



24th February 2011

Companies Announcement Office
Via Electronic Lodgement

HIGH GRADE DRILL RESULTS TO ENHANCE LANCE RESOURCE

Highlights

- **Significant Intercepts include:**
 - **13.5 ft @ 2,340ppm eU₃O₈ (GT 3.16)** including **8.5 ft @ 3,420ppm eU₃O₈**
 - **11.0 ft @ 1,100ppm eU₃O₈ (GT 1.21)** including **3.5 ft @ 2,760 ppm eU₃O₈**
 - **9.0 ft @ 920ppm eU₃O₈ (GT 0.83)** including **2.5 ft @ 2,300 ppm eU₃O₈**
 - **11.0 ft @ 680ppm eU₃O₈ (GT 0.75)** including **0.5 ft @ 1,030ppm eU₃O₈**
- **Drilling at the proposed Kendrick production unit to upgrade inferred resource**
- **Results include outstanding grades, thick intervals and continuity of mineralisation**
- **K4 and K5 Roll front trends merging to produce wide areas of continuous mineralisation**

Summary

Peninsula Energy Limited (Peninsula) is pleased to announce that it has completed a further 24 exploration drill holes during 15th – 22nd February for a total of 21,940 feet at the Lance Projects. A total of 22 holes encountered mineralisation, 15 holes encountered significant mineralisation and 1 hole reported multiple intersections of stacked uranium.

As previously advised, the most recent drilling has focussed on converting inferred resources to an indicated category in the proposed Kendrick production unit located to the west of the Ross production unit. Drilling in this area has targeted the K4 and K5 roll fronts with significant mineralisation intersected in the Fox Hills sandstones.

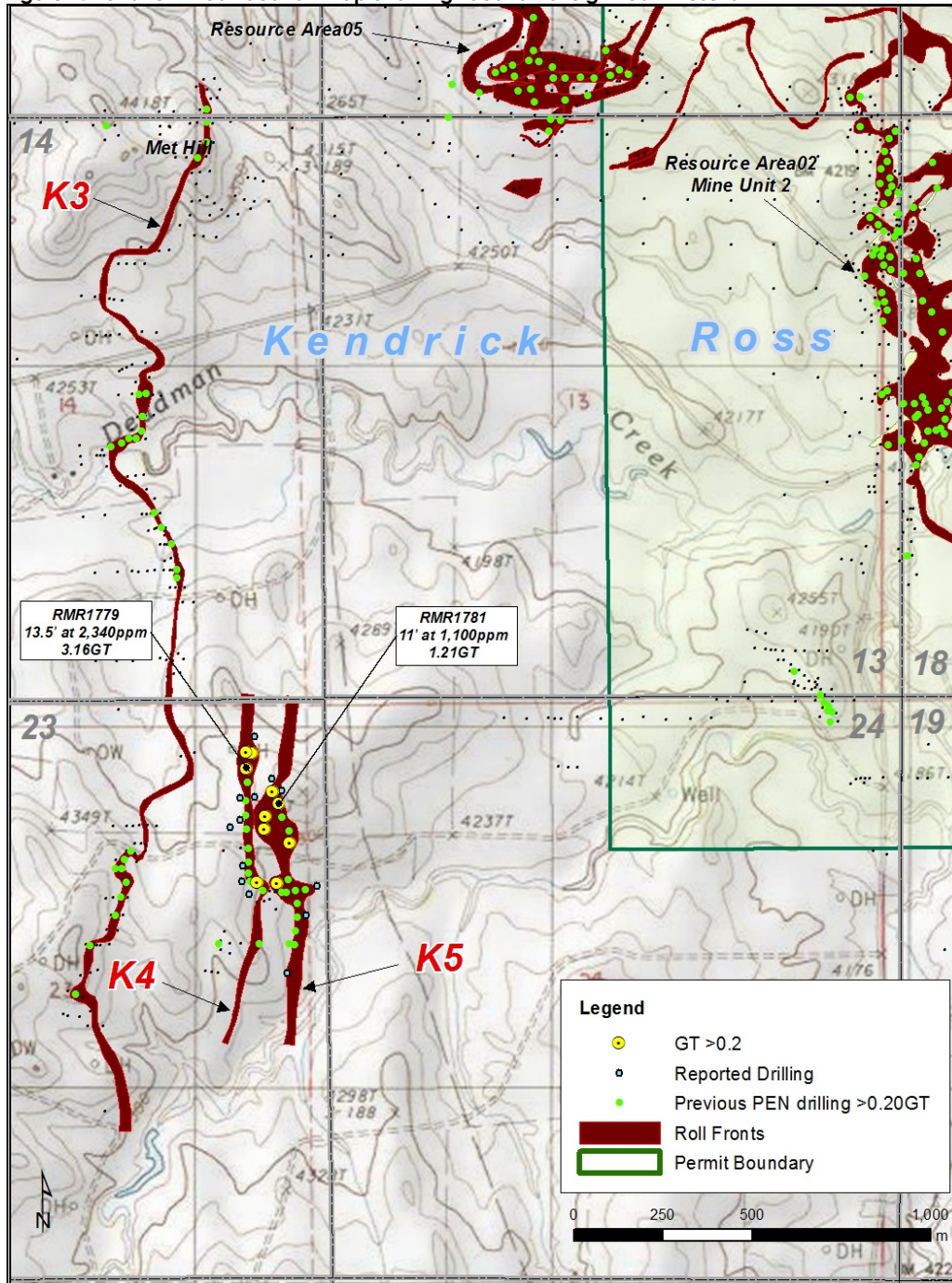
Testing of the northern extensions of the K4 and K5 roll fronts has confirmed that the trends merge in places to produce wide areas of continuous mineralisation. The latest results included hole RMR 1779 which intersected **13.5ft @ 2,360ppm eU₃O₈ (GT 3.16)**, the second highest GT returned since the commencement of Peninsula's drilling at the Lance Projects.

The drilling along the Kendrick roll front system is consistently producing thick high grade intercepts which has resulted in its prioritisation due to its resource expansion potential and its proximity to the proposed site of the Lance Central Processing Plant.

Drilling Program

In May 2011 a drill program comprising resource conversion and exploration drilling commenced in the Kendrick area. During the period 15 February to 22 February a total of 24 holes were completed, of which 15 holes encountered uranium mineralisation (> 100ppm) and 7 holes reported GT values exceeding 0.2. The location of the drilling is shown in Figure 1 below.

Figure 1: Kendrick Area Location Map Showing Location of Significant Results



The most recent drilling in this area has targeted the K4 and K5 roll fronts with significant mineralisation intersected in the Fox Hills sandstones.

The K4 and K5 roll fronts are located to the east of and adjacent to the K3 roll front trend which is down-gradient from the main roll front within the permit area. The expectation is that much of the inferred material within these areas will be re-classified as indicated. The K3, K4 and K5 roll fronts are currently open-ended and the most recent drilling has targeted the northern extensions of these roll front trends as well as defining the nose position. Drilling will continue to test both the northern and southern extensions of these trends.

Recent drilling on the K4 and K5 roll fronts has confirmed along-strike continuity of over 500 metres together with horizontal widths of up to 60 metres. It has also become apparent that the K4 and K5 trends merge towards the north producing wide areas of continuous mineralisation. They also appear to be strike-parallel to the K3 roll front which is continuous for approximately 3 kilometres. These trends and the consistent high grade, thick intersections being returned have significant implications for the resource potential of the Kendrick area.

High grade intersections were returned from the K4 roll front trend in the latest drilling including RMR1779 which returned **13.5ft @ 2,340ppm** eU3O8 from 822.25 ft including **8.5ft @ 3,420ppm** eU3O8, the second best result in Peninsula's drilling campaign at Lance, and RMR1797 which returned **9ft @ 920ppm** eU3O8 from 827.75 ft including **2.5ft @ 2,300ppm** eU3O8.

As a result of the successful targeting of the roll front nose position, the average GT and grade of the resource roll fronts is increasing. The improved GT's and grades at K4 and K5 are considered by Peninsula to be indicative of the GT's and average grades of the overall Lance resource which currently comprises a total of 41.5Mlbs'. Future exploration in other key areas of the Lance project, that will target the roll front nose, is expected to confirm uplift in average GT and grade of the overall resource.

Two drilling rigs are currently in operation with one dedicated to the along strike exploration and one to intersecting the high grade nose of the roll fronts. Peninsula also has a full time PFN logging contractor on site to ensure the rapid turn-around of drilling results.

TABLE 1: Drilling Results Kendrick 15 February 2012- 22 February 2012 (PFN Measurement)

	Northing	Easting	Total Depth (ft)	From (ft)	Intercept ft over PFN U3O8 grade ppm	Peak Concentration Grade	GT
RMR1800	4934677	501217	900	814.75	18'@113ppm	1.5'@690ppm	0.20
RMR1797	4934819	501169	920	827.75	9'@920ppm	2.5'@2300ppm	0.83
RMR1795	4934926	501110	920	827.25	3.5'@650ppm	1'@1160ppm	0.23
RMR1795	4934926	501110	920	840.75	11'@680ppm	0.5'@1030ppm	0.75
RMR1794	4934564	501181	900	809.75	3.5'@1180ppm	1.5'@2200ppm	0.41
RMR1791	4934750	501149	920	835.25	5.5'@210ppm	3'@270ppm	0.12
RMR1789	4934927	501097	920	831.75	6.5'@230ppm	3.5'@280ppm	0.15
RMR1788	4934567	501127	920	838.25	4'@320ppm	0.5'@580ppm	0.13
RMR1783	4934714	501146	920	809.75	32'@70ppm	2'@720ppm	0.22
RMR1781	4934786	501187	920	831.75	11'@1100ppm	3.5'@2760ppm	1.21
RMR1779	4934883	501097	920	822.25	13.5'@2340ppm	8.5'@3420ppm	3.16

Conclusion

Peninsula is pursuing a strategy of converting inferred resource to indicated resource as well as undertaking regional exploration that aims to locate the mineralised portions of over 312 lineal kilometres (194 linear miles) of mapped redox boundaries. To date regional exploration is proving very successful in identifying mineralisation in these roll front systems and drilling will continue to target areas that can upgrade the existing resource inventory¹.

Yours sincerely



John (Gus) Simpson
Executive 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.

U₃O₈ grades quoted in this document are obtained from the prompt fission neutron (PFN) down-hole probe and are not subject to disequilibrium effects.

¹ Current JORC Compliant Resource Estimate

Resource Classification	Tonnes Ore (M)	U ₃ O ₈ kg (M)	U ₃ O ₈ lbs (M)	Grade (ppm U ₃ O ₈)
Measured	3.6	1.7	3.8	479
Indicated	7.9	3.4	7.5	433
Inferred	33.1	13.7	30.2	414
Total	44.6	18.8	41.5	422

(The JORC resource is reported above a lower grade cut-off of 200ppm and a GT of 0.2)