1.56
ERD005	14384	171.40	173.40	32.19	13.10	42.78	21.61	22.50	1.10	2749	1.72

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD005	14385	173.40	175.40	42.38	22.21	7.68	41.69	28.41	1.23	4610	1.39
ERD005	14386	175.40	177.40	34.72	16.92	33.14	28.19	21.75	1.05	3151	1.59
ERD005	14387	177.40	179.35	34.89	16.29	28.33	34.46	20.91	0.98	3482	1.56
ERD005	14388	179.35	181.35	41.35	26.36	8.12	38.54	26.98	1.02	4502	1.37
ERD005	14389	181.35	183.25	36.73	21.30	26.93	32.72	19.05	1.10	3472	1.54
ERD005	14391	183.25	185.25	41.42	26.56	7.95	38.82	26.67	0.82	4495	1.38
ERD005	14392	185.25	187.25	40.17	25.52	11.29	37.02	26.18	1.11	4316	1.39
ERD005	14393	187.25	189.25	40.77	25.54	9.21	37.93	27.32	1.98	4479	1.46
ERD005	14394	189.25	190.90	38.87	24.23	12.89	35.83	27.05	1.13	4328	1.43
ERD005	14395	193.00	194.95	38.59	24.40	18.52	39.56	17.51	1.36	3837	1.52
ERD005	14396	194.95	196.60	39.22	26.35	12.31	35.15	26.19	2.40	4226	1.43
ERD005	14397	197.20	199.50	35.81	20.44	20.79	33.08	25.68	1.23	4091	1.49
ERD005	14398	200.50	202.70	40.85	25.29	9.63	37.55	27.53	1.09	4499	1.39
ERD006	14399	82.50	84.60	39.14	23.34	14.72	41.42	20.52	1.65	4240	1.44
ERD006	14401	86.40	87.60	30.51	12.36	53.63	17.83	16.18	1.75	2083	2.00
ERD006	14402	91.40	92.10	34.30	16.51	33.65	26.26	23.58	1.09	3301	1.63
ERD006	14403	143.65	144.75	36.20	19.76	23.36	30.61	26.27	1.15	3875	1.56
ERD006	14404	171.25	172.50	36.53	13.64	38.17	22.32	25.86	0.96	3196	1.69

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD006	14405	190.00	190.80	37.00	16.00	29.25	26.42	28.33	1.22	3737	1.60
ERD006	14406	190.80	191.10	20.52	3.53	83.68	9.90	2.89	0.08	564	2.47
ERD006	14407	191.10	192.00	34.45	15.25	33.27	23.80	27.69	3.53	3434	1.67
ERD006	14408	204.70	206.70	33.59	16.98	31.77	26.54	24.71	1.55	3453	1.60
ERD006	14409	206.70	207.80	34.52	20.72	24.46	33.83	20.99	1.10	3688	1.52
ERD006	14411	210.45	212.70	32.97	18.45	35.21	25.71	20.63	1.46	3043	1.64
ERD006	14412	214.20	216.20	34.32	21.37	28.40	32.63	17.60	2.02	3334	1.54
ERD006	14413	216.20	217.80	37.06	22.00	16.51	37.65	23.85	2.47	4170	1.48
ERD006	14414	234.10	235.00	36.15	20.72	24.27	30.69	24.32	2.06	3668	1.52
ERD006	14415	235.00	235.50	24.25	8.64	71.25	13.00	7.11	0.64	972	2.17
ERD006	14416	235.50	236.13	26.73	10.17	56.24	17.59	15.99	3.28	1991	2.02
ERD006	14417	236.13	237.00	36.99	21.33	21.09	36.01	21.57	1.95	3854	1.55
ERD006	14418	237.00	237.15	18.04	3.05	80.94	11.42	4.58	5.97	898	2.50
ERD006	14419	237.15	239.20	36.51	22.23	20.72	36.20	20.85	1.52	3849	1.54
ERD006	14421	239.20	239.50	19.62	4.15	81.23	11.06	3.56	0.19	582	2.47
ERD006	14422	239.50	241.90	35.39	19.87	20.37	35.29	24.47	0.90	4086	1.49
ERD006	14423	245.25	247.05	37.28	19.64	17.37	35.85	27.15	1.49	4313	1.47
ERD007	14424	59.80	60.40	37.78	17.48	21.78	37.06	23.68	1.30	4163	1.54

Combined analytical results from old and new boreholes.

Note that the data from the old boreholes (102 to 105) has been adjusted to match the moisture values of the new boreholes.

Note the air dry basis (ad) of the results.											
Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Moisture (% ad)	Ash (% ad)	Volatile Matter (% ad)	Fixed Carbon (% ad)	Sulphur (% ad)	Calorific Value (cal/g ad)	Relative Density (ad)
		From	To								
ERD007	14425	60.40	60.60	17.36	1.49	90.10	6.85	1.56	0.04	355	2.56
ERD007	14426	60.60	61.35	37.00	19.03	22.38	35.34	23.25	1.56	3906	1.52
ERD007	14427	68.85	69.95	40.31	23.45	12.75	42.88	20.92	1.32	4355	1.43
ERD007	14428	71.75	72.85	37.51	22.54	19.53	38.25	19.68	1.09	3863	1.49
ERD007	14429	150.10	150.80	39.41	19.33	13.17	35.68	31.81	3.45	4742	1.52
ERD007	14431	154.40	156.40	32.10	15.94	30.69	27.53	25.84	1.08	3580	1.59
ERD007	14432	157.55	159.25	30.96	17.03	29.74	27.13	26.09	2.19	3586	1.59
ERD007	14433	160.45	160.95	30.62	15.25	39.33	28.40	17.03	0.90	2951	1.69
ERD007	14434	194.80	195.65	35.71	19.62	21.43	34.19	24.76	5.54	4018	1.59

21 APPENDIX 7: All Analytical Data on an As Received Basis with In Situ Relative Densities

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
102	1	103.60	106.35	40.80	16.55	16.97	25.67	0.38	2825	1.35
102	2	106.35	108.40	37.10	24.65	16.25	21.99	0.38	2529	1.42
102	3	114.40	117.00	34.90	23.10	18.44	23.56	0.49	2717	1.41
102	4	133.60	136.00	35.50	11.65	20.13	32.71	0.39	3437	1.32
102	5	136.60	138.80	27.70	32.89	16.08	23.33	0.26	2460	1.52
102	6	144.30	146.50	38.40	10.97	20.76	29.87	0.45	3278	1.31
102	7	172.90	175.00	40.80	9.21	20.24	29.74	0.43	3324	1.29
102	8	175.00	176.50	36.80	9.76	22.71	30.73	0.33	3505	1.30
102	9	181.60	183.70	38.60	17.59	19.76	24.05	0.36	2895	1.36
102	10	193.30	195.60	37.20	16.79	21.12	24.89	0.45	3064	1.37
102	11	196.90	199.00	35.20	22.68	19.58	22.53	0.66	2744	1.42
102	12	199.00	200.60	36.50	10.78	23.94	28.79	1.70	3495	1.31
102	13	219.70	221.90	38.80	7.55	23.07	30.58	0.83	3632	1.28
102	14	226.80	229.00	36.40	13.57	21.01	29.02	2.48	3386	1.34
104	1	62.00	63.00	37.80	21.72	19.63	20.85	0.58	2605	1.41

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
104	2	64.00	65.40	38.30	17.29	22.03	22.38	0.76	2884	1.37
104	3	77.00	77.80	40.80	10.40	19.96	28.84	1.09	3261	1.30
104	4	84.20	86.00	40.50	6.89	22.78	29.83	1.25	3536	1.28
104	5	87.00	88.00	39.70	10.98	22.44	26.88	0.99	3333	1.31
104	6	88.40	90.00	40.10	6.80	22.51	30.59	1.25	3630	1.28
104	7	106.20	109.00	41.20	7.47	19.66	31.67	0.87	3478	1.28
104	8	109.30	112.00	40.50	10.74	20.23	28.52	1.67	3307	1.31
104	9	113.00	114.00	40.00	7.13	19.72	33.15	0.60	3564	1.28
104	10	115.00	116.00	42.00	7.38	21.82	28.81	1.03	3493	1.27
104	11	117.00	118.00	41.80	5.82	21.69	30.69	0.49	3591	1.26
104	12	118.00	119.70	43.50	4.67	20.37	31.46	0.76	3596	1.24
104	13	124.00	125.00	44.80	6.74	19.09	29.36	0.70	3387	1.26
104	14	126.00	127.00	43.10	6.31	20.39	30.20	0.94	3526	1.26
104	15	128.00	129.00	43.20	6.95	20.39	29.46	0.90	3246	1.27
104	16	130.00	131.00	40.70	12.21	20.58	26.51	0.66	3054	1.31
104	17	133.00	134.80	37.40	15.13	21.50	25.97	0.54	3149	1.35
104	18	137.00	138.00	37.90	25.96	16.84	19.30	0.40	2300	1.43
104	19	139.00	140.00	42.30	9.68	22.14	25.88	0.79	3144	1.29
104	20	141.00	142.00	38.10	16.47	19.22	26.22	1.14	3138	1.36
104	21	142.20	143.20	42.60	10.94	20.63	25.83	1.61	3132	1.30

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
104	22	143.40	144.00	40.80	8.62	24.33	26.25	1.23	3350	1.29
104	23	152.10	154.00	41.70	7.55	23.90	26.85	1.55	3377	1.28
104	24	154.00	156.00	42.30	8.28	21.55	27.87	1.83	3275	1.28
104	25	156.00	158.00	42.60	7.35	22.47	27.58	0.97	3326	1.27
104	26	158.00	159.40	41.70	5.76	22.80	29.74	0.85	3490	1.26
105	3	40.00	41.40	37.00	8.85	23.34	30.81	0.45	3487	1.29
105	2	45.00	47.30	29.30	16.72	24.02	29.96	1.39	3503	1.38
105	1	52.60	53.80	36.20	7.68	24.02	32.10	0.74	3637	1.29
ERD003	30001	108.50	108.95	39.63	11.65	32.57	16.15	2.02	3336	1.35
ERD003	30002	110.40	112.25	36.67	14.90	32.77	15.66	1.20	3325	1.36
ERD003	30003	112.25	113.90	39.48	13.78	36.43	10.31	0.95	3195	1.36
ERD003	30004	140.95	142.41	42.67	8.92	35.99	12.42	1.09	3372	1.28
ERD003	30005	142.41	142.97	24.78	54.92	10.56	9.74	0.54	1223	1.77
ERD003	30006	142.97	144.38	41.93	6.70	36.10	15.27	0.98	3586	1.30
ERD003	30007	145.08	145.89	41.79	7.45	37.51	13.24	0.93	3528	1.31
ERD003	30008	145.89	146.09	24.85	57.03	10.51	7.60	0.40	999	1.75
ERD003	30009	146.09	147.15	41.00	8.20	32.39	18.41	1.05	3512	1.30
ERD003	30011	147.15	147.60	17.36	73.99	6.19	2.47	0.59	397	2.03
ERD003	30012	147.60	148.61	40.60	9.85	30.75	18.80	0.95	3376	1.35
ERD003	30013	148.61	148.81	15.93	42.68	32.35	9.04	0.22	1084	1.92

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD003	30014	148.81	150.82	38.22	12.81	31.28	17.68	0.95	3349	1.36
ERD003	30015	150.82	152.84	41.29	11.46	38.49	8.75	1.04	3323	1.34
ERD003	30016	152.84	153.29	37.42	11.46	32.39	18.72	0.88	3545	1.35
ERD003	30017	153.29	154.55	37.93	14.09	32.13	15.85	1.16	3331	1.38
ERD003	30018	159.99	160.94	38.37	18.26	21.45	21.93	0.57	2976	1.39
ERD003	30019	160.94	161.71	43.48	7.90	31.38	17.24	1.97	3448	1.29
ERD003	30021	172.56	173.06	41.29	16.15	24.34	18.22	0.45	2924	1.33
ERD003	30022	174.86	175.47	42.03	10.66	23.45	23.87	1.67	3338	1.31
ERD003	30023	179.17	180.08	35.85	26.57	16.24	21.32	0.61	2532	1.50
ERD003	30024	181.28	182.58	37.12	22.39	20.16	20.33	0.75	2778	1.46
ERD003	30025	182.58	182.78	30.69	46.11	12.06	11.15	0.49	1401	1.62
ERD003	30026	182.78	183.28	33.66	26.80	23.77	15.78	0.96	2439	1.47
ERD003	30027	183.28	183.69	31.75	45.45	11.95	10.85	0.39	1377	1.60
ERD003	30028	183.69	184.00	43.73	8.75	24.79	22.72	0.43	3264	1.28
ERD003	30029	184.00	184.79	32.67	38.10	13.75	15.49	0.29	1858	1.54
ERD003	30030	195.79	197.06	35.47	22.86	27.42	14.25	0.69	2822	1.39
ERD003	30031	197.72	198.69	38.80	18.92	31.44	10.84	1.29	2896	1.36
ERD003	30032	203.20	204.30	37.09	14.84	26.76	21.31	1.13	3319	1.35
ERD003	30033	208.60	209.60	40.93	8.05	32.54	18.48	0.53	3525	1.32
ERD003	30034	209.60	210.30	43.07	6.75	30.60	19.57	1.03	3497	1.31

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD003	30035	210.30	211.00	38.22	19.36	27.07	15.36	0.74	2890	1.36
ERD003	30036	211.50	212.20	43.25	5.63	35.27	15.85	0.94	3613	1.26
ERD003	30037	212.20	213.20	32.07	31.40	18.95	17.59	1.05	2429	1.50
ERD003	30038	213.20	213.85	38.50	13.84	24.40	23.25	1.35	3318	1.35
ERD003	30039	214.80	215.80	32.58	28.32	20.61	18.49	0.61	2592	1.44
ERD003	30040	215.80	216.80	41.15	7.10	29.95	21.78	1.07	3639	1.28
ERD003	30041	216.80	217.80	36.63	10.14	25.97	27.26	0.96	3728	1.33
ERD003	30042	217.80	218.80	32.42	19.80	25.71	22.07	0.62	3300	1.39
ERD003	30043	218.80	219.80	36.93	15.42	27.45	20.19	1.09	3324	1.36
ERD003	30044	219.80	220.65	32.84	26.59	22.51	18.06	1.69	2658	1.46
ERD003	30045	221.80	222.80	24.63	51.09	12.71	11.57	0.47	1530	1.67
ERD003	30046	222.80	223.80	38.97	11.30	31.21	18.53	1.16	3457	1.32
ERD003	30047	227.50	228.10	30.72	32.77	20.80	15.71	0.71	2423	1.49
ERD003	30048	233.20	234.40	29.82	40.93	21.11	8.13	0.72	1886	1.58
ERD003	30049	234.40	235.40	34.66	25.50	25.93	13.91	0.89	2659	1.41
ERD003	30050	235.40	236.40	31.28	37.44	20.40	10.87	0.51	2033	1.52
ERD003	30051	236.40	237.40	30.53	38.80	17.80	12.86	1.46	1988	1.56
ERD003	30052	237.40	238.00	37.70	19.18	27.86	15.25	0.88	2900	1.39
ERD003	30053	238.60	239.60	38.18	15.28	29.74	16.81	1.01	3175	1.34
ERD003	30054	239.60	240.60	38.49	15.48	30.04	15.99	1.37	3111	1.34

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD003	30055	240.60	241.55	33.20	28.24	26.04	12.52	1.27	2528	1.47
ERD003	30056	241.55	242.65	37.16	15.06	28.32	19.46	2.93	3232	1.36
ERD003	30057	242.65	243.90	35.39	17.38	26.96	20.27	1.38	3246	1.36
ERD003	30058	244.70	245.90	35.67	22.92	29.18	12.22	0.95	2758	1.41
ERD003	30059	248.95	249.70	32.83	20.05	26.28	20.85	1.24	3199	1.35
ERD004	14301	123.50	125.45	42.95	9.33	31.78	15.95	1.23	3305	1.30
ERD004	14302	125.45	127.25	44.35	6.07	37.09	12.49	0.72	3446	1.28
ERD004	14303	129.95	130.46	41.55	15.81	21.41	21.23	0.58	2896	1.34
ERD004	14304	131.80	132.82	38.86	21.17	28.37	11.60	1.35	2676	1.41
ERD004	14305	141.58	142.20	34.69	30.07	15.91	19.33	1.43	2304	1.47
ERD004	14306	149.60	150.95	39.56	22.78	25.48	12.18	2.78	2498	1.42
ERD004	14307	153.75	154.35	30.61	38.38	13.32	17.69	0.86	1917	1.55
ERD004	14308	154.95	156.25	44.54	8.93	25.53	21.01	2.09	3269	1.28
ERD004	14309	156.75	157.45	42.16	13.91	25.37	18.56	0.38	3008	1.31
ERD004	14311	162.85	163.75	40.43	12.17	22.76	24.64	1.56	3307	1.32
ERD004	14312	165.85	166.90	43.35	12.98	29.74	13.93	0.89	2966	1.33
ERD004	14313	173.65	174.15	41.44	8.84	20.45	29.28	0.86	3464	1.30
ERD004	14314	174.15	174.35	23.89	57.45	9.88	8.78	0.14	973	1.79
ERD004	14315	174.35	175.85	38.44	16.20	21.66	23.70	0.82	3170	1.36
ERD004	14316	175.85	176.45	23.35	58.77	9.53	8.34	1.06	1085	1.77

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD004	14317	176.45	176.85	42.21	10.14	29.51	18.15	1.21	3322	1.29
ERD004	14318	176.85	177.35	31.92	38.12	13.92	16.04	0.74	1924	1.56
ERD004	14319	177.35	178.05	41.40	7.18	31.70	19.72	0.93	3600	1.29
ERD004	14321	182.65	183.50	38.50	15.68	26.23	19.58	0.72	3177	1.34
ERD004	14322	185.60	187.00	35.91	24.90	17.68	21.52	1.05	2677	1.43
ERD004	14323	187.00	188.50	27.68	33.37	24.07	14.88	0.79	2103	1.57
ERD004	14324	190.50	192.00	38.44	21.11	23.36	17.09	0.91	2777	1.38
ERD004	14325	193.45	195.30	38.32	18.95	24.69	18.04	0.74	2958	1.37
ERD004	14326	199.40	201.25	39.05	14.27	27.38	19.30	1.26	3241	1.36
ERD004	14327	203.00	203.80	36.64	14.68	30.48	18.21	1.25	3348	1.35
ERD004	14328	205.90	207.75	39.90	9.12	29.61	21.36	1.50	3549	1.29
ERD004	14329	208.60	210.50	35.79	19.14	26.63	18.45	1.00	3053	1.37
ERD004	14331	210.50	212.50	29.97	38.62	19.18	12.23	0.74	2014	1.59
ERD004	14332	212.50	214.30	38.75	9.81	30.91	20.53	2.09	3568	1.33
ERD004	14333	214.30	216.50	39.37	7.53	29.44	23.66	1.97	3695	1.31
ERD004	14334	219.40	220.80	35.63	17.76	27.36	19.25	1.07	3214	1.36
ERD004	14335	222.90	224.10	37.85	14.28	28.27	19.61	0.96	3292	1.35
ERD004	14336	224.10	225.60	33.31	21.27	25.71	19.70	1.49	3087	1.41
ERD004	14337	227.10	228.00	30.64	14.19	30.14	25.02	1.94	3853	1.37
ERD005	14338	80.95	83.10	36.41	28.61	24.03	10.95	1.11	2274	1.44

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD005	14339	83.10	84.40	41.24	16.29	29.65	12.83	1.14	2854	1.33
ERD005	14341	84.40	85.60	40.81	15.67	29.22	14.29	1.44	2927	1.37
ERD005	14342	91.40	93.10	43.83	15.23	27.26	13.69	1.40	2772	1.32
ERD005	14343	94.70	95.20	33.83	36.14	14.87	15.16	0.89	1971	1.49
ERD005	14344	96.10	96.45	24.15	58.56	9.97	7.32	0.93	1012	1.78
ERD005	14345	96.95	98.30	38.27	19.39	27.92	14.42	1.35	2698	1.36
ERD005	14346	101.90	102.50	38.02	25.62	26.14	10.22	1.31	2368	1.43
ERD005	14347	106.00	106.80	39.18	23.96	18.98	17.87	1.21	2462	1.42
ERD005	14348	109.00	109.50	41.27	13.93	24.83	19.98	1.43	3019	1.33
ERD005	14349	109.50	109.65	28.46	49.96	11.74	9.84	0.72	1190	1.64
ERD005	14351	109.65	110.20	42.15	11.89	25.51	20.45	1.10	3194	1.31
ERD005	14352	111.50	111.80	42.78	8.37	21.30	27.55	1.04	3412	1.27
ERD005	14353	111.80	112.00	28.97	46.91	13.22	10.90	0.82	1450	1.62
ERD005	14354	112.00	114.00	42.04	8.75	24.28	24.93	1.57	3440	1.32
ERD005	14355	114.00	115.15	38.11	21.34	17.87	22.68	1.09	2756	1.39
ERD005	14356	115.15	115.65	18.01	74.96	5.75	1.28	0.41	226	1.98
ERD005	14357	115.65	116.75	34.61	22.87	25.29	17.23	1.82	2669	1.44
ERD005	14358	121.20	123.20	39.22	15.05	20.99	24.74	1.52	3121	1.34
ERD005	14359	123.20	123.95	39.54	12.49	27.01	20.96	1.31	3286	1.33
ERD005	14361	123.95	124.15	12.59	48.63	29.28	9.50	0.56	2647	1.96

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD005	14362	124.15	125.65	39.61	12.21	31.36	16.82	1.62	3313	1.33
ERD005	14363	127.35	128.30	38.36	14.05	23.81	23.78	2.30	3194	1.34
ERD005	14364	135.10	137.10	39.96	12.03	22.59	25.42	0.89	3278	1.34
ERD005	14365	137.10	139.10	40.92	7.65	23.25	28.18	0.97	3559	1.29
ERD005	14366	139.10	140.10	38.90	12.24	22.70	26.16	1.40	3305	1.33
ERD005	14367	140.10	140.40	19.27	68.16	8.05	4.53	0.71	609	1.95
ERD005	14368	140.40	142.15	38.93	13.17	21.75	26.15	1.16	3285	1.34
ERD005	14369	143.10	145.10	40.17	8.95	24.18	26.71	0.90	3512	1.30
ERD005	14371	145.10	147.35	38.75	15.32	23.30	22.62	1.33	3110	1.36
ERD005	14372	147.35	147.80	22.78	62.89	9.39	4.94	0.46	669	1.84
ERD005	14373	147.80	148.65	43.93	6.55	24.68	24.84	1.01	3483	1.27
ERD005	14374	148.65	148.90	23.62	58.95	10.54	6.89	0.49	617	1.76
ERD005	14375	148.90	149.70	42.94	8.01	25.46	23.59	1.67	3415	1.28
ERD005	14376	149.70	150.00	27.18	48.12	13.03	11.68	0.56	1404	1.65
ERD005	14377	150.00	150.40	44.42	8.89	20.06	26.63	2.41	3272	1.25
ERD005	14378	151.30	152.00	38.71	18.37	27.30	15.63	1.26	2799	1.37
ERD005	14379	152.00	152.20	31.01	41.08	14.54	13.37	0.42	1658	1.53
ERD005	14381	152.20	154.20	41.22	9.59	31.11	18.07	1.22	3156	1.28
ERD005	14382	167.25	169.40	35.59	25.49	21.50	17.42	0.66	2638	1.44
ERD005	14383	169.40	171.40	36.10	21.95	22.21	19.74	0.71	2667	1.38

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD005	14384	171.40	173.40	32.19	33.38	16.86	17.56	0.86	2145	1.49
ERD005	14385	173.40	175.40	42.38	5.69	30.88	21.04	0.91	3415	1.26
ERD005	14386	175.40	177.40	34.72	26.04	22.15	17.09	0.83	2476	1.41
ERD005	14387	177.40	179.35	34.89	22.04	26.80	16.26	0.76	2708	1.39
ERD005	14388	179.35	181.35	41.35	6.47	30.69	21.49	0.81	3586	1.27
ERD005	14389	181.35	183.25	36.73	21.65	26.30	15.32	0.88	2791	1.39
ERD005	14391	183.25	185.25	41.42	6.34	30.97	21.27	0.65	3585	1.28
ERD005	14392	185.25	187.25	40.17	9.07	29.74	21.03	0.89	3467	1.29
ERD005	14393	187.25	189.25	40.77	7.33	30.17	21.73	1.58	3563	1.33
ERD005	14394	189.25	190.90	38.87	10.40	28.91	21.82	0.91	3492	1.32
ERD005	14395	193.00	194.95	38.59	15.04	32.13	14.22	1.10	3117	1.38
ERD005	14396	194.95	196.60	39.22	10.16	29.01	21.61	1.98	3488	1.33
ERD005	14397	197.20	199.50	35.81	16.77	26.69	20.72	0.99	3301	1.36
ERD005	14398	200.50	202.70	40.85	7.62	29.73	21.80	0.86	3562	1.29
ERD006	14399	82.50	84.60	39.14	11.69	32.88	16.29	1.31	3366	1.32
ERD006	14401	86.40	87.60	30.51	42.52	14.14	12.83	1.39	1652	1.66
ERD006	14402	91.40	92.10	34.30	26.48	20.66	18.56	0.86	2598	1.44
ERD006	14403	143.65	144.75	36.20	18.57	24.34	20.89	0.91	3081	1.40
ERD006	14404	171.25	172.50	36.53	28.05	16.40	19.01	0.71	2349	1.43
ERD006	14405	190.00	190.80	37.00	21.94	19.82	21.25	0.92	2803	1.39

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD006	14406	190.80	191.10	20.52	68.94	8.16	2.38	0.07	465	1.96
ERD006	14407	191.10	192.00	34.45	25.73	18.41	21.42	2.73	2656	1.45
ERD006	14408	204.70	206.70	33.59	25.41	21.23	19.77	1.24	2762	1.43
ERD006	14409	206.70	207.80	34.52	20.20	27.94	17.34	0.91	3046	1.39
ERD006	14411	210.45	212.70	32.97	28.94	21.13	16.96	1.20	2501	1.47
ERD006	14412	214.20	216.20	34.32	23.72	27.26	14.70	1.69	2785	1.41
ERD006	14413	216.20	217.80	37.06	13.32	30.38	19.25	1.99	3365	1.35
ERD006	14414	234.10	235.00	36.15	19.55	24.72	19.59	1.66	2954	1.38
ERD006	14415	235.00	235.50	24.25	59.08	10.78	5.90	0.53	806	1.81
ERD006	14416	235.50	236.13	26.73	45.87	14.35	13.04	2.68	1624	1.70
ERD006	14417	236.13	237.00	36.99	16.89	28.84	17.28	1.56	3087	1.40
ERD006	14418	237.00	237.15	18.04	68.43	9.65	3.87	5.05	759	2.03
ERD006	14419	237.15	239.20	36.51	16.92	29.55	17.02	1.24	3142	1.40
ERD006	14421	239.20	239.50	19.62	68.12	9.27	2.99	0.16	488	2.00
ERD006	14422	239.50	241.90	35.39	16.42	28.45	19.73	0.73	3295	1.36
ERD006	14423	245.25	247.05	37.28	13.56	27.98	21.19	1.16	3366	1.33
ERD007	14424	59.80	60.40	37.78	16.42	27.94	17.85	0.98	3139	1.36
ERD007	14425	60.40	60.60	17.36	75.58	5.75	1.31	0.03	298	2.05
ERD007	14426	60.60	61.35	37.00	17.41	27.50	18.09	1.21	3039	1.36
ERD007	14427	68.85	69.95	40.31	9.94	33.44	16.31	1.03	3396	1.31

All the analytical data on an as received basis with in situ relative densities.

Borehole Number	Sample Number	Depth (m)		Total Moisture (%)	Ash (% arb)	Volatile Matter (% arb)	Fixed Carbon (% arb)	Sulphur (% arb)	Calorific Value (cal/g arb)	In Situ Relative Density
		From	To							
ERD007	14428	71.75	72.85	37.51	15.76	30.86	15.88	0.88	3116	1.36
ERD007	14429	150.10	150.80	39.41	9.89	26.80	23.89	2.59	3562	1.35
ERD007	14431	154.40	156.40	32.10	24.79	22.24	20.87	0.87	2892	1.43
ERD007	14432	157.55	159.25	30.96	24.75	22.58	21.71	1.82	2984	1.45
ERD007	14433	160.45	160.95	30.62	32.20	23.25	13.94	0.74	2416	1.50
ERD007	14434	194.80	195.65	35.71	17.14	27.35	19.80	4.43	3214	1.42

22 APPENDIX 8: Points of Observation and Seam Recovery

BHole	SEAM	from	to	thickness	Rec%	RD g/cc	IM %	ASH %	VM %	FC %	CV Kcal/kg	S %	Geophysically Logged	Used for Modelling Thckness	Used for modelling Quality	Used for Resource Boundaries	Comments
102	812	51	52	1									YES	YES	NO	NO	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suit.
102	773	54.8	55	0.2									YES	YES	NO	NO	
102	772	56.2	56.5	0.3									YES	YES	NO	NO	
102	761	60	60.3	0.3									YES	YES	NO	NO	
102	753	62.1	63.9	1.8									YES	YES	NO	NO	
102	752	64.5	64.9	0.4									YES	YES	NO	NO	
102	751	65.8	67	1.2									YES	YES	NO	NO	
102	743	79.6	80.2	0.6									YES	YES	NO	NO	
102	742	84.2	88.4	4.2									YES	YES	NO	NO	
102	741	98.3	99.6	1.3									YES	YES	NO	NO	
102	733	100	102	1.5									YES	YES	NO	NO	
102	732	104	105	1.4	100	1.53	21.1	22.1	22.6	34.2	3767	0.51	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values

																	were adjusted to suite.
102	731	105	108	3.4	100	1.6	18.7	28.5	21.9	31	3495	0.5	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	724	114	116	1.2	100	1.61	15.6	30	23.9	30.6	3525	0.63	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	723	116	116	0.8	100	1.61	15.6	30	23.9	30.6	3525	0.63	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	722	116	117	0.6	100	1.61	15.6	30	23.9	30.6	3525	0.63	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ

																	values were adjusted to suite.
102	721	120	120	0.5									YES	YES	NO	NO	
102	620	123	127	4.3									YES	YES	NO	NO	
102	610	134	136	2.4	100	1.46	16.5	15.1	26.1	42.3	4449	0.51	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	530	137	139	2.2	100	1.72	10.8	40.6	19.8	28.8	3036	0.33	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	520	144	147	2.2	100	1.45	19.3	14.4	27.2	39.2	4296	0.58	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	512	150	151	0.8									YES	YES	NO	NO	
102	511	151	152	0.4									YES	YES	NO	NO	
102	444	155	157	1.8									YES	YES	NO	NO	

102	443	159	159	0.8									YES	YES	NO	NO	
102	442	161	161	0.2									YES	YES	NO	NO	
102	441	161	162	0.4									YES	YES	NO	NO	
102	430	166	166	0.4									YES	YES	NO	NO	
102	424	170	170	0.7									YES	YES	NO	NO	
102	423	171	173	1.6									YES	YES	NO	NO	
102	422	173	175	1.6	100	1.43	20.3	12.4	27.3	40.1	4476	0.59	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	421	175	177	1.5	100	1.43	16.9	12.8	29.9	40.4	4607	0.43	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	410	182	184	2.1	100	1.54	19.4	23.1	25.9	31.6	3800	0.48	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	340	184	186	1.9									YES	YES	NO	NO	
102	330	187	192	4.9									YES	YES	NO	NO	

102	320	193	196	2.3	100	1.52	20.8	21.2	26.6	31.4	3865	0.57	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	310	197	201	3.7	100	1.53	18.5	22.5	27.1	31.9	3874	1.39	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	203	203	203	0.22									YES	YES	NO	NO	
102	202	211	212	0.8									YES	YES	NO	NO	
102	201	220	222	2.2	100	1.4	19.5	9.93	30.3	40.2	4776	1.09	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
102	103	223	223	0.5									YES	YES	NO	NO	
102	102	227	229	2.2	100	1.48	18.4	17.4	27	37.2	4345	3.18	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values

																were adjusted to suite.
102	101	233	234	1.25									YES	YES	NO	NO	
102	50	235	235	0.4									YES	YES	NO	NO	
104	762	37.1	37.8	0.7									YES	YES	NO	NO	
104	761	38.4	40.3	1.9									YES	YES	NO	NO	
104	753	40.8	41.1	0.3									YES	YES	NO	NO	
104	752	46	47.6	1.6									YES	YES	NO	NO	
104	751	47.6	49.4	1.8									YES	YES	NO	NO	
104	743	53.3	54.2	0.9									YES	YES	NO	NO	
104	742	60.2	62	1.8									YES	YES	NO	NO	
104	741	62	63	1	100	1.59	19.9	28	25.3	26.9	3355	0.75	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	733	63	64	1									YES	YES	NO	NO	
104	732	64	65.4	1.4	100	1.53	20	22.4	28.6	29	3739	0.99	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	731	65.4	67	1.6									YES	YES	NO	NO	
104	724	67.5	68.4	0.9									YES	YES	NO	NO	
104	723	72.9	73.5	0.6									YES	YES	NO	NO	
104	722	73.5	74.1	0.6									YES	YES	NO	NO	

104	721	74.1	74.5	0.4									YES	YES	NO	NO	
104	714	77	77.8	0.8	100	1.44	21.9	13.7	26.3	38.1	4304	1.44	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	713	77.8	80.5	2.7									YES	YES	NO	NO	
104	712	80.8	82.5	1.7									YES	YES	NO	NO	
104	711	82.5	83.4	0.9									YES	YES	NO	NO	
104	640	84.2	86	1.8	100	1.39	22.4	8.99	29.7	38.9	4613	1.63	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	630	87	88	1	100	1.45	21.6	14.3	29.2	34.9	4332	1.29	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	620	88.4	90	1.6	100	1.39	22	8.86	29.3	39.8	4727	1.63	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ

																values were adjusted to suite.
104	610	91	93	2									YES	YES	NO	NO	
104	530	97	100	3									YES	YES	NO	NO	
104	520	102	104	2.4									YES	YES	NO	NO	
104	512	106	108	1.8	100	1.4	23.8	9.68	25.5	41	4505	1.13	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	511	108	109	1	100	1.4	23.8	9.68	25.5	41	4505	1.13	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	444	109	110	0.7	100	1.45	22.5	14	26.4	37.2	4309	2.18	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.

104	443	110	111	0.7	100	1.45	22.5	14	26.4	37.2	4309	2.18	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	442	111	111	0.6	100	1.45	22.5	14	26.4	37.2	4309	2.18	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	441	111	112	0.7	100	1.45	22.5	14	26.4	37.2	4309	2.18	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	430	113	114	1	100	1.39	22.6	9.19	25.4	42.8	4596	0.78	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.

104	424	115	116	1	100	1.4	22.9	9.81	29	38.3	4643	1.37	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	423	116	117	1									YES	YES	NO	NO	
104	422	117	118	1	100	1.38	22.8	7.72	28.8	40.7	4766	0.65	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	421	118	120	1.7	100	1.37	22.9	6.38	27.8	43	4910	1.03	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	410	122	124	1.7									YES	YES	NO	NO	
104	340	124	128	4									YES	YES	NO	NO	
104	330	128	130	2									YES	YES	NO	NO	
104	320	130	135	4.8									YES	YES	NO	NO	
104	310	135	137	2.2									YES	YES	NO	NO	
104	203	137	141	4									YES	YES	NO	NO	
104	202	141	145	4									YES	YES	NO	NO	
104	201	146	149	2.5									YES	YES	NO	NO	

104	103	152	155	2.9	100	1.41	22.4	10.4	30.8	36.3	4462	2.2	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	102	155	157	2	100	1.41	22.4	10.5	29.7	37.4	4449	1.89	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
104	101	157	159	2.4	100	1.39	22.8	8.57	30.2	38.4	4559	1.2	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
105	422	11.5	11.9	0.4									YES	YES	NO	NO	
105	421	12.4	12.9	0.5									YES	YES	NO	NO	
105	410	13.9	15.2	1.3									YES	YES	NO	NO	
105	340	16	17.7	1.7									YES	YES	NO	NO	
105	330	21.8	22.8	1									YES	YES	NO	NO	
105	320	24.9	25.3	0.4									YES	YES	NO	NO	
105	310	28.6	29.1	0.5									YES	YES	NO	NO	
105	203	31.4	36.2	4.8									YES	YES	NO	NO	
105	202	37.5	39	1.5									YES	YES	NO	NO	

105	201	39.6	42.8	3.2									YES	YES	NO	NO	
105	103	45	47.3	2.3	100	1.51	13.1	20.5	29.5	36.8	4305	1.71	YES	YES	YES	YES	Moisture was adjusted to match SGS CQ. Other CQ values were adjusted to suite.
105	102	48.2	50.6	2.4									YES	YES	NO	NO	
105	101	51.6	53.8	2.2									YES	YES	NO	NO	
ERD003	814	69.6	71.6	2									YES	YES	NO	NO	
ERD003	813	72	73	1									YES	YES	NO	NO	
ERD003	812	76	76.8	0.8									YES	YES	NO	NO	
ERD003	772	85.6	86	0.4									YES	YES	NO	NO	
ERD003	761	91	92	1									YES	YES	NO	NO	
ERD003	753	95	95.7	0.7									YES	YES	NO	NO	
ERD003	752	100	101	0.6									YES	YES	NO	NO	
ERD003	751	106	106	0.3									YES	YES	NO	NO	
ERD003	743	109	109	0.45	95	1.46	25.9	14.3	40	19.8	4094	2.48	YES	YES	YES	YES	
ERD003	742	110	114	3.5	98	1.45	27	16.9	40.7	15.4	3845	1.27	YES	YES	YES	YES	
ERD003	741	118	119	1.24									YES	YES	NO	NO	
ERD003	733	128	129	0.9									YES	YES	NO	NO	
ERD003	732	132	133	1.38									YES	YES	NO	NO	
ERD003	731	134	136	2.67									YES	YES	NO	NO	
ERD003	724	141	141	0.3	98	1.37	28.8	11.1	44.7	15.4	4191	1.35	YES	YES	YES	YES	
ERD003	723	141	142	1.16	98	1.37	28.8	11.1	44.7	15.4	4191	1.35	YES	YES	YES	YES	
ERD003	722	143	144	1.41	98	1.39	29.5	8.14	43.9	18.6	4356	1.19	YES	YES	YES	YES	
ERD003	721	145	146	1.01	98	1.56	22.3	25.6	37.6	14.6	3538	0.97	YES	YES	YES	YES	
ERD003	714	146	147	0.58	98	1.41	26.2	10.3	40.5	23	4393	1.31	YES	YES	YES	YES	
ERD003	713	147	148	0.93	98	1.91	12.4	57.1	19.9	10.6	1961	0.92	YES	YES	YES	YES	
ERD003	712	148	148	0.5	98	1.49	25.3	12.4	38.7	23.6	4243	1.2	YES	YES	YES	YES	
ERD003	711	148	149	0.71	98	1.7	17.3	25.9	38.1	18.7	3137	0.85	YES	YES	YES	YES	
ERD003	640	149	151	1.76	98	1.45	27.2	15.1	36.9	20.8	3945	1.12	YES	YES	YES	YES	
ERD003	630	151	152	1.21	98	1.43	29.2	14	44.2	12.7	3972	1.22	YES	YES	YES	YES	

ERD003	620	152	155	2.77	97	1.46	27.6	15.1	41.1	16.2	3998	1.28	YES	YES	YES	YES	
ERD003	610	160	162	1.72	98	1.48	25.1	17.1	32.8	25	4032	1.52	YES	YES	YES	YES	
ERD003	530	166	166	0.84									YES	YES	NO	NO	
ERD003	520	173	173	0.5	98	1.53	17.8	22.6	34.1	25.5	4092	0.63	YES	YES	YES	YES	
ERD003	512	175	175	0.61	95	1.52	16.9	15.3	33.6	34.2	4783	2.4	YES	YES	YES	YES	
ERD003	511	178	178	0.57									YES	YES	NO	NO	
ERD003	444	179	180	0.91	95	1.75	17.9	34	20.8	27.3	3240	0.78	YES	YES	YES	YES	
ERD003	443	181	183	1.7	95	1.72	17.1	34	25.1	23.8	3277	0.95	YES	YES	YES	YES	
ERD003	442	183	185	1.81	95	1.8	12.1	45	22.2	20.7	2736	0.59	YES	YES	YES	YES	
ERD003	441	185	186	0.8									YES	YES	NO	NO	
ERD003	430	188	188	0.2									YES	YES	NO	NO	
ERD003	424	190	192	1.98									YES	YES	NO	NO	
ERD003	423	194	195	1.12									YES	YES	NO	NO	
ERD003	422	196	197	1.27	99	1.54	19.5	28.5	34.2	17.8	3522	0.86	YES	YES	YES	YES	
ERD003	421	198	199	0.97	100	1.55	17.7	25.4	42.3	14.6	3895	1.73	YES	YES	YES	YES	
ERD003	410	203	204	1.1	100	1.5	19.9	18.9	34.1	27.1	4227	1.44	YES	YES	YES	YES	
ERD003	340	209	211	2.4	100	1.5	20.3	15	40.7	24	4466	0.99	YES	YES	YES	YES	
ERD003	330	212	214	2.35	100	1.55	19.1	25.2	31.7	24	3829	1.41	YES	YES	YES	YES	
ERD003	320	215	221	5.85	98	1.52	19	22.7	31.7	26.6	4007	1.25	YES	YES	YES	YES	
ERD003	310	222	224	2	100	1.69	14.9	41.4	25.7	18	2927	0.95	YES	YES	YES	YES	
ERD003	203	225	225	0.5									YES	YES	NO	NO	
ERD003	202	228	228	0.6	100	1.67	15	40.2	25.5	19.3	2974	0.87	YES	YES	YES	YES	
ERD003	201	233	238	4.8	100	1.71	16.2	42.3	27.1	14.4	2722	1.09	YES	YES	YES	YES	
ERD003	103	239	241	2	100	1.45	24.1	18.9	36.8	20.2	3870	1.47	YES	YES	YES	YES	
ERD003	102	241	244	3.3	100	1.52	20.9	24.3	33.2	21.6	3696	2.28	YES	YES	YES	YES	
ERD003	101	245	246	1.2	100	1.54	23.1	27.4	34.9	14.6	3299	1.14	YES	YES	YES	YES	
ERD003	50	249	250	0.75	100	1.46	18.4	24.4	31.9	25.3	3886	1.51	YES	YES	YES	YES	
ERD004	842	28	28.7	0.7									YES	YES	NO	NO	
ERD004	814	54.7	55.3	0.55									YES	YES	NO	NO	
ERD004	813	58	58.3	0.3									YES	YES	NO	NO	
ERD004	812	58.8	59.3	0.5									YES	YES	NO	NO	
ERD004	811	61.6	62.8	1.2									YES	YES	NO	NO	
ERD004	762	79	80.4	1.4									YES	YES	NO	NO	
ERD004	733	92	93.5	1.5									YES	YES	NO	NO	
ERD004	732	93.5	96.4	2.85									YES	YES	NO	NO	
ERD004	731	98.1	99.4	1.3									YES	YES	NO	NO	

ERD004	724	106	107	1.45									YES	YES	NO	NO	
ERD004	723	115	116	0.56									YES	YES	NO	NO	
ERD004	722	116	117	1.24									YES	YES	NO	NO	
ERD004	721	118	118	0.5									YES	YES	NO	NO	
ERD004	714	124	125	1	100	1.43	26.1	12.1	41.2	20.7	4281	1.59	YES	YES	YES	YES	
ERD004	713	125	125	0.95	100	1.43	26.1	12.1	41.2	20.7	4281	1.59	YES	YES	YES	YES	
ERD004	712	125	127	1.8	98	1.39	28.2	7.84	47.9	16.1	4449	0.93	YES	YES	YES	YES	
ERD004	711	128	129	0.95									YES	YES	NO	NO	
ERD004	640	130	130	0.51	95	1.54	19.9	21.7	29.4	29.1	3969	0.79	YES	YES	YES	YES	
ERD004	630	132	133	1.02	95	1.61	21	27.4	36.7	15	3457	1.74	YES	YES	YES	YES	
ERD004	620	142	142	0.62	95	1.69	16.1	38.6	20.5	24.8	2961	1.84	YES	YES	YES	YES	
ERD004	610	150	151	1.35	95	1.61	22.7	29.1	32.6	15.6	3195	3.56	YES	YES	YES	YES	
ERD004	530	155	156	1.3	98	1.43	24.6	12.1	34.7	28.6	4442	2.84	YES	YES	YES	YES	
ERD004	520	157	157	0.7	100	1.47	21.4	18.9	34.5	25.2	4090	0.52	YES	YES	YES	YES	
ERD004	512	163	164	0.9	98	1.47	20.8	16.2	30.3	32.8	4399	2.08	YES	YES	YES	YES	
ERD004	511	166	167	1.05	95	1.47	26.7	16.8	38.5	18	3835	1.15	YES	YES	YES	YES	
ERD004	444	174	174	0.7	98	1.66	15.2	34.2	21.8	28.8	3373	0.79	YES	YES	YES	YES	
ERD004	443	174	176	2.1	100	1.7	15.4	39.4	22	23.2	3084	1.14	YES	YES	YES	YES	
ERD004	442	176	177	0.9	100	1.67	15.9	35.2	26.6	22.2	3278	1.22	YES	YES	YES	YES	
ERD004	441	177	178	0.7	100	1.42	23.5	9.38	41.4	25.8	4702	1.22	YES	YES	YES	YES	
ERD004	430	179	181	2.17									YES	YES	NO	NO	
ERD004	424	183	184	0.85	100	1.49	20.3	20.3	34	25.4	4116	0.93	YES	YES	YES	YES	
ERD004	423	186	187	1.2	100	1.64	16.6	32.4	23	28	3483	1.37	YES	YES	YES	YES	
ERD004	422	187	188	0.95	100	1.76	12.9	39	28.1	20	2740	1.04	YES	YES	YES	YES	
ERD004	421	188	189	0.75	100	1.79	12	40.6	29.3	18.1	2559	0.96	YES	YES	YES	YES	
ERD004	410	191	192	1.5	100	1.56	19.1	27.7	30.7	22.5	3647	1.2	YES	YES	YES	YES	
ERD004	340	193	195	1.85	100	1.54	20.2	24.5	32	23.4	3829	0.96	YES	YES	YES	YES	
ERD004	330	196	199	3.2									YES	YES	NO	NO	
ERD004	320	199	201	1.85	100	1.49	24.3	17.7	34	24	4028	1.57	YES	YES	YES	YES	
ERD004	310	206	208	1.85	100	1.39	25.6	11.3	36.6	26.4	4391	1.85	YES	YES	YES	YES	
ERD004	203	209	211	1.9	100	1.49	22.2	23.2	32.3	22.3	3699	1.21	YES	YES	YES	YES	
ERD004	202	211	212	1.55	100	1.8	16.3	46.1	22.9	14.6	2406	0.88	YES	YES	YES	YES	
ERD004	201	212	217	4.45	100	1.45	25.2	14.9	34.7	25.3	4140	2.25	YES	YES	YES	YES	
ERD004	103	219	221	1.4	100	1.46	22.9	21.3	32.8	23.1	3850	1.28	YES	YES	YES	YES	
ERD004	102	223	226	2.7	100	1.51	21.1	22.2	32.7	24	3874	1.53	YES	YES	YES	YES	
ERD004	101	227	228	0.9	100	1.43	23.2	15.7	33.4	27.7	4265	2.15	YES	YES	YES	YES	

ERD004	50	229	229	0.25									YES	YES	NO	NO	
ERD005	831	36.4	38.4	2									YES	YES	NO	NO	
ERD005	813	50.3	50.9	0.6									YES	YES	NO	NO	
ERD005	812	51.9	52.8	0.85									YES	YES	NO	NO	
ERD005	811	58.8	60.6	1.85									YES	YES	NO	NO	
ERD005	772	60.6	62.3	1.7									YES	YES	NO	NO	
ERD005	771	63.2	64.9	1.7									YES	YES	NO	NO	
ERD005	762	73.3	75	1.7									YES	YES	NO	NO	
ERD005	761	76.2	77.3	1.15									YES	YES	NO	NO	
ERD005	753	78.6	79.6	1									YES	YES	NO	NO	
ERD005	752	81	83.2	2.25	100	1.63	18.4	36.2	31.2	14.2	2959	1.43	YES	YES	YES	YES	
ERD005	751	83.2	85.6	2.4	100	1.53	21.8	21.2	39	18	3835	1.72	YES	YES	YES	YES	
ERD005	743	86.8	86.9	0.1									YES	YES	NO	NO	
ERD005	742	91.4	93.1	1.7	100	1.49	24	20.6	36.9	18.5	3751	1.9	YES	YES	YES	YES	
ERD005	741	94	94.7	0.75									YES	YES	NO	NO	
ERD005	733	95.2	96.1	0.9									YES	YES	NO	NO	
ERD005	732	97	98.3	1.35	100	1.54	17.9	25.8	37.1	19.2	3587	1.8	YES	YES	YES	YES	
ERD005	731	102	103	0.6	100	1.64	19.4	33.3	34	13.3	3080	1.7	YES	YES	YES	YES	
ERD005	724	106	107	0.8	100	1.68	17	32.7	25.9	24.4	3360	1.65	YES	YES	YES	YES	
ERD005	723	108	109	1									YES	YES	NO	NO	
ERD005	722	109	110	0.65	98	1.65	14.4	33	29.1	23.5	3444	1.69	YES	YES	YES	YES	
ERD005	721	110	110	0.55	100	1.49	20	16.4	35.3	28.3	4415	1.52	YES	YES	YES	YES	
ERD005	714	112	112	0.5	100	1.67	11.6	35.8	24.6	28	3528	1.31	YES	YES	YES	YES	
ERD005	713	112	114	1.76	100	1.47	23.5	11.6	32	32.9	4539	2.07	YES	YES	YES	YES	
ERD005	712	114	116	1.89	98	1.81	12.1	48.6	18.8	20.5	2579	1.18	YES	YES	YES	YES	
ERD005	711	116	117	1.1	100	1.67	14.7	29.8	33	22.5	3483	2.37	YES	YES	YES	YES	
ERD005	640	121	124	2.95	100	1.55	17.9	22.4	30.2	29.6	4083	1.82	YES	YES	YES	YES	
ERD005	630	124	126	1.5	100	1.45	24	15.4	39.5	21.2	4168	2.04	YES	YES	YES	YES	
ERD005	620	127	128	0.95	95	1.49	19.4	18.4	31.1	31.1	4176	3.01	YES	YES	YES	YES	
ERD005	610	131	133	1.4									YES	YES	NO	NO	
ERD005	530	135	140	5.3	100	1.5	21.8	19.2	27.5	31.5	4014	1.27	YES	YES	YES	YES	
ERD005	520	140	142	1.75	100	1.5	20.6	17.1	28.3	34	4270	1.51	YES	YES	YES	YES	
ERD005	512	143	146	2.65	98	1.45	21.5	13.8	31.2	33.4	4444	1.31	YES	YES	YES	YES	
ERD005	511	146	148	2.05	100	1.69	15.7	36.8	24.8	22.6	3104	1.39	YES	YES	YES	YES	
ERD005	444	148	149	0.85	100	1.43	19.8	9.37	35.3	35.5	4982	1.44	YES	YES	YES	YES	
ERD005	443	149	149	0.65	100	1.73	12.8	41.3	24.8	21.2	2841	1.5	YES	YES	YES	YES	

ERD005	442	149	150	0.7	98	1.7	12.6	37.5	26	23.8	3261	1.51	YES	YES	YES	YES	
ERD005	441	150	150	0.4	100	1.43	17	13.3	30	39.8	4886	3.6	YES	YES	YES	YES	
ERD005	430	151	154	2.9	100	1.49	17.9	19.8	39.1	23.2	3995	1.58	YES	YES	YES	YES	
ERD005	424	154	155	0.35									YES	YES	NO	NO	
ERD005	423	156	157	1									YES	YES	NO	NO	
ERD005	422	157	157	0.9									YES	YES	NO	NO	
ERD005	421	159	160	0.9									YES	YES	NO	NO	
ERD005	410	167	168	0.65	100	1.61	19.5	31.9	26.9	21.8	3296	0.82	YES	YES	YES	YES	
ERD005	340	168	172	4	100	1.6	16.9	31.9	27.3	23.9	3327	0.92	YES	YES	YES	YES	
ERD005	330	172	173	1.5	100	1.72	13.1	42.8	21.6	22.5	2749	1.1	YES	YES	YES	YES	
ERD005	320	173	178	5	100	1.5	18.7	22.7	34.5	24	3759	1.1	YES	YES	YES	YES	
ERD005	310	178	182	3.15	100	1.44	22.7	16	36.8	24.5	4098	1.01	YES	YES	YES	YES	
ERD005	203	182	185	3.7	100	1.45	24	17.2	35.9	23	3997	0.96	YES	YES	YES	YES	
ERD005	202	185	187	1.55	100	1.39	25.5	11.3	37	26.2	4316	1.11	YES	YES	YES	YES	
ERD005	201	187	191	4.1	100	1.44	25	10.9	37	27.1	4401	1.55	YES	YES	YES	YES	
ERD005	103	193	197	3.6	100	1.48	25.3	15.8	37.6	21.4	4009	1.82	YES	YES	YES	YES	
ERD005	102	197	200	2.3	100	1.49	20.4	20.8	33.1	25.7	4091	1.23	YES	YES	YES	YES	
ERD005	101	201	203	2.2	100	1.39	25.3	9.63	37.6	27.5	4499	1.09	YES	YES	YES	YES	
ERD006	821	44	45	1									YES	YES	NO	NO	
ERD006	814	57.3	60.2	2.9									YES	YES	NO	NO	
ERD006	813	60.7	61.1	0.4									YES	YES	NO	NO	
ERD006	812	63.2	64	0.85									YES	YES	NO	NO	
ERD006	773	71.9	72.4	0.5									YES	YES	NO	NO	
ERD006	772	73.9	75.4	1.5									YES	YES	NO	NO	
ERD006	761	77.3	78.5	1.25									YES	YES	NO	NO	
ERD006	753	82.5	84.6	2.1	100	1.44	23.3	14.7	41.4	20.5	4240	1.65	YES	YES	YES	YES	
ERD006	752	86.4	87.6	1.2	98	2	12.4	53.6	17.8	16.2	2083	1.75	YES	YES	YES	YES	
ERD006	751	91.4	92.1	0.7	98	1.63	16.5	33.7	26.3	23.6	3301	1.09	YES	YES	YES	YES	
ERD006	743	94.8	95.8	1									YES	YES	NO	NO	
ERD006	742	102	102	0.25									YES	YES	NO	NO	
ERD006	741	108	112	4.14									YES	YES	NO	NO	
ERD006	733	116	117	0.9									YES	YES	NO	NO	
ERD006	732	120	121	0.8									YES	YES	NO	NO	
ERD006	731	121	124	2.3									YES	YES	NO	NO	
ERD006	724	128	128	0.6									YES	YES	NO	NO	
ERD006	723	128	130	1.2									YES	YES	NO	NO	

ERD006	722	130	131	1.3									YES	YES	NO	NO	
ERD006	721	134	136	1.45									YES	YES	NO	NO	
ERD006	620	144	145	1.1	98	1.56	19.8	23.4	30.6	26.3	3875	1.15	YES	YES	YES	YES	
ERD006	610	150	151	1.83									YES	YES	NO	NO	
ERD006	530	156	157	1									YES	YES	NO	NO	
ERD006	520	161	163	2.27									YES	YES	NO	NO	
ERD006	512	164	164	0.3									YES	YES	NO	NO	
ERD006	511	168	168	0.1									YES	YES	NO	NO	
ERD006	444	171	173	1.25	100	1.69	13.6	38.2	22.3	25.9	3196	0.96	YES	YES	YES	YES	
ERD006	424	183	185	1.8									YES	YES	NO	NO	
ERD006	423	186	186	0.3									YES	YES	NO	NO	
ERD006	422	190	191	1.1	100	1.84	11.4	49.2	20.4	19	2574	0.8	YES	YES	YES	YES	
ERD006	421	191	192	0.9	100	1.67	15.3	33.3	23.8	27.7	3434	3.53	YES	YES	YES	YES	
ERD006	410	198	199	1.1									YES	YES	NO	NO	
ERD006	340	202	204	2.5									YES	YES	NO	NO	
ERD006	330	205	208	3.1	100	1.57	18.3	29.3	29	23.4	3534	1.4	YES	YES	YES	YES	
ERD006	320	210	213	2.25	100	1.64	18.5	35.2	25.7	20.6	3043	1.46	YES	YES	YES	YES	
ERD006	310	214	218	3.6	100	1.51	21.6	23.2	34.8	20.3	3697	2.22	YES	YES	YES	YES	
ERD006	203	220	221	0.4									YES	YES	NO	NO	
ERD006	202	228	231	2.59									YES	YES	NO	NO	
ERD006	201	234	237	3.05	98	1.79	14.8	44.2	24.1	16.9	2595	2.3	YES	YES	YES	YES	
ERD006	103	237	240	2.35	100	1.66	18.8	32.2	31.4	17.6	3228	1.27	YES	YES	YES	YES	
ERD006	102	240	242	2.4	100	1.49	19.9	20.4	35.3	24.5	4086	0.9	YES	YES	YES	YES	
ERD006	101	245	247	1.8	100	1.47	19.6	17.4	35.9	27.1	4313	1.49	YES	YES	YES	YES	
ERD006	50	248	249	0.55									YES	YES	NO	NO	
ERD007	732	30.8	32	1.2									YES	YES	NO	NO	
ERD007	731	35.1	36.7	1.58									YES	YES	NO	NO	
ERD007	724	47.6	48.6	0.98									YES	YES	NO	NO	
ERD007	723	48.9	49	0.08									YES	YES	NO	NO	
ERD007	722	50	50.1	0.07									YES	YES	NO	NO	
ERD007	721	52.3	52.9	0.65									YES	YES	NO	NO	
ERD007	714	53.7	54.1	0.4									YES	YES	NO	NO	
ERD007	713	55.4	55.5	0.05									YES	YES	NO	NO	
ERD007	712	56.8	57.1	0.3									YES	YES	NO	NO	
ERD007	711	58	58.1	0.1									YES	YES	NO	NO	
ERD007	620	59.8	61.4	1.55	75	1.66	15	35.6	30.3	19.1	3292	1.16	YES	YES	NO	NO	Poor core

																	recovery
ERD007	610	68.9	70	1.1	100	1.43	23.5	12.8	42.9	20.9	4355	1.32	YES	YES	YES	YES	
ERD007	530	71.8	72.9	1.1	98	1.49	22.5	19.5	38.3	19.7	3863	1.09	YES	YES	YES	YES	
ERD007	520	77.1	78.2	1.1									YES	YES	NO	NO	
ERD007	512	79.7	80.3	0.51									YES	YES	NO	NO	
ERD007	511	83	83	0.02									YES	YES	NO	NO	
ERD007	444	89.1	91.5	2.35									YES	YES	NO	NO	
ERD007	424	95.3	95.9	0.66									YES	YES	NO	NO	
ERD007	423	98.3	98.5	0.15									YES	YES	NO	NO	
ERD007	422	103	103	0.1									YES	YES	NO	NO	
ERD007	421	103	103	0.1									YES	YES	NO	NO	
ERD007	410	109	110	1									YES	YES	NO	NO	
ERD007	340	113	113	0.35									YES	YES	NO	NO	
ERD007	330	117	117	0.05									YES	YES	NO	NO	
ERD007	320	118	119	0.95									YES	YES	NO	NO	
ERD007	310	128	130	1.98									YES	YES	NO	NO	
ERD007	203	132	132	0.4									YES	YES	NO	NO	
ERD007	202	136	137	0.4									YES	YES	NO	NO	
ERD007	201	146	148	1.4									YES	YES	NO	NO	
ERD007	103	150	151	0.7	98	1.52	19.3	13.2	35.7	31.8	4742	3.45	YES	YES	YES	YES	
ERD007	102	154	156	2	100	1.59	15.9	30.7	27.5	25.8	3580	1.08	YES	YES	YES	YES	
ERD007	101	158	159	1.7	99	1.59	17	29.7	27.1	26.1	3586	2.19	YES	YES	YES	YES	
ERD007	50	160	161	0.5	98	1.69	15.3	39.3	28.4	17	2951	0.9	YES	YES	YES	YES	

23 APPENDIX 9: Samples Used to Make Composite Samples for Further Test work

A List of samples which was used for making a composite samples for further testing.			
See APPENDIX 8 for analytical results.			
Sample ID	**Thickness**	**RD**	**Mass**
	m	g/cm3	g
30001	0.45	1.46	22.673
30002	2.00	1.45	100.080
30003	1.80	1.46	90.693
30004	1.45	1.37	68.554
30006	1.40	1.39	67.157
30007	0.80	1.42	39.204
30009	1.05	1.41	51.092
30012	1.00	1.49	51.420
30014	2.00	1.45	100.080
30015	2.00	1.43	98.699
30016	0.45	1.43	22.207
30017	1.25	1.49	64.275
30018	1.00	1.52	52.455
30019	0.80	1.43	39.480
30021	0.60	1.53	31.680
30022	0.60	1.52	31.473
30023	1.00	1.75	60.393
30024	1.30	1.67	74.922
30026	0.50	1.72	29.679
30028	0.40	1.47	20.292
30030	1.25	1.54	66.432
30031	0.95	1.55	50.816
30032	1.10	1.50	56.942
30033	1.00	1.47	50.730
30034	0.70	1.47	35.511
30035	0.70	1.56	37.685
30036	1.00	1.36	46.934
30037	1.00	1.71	59.012
30038	0.65	1.52	34.096
30039	1.00	1.61	55.561
30040	1.00	1.38	47.624
30041	1.00	1.44	49.695
30042	1.00	1.52	52.455
30043	1.00	1.53	52.801

A List of samples which was used for making a composite samples for further testing.			
See APPENDIX 8 for analytical results.			
Sample ID	**Thickness**	**RD**	**Mass**
30044	0.70	1.67	40.342
30045	1.00	1.94	66.950
30046	1.00	1.44	49.695
30047	0.60	1.67	34.579
30048	1.00	1.82	62.809
30049	1.00	1.56	53.836
30050	1.00	1.74	60.048
30051	1.00	1.79	61.773
30052	0.70	1.55	37.444
30053	1.00	1.45	50.040
30054	1.00	1.45	50.040
30055	0.95	1.63	53.439
30056	1.10	1.49	56.562
30057	1.10	1.47	55.803
30058	1.20	1.54	63.775
30059	0.75	1.46	37.789
14301	1.95	1.43	96.232
14302	1.95	1.39	93.540
14303	0.70	1.54	37.202
14304	1.05	1.61	58.339
14305	0.50	1.69	29.161
14306	1.40	1.61	77.786
14307	0.60	1.79	37.064
14308	1.30	1.43	64.154
14309	0.70	1.47	35.511
14311	0.90	1.47	45.657
14312	1.05	1.47	53.266
14313	0.50	1.45	25.020
14315	1.85	1.52	97.043
14317	0.40	1.45	20.016
14319	0.70	1.42	34.303
14321	1.00	1.49	51.420
14322	1.30	1.64	73.576
14323	1.40	1.79	86.483
14324	1.30	1.56	69.987
14325	1.90	1.54	100.977
14326	1.80	1.49	92.556
14327	0.70	1.47	35.511
14328	1.80	1.39	86.344
14329	1.90	1.49	97.698

A List of samples which was used for making a composite samples for further testing.			
See APPENDIX 8 for analytical results.			
Sample ID	**Thickness**	**RD**	**Mass**
14331	2.00	1.80	124.237
14332	1.80	1.43	88.829
14333	1.65	1.39	79.149
14334	1.20	1.46	60.462
14335	1.20	1.47	60.876
14336	1.40	1.54	74.404
14337	0.95	1.43	46.882
14338	2.00	1.64	113.193
14339	1.30	1.49	66.846
14341	1.10	1.56	59.219
14342	1.70	1.49	87.414
14345	1.00	1.54	53.146
14346	0.60	1.64	33.958
14347	0.80	1.68	46.382
14348	0.50	1.52	26.228
14351	0.55	1.49	28.281
14352	0.30	1.45	15.012
14354	2.00	1.47	101.460
14355	1.15	1.61	63.896
14357	1.10	1.67	63.395
14358	2.00	1.52	104.911
14359	0.90	1.47	45.657
14362	1.50	1.45	75.060
14363	0.95	1.49	48.849
14364	2.00	1.49	102.840
14365	2.00	1.39	95.938
14366	1.00	1.48	51.075
14368	1.75	1.50	90.589
14369	2.00	1.43	98.699
14371	2.40	1.53	126.721
14373	0.85	1.43	41.947
14375	0.80	1.45	40.032
14377	0.40	1.43	19.740
14378	0.70	1.56	37.685
14381	2.00	1.42	98.009
14382	2.00	1.61	111.123
14383	2.00	1.56	107.672
14384	2.00	1.72	118.715
14385	2.00	1.39	95.938
14386	2.00	1.59	109.742

A List of samples which was used for making a composite samples for further testing.			
See APPENDIX 8 for analytical results.			
Sample ID	**Thickness**	**RD**	**Mass**
14387	1.95	1.56	104.980
14388	1.95	1.37	92.194
14389	1.90	1.54	100.977
14391	1.90	1.38	90.486
14392	1.90	1.39	91.141
14393	1.90	1.46	95.731
14394	1.50	1.43	74.024
14395	1.95	1.52	102.288
14396	1.55	1.43	76.492
14397	2.20	1.49	113.124
14398	2.10	1.39	100.735
14399	2.10	1.44	104.359
14401	1.20	2.00	82.824
14402	0.70	1.63	39.376
14403	1.20	1.56	64.603
14404	1.30	1.69	75.819
14405	0.90	1.60	49.695
14407	0.80	1.67	46.106
14408	2.00	1.60	110.433
14409	1.10	1.52	57.701
14411	2.10	1.64	118.853
14412	2.00	1.54	106.291
14413	1.60	1.48	81.720
14414	0.90	1.52	47.210
14416	0.65	2.02	45.312
14417	0.85	1.55	45.467
14419	1.85	1.54	98.319
14422	2.40	1.49	123.408
14423	1.80	1.47	91.314
14424	0.60	1.54	31.887
14426	0.75	1.52	39.342
14427	1.10	1.43	54.285
14428	1.10	1.49	56.562
14429	0.85	1.52	44.587
14431	2.00	1.59	109.742
14432	1.70	1.59	93.281
14433	0.50	1.69	29.161
14434	0.90	1.59	49.384

24 APPENDIX 10: Analysis Report for the submitted Composite Sample

Analysis Report for the submitted Composite Sample

BOSS Order No.	:	12083954
Submitted Sample No.	:	None
Applicant	:	Polo Resources LLC
Applicant Address	:	Floor 13 Monnis Tower, 1 khoroo, Chinggis avenue-15, Sukhbaatar district, Ulaanbaatar, MONGOLIA
Declared Commodity	:	Coal Sample
Sample Description	:	Granular (<9.5mm), packing unbroken.
Sample Received Date	:	7/29/2009

In accordance with instructions received from applicant, we prepared and carried out required test on the submitted sample. The analysis results reported as follows:

Analysis		Unit	Basis	Result	Method
Total Moisture		%	ar	32.23	ISO 589:2008(E)
Inherent Moisture		%	ad	20.66	ISO 11722:1999(E)
Proximate Analysis	Ash	%	ad	21.57	ISO 1171:1997(E)
	VM	%	ad	26.85	ISO 562:1998(E)
	FC	%	ad	30.92	ISO 1213-2:1992(E)
Total Sulphur		%	ad	1.43	ISO 351:1996(E)
Ultimate Analysis	C	%	ad	41.51	GB/T476-2008
	H	%	ad	2.72	GB/T476-2008
	N	%	d	0.67	GB/T 19227-2008
	O	%	d	14.59	GB/T 476-2001
	Ht	%	ad	5.03	GB/T476-2008
Gross Calorific Value		MJ/kg	ad	16.136	ISO 1928:1995(E)
		kcal/kg	ad	3,853	ISO 1928:1995(E)
		Btu/lb	ad	6,935	ISO 1928:1995(E)
Net Calorific Value		MJ/Kg	ar	12.563	ISO 1928:1995(E)
		kcal/kg	ar	3,001	ISO 1928:1995(E)
		Btu/lb	ar	5,402	ISO 1928:1995(E)
Relative Density		-	ad	1.45	ASTM Lab Method
HGI		-	-	56	ISO 5074:1994(E)
Chlorine (Cl)		%	d	0.07	ISO 587:1997(E)
Phosphorus (P)		%	ad	0.016	ISO 622-1981(E)
Abrasion Index		mg/kg	-	56.00	GB/T 15458
Forms of Sulphur	Total Sulfur, S_t	%	d	1.86	ASTM D 3117-2003
	Sulfate, S_s	%	d	0.03	ASTM D 3117-2003

	Pyritic, S_p	%	d	0.90	ASTM D 3117-2003
	Organic, S_o	%	d	0.93	ASTM D 3117-2003
Ash Fusion Temp (oxidizing)	DT	℃	-	1176	ISO 540:2008(E)
	ST	℃	-	1230	ISO 540:2008(E)
	HT	℃	-	1246	ISO 540:2008(E)
	FT	℃	-	1294	ISO 540:2008(E)
Ash Fusion Temp (reducing)	DT	℃	-	1151	ISO 540:2008(E)
	ST	℃	-	1165	ISO 540:2008(E)
	HT	℃	-	1174	ISO 540:2008(E)
	FT	℃	-	1201	ISO 540:2008(E)
Mineral Analysis of Ash	Al_2O_3	%	-	15.59	ASTM D4326-2004
	TFe_2O_3	%	-	12.24	ASTM D4326-2004
	TiO2	%	-	0.95	ASTM D4326-2004
	SiO_2	%	-	45.27	ASTM D4326-2004
	CaO	%	-	7.37	ASTM D4326-2004
	MgO	%	-	4.93	ASTM D4326-2004
	K_2O	%	-	1.02	ASTM D4326-2004
	P_2O_5	%	-	0.19	ASTM D4326-2004
	MnO_2	%	-	0.25	ASTM D4326-2004
	SO_3	%	-	7.83	ASTM D4326-2004
	Na_2O	%	-	2.97	ASTM D4326-2004
Trace Elements	As	ppm	-	70.6	ASTM D5056
	Cd	ppm	-	5.45	ASTM D5056
	Co	ppm	-	24.6	ASTM D5056
	Cr	ppm	-	79.8	ASTM D5056
	Cu	ppm	-	30.2	ASTM D5056
	Mn	ppm	-	158.1	ASTM D5056
	Mo	ppm	-	15.4	ASTM D5056
	Ni	ppm	-	15.6	ASTM D5056
	Pb	ppm	-	47.7	ASTM D5056
	Sb	ppm	-	6.59	ASTM D5056
	V	ppm	-	19.1	ASTM D5056
	Zn	ppm	-	69.9	ASTM D5056

25 APPENDIX 11: Photos of borehole positions

Borehole 102

Borehole 104

Borehole 105

Borehole ERD003

Borehole ERD004

Borehole ERD005

Borehole ERD006

Borehole ERD007

26 APPENDIX 12: Accreditation for SGS laboratory

China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(No. CNAS L2774)

China National Accreditation Service for Conformity Assessment has accredited

Test Center of SGS-CSTC Standards Technical Services Co., Ltd.
(Tianjin)

Kaitai, No.41, No.5 Avenue, TEDA, Tianjin, China

to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.

Date of Issue: 2009-05-08
Date of Expiry: 2011-08-02
Date of Initial Accreditation: 2006-08-03

Signed on behalf of China National Accreditation Service for Conformity Assessment

China National Accreditation Service for Conformity Assessment(CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation systems for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA), and the signatory to Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

SGS

Certificate :ZA 08/0560

The management system of

SGS Mongolia LLC

Barmash Building Chinggis Avenue, Khan UUL District
Ulaanbaatar 36 Mongolia

has been assessed and certified as meeting the requirements of

ISO 9001:2000

For the following activities

The provision and management of mineral laboratory services applicable to exploration and mining related activities

Exclusion Clause: 7.3 Design and Development

This certificate is valid from 01 November 2007 until 01 November 2010
Issue 1 Certified with SGS since November 2004

Authorised by

SGS South Africa Systems & Services Certification
58 Melville Street, Boosyens, Gauteng 2091 South Africa
t +27(0)11 681 2500 f + 27(0)11 681 2543 www.sgs.com

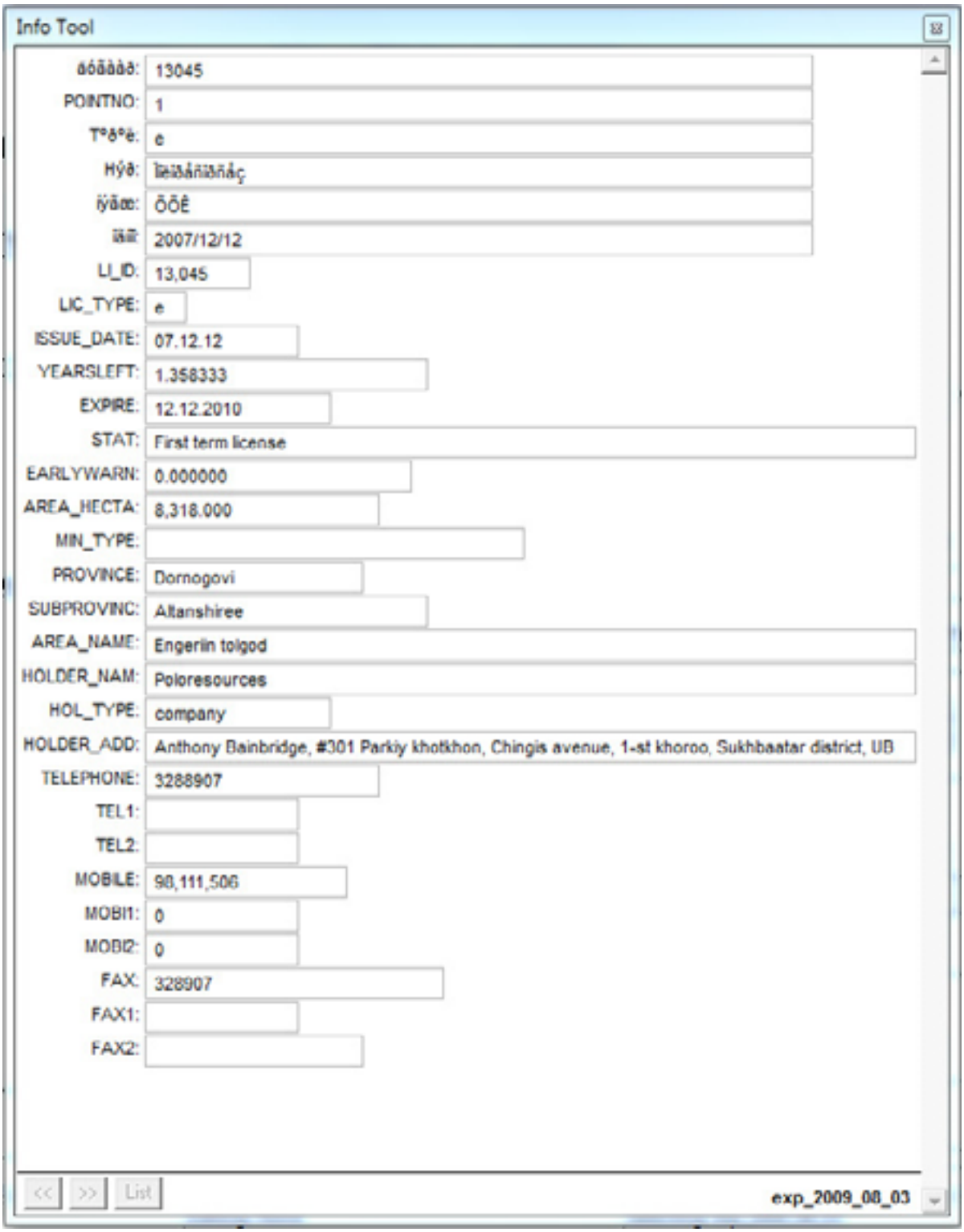
SYSTEM CERTIFICATION ISO 9001:2000 SGS

sanas
Govt Certification Body
C02a

Page 1 of 1

SGS

27 APPENDIX 13: Licence details



АШИГТ МАЛТМАЛ, ГАЗРЫН ТОСНЫ ХЭРЭГ
ЭРХЛЭХ ГАЗАР

АШИГТ МАЛТМАЛЫН ХАЙГУУЛЫН ТУСГАЙ

ЗӨВШӨӨРӨЛ

Дугаар 13045Х

Ашигт малтмалын тухай Монгол улсын хуулийн 19 дүгээр зүйлийн үндэслэн

Дорноговь аймаг /хот/-ийн

Алтанширээ сум /дүүрэг/-ын

Эмээрийн толгод нэртэй газарт орших

8518 гектар талбайг хамарсан хайгуулын талбайд хуульд заасан зохион байгуулалтын дагуу ашигт малтмал хайхыг зөвшөөрч улсын бүртгэлийн *9011063091* тоот гэрчилгээгээр

"Жи Эй Си Эйч" У.Х.К -д

энэхүү тусгай зөвшөөрлийг *3* жилийн хугацаатай олгов.

Тусгай зөвшөөрөл хавсралттүй бол хүчинтэй.

АШИГТ МАЛТМАЛ, ГАЗРЫН ТОСНЫ ХЭРЭГ
ЭРХЛЭХ ГАЗРЫН ДАРГА Л. БОЛД

2007 оны 12 сарын 12 өдөр

Улаанбаатар хот

13045X

АШИГТ МАЛТМАЛЫН ХАЙГУУЛЫН .... ТООТ
ТУСГАЙ ЗӨВШӨӨРЛИЙН 1 ДУГААР ХАВСРАЛТ
(Тусгай зөвшөөрлийн бол хүчингүй)

Тусгай зөвшөөрлийн талбайн хэмжээ багасч тусгай зөвшөөрлийн эзэмшилд орсон өөрчлөлт

№	Тусгай зөвшөөрөлд орох өөрчлөлтийн үндэслэл	Өөрчлөлтийн бүртгэлийн дугаар	Хасагдах талбайн хэмжээ (га-аар)	Үлдэх талбайн хэмжээ (га-аар)
1.	Анх олгосон	20571X		8318 2007-12-12
2.	Тусгай зөвшөөрлийн гэрчилгээг улсын бүртгэлийн 9011134123 тоот гэрчилгээтэй „Би Жи Жи Ти„ ХХК-д шилжүүлснийг ГУУКГ-ын даргын 2007 оны 187 тоот шийдвэрээр бүртгэв.	T6096X		8318 2008-0[illegible]-14
3.	Тусгай зөвшөөрлийн 2 дахь жилийн төлбөрийг төлсөн.			8318 2008-12-10
4.	Тусгай зөвшөөрлийн гэрчилгээг улсын бүртгэлийн 9019031059 гэрчилгээтэй „Полимекомпекс„ ХХК-д шилжүүлснийг ГУУКХ-ийн даргын 2009 оны 134 тоот шийдвэрээр бүртгэв.	T6763X		8318 2009-04-29
	Тайлбар: анх олгосон огноо 2007-12-12 өдрөөр тооцож жил бүр төлнө.			

АШИГТ МАЛТМАЛЫН ХАЙГУУЛЫН 13045X ТООТ
ТУСГАЙ ЗӨВШӨӨРЛИЙН 2 ДУГААР ХАВСРАЛТ
(тусгай зөвшөөрлийн бүх хугацаанд)

Тусгай зөвшөөрлөөр олгосдсон талбайн булангийн цэгүүдийн солбицлын өөрчлөлтүүд

д/д	Солбицлууд өөрчлөгдөх үндэслэл	Хүчин төгөлдөр солбицлууд
1.	Талбайн анхны солбицлууд	№ градус минут секунд градус минут секунд 1 110 33 40 45 52 20 2 110 39 50 45 57 20 3 110 39 50 45 50 15 4 110 38 48 45 50 15 5 110 38 48 43 48 0 6 110 33 40 43 48 0 2007-12-12 Э. Занабат
2.	Тусгай зөвшөөрлийн гэрчилгээ улсын бүртгэлийн 9011134123 тоот гэрчилгээтэй „Ка Жи Жи Ти„ ХХК-д шилжүүлснийг ГУУКГ-ын даргын 2007 оны 187 тоот шийдвэрээр бүртгэв.	Тусгай зөвшөөрлийг олгосдсон талбайн булангийн цэгүүдийн солбицлууд хэвээр 2008-02-15
3.	Тусгай зөвшөөрлийн 2 дахь эзэмшил талбарын тэмдэг.	Тусгай зөвшөөрлөөр олгосдсон талбайн булангийн цэгүүдийн солбицлууд хэвээр 2008-12-10
4.	Тусгай зөвшөөрлийн гэрчилгээ улсын бүртгэлийн 9019013099 гэрчилгээтэй „"Пиопроспресс„ ХХК-д шилжүүлснийг ГУУКХ-ийн даргын 2009 оны 134 тоот шийдвэрээр бүртгэв.	Тусгай зөвшөөрлөөр олгосдсон талбайн булангийн цэгүүдийн солбицлууд хэвээр 2009-01-20

Талбайг анх олгосон огноо 2007-12-12 өдрөөр тооцож хэвээр тэмдэг.

28 APPENDIX 14: Glossary of technical terms

3D	Three-dimensional.
%	Percent.
o C	degrees Celsius
Anisotropy	Quality of a variably to having different physical properties when measured in different directions.
Assay	A measured quantity of material within a sample.
Azimuth	Azimuth angle on which an exploration hole was drilled (deviation to North).
Coal Seam	Portion of the strata that contains solid fossil fuels
Coal resource	is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such a form and quantity that there are reasonable prospects for eventual economic extraction.
Coefficient of variation (CV)	In statistics, a normalised measure of the variation present in a sample population.
Collar	Geographical co-ordinates of a drillhole or shaft starting point.
Compositing	In sampling and resource estimation, process designed to carry all samples to certain equal length.
Correlation coefficient	A statistical measure of the degree of similarity between two parameters.
Cumulative frequency graph	Graphical representation of data ranked in ascending or descending order, which are shown in a nondecreasing function between 0% and 100%. The percent frequency and cumulative percent frequency forms are interchangeable, since one can be obtained from the other.
Dip	Angle which strata makes with horizontal
g/cc	grams per cubic centimeter
Geostatistics	Science studying and describing the spatial continuity of any kind of natural phenomena.
Histogram	A graphical presentation of the distribution of data by frequency of occurrence.
IDW	Inverse Distance Weighting
Indicator	Transformed value.
Inverse Distance Weighting	Geostatistical method to calculate mineral resource. Since this method makes the weight for each sample inversely proportional to its distance from the point being estimated it gives more weight to the closest samples and less to those that are farthest away. Method works very efficiently with regularly gridded data. Extreme versions of inverse distance weighting are the global declustering methods like the polygonal method and the local sample mean method.
JORC Code	Australasian Code for Reporting of Mineral Resources and Ore Reserves
Lognormal	Refers to the distribution of a variable where the distribution of the logarithm of that variable is normal.
m	Metre
M	Million or mega (106).

Mean	Average.
Median	Value of the middle sample in a data set arranged in rank order.
COAL MEASURE.	Mining and exploration software.
Micromine	Micromine Pty Ltd.
Micromine Consulting	Consulting division of Micromine Pty Ltd.
Mt	Million tonnes.
Omni	In all directions.
OK	Ordinary Kriging interpolation method.
Percentile	One hundredths of the total data. 50th percentile corresponds to the median.
Population	In geostatistics population encompasses grades which show the same or close geostatistical characteristics. Ideally, one population is characterised by linear distribution
Probability plot	Plot showing cumulative frequencies over different intervals on a log scale probability plot
QP	“qualified person”
Range	Distance at which variogram reaches its plateau.
RD	Relative density (unit grams per cubic centimetre).
Resource	Geological mineral resource (mineable and unmineable).
RL	Reduced level i.e. elevation relative to a local datum
Sill	Distance at which variogram reaches its sill. Physically, there is no correlation between paired samples at that distance.
Spatial continuity	The description or function how continuous are the data values over a certain distance in three dimensions.
Standard deviation	A statistical measure of the dispersion of sample data around the mean value.
t	Tonne.
t/m^3	Tonne per cubic metre.
Variance	In statistics, a measure of dispersion about the mean value of a data set.