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Cardero Announces Positive Prefeasibility Study Results, Carbon Creek Deposit, Northeast British Columbia

Base Case NPV₈ \$633 Million (Post-Tax, Post NPI), 23.7% IRR

Pre-production capital reduced to \$217M from \$301M

Percentage of hard coking coal increased to 60% from 35%

Average clean coal production rate increased to 4.1Mtpa from 2.9Mtpa

Measured & Indicated Resource Increased to 468M from 166M tonnes

Vancouver, British Columbia...Cardero Resource Corp. (“Cardero” or the “Company”) (TSX: CDU, NYSE-MKT: CDY) announces the results of the Prefeasibility Study (“PFS”) for the Carbon Creek Metallurgical Coal deposit, located in northeast British Columbia, Canada. Valuation highlights are summarized below:

US\$, Post-Tax, Post NPI	Price*	IRR	NPV ₈	NPV ₁₀	NPV ₁₂
Best Case (5-year historical Metcoal pricing)	\$187/t	27.0%	\$819M	\$616M	\$462M
Base Case (independent marketing consultant)	\$174/t	23.7%	\$633M	\$465M	\$338M
Low case (analyst consensus on long-term price)	\$143/t	13.1%	\$191M	\$99M	\$30M

Table 1: Carbon Creek Prefeasibility Valuation Results (Post-Tax, Post NPI). *Price presented is average price based on relative proportions of coal products sold over mine life: 60% Hard Coking Coal, 34% HV metallurgical Coal, 6% Thermal (near-surface oxidized coal).

PREFEASIBILITY STUDY HIGHLIGHTS

Increased Measured & Indicated Resource from 166Mt to 468Mt

Established initial Proven and Probable Reserve of 121Mt (initial 20 year mine life)

Increased average clean coal production rate from 2.9Mtpa to 4.1Mtpa (2016 to 2034)

Total clean coal production currently estimated at 78.4Mt over mine life

Percentage of hard coking coal increased from 35% to 60% of planned production

Pre-production capital reduced to \$217M from \$301M

Capital of \$475M required to bring the project to full production

Reduced operating cost from \$114 to \$110/tonne FOB

First coal production planned for Q4 2014

Positive cash-flow within three years of production

Base case NPV₈ \$633M on a post-tax, post NPI basis, with 23.7% IRR

Undiscounted cash flow valuation of \$2,132M

All dollar values throughout this news release are in US\$. Comparisons are drawn from the PEA.

Angus Christie, Cardero’s COO stated, “I believed when I joined the Company that we had an opportunity to turn the Carbon Creek asset into one of the largest producing, lowest cost operators in the region. This report demonstrates that we are in position to turn our expectations into reality and establish this asset as the benchmark against which other developments in the region will be evaluated”.

President and CEO, Michael Hunter stated, “I am very pleased to see this project be advanced on schedule and below the pre-production capex outlined in the 2011 preliminary economic assessment. The results demonstrate the remarkable skills of a management team that has worked tirelessly on our shareholder’s behalf. The task in front of us is to continue to stay on schedule and on budget as we prepare ourselves for a planned production commencement in Q4 2014.”

PREFEASIBILITY STUDY

Norwest Corporation ("Norwest") is preparing a National Instrument 43-101 (“NI 43-101”) Technical Report and Prefeasibility Study (“PFS”) on the Carbon Creek Metallurgical Coal Deposit. The effective date of the Prefeasibility Study is September 20, 2012 and for the updated resource estimate is September 5, 2012. The final version of the Norwest Report will be filed on SEDAR and made available through the Company's website within 45 days of this news release, and investors are urged to review the Norwest Report in its entirety once it becomes available.

The PFS provides a substantially broader and more detailed evaluation of the Carbon Creek deposit than was published in the late 2011 Preliminary Economic Assessment (“PEA”). The report includes the results of an extensive exploration drilling program that was completed in December 2011. These additional drill results have translated into an increased resource estimate and allowed portions of the measured and indicated resources to be converted to proven and probable reserves. A more detailed and definitive mine design and production schedule is presented as an outcome of this. Various mine development options have been evaluated by way of trade-off studies. The resulting go-forward cases will be incorporated in the full feasibility study. Finally, an updated discounted cash flow model, based on more detailed mine scheduling and capital estimates, has been completed and is presented in this summary.

MINERAL RESOURCE ESTIMATE

A resource estimation of the Carbon Creek property was completed in accordance with the procedures and criteria of Geological Survey of Canada (“GSC”) Paper 88-21 as required by NI 43-101. The coal resources were reported from a MineSight™ software generated 3D block model. Numeric seam identifiers, coal volumes and resource limiting criteria were coded into the 3D block model from gridded surface files representing the extent of the surface and underground coal resource in accordance with GSC Paper 88-21 guidelines and within the Cardero license application areas. The mineral resource estimates for surface and underground moderate geology-type coal reported from the current Carbon Creek geologic model are outlined in Table 2. The resource statement is current as of September 5, 2012.

Carbon Creek has an estimated 468 million tonnes (“Mt”) of in-place coal resources in the measured and indicated categories plus 232 Mt in the inferred resource category. Inferred mineral resources are excluded from the PFS for the purposes of mine planning and financial evaluation. Table 2 breaks these resources into surface and underground tonnes.

Deposit Type	ASTM Coal Rank	Measured (Mt)	Indicated (Mt)	Inferred (Mt)
Surface	mvB	197	31	32
Underground	mvB	143	97	199
Total	mvB	468		232

Table 2: Classification of Resource – Carbon Creek Property – September 5, 2012

The resource outlined in Table 2 represents a substantial increase in coal resource tonnes from Norwest’s PEA estimates. The increase is due to inclusion of additional drill hole data in the resource calculations that was previously not available to Norwest. The data identified a total of 28 seams of economic potential and provided sufficient spatial coverage for the expansion of the resource area.

Mineral resources that are not mineral reserves do not have demonstrated economic viability. Inferred mineral resources shown in this table have been excluded from the PFS for the purposes of mine planning and financial evaluation. Mineral reserves are included in measured and indicated mineral resources.

MINERAL RESERVE ESTIMATE

Based on the geological model developed by Norwest a general mining layout was prepared for surface, highwall and underground mining areas. Applying mining parameters and economic analysis, a coal reserve tonnage estimate was developed for each mining method as shown in Table 3.

Mining Method	ROM Tonnes (millions)	Clean Tonnes (millions)
Surface	56	38
Highwall	14	7
Underground	52	33
Combined Total	121	78

Table 3: Proven and Probable Coal Reserves Through Year 2034

The Company cautions that the accuracy of resource and reserve estimates is, in part, a function of the quality and quantity of available data and of engineering and geological interpretation and judgment. Given the data available at the time this report was prepared, the estimates presented herein are considered reasonable. However, they should be accepted with the understanding that additional data and analysis available subsequent to the date of the estimates may necessitate revision. These revisions may be material. There is no assurance that any mineral resources, other than those already identified in the PFS as proven or probable reserves, will ultimately be reclassified as proven or probable reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. There is no guarantee that all or any part of the estimated resources or reserves will be recoverable.

MINING METHODS

The nature of the geology of the Carbon Creek Project lends itself to employing several mining methods to maximize the recovery of the resource and the resultant project economics. The proposed mining methods include underground room and pillar mining with continuous miners, surface contour and area mining using hydraulic excavators and trucks and highwall mining Figure 1(page 25). After a short ramp up period, all mining methods will be employed concurrently throughout the 20 year mine plan. Average clean coal full production rate is 4.085 million tonnes per annum (“Mtpa”) through mine life (2016 to 2034). Peak production of 5.1Mtpa is achieved in 2022.

Surface mining is projected to occur in two areas designated as the Northern Surface Mine and the Central Surface Mine. The Northern Surface Mine is adjacent to Seven Mile Creek on the north side of the Carbon Creek property. The Central Surface Mine is just north of Nine Mile Creek. The underground mining operations are projected to have two sets of portals approximately three kilometers north of Seven Mile Creek and three sets of portals approximately two kilometers south of Seven Mile Creek. Highwall mining will occur throughout the surface mining areas along the outcrops of the various seams after contour mining has taken place.

Surface contour mining will begin first in 2014 simultaneously in the North and Central areas which will allow areas for highwall and underground mining to be developed. Surface contour mining will continue throughout the life of the mine. Surface area mining will commence in 2016 in both the North and Central areas of the mine and will also continue for the life of the mine. Highwall mining will also commence in 2016 in both areas of the mine. Underground mining will commence in 2016 in the North area of the lease with one continuous miner (“CM”) unit operating and ramping up to six CM units by 2019.

Run-of-mine (“ROM”) production from the Northern Surface Mine, including highwall mining, ranges from 1.1Mtpa to 1.8 Mtpa and averages 1.4 Mtpa over the mine life. The ROM strip ratio averages 12:1. Overburden will be removed using two 22 cubic meter class excavators and eight 173 tonne class haul trucks operating on a seven day, 20 hour per day schedule. One highwall mining unit will operate, producing 450,000 tonnes per year. Clean coal production is expected to be hard coking coal except for a small amount of thermal coal produced from the oxidized zone along the crop lines. Clean coal production ranges from 0.6 to 1.3 Mtpa and averages 0.9 Mtpa over the mine life.

ROM production from the Central Surface Mine, including highwall mining, ranges from 1.4 Mtpa to 3.8 Mtpa and averages 2.3 Mtpa over the mine life. The ROM strip ratio averages 7:1. Overburden will be removed using two 22 cubic meter class excavators and eight 173 tonne class haul trucks operating on a seven day, 20 hour per day schedule. One highwall mining unit will operate, producing 450,000 tonnes per year. Clean coal production is expected to be semi-soft coking coal except for a small amount of thermal coal produced from the oxidized zone along the crop lines. Clean coal production ranges from 0.8 to 3.0 Mtpa and averages 1.5 Mtpa over the mine life.

Production from the underground room and pillar mine operations is from five separate seams with a minimum thickness of 1.2 metres. Underground mining commences with Seam 15 in 2016 and expands to Seam 14 in 2018 with separate portals for each seam. Underground mining

operations ramp up from one CM to six CM units between 2016 and 2019. As mining reserves in Seam 15 and Seam 14 are depleted, CM units are re-located south to the three sets of portals for seams 31, 27 and 40. ROM production, subsequent to the three year ramp up, ranges between 2.6 Mtpa to 3.3 Mtpa and averages 3.0 Mtpa. Clean coal saleable product from the underground mining operations is expected to be hard coking coal and is projected to range from 1.6 Mtpa to 2.1 Mtpa with an average saleable production rate of 1.9 Mtpa.

ROM and clean coal production by area and mining type is summarized in Table 4 below. Chart 1 illustrates ROM tonnes for underground and surface operations, presented in year of sale, together with total clean coal tonnes and EBIDTA (Earnings Before Interest, Taxes, Depreciation and Amortization).

Mining Method/Area		ROM Tonnes (millions)	Clean Tonnes (millions)
Northern Surface Mine	Area Mining	16.6	11.3
	Contour Mining	4.8	3.3
	Highwall Mining	5.4	2.6
	Total Northern Surface Mine	26.8	17.2
Central Surface Mine	Area Mining	26.7	18.5
	Contour Mining	7.8	5.4
	Highwall Mining	8.6	4.4
	Total Central Surface Mine	43.1	28.3
Underground Mines	Room & Pillar Mining	51.5	32.9
	Total Underground Mines	51.5	32.9
Combined Total		121.4	78.4

Table 4: Life-of-Mine Production by Area and Mining Type

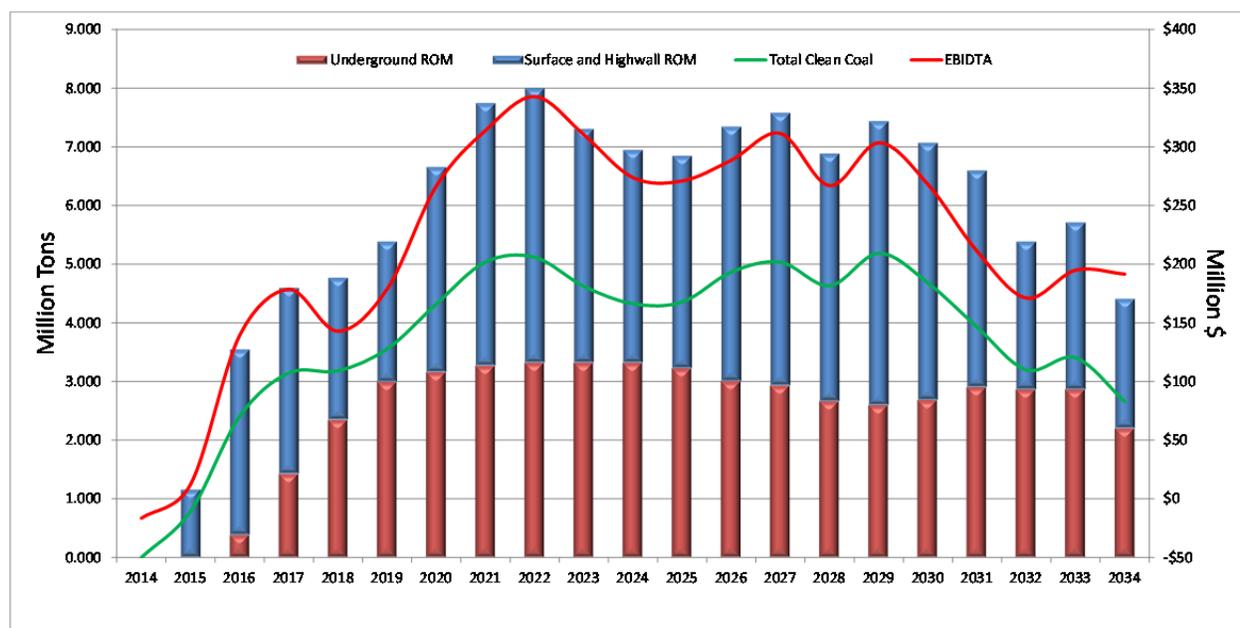


Chart 1: Surface and Underground ROM (presented in year of sale), Total Clean Coal Production, and EBIDTA

MINERAL PROCESSING AND METALLURGICAL TESTING

Preparation Plant Design

Prior to beneficiation, rotary breakers will size and de-stone the coal. The Coal Processing Plant (“CPP”) will be a single-module operation rated at a nominal 1200 tonnes per hour (“tph”) of raw feed and feature parallel, size-specific processes. The plant will be robust in design with targeted ROM coal throughput of 7.2 Mtpa at a 68% effective utilization.

A heavy media bath circuit will wash the 150mm x 10mm stream, followed by crushing to reduce the top size to 50mm. This process was selected to avoid the need for a thermal dryer. A large-diameter heavy media cyclone will wash the 10mm x 1mm stream along with reflux classifiers for the 1mm x 0.25mm and two-stage froth flotation for the minus 0.25mm streams.

Each sub-product stream will employ mechanical dewatering centrifuges. Pressure filtration will be used on the minus 45 micron material. Total product moisture values for each seam are projected to be below 8% by weight.

A small temporary plant will be established to support first coal production anticipated in 2014 and early 2015 and is allowed for in the capital estimates.

Sampling and Testing

Drilling conducted by Cardero included a select number of large diameter (150mm) cores for the purpose of obtaining representative washability and carbonization data. One drill-core per seam was obtained. At the time of this report Seams 14 and 15 are being drilled but no laboratory results are yet available.

Coal Seam Quality and Characterization

Samples of each of the major seam target products collected in the bulk large diameter core (“LDC”) drilling program were assembled as simulated seam products (SSP). Each seam SSP was analysed for caking and plasticity, petrographics, and in some cases, carbonization tests. As noted above, primary data for Seams 14 and 15 are not yet available; reporting of these data was derived from secondary sources.

The coal from Carbon Creek will fall into two main logical groups: medium volatile (“mid-vol”) hard coking coal (“HCC”) and a mix of non-HCC mid-volatile and high volatile bituminous coals. The lower coals seams (seams 14, 15, 27, 31 and 40), will be marketed as mid-vol HCC. While Seam 40 is currently included in this group, the most recent analytical, petrographic and carbonization results indicate this may be a semi-soft coking coal. However, previous Utah washability data from 1976 indicates that Seam 40 is dissimilar from the current analytical data. These may indicate a seam correlation error. To resolve this issue, petrographic fingerprint comparisons with other drill cores into Seam 40 are planned. The salient clean coal quality data based on the laboratory results for Seams 14 through 40 are listed in Table 5. The coal seams above Seam 40 will be targeted as either semi-soft or PCI products depending on market pricing at the time of production. The key quality characteristics of these seams can be found in Table 6. Of particular note are Seams 46 and 47. These mid-vol coals are very low ash and may be

suitable candidates for a premium PCI market owing to their relatively high fixed carbon content.

Parameter	Basis	Seam				
		40	31	27	15	14
Proximate analysis	%					
Moisture	ad	0.8	1.1	0.7	1.0	1.0
Ash	ad	8.5	5.0	6.1	3.1	5.4
Volatile matter	ad	31.3	27.2	26.4	25.6	23.0
Volatile matter	dmmf	35.0	29.1	28.6	26.9	24.8
Fixed carbon	ad	59.5	66.8	66.8	70.3	70.6
Sulphur	ad	1.3	0.7	0.8	0.9	0.8
Phosphorus	ad	0.049	0.036	0.096	0.060	0.125
Hardness index (HGI)		~55	~60	~68	~69	~71
Caking and Plasticity Tests						
CSN/FSI - Lab Results	-	7	6	8	4 1/2	5 1/2
CSN/FSI - Process Simulated	-	6 1/2	5 1/2	5 1/2	5 1/2	5 1/2
CSN/FSI - Process Simulation adjusted	-	-	-	-	7	7
Gieseler Plastometer Test	-	-	-	-	-	-
Max fluidity	ddpm	21	6	8	2	3
Dilatometer Test (Ruhr)	-	-	-	-	-	-
Max contraction	%	20%	22%	22%	23%	22%
Max dilation	%	18%	-12%	-	-	-
• Vitrinite Reflectance						
Mean Maximum, R _{o max}	%	0.94	1.04	1.16	1.21*	1.25*
Composition Balance Index		0.85	0.85	0.83	1.63	1.83
Base – Acid Ratio of Ash		0.16	0.18	0.05	0.35	0.14
Carbonization	%					
Petrographic Prediction						
DI 30/15 (JIS)	-	86.2	93.8	94.2	-	-
Stability (ASTM)	-	31.0	54.0	61.0	-	-
Coke Tests	-	-	-	-	-	-
CSR	-	42.3	53.3	64.1	-	-
CRI	-	36.6	34.0	26.3	-	-
ASTM Coke Tumbler Test	-	-	-	-	-	-
Stability	-	-	-	-	48	54
Hardness	-	-	-	-	63.0	54.0

Table 5: Hard Coking Coal Quality Characteristics from SSP (“-“ no data available at this time, *Utah Mines data)

Parameter	Basis	Seam								
		58B	58A	55	54	52	51A	51	47	46
Proximate analysis	%									
Moisture	ad	1.5	1.1	1.2	0.9	1.3	1.0	1.5	1.0	0.9
Ash	ad	6.0	4.5	4.6	2.9	6.7	3.0	5.8	5.0	2.5
Volatile matter	ad	30.9	31.3	30.6	29.1	31.8	29.6	30.2	25.5	26.5
Volatile matter	dmmf	33.7	33.5	32.8	30.5	35.1	30.6	32.9	27.4	27.6
Fixed carbon	ad	61.6	63.2	63.6	67.2	60.2	66.8	62.5	68.5	70.1
Sulphur	ad	0.8	0.9	0.7	0.8	1.3	0.7	0.8	1.2	0.8
Phosphorus	ad	0.053	0.009	0.088	0.018	0.036	0.017	0.034	0.022	0.005
Hardness index (HGI)		~48	~52	~48	~47	~52	~52	~52	~52	~52
Caking and Plasticity Tests										
CSN/FSI - Lab Results	-	3	3	2 1/2	2	3 1/2	2	2 1/2	2	2 1/2
CSN/FSI - Process Simulated	-	3	3 1/2	2 1/2	2 1/2	3 1/2	3 1/2	3	2 1/2	3
Gieseler Plastometer Test	-	-	-	-	-	-	-	-	-	-
Max fluidity	ddpm	2	1	2	2	3	1	2	1	1
Dilatometer Test (Ruhr)	-	-	-	-	-	-	-	-	-	-
Max contraction	%	27	13	25	26	28	17	3	5	15
Max dilation	%	-	-	-	-	-	-	-	-	-
• Vitrinite Reflectance										
Mean Maximum, R _o max	%	0.90	0.89	0.94	0.96	0.89	0.91	0.95	1.01	0.99
Composition Balance Index	%	0.62	0.57	0.7	1.28	0.71	1.7	1.67	1.67	1.35
Base – Acid Ratio of Ash		0.06	0.27	0.07	0.06	0.33	0.07	0.63	0.12	0.14
Carbonization	%									
Petrographic Prediction	-	-	-	-	-	-	-	-	-	-
DI 30/15 (JIS)	-	89.6	86.2	91.4	91.7	89.6	90.4	92.6	89.6	92.0
Stability (ASTM)	-	38.0	31.0	43.0	44.0	38.0	40.0	47.0	38.0	45.0

Table 6: Semi-Soft Coking / PCI Coal Characteristics (“-“ no data available at this time)

Projected Coal Quality

Norwest applied the Carbon Creek washability data collected from the LD cores and other historical sources to its Limn flowsheet simulation software to develop the process design for the CPP and plausible product quality. The target product ash contents were determined by maintaining heavy media densities within practical and industry norms. All of the coal seams, with the exception of Seam 40, display excellent separation characteristics. Table 7 lists the projected seam qualities for the hard coking coal seams.

Seam	Inherent Moisture	Surface Moisture	Total Moisture	Ash (ar)	Ash (ad)	Sulphur (ad)	FSI
14	1.0	6.8	7.7	5.5	6.0	0.72	6-7
15	1.0	5.9	6.8	4.6	5.0	0.84	6-7
27	0.7	5.7	6.4	5.6	6.0	0.77	6-7
31	1.1	5.9	7.1	5.6	6.0	0.67	6-7
40	0.8	6.4	7.1	7.9	8.5	1.24	6-7

Table 7: Hard Coking Coal Product Quality

Table 8 lists the projected seam qualities for the semi-soft coking / PCI coal seams.

Seam	Inherent Moisture	Surface Moisture	Total Moisture	Ash (ar)	Ash (ad)	Sulphur (ad)	FSI
46	1.3	5.6	6.8	2.3	2.5	0.81	2-4
47	1.0	6.0	6.9	4.7	5.0	1.18	2-4
51	1.5	5.3	6.7	5.6	6.0	0.81	2-4
51a	1.0	4.9	5.9	2.8	3.0	0.71	2-4
52	1.3	5.0	6.2	5.6	6.0	1.28	2-4
54	0.9	4.7	5.6	2.8	3.0	0.81	2-4
55	1.2	4.1	5.3	4.3	4.5	0.68	2-4
58a	1.1	5.7	6.7	4.7	5.0	0.91	2-4
58b	1.5	4.7	6.1	5.2	5.5	0.83	2-4

Table 8: Semi-Soft Coking / PCI, Coal Product Qualities

ROM coal will be crushed and sent to a coal washery where ash will be removed through heavy media separation of the coarse fractions and floatation for the fines fractions. Wash plant yields have been estimated on average at 68% for surface mined coal and 62% for underground mined coal. Individual yield and indicative clean coal specifications will be presented in more detail in the 43-101 report.

Industry experience has shown that under plant operating conditions, coking properties are often somewhat improved due to more accurate extraction and washing that keeps the coal wetted reducing the propensity of oxidation. It is therefore expected that actual plant performance may result in an improvement of the stated coking properties. The results are from different exploration programs, and there is evidence that due to handling and aging of samples, properties such as fluidity and Free Swelling Index are probably understated. In addition, research has shown that laboratory methods based on the use of organic liquids, as is the case in the testing carried out on the Carbon Creek coals, may cause some reduction in fluidity and coke strength.

SURFACE INFRASTRUCTURE

Coal from the underground mine portals in the north and south of the property will be delivered to the coal processing plant, located at Carbon Inlet, by overland conveyors to two hard coking coal ROM storage domes, each with a capacity of 90 thousand tonnes (“Kt”). Each of the

streams will be fed into a rotary breaker for de-stoning prior to delivery to the ROM storage domes. Semi soft / PCI ROM from the Northern and Central surface mines as well as the contour mining operations will be trucked to the tip, and fed into either the single thermal or two semi soft / PCI coal ROM storage domes (capacities of 25Kt and 70Kt respectively), after de-stoning in a rotary breaker. Provision has been made for emergency ROM stockpile areas in addition to the storage domes.

Following beneficiation, the respective clean coal products will be fed into hard coking, semi soft / PCI and thermal storage domes of 80Kt, 50Kt and 20Kt respectively (or emergency stockpiles) prior to loading onto barges. Product logistics will be controlled from the plant site to ensure that clean coal is fed directly onto trains at Mackenzie without the need for domes or stockpiles at the rail loop.

The administration block, mine dry, maintenance shop and warehouses will be located adjacent to the plant site at Carbon Inlet. Each of the underground mine portals will be serviced by satellite warehouses and personnel facilities.

Power for the mining operation will be fed via a BC Hydro power line from the electricity supply facility at the WAC Bennett Dam. Distribution on the mine site will be via a main substation located at the plant site, and further distribution through appropriately located substations at each of the mining operations. Maximum power demand will range from 8 MW at the commencement of the mine to approximately 25 MW at full production.

Water for the operation will be sourced from Williston Reservoir. However, maximum use will be made of water captured from runoff drains and recycled water from the plant.

Access to the mine site will be via the Johnson Creek Forestry Service Road which will be upgraded to accommodate the anticipated high volume of personnel transport and material delivery vehicles.

MANPOWER REQUIREMENTS

Manpower requirements to operate and maintain the surface and underground mines and coal processing plant are shown in Table 9.

Area	Hourly Workers	Supervisory	Totals
Mine Management and Administration	0	41	41
Surface Mine	244	36	280
Underground Mine	397	91	488
Prep Plant	58	9	67
Totals	699	177	876

Table 9: Manpower Requirements – Surface Mine and Underground Mine at Full Production

TRANSPORTATION

In the PEA, delivery of clean coal from mine site to rail head was by truck on a route southward from the mine, delivering coal to a proposed rail loadout 69 kilometres (“km”) to the south. This

original proposal utilized the existing Johnson Creek Forest Service Road (“FSR”) and the existing Calezone FSR, connecting the two roads with a combination of road extensions and a tunnel approximately 4km in length.

Detailed analysis of the route as part of the current Prefeasibility Study identified a number of potential capital, construction, operating and permitting risks. In particular, the proposed truck route required completion of the infrastructure ahead of first coal shipment, which offered no opportunity for reduced preproduction capital and no tolerance for construction delays.

As a result, a number of coal transportation alternatives were considered for the PFS. A go-forward decision has been made to utilize Williston Reservoir as a barge transportation route, delivering coal to the railhead at the town of Mackenzie. The proposed barging route is from Carbon Inlet, close to the northern limit of proposed mine operations, through Williston Reservoir to the town of Mackenzie; a distance of approximately 175km. At Mackenzie, coal would be off-loaded to the existing rail head and transported by rail to port.

The barge route offers considerably lower technical, capital and regulatory risks. Capital requirements have been more easily benchmarked against existing projects and capital intensity is considerably reduced in comparison with the original truck route proposed. Moreover, capital requirements are reduced prior to first coal and escalate towards full production, representing a considerable pre-production capital saving and operating costs represent a significant saving over the truck haul proposal. Technical risk is considered to be low since all aspects of the construction and operation have precedents in the bulk-handling and coal transportation industries. Additional options such as rail barges may prove to be incrementally more efficient and are currently being considered as alternatives in the full Feasibility Study.

Should permanent facilities not be established prior to the shipment of coal in 2015, temporary barging and coal handling arrangements will be made, utilizing existing equipment by way of lease or rental arrangements.

HEALTH AND SAFETY

Cardero is committed to the application, fostering and continual development of a safety culture for all employees, consultants and contractors, the tracking and reporting of Health and Safety (“H&S”) performance measures and progress towards the development of corporate and operation-specific Health and Safety Management System, to be established throughout mine development and operations, consistent with the OHSAS 18001 standard. The H&S policy has been applied to all field activities undertaken during the 3-year exploration drilling program, and elements of a more comprehensive and widely-applied corporate H&S program have, and continue to, evolve, as the Project expands in scope.

ENVIRONMENT AND PERMITTING

Cardero will develop an operation-specific environmental management systems throughout mine development and operations, consistent with the ISO 14001 standard; moreover, appropriate standards of environmental performance consistent with Mining Association of British Columbia Environmental Principles and elements of the Mining Association of Canada's *Toward Sustainable Mining* initiative.

The key component of the Carbon Creek Environmental Assessment (“EA”) process is the collection of environmental baseline data within the Carbon Creek Project area, as required by the pre-application EA process. The Carbon Creek Project Description has been completed and accepted (a Section 10 Order was issued by the Environmental Assessment Office (“EAO”) on May 9th, 2012), and a first draft Application Information Requirements (“AIR”) for an Environmental Assessment Certificate (“EAC”) application was submitted to EAO on July 5th, 2012. Completion of the AIR – subsequent to further review by a working group and public consultation - is anticipated by Q4 2012, followed by the preparation of an effects assessment (Q1 2013), and submission of the final EAC Application (Q2 2013). In addition to completion of the EAC Application process, environmental and associated mine permits must be obtained prior to full-scale mining.

As part of the EA, a closure and reclamation plan will be developed, in order to assure the long-term sustainability of the property. Moreover, when the Carbon Creek mine begins active operations, an Environmental Management Plan will be developed throughout mine construction and as it begins to operate.

The EAC and permitting schedule, which will encompass most of the project permits required, is anticipated to be as follows:

Environmental Assessment Certificate (EAC)	
Submission of EA report/application to the EAO and CEAA	Q2 2013
Review by EAO and CEAA	Q2 2013– Q4 2013
Decision from Minister of Environment	Q1 2014

Table 10: Environmental Assessment Certificate

Environmental and Mine Permits	
Applications for construction-phase and associated permits	Q2 2013
Application for operational, closure-phase, associated mine and effluent permits	Q4 2013
Construction-phase permit issuance	Q1 2014

Table 11: Environmental and Mine Permit Application

In addition to environmental monitoring conducted in support of baseline studies, Cardero has also taken steps to minimize the environmental impact of the operation through careful planning and progressive modification of the mine design. The PFS mine plan minimizes surface footprint through implementation of underground operations. Additionally, surface operations include highwall mining techniques, which minimize the need to move waste rock and, as a result, the amount of waste rock generated. The surface operations include two conventional open-pit operations where sequential back-filling with waste rock will maximize the benefit of progressive reclamation throughout the mine life. Water for mine operation will be sourced from Williston Reservoir, rather than depleting groundwater resources. In addition, the water management plan includes re-use and recycling of water from the processing plant. Most significantly, the proposed plant design will not require a tailings impoundment, a unique feature within the Peace River coalfield operations.

Delivery of coal to railhead via barging on Williston Reservoir significantly reduces the footprint of mine operations, which would otherwise have required a 69km haul road and construction of a tunnel or overland conveyor within the previously proposed route. Additionally, barging will significantly reduce the potential carbon footprint of the operation. Covered dome storage facilities have been included in the mine plan to minimize particulate coal dust in the air.

Cardero establishes mutually-beneficial relationships with the communities in which, and near which, it operates; moreover, it maintains knowledge of, and sensitivity to, the needs of neighbouring communities and local cultures, in particular, First Nations Cardero also consults with communities to develop a process to manage communications, activities and address local concerns; and, applies a local preference hiring policy.

In conjunction with other EA activities, Cardero has undertaken extensive consultation and engagement with provincial and federal government representatives, First Nations and local community stakeholders. Consultations with local and regional First Nations groups are required as part of the EA process. The level of consultation varies depending upon whether lands are within, or have any impacts on, traditional territories identified under Treaty 8. Successful First Nations consultation provides the groundwork for obtaining a social license for the project to operate.

COAL MARKETING

An independent market analysis was prepared and provided by Kobie Koornhof Associates. A summary of the results and conclusions from the report dated September 17, 2012 is provided below.

Based on coal washability, three products have been identified for sale on the international seaborne market:

- ***Carbon Creek hard coking coal*** (“HCC”) - comprising the Lower Seams (Seams 14-40);
- ***Carbon Creek high volatile metallurgical coal*** (“HV Metcoal”) - comprising the Upper Seams (Seams 46-63), which would be suitable either as a semi-soft coking coal (“SSCC”), or a PCI; and,
- ***Carbon Creek thermal coal*** - comprising oxidized or partially-oxidized coal typically occurring close to surface.

The quality characteristics of the three coal products were compared to a series of benchmark coals traded internationally, to arrive at appropriate pricing:

- ***Carbon Creek HCC*** is evaluated at a US\$10 per tonne discount to the generally reported coking coal benchmark pricing;
- ***Carbon Creek HV Metcoal*** is benchmarked on the basis of both the semi-soft and the PCI coals. As a High Vol PCI coal, the price is taken as 85% of the price of the prime

Low Volatile PCI coals; as a High Vol semi-soft coking coal, it is benchmarked at a US\$8 per tonne discount off the price of the major semi-soft coals;

- **Carbon Creek Thermal** is compared with New South Wales (NSW) thermal coals contracted to the Japanese Power Utilities (JPU); based on heat value differentials, Carbon Creek Thermal is priced at a 12% premium to the NSW thermal coals.

A series of analysts' price forecasts were combined with an independent price outlook and five-year historical pricing to arrive at long-term price scenarios for the Carbon Creek products. HV Metcoal pricing is the average between SSCC and LV PCI pricing. The Carbon Creek HV Metcoal product could be committed to either the SSCC or PCI markets. This approach to pricing reflects the optionality which can be employed through mine life, adjusting the coal product specification to ensure optimum market acceptance.

Using base-case pricing, the average realized Free On Board (“FOB”) price over mine life is \$173/tonne; this has been calculated based on mine production and relative proportions of coal products produced year-on-year. Mine products are 60% HCC, 34% HV Metcoal and 6% Oxidized (thermal) coal.

The Base Case assumes no global supply disruption (which would drive prices higher), with a gradual and sustained recovery in demand.

The Low Case assumes that in 2014 and 2015 coking coal benchmark prices remain more or less at the forecast 2013 level, before dropping to a long-term level of \$175/tonne. This is predicated on a stagnant demand scenario, with Chinese growth severely curtailed, and import coal pricing largely determined by the economics of Chinese domestic coking coal supply.

Prices in the High Case follow the Base Case until 2016. From 2017, prices are taken as the average price over the last 5 years.

	Analyst Long Term		Independent Market Opinion		5-Year Average	
	LOW CASE		BASE CASE		HIGH CASE	
	Benchmark	Carbon Creek	Benchmark	Carbon Creek	Benchmark	Carbon Creek
Hard Coking Coal	\$175	\$165	\$210	\$200	\$227	\$217
HV Metcoal	\$127	\$113	\$153	\$137	\$172	\$148
Semi-Soft Coking Coal	\$131	\$111	\$158	\$134	\$175	\$149
LV PCI	\$123	\$115	\$147	\$139	\$168	\$160
Thermal	\$87	\$96	\$103	\$115	\$106	\$119
Average Realized Price Over Mine Life		\$143		\$174		\$187

Table 12: Coal Product Pricing Assumptions. Average base case coal price over LOM is \$174/t

Product	% Production Over Mine Life
Hard Coking Coal	60%
HV Metallurgical Coal (Semi-Soft / PCI)	34%
Thermal (Near Surface Oxidized Coal)	6%

Table 13: Relative Product Volumes as percentages of mine production.

It is expected that the coal quality results based on samples from the 2012 drilling program, washed and prepared using non-organic liquids, will be superior to the historical results.

Canadian coals in general are sought after for the strength exhibited by the resultant coke under blast furnace conditions. These qualities, which can be tested during carbonization in a pilot coke oven, are measured by ASTM Stability, Hardness and Coke Strength after Reaction (CSR). Evidence from Sole Heat Oven testing of individual seams, together with results from coke oven testing in the 1970s, indicate CSR values for the blended Carbon Creek HCC in a 55-65 range, with a likely final CSR value of around 60.

Cardero has entered into a contract with Ridley Terminals which provides port capacity for Cardero for a portion of the projected coal sold from the Carbon Creek Property. The agreement has a 15 year term from January 1, 2014 to December 31, 2028, with provision to extend the term by three years to December 31, 2031. Contract volume is set at 500,000 tonnes per annum ("tpa") through 2014, increasing to 900,000 tpa in 2015. The agreement is subject to Ridley Terminals receiving Federal Government approval for addition of a fourth stacker / reclaimer that will increase capacity from 24 Mtpa to 30 Mtpa. Cardero has been advised by Ridley that approval is expected in 2012.

CAPITAL COST ESTIMATE

Capital required to bring the project to a production level at which all mining operations are established totals \$475M and includes expenditure for, mine development, coal handling and preparation, barge and rail loading facilities, surface facilities, site access, power and a contingency. Capital requirements to first production total \$217M. All major surface and underground mining equipment is assumed to be leased with varying terms for underground and surface mining equipment. The total value of the mining equipment being leased is \$180M. Annual lease payments at full production total \$27M and \$19M for surface equipment and underground equipment respectively for the duration of the respective five and three year terms. All equipment is assumed to be purchased at the end of the lease term for the stated residual value. Replacement equipment is assumed to be leased under the same terms. Lease payments for mining equipment total \$338M over the mine life.

Total capital, excluding equipment leasing costs, is \$839M over the mine life.

\$ Million	Pre-production 2013 - 2014	Ramp Up 2015 - 2017	Sustaining 2018 - 2034	Total
ROM Coal Handling	\$30	\$54	\$38	\$122
Clean Coal Handling	\$8	\$23	\$3	\$33
Coal Preparation Plant	\$23	\$47	\$13	\$83
Refuse and Tailings Handling	\$0	\$2	\$0.5	\$3
Barges, Tug, and Facilities	\$65	\$0	\$32	\$97
Surface Facilities	\$34	\$34	\$6	\$74
Site Access and Power	\$10	\$14	\$0	\$24
Miscellaneous	\$25	\$5	\$9	\$39
Underground Mine Infrastructure	\$2	\$26	\$53	\$81
Underground Mine Equipment	\$0	\$28	\$134	\$162
Surface Mine Equipment	\$1	\$3	\$42	\$46
Contingency at 10%	\$20	\$23	\$33	\$76
Total Capital	\$217	\$258	\$363	\$838
Cumulative Capital	\$217	\$475	\$838	

Table 14: Capital Requirements Over Mine Life

OPERATING COST ESTIMATE

Operating costs have been estimated for the surface, highwall and underground mines based on required equipment hours, labour hours and materials and supplies and estimated contract rates as applicable to each mining method. These costs are shown in Table # on a unit basis for each mine and the CHPP.

Operating Area	Cost	Unit
Average Direct Mining Cost including Processing	61.11	\$/t
Barge, Rail and Port Handling	36.75	\$/t
Indirect Costs (G&A, mineral tax, reclamation)	12.57	\$/t
Total	110.43	\$/t

Table 15: Summary of Average LOM Operating Costs

PROJECT ECONOMICS

Norwest prepared an economic model in US\$ (estimated up to +/-30% accuracy) that captures direct costs, including labor, equipment, materials, production taxes and royalties. Indirect costs including corporate overhead, mineral tax and property tax were added to the model along with depreciation of purchased equipment and facilities. A cash flow calculation was prepared on an after tax basis using an average FOB price of \$173 per saleable tonne and an average clean coal production of 4.1Mtpa. Clean coal production increases from 0.75Mtpa to 3.5Mtpa over the first five years of production and then averages 4.4Mtpa, ranging from 2.7Mt to 5.2Mt, for the remaining mine life of fifteen years.

Pre-production cash outflows total \$243M over the estimated two year initial development and construction period (preproduction capital, plus working capital and costs associated with first coal production). Production begins in Q4 2014 with coal sold in 2015. Construction continues through 2015 with additional cash outflow of \$210M for a total of \$453M through complete development and construction. Cash flow is positive beginning in 2016 and payback occurs approximately 7 years after the initial cash outflow. After payback and providing for the net proceeds interest (“NPI”), cash flow averages \$145M per year for a total net cash flow of \$2,100M over the life of the mine for Cardero’s 75% interest.

Pre-tax NPV and IRR is presented in Table 16. Post-tax, post NPI NPV and IRR is presented in Table 17.

	Price*	IRR	NPV ₈	NPV ₁₀	NPV ₁₂
Best Case (5-year average Metcoal pricing)	\$187/t	31.6%	\$1,144M	\$877M	\$674M
Base Case (independent marketing consultant)	\$174/t	27.8.0%	\$896M	\$676M	\$509M
Low case (analyst consensus on long-term price)	\$143/t	15.5%	\$313M	\$195M	\$106M

Table 16: Carbon Creek Pre-Tax Feasibility Valuation Results

	Price*	IRR	NPV ₈	NPV ₁₀	NPV ₁₂
Best Case (5-year historical Metcoal pricing)	\$187/t	27.0%	\$819M	\$616M	\$462M
Base Case (independent marketing consultant)	\$174/t	23.7%	\$633M	\$465M	\$338M
Low case (analyst consensus on long-term price)	\$143/t	13.1%	\$191M	\$99M	\$30M

Table 17: Carbon Creek Feasibility Valuation Results (Post-Tax, Post NPI).

SENSITIVITY ANALYSIS

Sensitivity of the economics regarding coal sales price, direct mining costs and capital expenditures were evaluated. The results are summarized in Table 18.

	IRR	NPV ₈	NPV ₁₀	NPV ₁₂
Base Case Pricing	23.7%	\$633	\$465	\$338
High Case Pricing	27.0%	\$819	\$616	\$462
Low Case Pricing	13.1%	\$192	\$99	\$30
10% Increase in Direct Mining Costs	22%	\$551	\$397	\$281
10% Increase in Capital Costs	22%	\$605	\$438	\$312

Table 18: Sensitivity Analysis (\$millions)

Given the high margins, the project is more sensitive to changes in coal prices than it is to changes in direct mining costs and capital costs. The 10% increase in capital cost does not result in any significant change in NPV because it delays the effect of the net profits interest. Table 19 summarizes the key results of the Prefeasibility Study.

Resource - Measured & Indicated	Mt	468
Underground Reserve Tonnes	Mt	51
Mean Plant Recovery	%	64%
Underground Clean Coal Tonnes	Mt	32
Surface Mineable Tonnes	Mt	70
Mean Plant Recovery	%	65%
Surface Clean Coal Tonnes	Mt	46
Total Clean Coal Tonnes Produced	Mt	78
Surface Mining Minimum Seam Thickness	M	0.6
Surface Mining Average Strip Ratio – Northern Surface Mine	Ratio	12:1
Surface Mining Average Strip Ratio – Central Surface Mine	Ratio	7:1
Underground Mining Minimum Seam Thickness	M	1.2
Underground Mining Overall Extraction	%	53%
Full Production Rate Clean Coal per Year (2016-2034)	Mt/yr	4.1
Capital Costs to First Production (With Equipment Leasing)	M\$	\$217
Capital Costs to Full Development	M\$	\$475
Sustaining Capital LOM	M\$	\$364
Value of Leased Equipment	M\$	\$180
Northern Surface Mine OPEX ROM Basis	\$/t	51
Central Surface Mine OPEX ROM Basis	\$/t	33
Highwall Mining OPEX ROM Basis	\$/t	17
Underground Mine OPEX ROM Basis	\$/t	44
Northern Surface Mine OPEX Clean Coal Basis	\$/t	75
Central Surface Mine OPEX Clean Coal Basis	\$/t	48
Highwall Mining OPEX Clean Coal Basis	\$/t	42
Underground Mine OPEX Clean Coal Basis	\$/t	69
Processing OPEX	\$/t	4
Average direct mine costs (incl. equipment lease) Clean Coal Basis	\$/t	61
Transportation & Port Costs	\$/t	37
Total FOB Cost	\$/T	110
FOB Price Long-Term Base Case	\$/t	174
Gross Revenue LOM	M\$	14,692
Operating Costs LOM	M\$	10,073
Pre-Tax Operating Cash Flow LOM	M\$	4,619
Post-Tax NPV 8 (75% Basis)	M\$	633
Internal Rate of Return (75% Basis)	%	24
Post-Tax NPV 8 (100% Basis)	M\$	878
Internal Rate of Return (100% Basis)	%	27
Total Undiscounted Post-Tax Cash Flow (75% Basis)	M\$	2,133

Table 19: Carbon Creek Project Key Parameters and Assumptions

SIGNIFICANT RISK FACTORS

Exploration and future mining operations do not utilize unique technologies that might be subject to challenge by third parties. However, the project will need to successfully progress through and complete the EA process, as well as other permitting processes. First Nations consultation is an important element of the project development that requires a great deal of commitment, so

that consensus is reached among parties to support the long-term sustainability of the project. Engagement has been initiated and continues in order to obtain First Nations support for early project activities. First Nations members are employed in the ongoing exploration program, and there is a plan to involve First Nations members in environmental monitoring and other future activities. Also, hiring and training mining personnel, particularly underground miners, will be challenging given the tight labor market in the region. Environmental considerations, in particular water quality and potential direct and indirect impacts to wildlife population and habitat will need to be comprehensively addressed during the EA process. None of these issues represent insurmountable hurdles, and given a pro-active approach with good process management, the project should be able to advance beyond this PFS to the feasibility stage of investigation.

SUMMARY

Based on the results of this PFS, Norwest has reached the following conclusions:

1. There are sufficient mineable tonnes of various grades of metallurgical and thermal coal in the Carbon Creek resource area to produce approximately 4.1Mtpa saleable coal for a 20 year period.
2. No fatal flaws have been identified at this stage of project development.
3. Pre-production capital costs, estimated at \$217M will be required to bring this project into production. Additional capital estimated at a total of \$475M will be required to bring the project to full production. Sustaining capital of \$364M will be required over the remaining life of the mine.
4. Operating costs per tonne of clean coal average \$74 (mining & processing costs plus indirect costs).
5. At the base price scenario for the various products averaging \$174/t, this project is expected to generate positive cash flows and achieve an internal rate of return (IRR) on investment of 24%.

NEXT STEPS

Norwest have provided a number of recommendations for additional work, leading to completion of a full feasibility study.

Development Drilling - The results of the 2012 drilling program should be included in the geological database and a new geological model produced for the Feasibility Study.

Mine Planning Refinement - Additional refinement of the geologic model along with a detailed mine plan is recommended and will yield a revised and more accurate recoverable reserve base. This work should be completed at the Feasibility level of project evaluation. Optimum production plans and methods should be analyzed. One example for further study is to examine the applicability of underground longwall mining rather than room and pillar mining.

CHPP Design and Construction - Prior to proceeding with the project for detailed design and construction, Norwest recommends that additional studies be performed to better characterize the coals to ensure proper equipment design. The best available information and best practices were implemented in the design of the system, although additional information will supplement the database for final design.

Washability Study – Utilizing with large diameter core drilling which is in progress as part of the 2012 field program.

Seam Characterization - Further metallurgical characterization of main seams and potential blends.

Waste - Materials characteristics tests for the projected refuse materials.

Environmental Load Study - including temperature ranges, wind load, and expected snow and rain precipitation are being collected and when the results are available they should be used for additional detailed design.

Geotechnical Studies - Geotechnical sampling and detailed core logging have been conducted in the 2011 drilling program and continues with the 2012 drilling program. The data is being used to develop a current rock mechanics database. This data should be used to further refine the mine plans for both surface and underground mines. A full investigation of the foundation material around the plant and surface facilities area as well as the waste impoundment area is required. Anecdotal information was used in this design study using best practices and information from similar projects in the area, although site construction will require further studies. Detailed geotechnical data is being collected as part of the 2012 field program.

Water Supply – Hydrology - Additional work on the property should include well completions and pump tests for defining groundwater characteristics and establishing monitor wells for baseline permitting data. A water recovery and aquifer study will be required prior to project implementation. For this study, it was assumed that a sufficient supply will be available. This PFS includes general assumptions with regard to surface water management plans and structures. A surface water management plan will need to be developed using site specific data relative to precipitation, ground water interception from mining, mine plans, surrounding topography and drainages.

ADDITIONAL AND BACKGROUND INFORMATION

CARBON CREEK PROPERTY

The Carbon Creek property lies approximately 40km west of the town of Hudson's Hope and 60km northwest of the town of Chetwynd, BC. Improved forest service roads connect the property with British Columbia Highway 29 between the towns of Hudson's Hope and Chetwynd. The nearest city is Fort St. John (population 18,300) located 110km east of property and is connected to the towns of Hudson's Hope and Chetwynd by Highway 29. The CN Rail line, which will be used to deliver the product to Ridley Terminals at Prince Rupert, passes 40km south of the property. The northern end of the property is adjacent to the Williston Reservoir and is approximately 175 km east of Mackenzie, BC by water.

The property is located in the Inner Foothills of the Canadian Rocky Mountains and was historically explored and evaluated by Utah Mines between 1971 and 1981. There was a hiatus in coal exploration from the early 80's to 2010 when Coalhunter Mining Corporation ("Coalhunter") completed an eight-hole validation drilling program. In June 2011, Cardero completed a plan of arrangement to acquire Coalhunter.

In June 2011, Norwest estimated a NI 43-101 compliant resource using historic (pre-2010) and 2010 validation drilling data only. In this report an estimated total resource of 114.0 million tonnes (Mt) of Measured and Indicated plus 89.1Mt of Inferred resources were identified from twelve coal seams within license application areas. This resource report was followed up by a NI 43-101 PEA report that was completed by Norwest in December 2011. In the PEA report, 166.7Mt of Measured and Indicated plus 167.1Mt of Inferred resources were estimated within the same area outlined in June 2011 report. The increase in resource tonnes from the previous June 2011 report is primarily attributed to decreases in minimum seam thickness and increase in maximum depth from surface for surface mining.

TENURE & JOINT VENTURE

The Carbon Creek deposit is in the Peace River Coalfield and consists of eleven Coal License Applications (and any coal licenses issued pursuant to such applications), four Coal Licenses, and ten Crown Granted District Lots ("CGDL"), comprising a contiguous tenure parcel of approximately 17,200ha. Ten of the Coal License Applications have been submitted by P. Burns Resources Ltd. (Burns) of Calgary, Alberta and, upon the issuance of any coal licenses thereunder, such licenses are to be transferred to the Carbon Creek Partnership ("CCP"), an Alberta partnership. Cardero submitted one other coal license on a similar basis over what appears to be a land area already covered by the CGDL and the license application will be withdrawn. The CGDL's, totalling approximately 2,600ha, are controlled by Peace River Partnership ("PRP"), an Alberta partnership. Cardero has entered into an option, and made all requisite payments, to acquire a coal lease over the coal resources on the CGDL from the PRP. A contiguous coal tenure application submitted by Alan A. Johnson was processed by the Province of BC and converted into four coal licenses (418174, 418175, 418176, and 418177) on June 14, 2012. Cardero has an exclusive option to purchase these licenses within four months of issuance for the sum of \$5M. The option exercise period can be extended up to three months provided Cardero makes payments of \$20,000 per month to Mr. Johnson.

Cardero has entered into a joint venture agreement with the CCP, in which Cardero will have a 75% NPI and the CCP will have a 25% NPI. Pursuant to the joint venture agreement, each joint venture partner is contributing its resource in the Carbon Creek deposit. The joint venture, known as the Carbon Creek Joint Venture, will control and operate the Carbon Creek property described above. The joint venture agreement provides that the CCP interest is a carried NPI, which requires Cardero to fund the exploration, development, construction and operation of the mine. However, the CCP will not receive any of its share of the proceeds until Cardero has recovered 100% of its investment including all development monies, exploration expenditures, capital expenditures and sustaining capital, as well as the cost of the Johnson coal licences. Following Cardero recovering its investment, the CCP is entitled to 25% of the net proceeds of the Carbon Creek Joint Venture. Cardero is the manager of the Carbon Creek Joint Venture and has exclusive coal marketing rights.

GEOLOGY

The Carbon Creek property lies within the Inner Foothills structural province of western Canada, which is characterized by folded and faulted Mesozoic sediments, and contains medium volatile bituminous coals of the Gething Formation.

Structural interpretations of the Carbon Creek property portray a doubly-plunging syncline lying between two anticlinal belts that straddle the western and eastern boundaries of the property. The synclinal axis roughly parallels the course of Carbon Creek and plunges gently (less than 5°) to the south-southeast through the main project area. Dips in the central portion of the property are nearly flat, ranging from 0° to 15°, increasing to up to 30° locally along the synclinal flanks in the east and west portions of the property. Based on the available data and existing geological interpretation, Norwest has determined coal mineralization to be of the Moderate geology type.

Coal seam development on the property is typical of the Gething Formation; a total of 63 coal seams are present, up to 28 of these seams are significant and with economic potential. Some of the coal seams, particularly the stratigraphically lower seams show favourable metallurgical properties.

EXPLORATION AND DRILLING

The periods and types of coal exploration undertaken on the property are summarised in Table 20. The coal exploration methods can be separated into four types: regional mapping and field sampling, aerial surveys, coring and open-hole (rotary) drilling, and bulk sampling. Types by era are summarized below.

Year	Company	Drill Holes
1908 -1945	Various*	0
1970	Trend Exploration	0
1971 - 1981	Utah	299
2010	Coalhunter	8
2011	Cardero	114
2012	Cardero	in progress

Table 20: Historical and Current Drilling

Cardero is conducting an extensive exploration program during 2012, targeted at expanding the measured plus indicated resource base and further defining potentially mineable areas within the previously defined resource areas. Results of this exploration will be incorporated into the geologic model which will be updated in the feasibility study.

SAMPLE PREPARATION, ANALYSIS AND SECURITY

The sample data used in this study includes analyses of slim core and large diameter core samples as well as bulk samples, excluding pre-1971 surface-derived samples.

Field sampling, handling and transport of drill core samples by Cardero were observed to be in accordance with industry best practice. Norwest believes that Utah Mines used similar methods in their drill core sampling program in the 1970's and 1980's. The Utah Mines samples predominantly went to coal laboratories in United States whereas the Cardero samples were sent to certified coal laboratories in both the United States and Canada.

The drill core samples were subject to a standard suite of raw proximate coal analyses that included Free Swell Index (FSI). The bulk samples were subject to more detailed analyses specifically targeted for the evaluation of the coal's washability characteristics and metallurgical properties.

QUALIFIED PERSONS

EurGeol Keith Henderson, PGeo, Cardero's Executive Vice President and a qualified person as defined by National Instrument 43-101, has reviewed the scientific and technical information that forms the basis of this news release, and has approved the disclosure herein. Mr. Henderson is not independent of the Company, as he is an officer and shareholder.

Larry Henchel, P.G., John Lewis, P.E., and Larry Messinger (all of Norwest Corporation), and Kobie Koornof (consultant), each of whom is a qualified person as defined by national Instrument 43-101, are each responsible for portions of the Prefeasibility study technical report that forms the basis for this news release and have reviewed and approved the scientific and technical information contained in this news release.

John Lewis, P.E. is Manager of Underground Mining with Norwest Corporation in Salt Lake City, USA. Mr. Lewis has 18 years' experience in the coal mining industry with expertise gathered from US mining operations in the areas of longwall mining, continuous mining, pillar retreat with MRS, mine ventilation, mine safety and health regulations, project management, short and long-term planning and mine budgeting.

Larry Messinger is a Senior Project Manager at Norwest Corporation and has over 35 years in the mining and energy industries with experience in project management, project evaluation and development, surface coal mine planning and operations, strategic planning, and market analysis. He has performed pre-feasibility studies for coal properties in Mongolia, South America and Mexico.

Larry Henchel, P. G. is Vice President Geologic Services of Norwest Corporation and has over 25 years' experience in surface and underground coal mining geology, specializing in exploration and evaluation of coal and mineral properties. He has held positions in operating mines as well as participating in regional exploration projects. He is skilled in computerized modeling and reserve analysis of single and multi-seam coal deposits and has worked on projects

in numerous countries, including the United States, Canada, India, South America, the Middle East, Mongolia and Southern Africa.

Kobie Koornof is an independent Marketing Professional with 35 years' experience in the coal industry, including 25 years' experience in the marketing and sales of metallurgical coal, thermal coal and anthracite, and coal quality assessment for metallurgical and thermal coal from Canada, USA, Australia and Mongolia. Relating to Peace River Coalfield products, Mr. Koornof's experience includes marketing and sales of metallurgical coal to steel mills worldwide for Western Coal Corp., Peace River Coal, Pine Valley Mining Corp. and Luscar Ltd.

DATA VERIFICATION

Norwest personnel were directly involved in the field sampling and management of Coalhunter and Cardero drilling programs and the relevant Qualified Persons (QP's) conducted site inspections during these exploration campaigns. The Coalhunter twin hole verification drilling program was able to replicate the results of the earlier Utah Mines drilling program from the 1970's.

The Qualified Persons are satisfied the process used by Cardero and external third party consultants are standard industry operating procedures and methodologies. They have verified the results from Cardero and third party consultants and the data disclosed in this release, including sampling, analytical and test data underlying the information and opinions contained in this release.

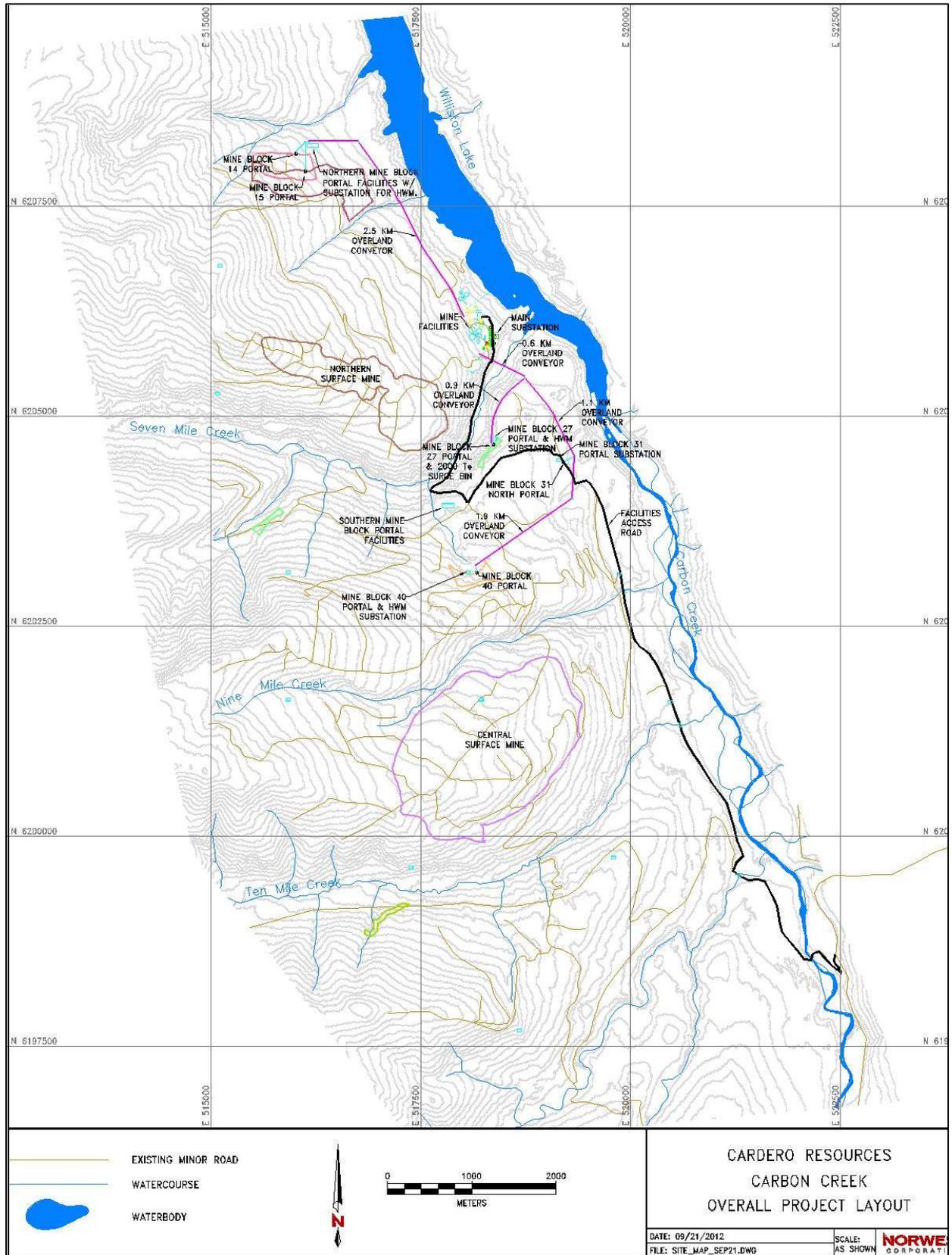


Figure 1

ABOUT CARDERO RESOURCE CORP.

The common shares of the Company are currently listed on the Toronto Stock Exchange (symbol CDU), the NYSE-MKT (symbol CDY) and the Frankfurt Stock Exchange (symbol CR5). For further details on the Company readers are referred to the Company's web site (www.cardero.com), Canadian regulatory filings on SEDAR at www.sedar.com and United States regulatory filings on EDGAR at www.sec.gov.

On Behalf of the Board of Directors of
CARDERO RESOURCE CORP.

“Michael Hunter” (signed)
Michael Hunter, CEO and President

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Cautionary Note Regarding Forward-Looking Statements

This press release contains forward-looking statements and forward-looking information (collectively, “forward-looking statements”) within the meaning of applicable Canadian and US securities legislation. *All statements regarding the anticipated content, commencement and cost of exploration programs, anticipated exploration program results, the discovery and delineation of mineral deposits/resources/reserves, the planned completion of and timing for a feasibility study with respect to the Carbon Creek deposit, the potential for any production from the Carbon Creek deposit, the potential for a production decision to be made concerning Carbon Creek following the completion of a feasibility study, the issuance of the necessary permits to establish and operate a mine at Carbon Creek and the anticipated timing thereof, the potential commencement of any development of a mine at the Carbon Creek deposit following a production decision, business and financing plans and business trends, are forward-looking statements. Information concerning mineral resource/reserve estimates and the economic analysis thereof contained in the prefeasibility study may also be deemed to be forward-looking statements in that it reflects a prediction of the mineralization that would be encountered, and the results of mining it, if a mineral deposit were developed and mined.* Although the Company believes that such statements are reasonable, it can give no assurance that such expectations will prove to be correct. Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, postulate and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking statements by the Company are not guarantees of future results or performance, and that actual results may differ materially from those in forward looking statements as a result of various factors, including, but not limited to, variations in the nature, quality and quantity of any mineral deposits that may be located, variations in the market for, and pricing of, any mineral products the Company may produce or plan to produce, *significant increases in any of the machinery, equipment or supplies required to develop and operate a mine at Carbon Creek, a significant change in the availability or cost of the labor force required to operate a mine at Carbon Creek, significant increases in the cost of transportation for the Company's products, the Company's inability to obtain any necessary permits, consents or authorizations required for its activities, the Company's inability to produce minerals from its properties successfully or profitably, to continue its projected growth, to raise the necessary capital or to be fully able to implement its business strategies, and other risks and uncertainties disclosed in the Company's 2012 Annual Information Form filed with certain securities commissions in Canada and the Company's annual report on Form 40-F filed with the United States Securities and Exchange Commission (the “SEC”), and other information released by the Company and filed with the appropriate regulatory agencies.* All of the Company's Canadian public disclosure filings may be accessed via www.sedar.com and its United States public disclosure filings may be accessed via www.sec.gov, and readers are urged to review these materials, including the technical reports filed with respect to the Company's mineral properties.

Cautionary Note Regarding References to Resources and Reserves

National Instrument 43-101 - Standards of Disclosure for Mineral Projects (“NI 43-101”) is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all resource estimates contained in or incorporated by reference in this press release have been prepared in accordance with NI 43-101 and the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the “CIM”) Standards on Mineral Resource and Mineral Reserves, adopted by the CIM Council on November 14, 2004 (the “CIM Standards”) as they may be amended from time to time by the CIM, and in the Geological Survey of Canada Paper 88-21 entitled “A Standardized Coal Resource/Reserve Reporting System for Canada” originally published in 1988.

United States shareholders are cautioned that the requirements and terminology of NI 43-101 and the CIM Standards differ significantly from the requirements and terminology of the SEC set forth in the SEC’s Industry Guide 7 (“SEC Industry Guide 7”). Accordingly, the Company’s disclosures regarding mineralization may not be comparable to similar information disclosed by companies subject to SEC Industry Guide 7. Without limiting the foregoing, while the terms “mineral resources”, “inferred mineral resources”, “indicated mineral resources” and “measured mineral resources” are recognized and required by NI 43-101 and the CIM Standards, they are not recognized by the SEC and are not permitted to be used in documents filed with the SEC by companies subject to SEC Industry Guide 7. Mineral resources which are not mineral reserves do not have demonstrated economic viability, and US investors are cautioned not to assume that all or any part of a mineral resource will ever be converted into reserves. Further, inferred resources have a great amount of uncertainty as to their existence and as to whether they can be mined legally or economically. It cannot be assumed that all or any part of the inferred resources will ever be upgraded to a higher resource category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of a feasibility study or prefeasibility study, except in rare cases. The SEC normally only permits issuers to report mineralization that does not constitute SEC Industry Guide 7 compliant “reserves” as in-place tonnage and grade without reference to unit amounts. In addition, the NI 43-101 and CIM Standards definition of a “reserve” differs from the definition in SEC Industry Guide 7. In SEC Industry Guide 7, a mineral reserve is defined as a part of a mineral deposit which could be economically and legally extracted or produced at the time the mineral reserve determination is made, and a “final” or “bankable” feasibility study is required to report reserves, the three-year historical price is used in any reserve or cash flow analysis of designated reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority.

This press release is not, and is not to be construed in any way as, an offer to buy or sell securities in the United States.