

3 September 2013



## ASX ANNOUNCEMENT

# PARINGA ACQUIRES EXPORT QUALITY THERMAL AND COKING COAL PROJECTS IN THE USA

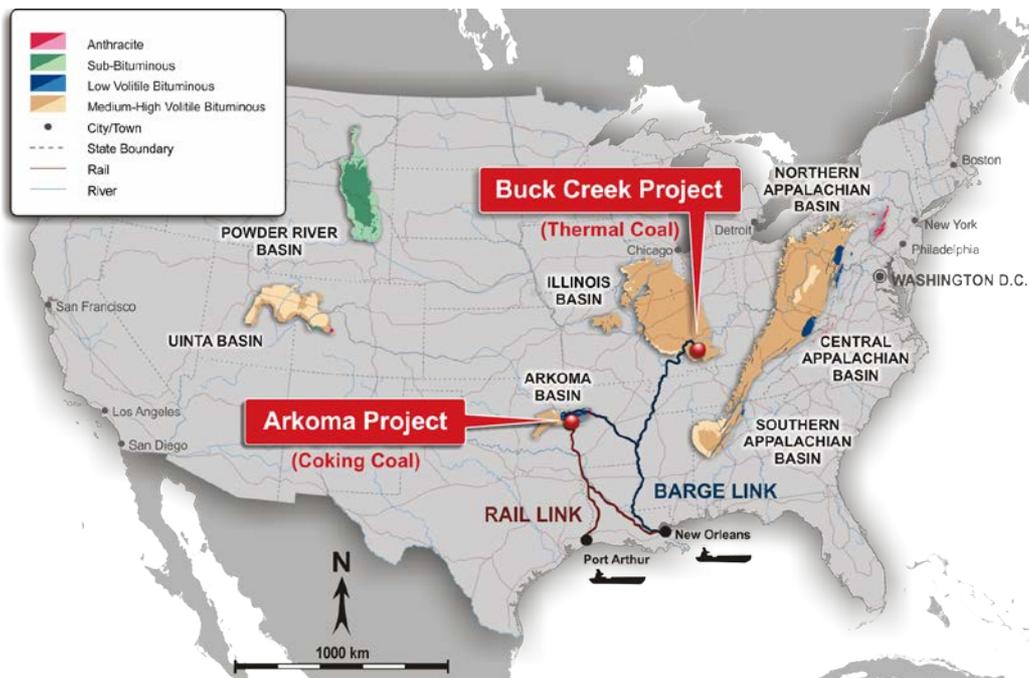
Paringa Resources Limited (“**Paringa**” or “**Company**”) is pleased to advise that the Company has entered into a conditional agreement to acquire Hartshorne Coal Mining Ltd (“**Hartshorne**”) which has export quality thermal and coking coal projects (“**Projects**”) located in the USA.

Hartshorne was founded with the purpose of securing premium coal assets in the USA proximal to existing infrastructure for supply to domestic and export markets. Following completion of the acquisition, two of the founders of Hartshorne, Messrs Ian Middlemas and Anastasios (Taso) Arima, will join the board of Paringa. Mr Middlemas will be appointed as Non-Executive Director and Mr Arima will be appointed as Executive Director, joining existing Directors Messrs David Griffiths and David Chapman.

### HIGHLIGHTS:

- **Buck Creek Project:** Advanced high quality, substantially permitted, domestic and export thermal coal project covering an area of over 31,000 acres (~12,500 ha) in the high growth Illinois Coal Basin (“ILB”) in Kentucky, USA.
  - Buck Creek is one of the last remaining high quality thermal coal projects within the ILB that is not controlled by a major coal producer.
  - Geology of the ILB region, and specifically within the project area, lends itself to some of the most productive and lowest cost mining in the USA and is located close to some of the largest and highest margin thermal coal mines in the USA owned by the second largest US coal firm, Alliance Resource Partners LP (~US\$2.9 billion market capitalization).
  - Potential for low cost capital development given proximity to infrastructure and a highly competitive construction and services sector, and low-cost skilled labour within the region.
  - Excellent river, road and rail infrastructure provides access to domestic power plants and underutilized coastal coal export terminals in the Gulf of Mexico.
  - ILB region has experienced unhindered growth in both domestic and export markets in the last 5 years, which is expected to continue given its competitive market position.
  - Substantial existing drilling database will form the basis for a Mineral Resource Estimate in accordance with the JORC Code.
- **Arkoma Coking Project:** First mover advantage in an underdeveloped low volatile bituminous coking coal basin with lease holdings covering an area of over 14,000 acres (~6,000 ha) in the Arkoma Basin in Arkansas, USA.
  - Low volatile hard coking coal, ranking highly in the international coking coal market based upon preliminary coal quality testing.
  - Infrastructure advantaged, with access to existing waterways and rail infrastructure leading to underutilized coal terminals in the Gulf of Mexico.
- **Experienced US Coal Sector Management:** Highly respected US coal team, led by Hartshorne’s founding CEO, Mr David Gay, a senior US coal executive who was most recently head of mergers and acquisitions for Alpha Natural Resources, a major US coal producer.

- **Significant Cash Reserves:** The Company's cash reserves after completion of the transaction will be approximately A\$7.5 million which will allow the Company to fast track development of the Projects and fund activities on the Company's existing South American projects. The Company expects substantial news flow over the next 6 to 12 months as it continues the exploration and development of the Projects.



**Figure 1: Location of the Buck Creek Thermal and Arkoma Coking Projects and Major US Coal Basins**

Paringa will acquire 100% of the shares in Hartshorne, an Australian unlisted public company which holds the Projects. The commercial terms of the acquisition, which are subject to approval by Paringa shareholders, include the issue of 61 million Paringa shares to Hartshorne shareholders (“**Transaction**”).

The Company's major shareholder, Silver Lake Resources Ltd, who holds 34% of Paringa, supports the Transaction and intends to vote for the acquisition.

As previously advised, the Board of Paringa has been pursuing new opportunities in the resources sector which would have the potential quality and scale to add substantial value to both the Company and its shareholders by adding to and building upon the Company's existing exploration assets in Brazil. The current cash position of Paringa allows the Company to pursue development of the Projects while also fulfilling the commitments of its Brazilian assets.

The Board is excited by these Projects in the USA and looks forward to making further announcements to the market as the Projects develop.

**For further information contact:**

**David Griffiths** +61 8 9382 8300  
Chairman

**David Chapman** +61 8 6500 1900  
Managing Director

## US COAL OVERVIEW

The US coal sector is currently undergoing a significant transition due to many factors including the current state of international coal markets and the local US coal demand dynamics. This has presented opportunities for investors who are prepared to acquire strategic coal resources within growth areas such as the Illinois Coal Basin (“ILB”).

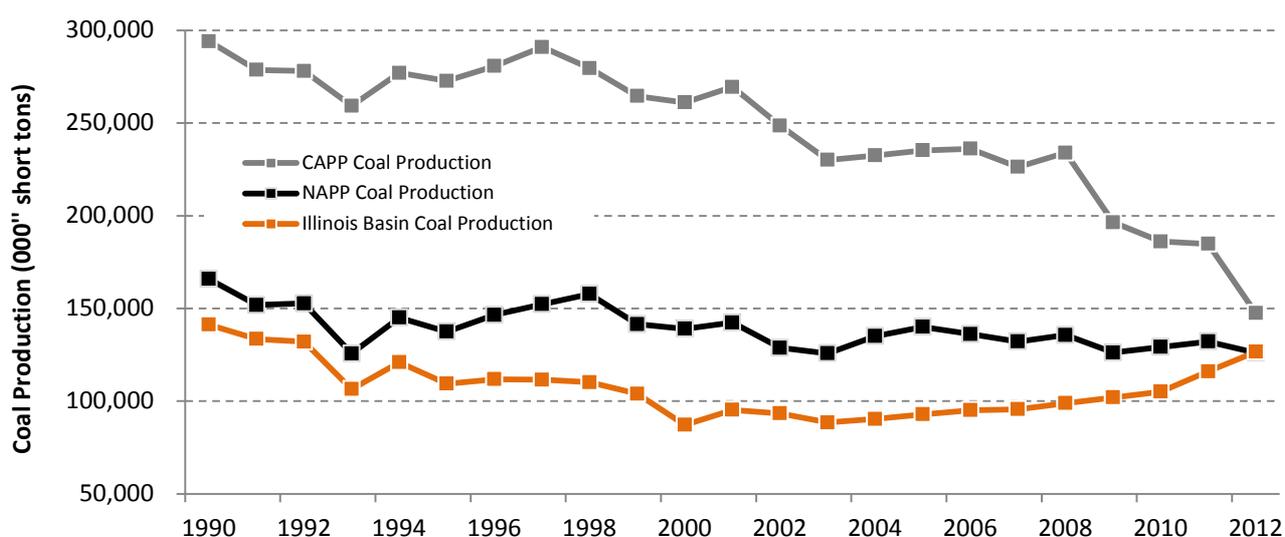
### **Hartshorne Strategy**

Hartshorne was formed in 2011 with the strategy to focus on coal opportunities in the USA which continues to be competitively advantaged with excellent infrastructure, low cost capital and low cost operating environment. Key advantages of the US coal industry are:

- The US has a very mature, low cost, labour force and service industry owing to its position as the second largest producer of coal globally with ~1.1 billion tons (~1.0 billion tonnes) being produced in 2012.
- There are over 40,000 km of waterways and 236 lock chambers across the USA providing for low cost barging opportunities available to certain coal basins.
- There is significant power, water, road and service infrastructure built across almost all US coal basins which negates any requirement for significant infrastructure capital which plagues almost all other developing coal regions around the globe.
- There are significant underutilized, cape-size capable coal terminals within the Gulf of Mexico, specifically along the Mississippi River, which currently services international seaborne markets at a very low cost and are accessible primarily via barge.

The strategy of Hartshorne resulted in the acquisition of a development ready, high quality coal project within the ILB thermal coal basin (the Buck Creek Project), and the leasing of one of the largest coal mineral holdings within the untapped Arkoma coking coal basin (the Arkoma Project).

### **ILB Thermal Coal Markets**



**Figure 2: Growth of ILB Production** (million tons, Source: EIA)

The ILB is experiencing a period of high growth as it continues to be a region with the potential for low cost development, high margins and sits in the lowest cost quartiles of US production. It has not seen the difficult economic conditions which have affected other historical coal producing regions within the USA given the increased natural gas production from shale gas plays within the USA.

Coal output within the ILB rose by almost 10% during 2011 to 2012 and has surpassed Northern Appalachia (“**NAPP**”) production and is projected to surpass Central Appalachia (“**CAPP**”) production over the next few years for the first time. This will make the ILB the second largest producing region of coal within the USA.

This growing demand for ILB coal has been underpinned by the following key market changes:

- Sulfur content is no longer a major concern for ILB coal products as many coal-fired power plants in the USA have installed scrubbers which remove around 95% of sulfur dioxide from emissions.
- Scrubbing capacity is also increasing across the globe with much of the Chinese and many of the European coal-fired power plants having installed scrubbers.
- The ILB offers superior geologic and mining conditions which translate to higher productivity and lower costs.
- Many of the US coal basins, in particular the CAPP region, have seen decades of high production and are now facing increased resource depletion leading to the development of higher cost reserves.
- The ILB's, and specifically Western Kentucky's, proximity to the Mississippi River system's low cost barge networks offers a clear logistical advantage over other USA coal basins particularly the PRB and CAPP.
- The region is relatively near the export terminals of the Gulf Coast which is the only area of the USA with surplus export coal terminal capacity.
- Environmental issues are significantly less as the ILB region is not located in areas with significant topographical features which can lead to valley fill which is the focus of the EPA, in particular CAPP.

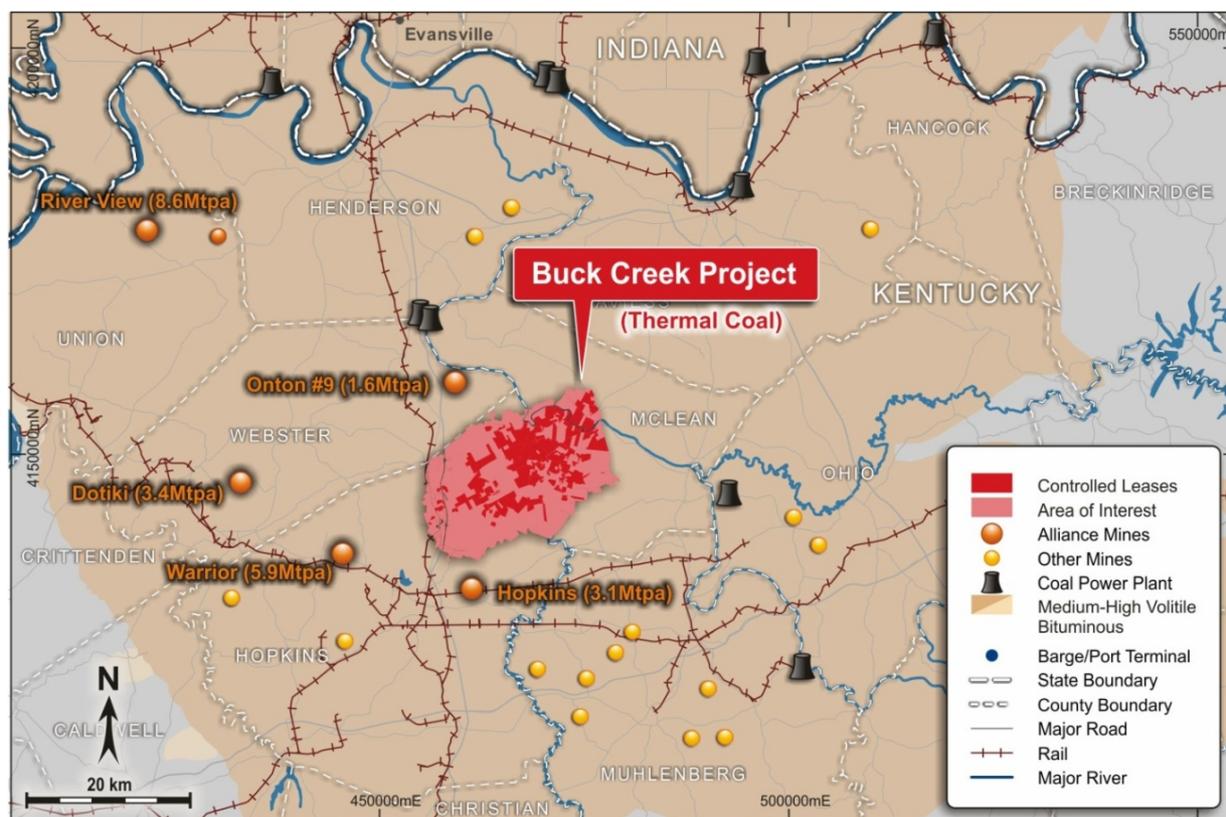
During 2012, over 110 million tons (~100 million tonnes) was consumed in the USA whilst almost 65 million tons (~60 million tonnes) of thermal coal was consumed by power plants within the immediate region of Western Kentucky and southern Indiana. Most of these plants are serviceable by the Buck Creek Project via barge or truck transportation. In addition, exports of ILB coal to markets such as Europe and Asia continue to substantially increase (61% increase in 2012).

## **BUCK CREEK PROJECT**

Hartshorne's coal leases are situated in the Western Kentucky region of the ILB which is one of the most prolific coal producing regions in the United States. The West Kentucky No.9 coal seam (“**WK No.9**”), also known as the Springfield coal seam, is the target of the Buck Creek Project. The Springfield seam is the third largest producer of thermal coal in the USA, a country which produced ~1.1 billion tons (~1.0 billion tonnes) during 2012. The Buck Creek Project is one of the few remaining high quality thermal coal projects within the WK No.9 coal seam that is not controlled by one of the major US coal companies.

## Location

The Buck Creek Project is located within McLean and Hopkins Counties in the State of Kentucky, USA. The Project is approximately 60km south of Hartshorne's USA office in Evansville, Indiana and 280 km southwest of the state capital city of Frankfort, Kentucky.



**Figure 3: Buck Creek Project and Alliance Resources Partners LP coal mines**

The topography of McLean and Hopkins Counties is characterized by patches of low hills separated by broad valley flats. The wide bottom farming lands along the Green River and its tributaries are the most striking feature of the terrain.

## Infrastructure

The Buck Creek Project is located adjacent to the Green River which provides year round linkage to the Ohio and Mississippi rivers systems which feed domestic coal-fired power plants and coastal export coal terminals in the Gulf of Mexico. Buck Creek has already permitted a barge loading facility adjacent to the mine near mile marker 60 on the Green River.

Along the Green River coal is typically loaded into 1,350 ton barges, and then assembled into 4 barge tows. These barges are then consolidated into much larger 9 to 16 barge tows on the Ohio River. These barge tows travel down the Ohio and Mississippi Rivers to export facilities in the Gulf of Mexico. The average transit time to the Gulf Coast is approximately 11 days with the base rate for barging being approximately US\$15.00 to US\$16.50 per ton.

Additionally the region has access to a highly developed coal industry including a well-trained labour force, established power and water utilities and a very mature coal mining service industry which are all critical in the development of a low cost coal mining operation.

Coal terminals along the Mississippi River are capable of loading cape-sized vessels with up to 120,000 tons (~100,000 tonnes) of coal for service coal markets in Europe, South America and Asia. The base rate to load coal at these terminals is around US\$2.00 to US\$5.50 per ton.

### **Leases**

Hartshorne controls over 31,000 gross acres (~12,500 ha) of coal leases typically with 20-year lease terms within an Area of Interest (refer to Figure 3) of almost 72,000 acres (~29,000 ha). Discussions are ongoing to increase the leasehold interest within the Area of Interest by directly leasing additional acreage from the individual mineral owners. Lease production royalty rates are the greater of US\$1.25 per ton or 4% of the sales value at the mine gate.

Hartshorne also holds options to purchase approximately 540 acres (~218 ha) of surface land to be used for the surface facilities of the underground mine, preparation plant, refuse disposal site and barge loading facility.



**Figure 4: Typical Terrain of McLean County and showing Calhoun and the river infrastructure typical of the Buck Creek Project**

### **Permit Status**

The Buck Creek Project includes approved permit applications for both a state mining permit and a United States federal 404 permit for the mine and barge load out facility. These are the key environmental permits required for the Buck Creek Project.

### **Geology**

The WK No.9 coal seam (Springfield Seam) is the third most prolific coal seam by production in the USA with production of over 51 million tons (~46 million tonnes) in 2011. The WK No.9 coal seam is a laterally continuous coal seam that extends through a large part of the Illinois Basin and typically is relatively thick (3.0 to 4.5 feet).

The relatively simple geology of the region has led to the ILB having some of the highest productivities within its underground mines in the USA. Active mining to the North, West and South of the project area further enhances the understanding of the project geology and potential productiveness.

Approximately 163 drill holes have previously been drilled on the Buck Creek Project focused on the WK No.9 coal seam, including approximately 127 core holes, 10 rotary holes, and 26 oil and gas wells. A review of all existing drilling and exploration data is currently underway. The drilling database will form the basis for a Mineral Resource Estimate in accordance with the JORC Code.

### **Coal Quality**

Buck Creek coal offers one of the highest quality, highest heating value products in the ILB. The coal is also considered a low chlorine coal by ILB standards and offers significant chlorine advantage over some of the most recent development projects in the region.

Coal quality based on 24 samples obtained from previous drilling on the Buck Creek Project is summarized below:

Clean Coal Quality (Eq. Moisture +4% @ 1.60 Float)	
Moisture	10.64%
Ash	8.44%
Calorific Value	11,808 Btu/lb
Sulfur	2.85%
Chlorine	0.20%

### **Development Plan**

Hartshorne's strategy is to fast track the development of the Buck Creek Project as a potential large scale, low cost underground mining operation. The next stage in the development is to complete a JORC Code compliant Mineral Resource Estimate and progress the project through to a Scoping Study to delineate potential production rates, capital and operating costs. Hartshorne will continue to progress its leasing activities in the region.

## Alliance Resource Partners LP

Alliance Resource Partners LP is currently the third largest coal producer in the USA by market capitalization (~US\$2.9 billion market capitalization, ~US\$3.7 billion enterprise value) behind Peabody (~US\$4.9 billion, US\$10 billion enterprise value), and Consol Energy Inc. (~US\$7.6 billion, US\$11 billion enterprise value) and significantly ahead of most of the established coking coal companies.

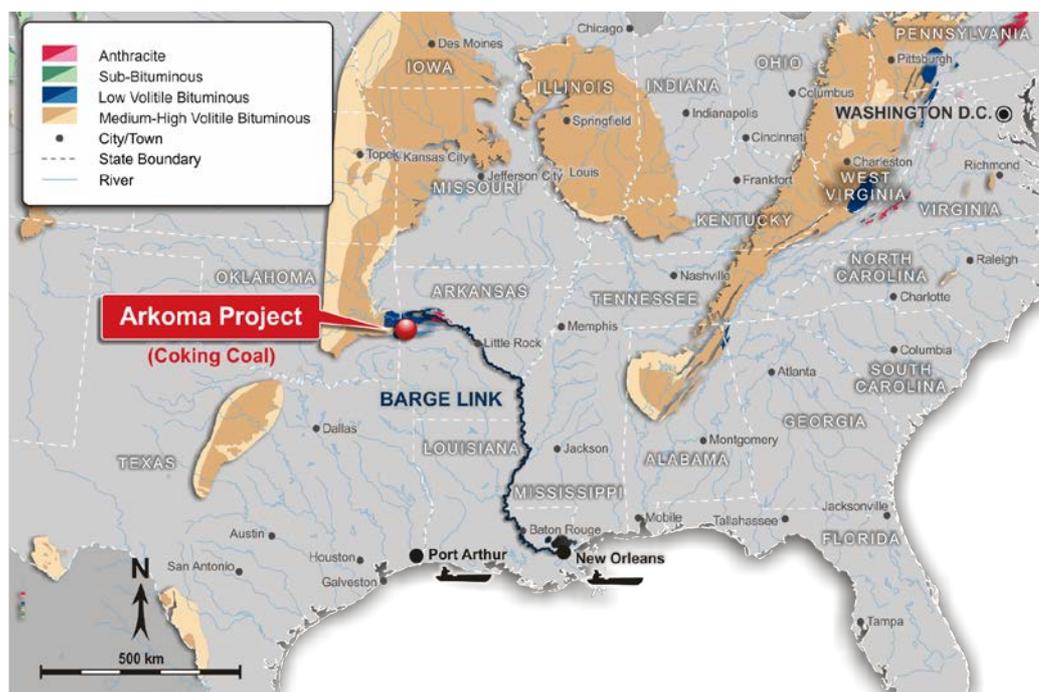
Alliance is a 100% thermal coal producer with over ~38 million tons (~34 million tonnes) of coal production annually with the majority of operations being located in the ILB. Specifically, Alliance owns five (5) operating mines in Western Kentucky that are producing around 22 million tons (~20 million tonnes) per year of thermal coal servicing local power plants and international markets. These are some of Alliance's most profitable and highest production mines and are some of the highest margin mines in the country; currently ahead of many premium coking coal mines. The Buck Creek Project, which is adjacent to these mines, is aimed at emulating the success of Alliance and its operations in the region which share very similar geology, coal quality and infrastructure access.

## ARKOMA COKING PROJECT

Regional mapping and analysis of past coal production in the Arkoma basin led to the definition of this high value coking coal target area. Preliminary coal quality testing confirms low volatile hard coking coal, ranking amongst the best hard coking coal products in the world.

### Location

The Arkoma Project is located in Sebastian County along the Arkansas River Valley in the State of Arkansas, USA. The Project is approximately 25 km south of Fort Smith and 195 km from the state capital city of Little Rock.



**Figure 5: Arkoma Coking Project Location**

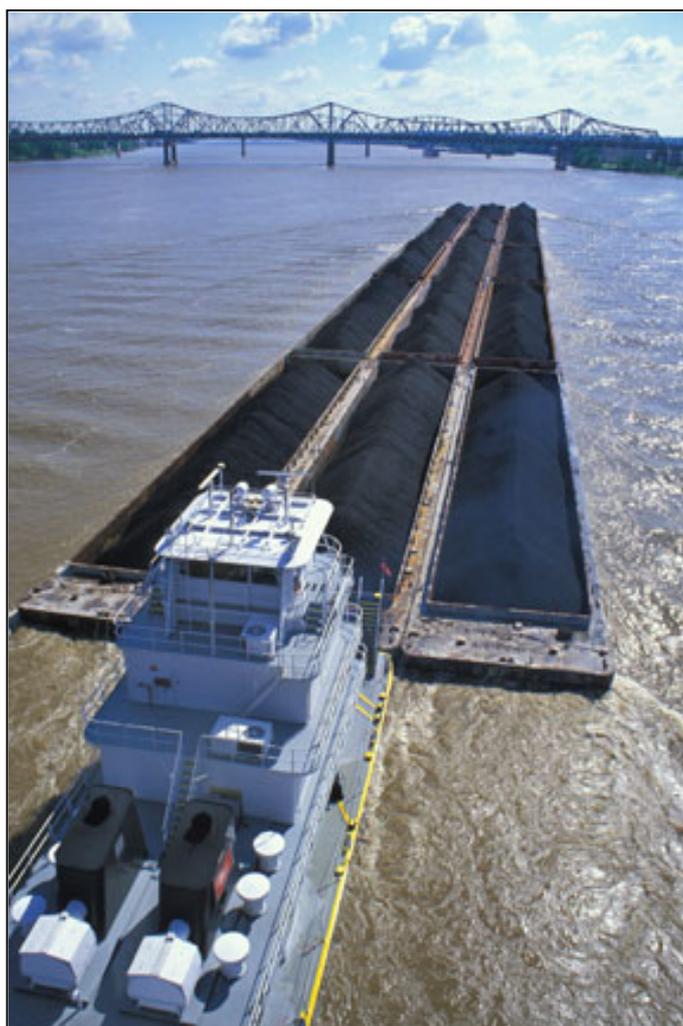
The Arkansas River Valley is a low-lying region surrounding the valley of the Arkansas River and its major tributaries. Land use is mainly agricultural cropland, grazing land and woodlands. Surface rocks in this region consist of a sequence of coal-bearing sandstones and shales.

### ***Infrastructure***

The current preferred option for coal transportation from mine to port will involve the utilisation of haul roads to existing barge load out facilities on the Arkansas River to deep water coal terminals located in the Gulf of Mexico.

Trucking distances from the Project Area to the barge load out facilities at the Port of Van Buren, located on the navigable Arkansas River near Fort Smith is approximately 40 km and are to cost US\$4.00 to US\$6.00 per ton. Several third-party river terminal operators are available at the Port of Van Buren to load the coal onto barges. The base rate for barging coal from the Port of Van Buren to the Gulf of Mexico (New Orleans area) is approximately US\$15 per ton.

Hartshorne also has access to an extensive network of rail infrastructure as an alternative to barging which can also service the ports within Texas in addition to the ports in New Orleans.



**Figure 6: Barging Coal on Arkansas River**

## Leases

Hartshorne has secured over 14,000 gross acres (~6,000 ha) of coal leases out of an area of interest of approximately 25,000 acres (~10,000 ha) with lease terms ranging from 5 to 15 years. The area is controlled by Hartshorne under a series of private coal leases. Mineral (coal) leases are generally with private parties who own the surface and mineral however, some of the mineral owners do not own the surface. Existing and anticipated lease production royalty rates range from 4% to 6% of the gross sales value and upfront lease payments of US\$40 to US\$60 per acre. Holding costs are extremely low at US\$1 per acre per year.

## Geology

The primary geologic formations containing coal beds and occurring within the Arkoma Basin are the Boggy, Savanna, McAlester, Hartshorne Sandstone and Atoka. The Lower Hartshorne coal bed near the base of the McAlester formation is the thickest, most widespread and most economically important. Where the seam is present thickness of the Lower Hartshorne seam ranges from 2.5 to 4.5 feet within portions of the property.

## Coal Quality

Early analyses of existing exploration data indicated significant quantities of low volatile coking coal within the Arkoma Coking Coal Project area of interest. Based on this analysis, Hartshorne retained Cardno MM&A to conduct a core drilling program in April 2013, comprised of two core holes, to verify coal quality assumptions.

A summary of the coal washability and metallurgical coal analyses from one of the two core holes drilled by Hartshorne is provided below and confirms the presence of high value, low volatile metallurgical coals within the Arkoma Project.

Lower Hartshorne Coal Seam Key Coking Properties (dry basis)	
Volatile Matter	17.71 %
Ash	6.96 %
Sulfur	0.90 %
Free Swelling Index	8.5
Fluidity	30 ddpm
Mean Max Reflectance	1.63%

## Development Plan

Hartshorne's strategy is to undertake an aggressive exploration program, including a core drilling and geophysical logging program, to delineate a maiden JORC Resource and increase confidence in coking quality.

## BOARD CHANGES

Following the completion of the acquisition of Hartshorne, the Company is delighted to appoint Mr Ian Middlemas as Non-Executive Director and Mr Taso Arima as Executive Director of Paringa.

Mr David Griffiths will remain as Chairman and Mr David Chapman will remain as Managing Director of Paringa. Mr Luis Azevedo will resign from the Board of Paringa following the completion of the acquisition of Hartshorne.

A brief description of Messrs Middlemas and Arima's qualifications and other directorships are set out below:

**Mr Ian Middlemas:** Mr Middlemas is a Chartered Accountant, a member of the Financial Services Institute of Australasia and holds a Bachelor of Commerce degree. He worked for a large international Chartered Accounting firm before joining the Normandy Mining Group where he was a senior group executive for approximately 10 years. He has had extensive corporate and management experience, and is currently Chairman of a number of ASX listed companies in the resources sector including Papillon Resources Ltd, Prairie Downs Metals Ltd, Equatorial Resources Ltd and Berkeley Resources Ltd. Mr Middlemas was formerly Chairman of Mantra Resources Ltd (acquired by ARMZ for \$1.1 billion in 2011) and Coalspur Mines Limited who is developing a large scale thermal coal project in Canada.

**Mr Anastasios (Taso) Arima:** Mr Arima has a strong combination of technical, financial and managerial skills and has extensive experience in the formulation and development of large scale bulk commodity projects. Mr Arima was a founder and former Executive Director of Coalspur Mines Limited, having been instrumental in the identification and acquisition of Coalspur's coal projects, as well as the corporate strategy and marketing of the company. At the time of his resignation from the Board, Coalspur's fully diluted market capitalisation was approximately A\$1.2 billion. Mr Arima has previously worked in the hydrocarbon division at Worley Parsons Limited, and was also an analyst for an investment banking firm, where he specialised in the technical and financial requirements of bulk commodity and other resource projects.

## US EXECUTIVE TEAM

Existing executives of Hartshorne, Mr David Gay (Chief Executive Officer) and Mr Matt Haaga (Chief Operating Officer) will also join the Paringa team and will be based in Hartshorne's office in Evansville, Indiana (USA). Both have held long term senior executive positions with major coal mining companies in the USA covering the entire coal development and financing cycle. Mr Mike Curry will also join Paringa as Manager of Technical Services.

A brief description of their qualifications are set out below:

**Mr David Gay:** Mr Gay is a Professional Mining Engineer with an MBA and has over 35 years of experience in developing coal projects in the USA. Mr Gay's experience covers the entire coal development chain including leasing, permitting, exploration, construction, commissioning, production, mergers & acquisitions and financing activities (including project finance, high yield bonds, bank debt, structured finance and equity). Most recently he was Vice President, Mergers and Acquisitions and Business Development at Alpha Natural Resources, one of the USA's largest coal producers. During his time, Alpha completed over US\$10 billion worth of mergers and acquisitions and transitioned into one of the largest coal companies in the US and the third largest coking coal exporter globally. Prior to that, Mr Gay led several large regional coal companies and was Business Unit President at Pittston Coal Group (20 years' experience) which at the time was the largest coking coal exporter worldwide.

**Matthew Haaga:** Matt Haaga, BSCE, PE has thirty-seven years of mining experience including positions in the US coal industry as Chief Operating Officer, VP of Operations, VP of Engineering and Land, Regional Director of Operations and General Manager. After spending thirty (30) years working in the Illinois and Appalachian coalfields, Mr Haaga has worked most of the last decade globally as an independent mining consultant. He consulted with Joy Global and their customers as a trainer and application specialist on continuous haulage projects, headed numerous operational due diligence teams and ran efficiency evaluations for his client base. Mr Haaga holds a bachelor's degree from the University of Kentucky and is a registered Professional Engineer.

**Mr Mike Curry:** Mike Curry has a degree in Mining Engineering from West Virginia University. Past roles for large public companies operating in the US coal industry cover production, engineering, and corporate development. Mr Curry's previous position was Manager of Mergers and Acquisitions with Alpha Natural Resources.

## COMMERCIAL TERMS OF THE ACQUISITION

The acquisition of the Projects will occur by Paringa acquiring 100% of Hartshorne, an Australian registered company which holds a 100% interest in the Projects. The total consideration to be paid for the acquisition of 100% of the issued shares and options in Hartshorne will be 61,000,000 fully paid ordinary shares in Paringa ("**Paringa Shares**").

The vendors of Hartshorne have agreed to voluntarily escrow their Paringa Shares for a period of 12 months from completion of the transaction.

The offers to be made by Paringa to each of the Hartshorne vendors is subject to the following conditions precedent:

- (a) Paringa's shareholders passing all resolutions as are required under the Listing Rules, the constitution of Paringa and the Corporations Act to give effect to the Transaction;
- (b) Paringa receiving completed share transfer forms from the Hartshorne vendors comprising at least 90% of the Hartshorne vendor shares; and
- (c) Paringa and the Hartshorne vendors obtaining all statutory and regulatory approvals and any other third-party consents or waivers to complete the Transaction.

Major shareholders of Hartshorne (comprising over 75% of issued capital) have indicated their support for the offer.

In addition, following the completion of the acquisition of Hartshorne, Paringa has agreed to issue the following incentive securities to the US Executive Team:

- (a) 3,950,000 performance rights in Paringa which are subject to various performance conditions (including Pre-Feasibility Study, Bankable Feasibility Study, Construction and Production milestones) to be satisfied prior to the relevant expiry dates between 31 March 2015 and 31 March 2018; and
- (a) 1,500,000 incentive stock options in Paringa with an exercise price of \$0.20 and an expiry date of 31 December 2016.

A Notice of Meeting to be sent to Shareholders shortly which will include information on the Project and the relevant risks associated with the acquisition and ongoing operation of Hartshorne.

**Forward Looking Statements**

*This release may include forward-looking statements. These forward-looking statements are based on Paringa's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Paringa, which could cause actual results to differ materially from such statements. Paringa makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.*

**Competent Persons Statement**

*The information in this report that relates to Exploration Results is based on information compiled by Mr Kirt W. Suehs, a Competent Person who is a Member of The American Institute of Professional Geologists. Mr Suehs is employed by Cardno MM&A. Mr Suehs has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Suehs consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## APPENDIX 1 – COAL QUALITY DRILL HOLE DETAILS

Buck Creek Coal Quality Drill Hole Details							
Project	Drill Hole	Northing	Easting	Surface Elevation (ft)	WKY9 Seam Base Elevation (ft.)	Depth to Base WKY9 Seam (ft.)	Total Drill Hole Depth (ft.)
Kentucky South State Plane (NAD27)							
Buck Creek	11L25-N5	414,980.21	1,515,289.77	395.00	-305.75	700.75	720.00
Buck Creek	11M26-P13	441,944.00	1,540,899.17	374.00	-275.40	649.40	666.20
Buck Creek	13M27-E14	441,609.24	1,552,038.47	381.00	-119.00	500.00	515.15
Buck Creek	15M27-K6	444,544.66	1,543,774.84	381.00	-150.40	531.40	858.00
Buck Creek	16M28-LM16	434,578.84	1,568,598.04	389.00	-71.60	460.60	479.00
Buck Creek	17M27-L1	431,796.36	1,564,256.41	380.00	-89.35	469.35	480.60
Buck Creek	18M27-N1	437,252.11	1,554,362.77	382.00	-201.15	583.15	601.00
Buck Creek	1L26-P5	427,442.96	1,540,159.87	405.00	-293.90	698.90	705.40
Buck Creek	22M26-NO10	431,198.10	1,535,952.74	382.00	-398.15	780.15	792.95
Buck Creek	22M27-N1	434,698.90	1,559,688.34	380.00	-179.60	559.60	575.75
Buck Creek	24M27-JK3	433,535.75	1,548,070.05	383.00	-264.24	647.24	660.66
Buck Creek	25M26-P3	434,476.85	1,521,361.37	397.00	-718.98	1,115.98	1,140.00
Buck Creek	25M27-O14	429,309.01	1,545,183.85	405.00	-287.95	692.95	700.00
Buck Creek	3L26-G10	426,132.86	1,529,162.40	380.00	-422.60	802.60	817.45
Buck Creek	3L27-KL7	426,157.41	1,553,536.12	385.00	-129.20	514.20	535.20
Buck Creek	9L26-05	421,271.23	1,534,889.33	382.00	-204.59	586.59	601.35
Buck Creek	DH-08	421,269.08	1,534,847.66	380.00	-210.90	590.90	607.00
Buck Creek	DH-10	429,308.41	1,545,092.60	405.00	-291.51	696.51	709.00
Buck Creek	DH-11	431,029.26	1,544,325.45	400.00	-313.10	713.10	729.00
Buck Creek	DH-12	424,255.67	1,543,794.51	400.00	-198.90	598.90	610.70
Buck Creek	DH-04	411,824.58	1,509,935.83	385.00	-391.85	776.85	789.50
Buck Creek	20M26-D5	439,437.35	1,537,083.71	381.00	-402.10	783.10	795.63
Buck Creek	DH-06	415,071.65	1,515,262.35	395.00	-308.00	703.00	713.00
Buck Creek	DH-07	426,197.04	1,529,144.91	380.00	-425.48	805.48	818.17
Buck Creek	DH-09	431,300.41	1,536,108.08	380.00	-403.25	783.25	803.90

Arkoma Coal Quality Drill Hole Details							
Project	Drill Hole	Northing	Easting	Surface Elevation (ft)	Lower Hartshorne Seam Base Elevation (ft.)	Depth to Base Seam (ft.)	Total Drill Hole Depth (ft.)
Arkansas North State Plane (NAD27)							
Arkoma	HCM-10-13	295,630.68	1,294,150.78	527.00	353.18	173.82	206.00

## APPENDIX 2 – JORC TABLE 1 CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>&gt; Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>&gt; Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>&gt; Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Prior to 1950, Oil and gas drilling was the primary source of seam thickness and elevation data for the West Kentucky No. 9 (WKY9) seam; no core samples were retrieved.</li> <li>&gt; In 1950 the Kentucky Geological Survey (KGS) began acquiring core data from drill holes in and adjacent to the property; no core samples from this drilling have been examined by Hartshorne.</li> <li>&gt; In 2009 Buck Creek Resources began a drilling program that continued through 2011. The program consisted of wire line continuous core drilling and air rotary spot core drilling designed for seam delineation and acquisition of coal samples for analyses.</li> <li>&gt; The last 10 drill holes in this program were air rotary holes and no coal core samples were collected.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>&gt; Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The continuous wire line drilling consisted of 3-inch core samples.</li> <li>&gt; The air rotary spot core drilling consisted of 6.625-inch core samples.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>&gt; Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>&gt; Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>&gt; Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Core recoveries were monitored and were generally good at greater than 95%.</li> <li>&gt; Coal core samples used for quality analysis contained greater than 95% recovery.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>&gt; Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>&gt; Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>&gt; The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Drill holes were logged by the driller and those producing core were also logged by a resident geologist.</li> <li>&gt; All holes drilled during the 2009 through 2011 program were geophysically logged using downhole density and gamma sondes.</li> <li>&gt; In the case of core drill holes, lithological logs were correlated with the geophysical logs and seam thickness and elevation adjusted were appropriate by the resident geologist.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>&gt; If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>&gt; If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>&gt; For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>&gt; Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>&gt; Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>&gt; Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Core was not divided for sampling.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>&gt; The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>&gt; For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>&gt; Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Sample analysis was carried out by Standard Laboratories, Inc. and performed to American Society for Testing and Materials (ASTM) standards.</li> <li>&gt; Analyses were performed on an as received, air dry and washed basis unless otherwise stated.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>&gt; The verification of significant intersections by either independent or alternative company personnel.</li> <li>&gt; The use of twinned holes.</li> <li>&gt; Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>&gt; Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; All coal quality sample results have been cross referenced against original laboratory reports by Cardno.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>&gt; Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>&gt; Specification of the grid system used.</li> <li>&gt; Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Coordinates for the drill hole locations are in the Kentucky South, State Plan system. Surveyed locations were available for all of the drill holes from the 2009 through 2011 drilling program. Coordinates for the oil and gas well and those drill holes obtained from the KGS were provided by the KGS and the method of determination is unknown. Topography is based on the United States Geological Survey's (USGS) topographic quadrangle maps.</li> </ul>

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> <li>&gt; Data spacing for reporting of Exploration Results.</li> <li>&gt; Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>&gt; Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Spacing of the drill holes for the WKY9 seam range from 500 feet in the eastern portion of the property to 10,000 feet in the western portion of the property.</li> <li>&gt; Correlation of the WKY9 seam is still relatively simple due to the thickness and continuity of the seam.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>&gt; Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>&gt; If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Drill holes have been vertically drilled. No downhole deviation logs have been collected and it is therefore not know if the drill holes have deviated away from vertical. Based on an average depth of 800 feet any deviation is expected to be insignificant and have no effect on the understanding of the geology.</li> <li>&gt; Horst and graben faults that exist on the property are part of the Rough Creek fault system and have been accurately identified by the KGS.</li> <li>&gt; The dip of the coal seam ranges from 2 to 3 degrees except adjacent to the faulting were dip can potentially increase.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul style="list-style-type: none"> <li>&gt; Sample handling procedures were developed for the project and understood to have been employed during exploration.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"> <li>&gt; Cardno is reviewing all the geological information as part of the process of developing the geologic model. The data may be suitable for the purpose of generating a 2012 edition JORC compliant Resource estimate.</li> </ul>

### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>&gt; Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>&gt; The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; The Buck Creek property is located within the Carbondale Formation of the Illinois Basin between the towns of Hanson and Calhoun in Hopkins and McLean Counties, Kentucky. Buck Creek Resources began a coal leasing program in October of 2008. Most of the coal leases were acquired in 2009 with the most recent lease transaction taking place in September 2012. All leases were acquired for \$10 per acre with varying minimum annual payments depending on the number of acres leased and the percentage of interest acquired.</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	> <i>Acknowledgment and appraisal of exploration by other parties.</i>	> The oil and gas exploration was carried out by several drilling entities. The largest collection of drill holes was carried out by the KGS in the 1950's. The latest drilling was conducted by Buck Creek Resources.
Geology	> <i>Deposit type, geological setting and style of mineralisation.</i>	> The project is located in the West Kentucky Coal Fields which is part of the Illinois Basin. The thickest, most continuous coal seams are found in the Carbondale Formation. The Carbondale Formation consists largely of shale, sandstone siltstone, limestone and to a lesser extent fireclays and coal.
Drill hole Information	<p>&gt; <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li>• <i>easting and northing of the drill hole collar</i></li> <li>• <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> </ul> <p>&gt; <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>&gt; Only coal quality results have been documented in this report.</p> <p>&gt; For coal quality drill hole locations, see Appendix 1: <i>Coal Quality Drill Hole Details</i></p>
Data aggregation methods	<p>&gt; <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p>&gt; <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p>&gt; <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	> Only coal quality results have been documented in this report.
Relationship between mineralisation widths and intercept lengths	<p>&gt; <i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p>&gt; <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p>&gt; <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	> Only coal quality results have been documented in this report.

Criteria	JORC Code explanation	Commentary
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>&gt; <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>&gt; A drill hole location diagram has not been included in this filing. For coal quality drill hole locations, see Appendix 1: <i>Coal Quality Drill Hole Details</i></li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>&gt; <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>&gt; Only coal quality results have been documented in this report.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>&gt; <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>&gt; Informational material from the KGS was used in this report.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>&gt; <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>&gt; <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>&gt; The WKY9 seam extends in all directions beyond the limits defined by the area of interest. Out crop and potential seam thinning to the east and existing mining are the most obvious limits to potential extensions.</li> </ul>