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Companies Announcement Office
Via Electronic Lodgement

MAIDEN JORC COMPLIANT RESOURCE ESTIMATE OF 15+ MILLION POUNDS

Highlights:

- **Initial JORC-compliant Resource Estimate totalling 15.1Mlbs eU₃O₈ grading 507 ppm comprising:**
 - **An Indicated Resource of 4.0Mlbs eU₃O₈ grading 510ppm**
 - **An Inferred Resource of 11.1Mlbs eU₃O₈ grading 507ppm**
- **Additional mineralised potential of 50-80Mlbs eU₃O₈ within the Lance Project Area**

The Directors of Peninsula Minerals Limited (**Peninsula**) are pleased to announce an Initial JORC-compliant Resource Estimate for the Lance projects in Wyoming, USA (**Lance Projects**).

Lance JORC-Compliant Resource Estimate

The initial resource estimate is based on a database containing over 4,544 historic drill holes together with 281 holes completed by Peninsula between 2008 and 2010.

Lance Project Initial Resource Estimate

Resource Classification	Tonnes Ore (M)	eU ₃ O ₈ kg (M)	eU ₃ O ₈ lbs (M)	Grade (ppm eU ₃ O ₈)
Indicated	3.6	1.8	4.0	510
Inferred	11.0	5.6	11.1	507
Total	14.6	7.4	15.1	507

(Ross cutoff 325 ppm; Barber cutoff 275 ppm)

The drilling density in the two primary production areas at Ross and Barber, support the classification of a portion of the total resource as Indicated. Both the indicated and inferred resources are located in confined aquifers, which are a requirement for successful ISR mining and the positive historic ISR recovery test-work.

Geological modeling of the extensive downhole geophysical data has accurately defined the impermeable shales and mudstones that form the confining seals to the mineralised aquifers.

At Ross permitting and engineering of the first production zone are in progress with production expected to commence in 2012. At Ross there is a combined indicated and inferred resource of 10.1Mlbs eU₃O₈. At Barber there is a combined indicated and inferred resource of 3.7Mlbs eU₃O₈.

External to the Ross and Barber Production Areas historic drilling has defined a further 1.3Mlbs eU₃O₈ of inferred resource.

Lance Project Initial Resource Estimate by Area and Category

Area	Category	Mlbs eU ₃ O ₈	Grade eU ₃ O ₈
Ross Production Area	Indicated	2.9	510
Ross Production Area	Inferred	7.2	506
Ross Total		10.1	507
Barber Production Area	Indicated	1.1	520
Barber Production Area	Inferred	2.6	505
Barber Total		3.7	509
External to Production Areas	Inferred	1.3	500
Total		15.1	507

Mineralised Potential

The Lance project covers an area of over 120km² within which there is a combined total of at least 305 line kilometres (190 miles) of known stacked roll fronts. Of this total, only a small percentage has been explored with over 90% of the drilling concentrated within the more advanced Ross and Barber areas. Based on the historic conversion rate from roll front length to a drill-defined resource the mineralised potential of the Lance Projects, which is in addition to the JORC-compliant resource, is assessed at between 46 and 81 Mlbs eU₃O₈.

Lance Project Mineralised Potential

Exploration Areas	Tonnes (M)		Grade (ppm eU ₃ O ₈)		eU ₃ O ₈ (Mlbs)	
	From	To	From	To	From	To
Total	41.7	67.8	500	542	46	81

With the completion of the initial resource estimate, a significant milestone in the development of the Lance Uranium projects has been achieved. On-going drilling will both enhance the grade and definition of the existing drill-defined resources at the Ross and Barber production areas and serve to continuously convert areas of mineralised potential into JORC-compliant resources. The positive results to date provide confidence that mining will commence within the targeted time-frame with production continuing over an extended mine-life.

Historic Data and Resource Estimation

In 2009 Peninsula acquired approximately 4,700 electrical drill logs comprising the Nubeth Database from UR Energy Inc. This dataset included original paper copies of gamma, self potential and resistivity logs for each hole.

The methodology, estimation details and assumptions used in estimating the Inferred and Indicated Resource and also the Mineralised Potential at the Lance Projects is summarised as follows:

- Each log was scanned by Cadd Services (Denver) and then digitized by Logdigi Inc. (Houston). The gamma curves for each log were further processed in Wyoming to convert each gamma curve to numerical equivalent counts per second and percent grade eU₃O₈.
- Down-hole grade composites were calculated using a 100ppm cut off. Over 3,600 grade composites were derived and imported into the 3D modeling software. Each grade composite was then extracted to obtain the centroid position of each composite. Every composite was then analysed in 3D and manually classified according to area and vertical horizon.
- Using Surpac, a Voronoi tessellation algorithm was then applied to the respective data from each area and horizon to create a series of polygons each of which were attributed with thickness, volume and tonnage and grade.
- The JORC-compliant resource is reported above a lower grade cut off of 325ppm eU₃O₈ at Ross and 275ppm eU₃O₈ at Barber.
- An average bulk density of 2.65, as determined from core sampling, has been assumed for the tonnage calculation.
- Disequilibrium factors were calculated using the Peninsula PFN database and categorised by area and lithological horizon.
- Specific disequilibrium factors have been applied to the relevant parts of the resource based on comparative studies between PFN and gamma data. There is an average positive 11% factor applied.

Peninsula controls the majority of the surface and minerals rights in the Oshoto Region and is currently acquiring additional areas that are considered prospective for roll front style uranium mineralisation.

Yours Sincerely



John (Gus) Simpson
Chairman

For further information, please contact our office on (08) 9380 9920 during normal business hours.

Competent Person

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Alf Gillman and Mr Jim Guilinger. Mr Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Gillman is General Manager Project Development and is a Competent Person under the definition of the 2004 JORC Code. Mr Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr Guilinger is Principal of independent consultants World Industrial Minerals. Both Mr Gillman and Mr Guilinger have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Both Mr Gillman and Mr Guilinger consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Please note that in accordance with Clause 18 of the JORC (2004) Code, the potential quantity and grade of the "Mineralised Potential" in this announcement must be considered 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.

Disequilibrium Explanatory Statement: eU3O8 refers to the equivalent U3O8 grade. This is estimated from gross-gamma down hole measurements corrected for water and drilling mud in each hole. Geochemical analysis may show higher or lower amounts of actual U3O8, the difference being referred to as disequilibrium. Disequilibrium factors were calculated using the Peninsula PFN database and categorized by area and lithological horizon. Specific disequilibrium factors have been applied to the relevant parts of the resource based on comparative studies between PFN and gamma data. There is an average positive 11% factor applied. All eU3O8 results above are affected by issues pertaining to possible disequilibrium and uranium mobility.