29th March 2012

Companies Announcement Office
Via Electronic Lodgement

HIGH GRADE DRILL RESULTS CONTINUE AT LANCE

Highlights

- **Significant Intercepts include:**
  - **8.5 ft @ 1,260ppm** eU_3O_8 **(GT 1.07)** including **6.5 ft @ 1,560ppm** eU_3O_8
  - **14.5 ft @ 460ppm** eU_3O_8 **(GT 0.67)** including **1 ft @ 1,050ppm** eU_3O_8
  - **28.0 ft @ 203ppm** eU_3O_8 **(GT 0.57)** including **4 ft @ 400ppm** eU_3O_8
  - **19.0 ft @ 246ppm** eU_3O_8 **(GT 0.47)** including **8ft @ 320ppm** eU_3O_8
- **Drilling at Kendrick continues to upgrade inferred resource to indicated and measured category**
- **Combined lineal strike length of K3, K4 and K5 roll fronts over 7.2km**
- **Results include high grades, thick intervals and continuity of mineralisation**

Summary

Peninsula Energy Limited (Peninsula) is pleased to announce that it has completed a further 85 exploration drill holes during the period from 23rd February to 25th March for a total of 88,420 feet at the Lance Projects.

A total of 63 holes encountered mineralisation, of which 46 holes encountered mineralisation >100ppm and 7 holes reported multiple intersections of stacked uranium.

This drilling has continued to focus on converting inferred resources to indicated category in the proposed Kendrick production unit located to the west of the Ross production unit. Drilling in this area has targeted the K3, K4 and K5 roll fronts and 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.

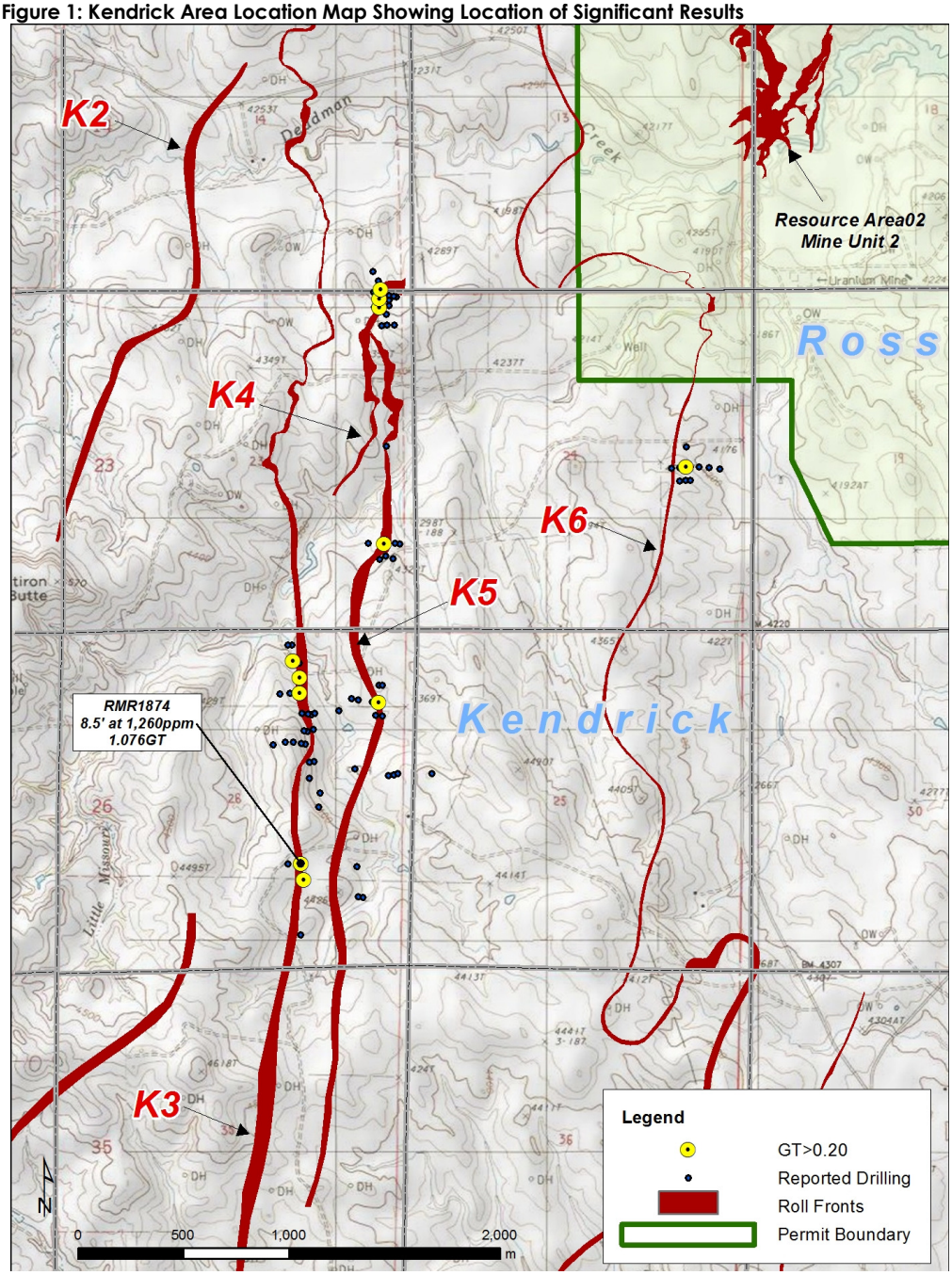
The demonstrated continuity of the K3 roll front is now over 4.2 kilometres and the K5 roll front over 2 kilometres. The combined lineal strike length of the K3, K4 and K5 roll fronts is over 7.2 kilometres.

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. The drill density and continuity of mineralisation is expected to result in a high proportion of inferred resources being upgraded to indicated category.

Drilling Program

In May 2011 a drill program comprising resource conversion and exploration drilling commenced in the Kendrick area. During the period 23rd February to 25th March a further 85 holes were completed, of which 46 holes encountered uranium mineralisation (> 100ppm) and 11 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. Drilling to the south of the K3 roll front has also intersected further high grade mineralisation.

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. Due to the density and demonstrated continuity of the drilling at Kendrick, 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 drilling will continue to test both the northern and southern extensions of these trends. The demonstrated continuity of the K3 roll front is now over 4.2 kilometres and the K5 roll front over 2 kilometres. The combined lineal strike length of the K3, K4 and K5 roll fronts is over 7.2 kilometres.

As indicated in Figure 1, 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.

Resource confirmation and upgrade drilling of the K6 roll front, which runs parallel to the K4 and K5 roll fronts (refer Figure 1) is also set to commence.

High grade, thick intersections were returned in the latest drilling including RMR1874 which returned **8.5ft @ 1,260ppm** eU3O8 from 1023.25 ft including **6.5ft @ 1,560ppm** eU3O8 and RMR1854 which returned **14.5ft @ 460ppm** eU3O8 from 825.75 ft including **1ft @ 1,050ppm** 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 comprises a total of 41.5Mlbs[1]. 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 continue to operate at Kendrick with one dedicated to the along strike exploration and one to intersecting the high grade nose of the roll fronts.

Peninsula is currently finalising the recalculation of the existing resource inventory[1] and expects to announce the revised JORC compliant resource next week.

TABLE 1: Drilling Results (>0.2GT) Kendrick 23 February 2012- 25 March 2012 (PFN Measurement)

Hole ID	Local Northing	Local Easting	Depth (ft)	From (ft)	Intercept ft / eU3O8 grade ppm	Peak Concentration Intercept ft /eU3O8 grade ppm	Grade Thickness ft% eU3O8
RMR1816	4933878	501180	880	801.5	9'@240ppm	2.5' @ 470 ppm	0.22
RMR1817	4934997	501159	940	859	19'@246ppm	8' @ 320 ppm	0.47
RMR1825	4935039	501160	920	801.75	5.5'@600ppm	1'@1080ppm	0.33
RMR1827	4935084	501165	920	786.25	7'@323ppm	1'@870ppm	0.23
RMR1847	4934241	502612	700	548.25	8'@306ppm	2'@680ppm	0.24
RMR1850	4933169	500782	1060	855.5	28'@203ppm	4' @ 400 ppm	0.57
RMR1854	4933244	500781	1000	825.75	14.5'@460ppm	1'@1050ppm	0.67
RMR1866	4933321	500748	980	808.25	4'@740ppm	1.5'@1370ppm	0.30
RMR1874	4932361	500786	1100	1023.25	8.5'@1260ppm	6.5' @ 1560 ppm	1.07
RMR1889	4933125	501154	960	875.25	4'@960ppm	2' @ 1440 ppm	0.38
RMR1884	4932283	500799	1100	972.25	7.5'@525ppm	1.5' @ 1350 ppm	0.39

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 inventory[1].

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.

U_3O_8 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_3O_8 kg (M)	U_3O_8 lbs (M)	Grade (ppm U_3O_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)