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QUARTERLY REPORT - DECEMBER 2009

Atomic Resources Limited ("Atomic") is pleased to present its quarterly report for the period ended December 2009.

Highlights from the December 2009 Quarter

- *Bankable Feasibility Study (BFS) at Ngaka is nearing completion.*
- *Drilling at Mbuyura and Mkapa Blocks, Ngaka continued with 28 holes drilled for 3,566 metres.*
- *Initial discussions with potential domestic customers progressing and Letters of Intent (LOI) have been exchanged for the initial 300 tonne bulk sample.*

Key activities planned for the quarter ending March 2010 include:

- *Continue BFS and viability studies for the Ngaka coal mining project.*
- *Bulk sample of 300 tonnes for testing by potential customers*
- *Continue regional basin studies in the southern Tanzanian region to identify further prospective areas for coal and initiate exploration at Muhukuru coalfield also in southern Tanzania.*
- *Drilling to recommence in February at Mkapa and Mbuyura to complete the JORC compliant resource estimation.*
- *Identify and review other energy related opportunities in Africa, including potential joint ventures, acquisitions or investments which the Board considers will enhance shareholder value.*

OPERATIONS

Tanzania Exploration

NDC/Atomic Resources JV – Ngaka and Muhukuru coal fields

Ngaka coal field: Tancoal Energy Limited (“Tancoal”) (70% Pacific Corporation East Africa (“PCEA”) 30% NDC) [Note: PCEA is an 85% owned subsidiary of Atomic Resources]

The Ngaka Coal Project BFS has been progressing well and is on track to be completed in early 2010. Most of the key elements are expected to be finalised within the next few weeks. Once the BFS is complete mine development work is expected to commence within 12 months subject to off take agreements and financing.

Key elements of the BFS that have already been completed include the Logistics & Infrastructure Study, a Mine Plan has been prepared in accordance with the BFS, a Hydrological Study and a major drilling campaign to prove up a substantial JORC compliant resource.

Tancoal has sought expressions of interest from local companies requiring supply of thermal coal and will seek to develop formal off take agreements later in the year once the mining feasibility has been completed. An initial 300 tonne bulk sample program will commence once the seasonal rains ease. This program is expected to take a month and once complete, washable coal samples should be available for testing in April 2010.

To date Atomic has drilled 28 holes for 3,566 metres at both Mbalawala and Mbuyura-Mkapa and intends to drill a further 6 holes for 1,400 metres in February. Samples will be shipped to the laboratory in South Africa for coal quality evaluation however results already received from earlier drilling have been highly encouraging.

Tancoal is also working with power utility Tanesco to investigate an on site 400 megawatt coal fired power station at Ngaka.

Tancoal is continuing its social programs in the Ngaka area and is a pro-active supporter of improving health and education in the area with the support of the local population. Tancoal has found that all levels of the Tanzanian Government have been highly supportive of the project to date.

As at the 31st of December 2009 Atomic had cash reserves of \$3,293,000.

Tancoal Energy Limited “Tancoal” (70% PCEA, 30% NDC) has increased the combined coal resource from approximately 179 million tonnes to over 212 Million tonnes.

Table 1 - Coal Resource Updated Estimate

Seam	Category (Tonnes (Million))			Total
	Measured	Indicated	Inferred	
1	16.76	3.42	6.92	27.10
2	8.53	1.60	2.38	12.51
3	48.16	11.12	44.88	104.16
4	29.22	6.58	8.87	44.67
5	15.71	2.77	5.76	24.24
Total	118.39	25.49	68.82	212.70

The increase is a result of the inclusion of the eastern extension of previously developed resource models into a newly acquired concession which was not previously part of the company's landholding and consequently not previously reported. See Table 1.

Statistical analysis of coal qualities for each of the 5 seams indicate that the coal is a high ash, low moisture, low sulphur sub-bituminous coal. Calorific values are in the range 4,784 to 7,024 Kcal/kg with a resource weighted average of approx 5,978 Kcal/kg. This is considered suitable for thermal coal, particularly for power generation and is also considered suitable for industrial use in cement manufacture and fertilizer manufacture; all growing industries within Tanzania in particular and Africa in general.

Table 2 - Coal Quality

Coal Analysis									
Seam	Million tonnes	Inherent Moisture (%)	Ash (%)	Volatiles (%)	Fixed Carbon (%)	Sulphur (%)	Density g/cm ³	MJoules/Kg Calorific Value	Kcal/Kg Calorific Value
1	27.10	2.6	17.1	30.1	50.2	3.59	1.54	27.62	6,597
2	12.51	3	11.4	31.5	54.1	1.43	1.41	29.41	7,024
3	104.16	3.1	19.2	25.4	52.3	1.15	1.6	26.12	6,239
4	44.67	2.8	26.7	28	42.5	1.35	1.63	23.56	5,627
5	24.24	2	38.5	25.1	34.4	0.7	2.21	20.03	4,784
Total	212.70	2.8*	22.8*	27.1*	47.3*	1.5*	1.7*	25.1*	5,978*

*Totals shown for analyses are seam weighted averages
Analyses on an Air Dried Basis by WitBank Coal Laboratories, South Africa, an SGS credited Laboratory

The following criteria were used to define the resource classification.

- The resource was derived from a total cumulative drilling database comprising 27 holes and approx 16,958 metres from drilling completed by the Commonwealth Development Corporation in 1955 together with 19 holes for approx 2,940 metres from HQ3 diamond drilling completed by Atomic in December 2008.
- The 2008 drilling focused on the Mbalawala block, Ngaka coal field with the express intention of verifying and validating the historical drill data. Two historical holes were purposefully twinned for confirmation and have demonstrated a high degree of continuity allowing the company to rely on the previous data as well as the current data.
- 340 samples were collected for detailed analysis from the recent drilling. Samples have been analyzed for proximate analysis (including ash, sulphur, fixed carbon, volatiles, relative density and calorific value) coal attribute analyses (i.e. metallurgical characteristics) and a suite of trace elements by ICP techniques. Both clean coal plies and inter burden splits have been analyzed from most of the recent diamond drilling holes.
- Whilst some historical drill data has been used outside the existing concession boundary to aid the modeling process, the latest resource estimate is constrained to the existing concession boundaries.
- For the modeling process, surface mapping and each valid drill hole has been used to construct a complex wireframe for the five seams identified. Geological data digitized from outcrop mapping and all drill data has been used to construct a wireframe model with five seams currently identified.
- The classification of the resource estimate into measured, indicated and inferred categories is based upon drill-hole sampling distributions, availability and quality of analytical data for the holes and geophysical data for the holes.
- This distribution assumption has been incorporated in a block model of 20 metres by 20 metres by 2 metre block size. Each block has had a quality item attribute assigned based upon the distance from the data point and the confidence assigned to that data point determined by the factors above. The distance attribute was judged as up to 500 metres for measured, 800 metres for indicated and 1,600 metres for inferred. The summation of the confidence items generated for each block and for each seam has resulted in the resource estimation summary in Table 1.

The wireframes and block models used in the calculation of the estimate were generated by Ravensgate Geological Consultants using MED System Mine evaluation software under the direction of Mr D. Holden, Technical Director for Atomic Resources.

Liweta and Mbamba Bay

The National Development Corporation (NDC) has brought forward additional coal leases to Tancoal during the quarter. These two leases offer the opportunity for further coal to be identified close to the margins of Lake Nyssa.

At Mbamba Bay, previous work in the region by Harkness (1953) and others identified coal at surface. Initial proximate analysis completed on surface samples collected during the field work in the 1950's show:

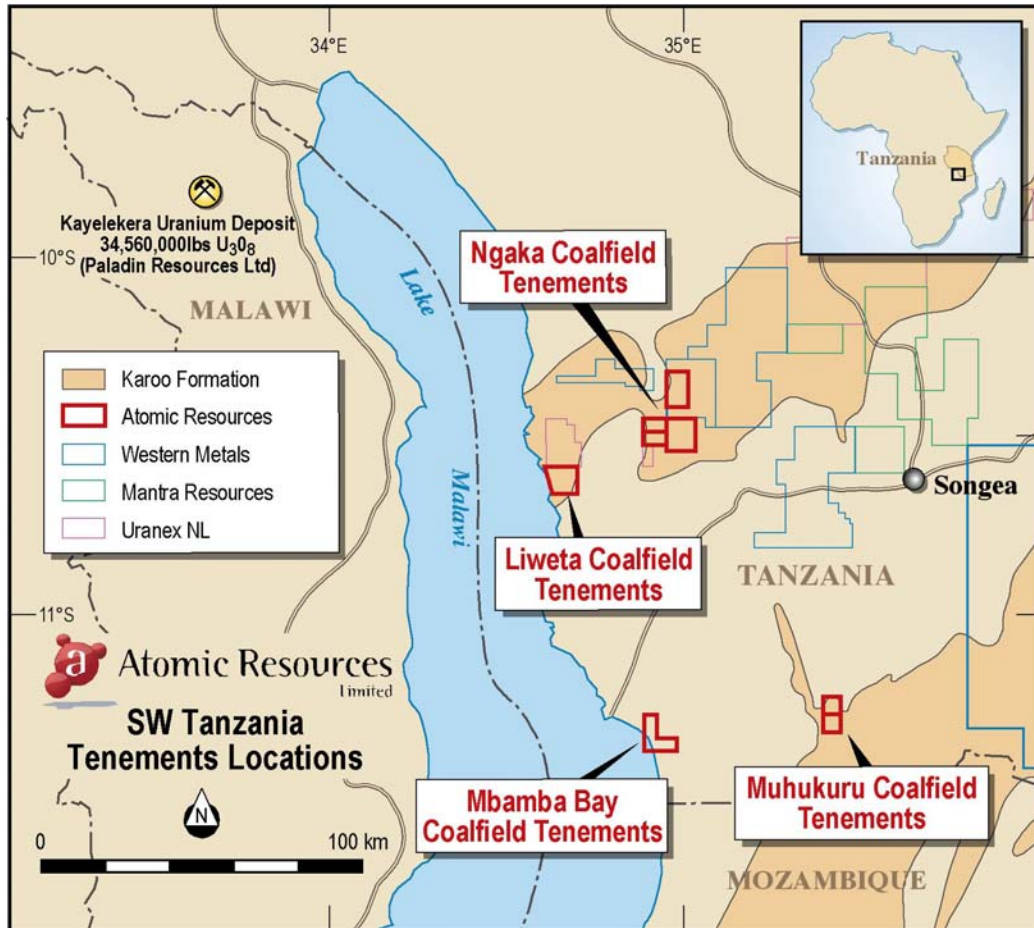
MBAMBA BAY BLOCK

Ash%	moisture %	Vol matter%	Sulphur%	Calorific Value
13-27%	0.8-13%	21.3-30.1%	0.31-0.39%	6,043- 7,810 Kcal/kg

Based upon the main seam thickness of approx 2 metres seen in outcrop and dip determined from the outcrop sampled combined with the aerial extent of the basin, the Company anticipates that a target potential tonnage of between 20 -30 million tonnes of moderate ash, low sulphur thermal coal with a calorific value exceeding 6,000Kcal/Kg lies within the offered concessions. These estimates cannot be categorized as resources, in strict accordance with section 18 of the JORC Code, as the potential quality is conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain at this time if further exploration will result in the determination of a mineral resource.

Further work is also required to determine if the coal seams contain any specialty coal such as metallurgical or coking quality.

Geologically the coal is within outliers of Karoo sediments within the main Mchuchuma Formation, the coal bearing formation at Ngaka and Mchuchuma coal fields.



LIWETA

The Liweta concession is located 10 kilometers south of the lake port of Mamba. The primary coal bearing formation is estimated from work on the exposed coal field up dip from the optioned concessions to be approximately 50 metres thick with up to 6 contained seams up to a maximum individual seam thickness seen in outcrop of 1.5m. Like Mbamba, further exploration is required including drilling to allow a JORC compliant resource to be calculated.

LIWETA BLOCK

Ash%	moisture %	Vol matter%	Sulphur%	Calorific Value
28%	unknown	31%	0.7%	8,080 Kcal/kg

Atomic estimates Liweta has a target potential tonnage of between 20 – 30 million tonnes of moderate ash, low sulphur thermal coal with a high calorific value exceeding 8,000 Kcal/kg. These estimates cannot be categorized as resources, in strict accordance with section 18 of the JORC Code. The potential quality is conceptual in nature as there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the determination of a mineral resource. Geologically the coal is within outliers of Karoo sediments within the main Mchuchuma Formation, the coal bearing formation at Ngaka and Mchuchuma coal fields.

Atomic is embarking upon verification and validation of the historical resource estimate, including confirmation of outcrop mapping for the region with an exploration drilling programme which commenced in October 2009.

Muhukuru coal field

No work has been undertaken on this project as PCEA focuses on the BFS for the Mbalawala Block in the Ngaka Basin and development of JORC compliant resources at Mbuyura and Mkapa.

Upendo – Atomic JV - Rukwa

No work has been undertaken on this project, as Atomic awaits notification that all concessions within the project group have been formally granted by the Tanzanian Government. Once completed, Atomic will sign a formal Joint Venture with Upendo Group Limited and commence exploration.

Western Australia Exploration

Uaroo Uranium Project E50/1494 and E59/1495

The Uaroo Project is the subject of a Joint Venture with Cauldron Resources Limited (formerly Scimitar Resources Limited as the operators). Cauldron Resources Limited has completed a detailed airborne EM survey over the concessions and Atomic is awaiting the results.

Mountain Creek Bore E80/1660 - Resource Search Pty Ltd (a wholly owned subsidiary of Atomic)

No further work has been completed on the concession this quarter

Other projects – Western Australia

First phase exploration work has been completed on the Eraheedy group of uranium tenements. The work comprised collection of over 4,000 soil samples with a further 48 samples collected at Fyfe Well. It is expected all samples will have been returned from the laboratory by the end of the first quarter 2010

The information in the report to which this statement is attached relates to Exploration Results, Mineral Resources or Ore Reserves compiled by Mr R. Bailey LLB ME MIE(Aust) CPEng ADRs. Mr Bailey has sufficient experience, as to qualify as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Mineral Resources and Ore reserves". Mr Bailey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information contact:

Shareholder Enquiries

Alastair Walker
Atomic Resources
Ph: (08) 9322 2033
www.atomicresources.com.au

Media Enquiries

Tony Dawe
Dawe Media Group
Mob: 041 3322 110
tony.dawe@bigpond.com