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Companies Announcement Office
Via Electronic Lodgement

RESOURCE UPGRADE DRILLING INTERCEPTS HIGH GRADE MINERALISATION AT LANCE

Highlights

- **Significant Intercepts include:**

RMR1531 from 714.75ft to 735.75ft intersected **21.0 ft @ 830ppm U₃O₈ (GT 1.74)** including **11.5 ft @ 1,150 ppm U₃O₈**

RMR1610 from 716.25ft to 742.75ft intersected **26.5 ft @ 390ppm U₃O₈ (GT 1.03)** including **6.5 ft @ 540 ppm U₃O₈**

RMR 1595 from 711.75ft to 732.25ft intersected **20.5ft @ 371ppm U₃O₈ (GT 0.76)** including **2.5 ft @ 1,750 ppm U₃O₈**

RMR1568 from 703.25ft to 713.75ft intersected **10.5 ft @ 460ppm U₃O₈ (GT 0.48)**

RMR1501 from 865.25ft to 876.25ft intersected **11 ft @ 390ppm U₃O₈ (GT 0.43)**

- **Results show thick intervals of Uranium mineralisation**
- **Exploration drilling in the western parts of the Ross project area confirms mineralisation in shallower sandstone units**

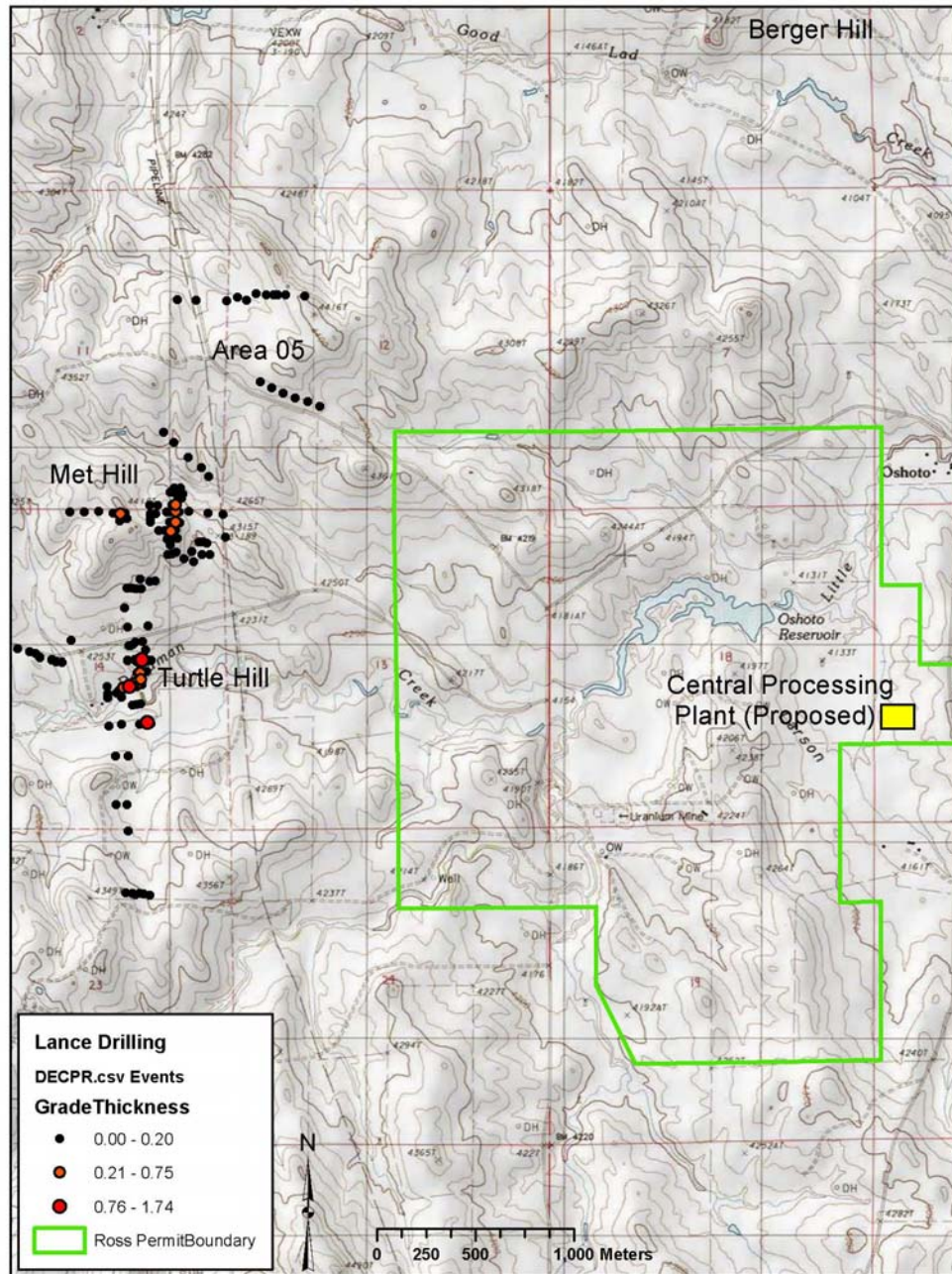
Peninsula Energy Limited (Peninsula) is pleased to announce that it has completed a further 148 exploration drill holes for a total of 136,307 feet at the Lance Project, of which 18 holes encountered significant mineralisation and 16 holes reported multiple stacked intersections of uranium.

The majority of the recent drilling has been stepped out in the western parts of the Ross project area and was primarily focused on converting inferred mineralisation to indicated category. In addition, the drilling has identified new occurrences of stacked roll front mineralisation in sparsely drilled areas.

In May 2011 a drill program, focused in the Ross project area, combining resource conversion and broader exploration drilling commenced.

Since the previous update a total of 148 holes have been completed, of which 86 holes encountered mineralisation and 18 holes reported GT values exceeding 0.2. The focus of the drilling was in the western parts of the Ross project area, as shown in Figure 1 below.

Figure 1: Ross Project Area Location Map Showing Significant Results –Exploration Drilling Program



Drilling in this area has targeted roll fronts occurring in three main sandstone horizons:

- D Sandstone (Upper Lance Formation) with an average depth to mineralisation of 178ft;
- C Sandstone (Lower Lance Formation) with an average depth to mineralisation of 720ft;
- B Sandstone (Lower Lance Formation) with an average depth to mineralisation of 805ft.

The high grade intersections are located within the mineralised C and D horizons in sandstones belonging to the Lower Lance Formation. These two horizons are located above the mineralised A and B horizons in sandstones of the Fox Hills Formation which, within the eastern parts of the Ross project area, contain the majority of the existing resources¹. The results highlight the additional potential of the C and D mineralised horizons within the Lower Lance Formation. Like the Fox Hills Formation the Lance Formation is developed over most of the project area.

Within the eastern parts of the Ross project area the majority of the roll fronts are developed in the A and B sandstones of the Upper Hills Formation and the Lower Lance Formations respectively. The exploration results to date suggest that mineralisation within the C and D sandstones may be more dominant to the west. The A sandstones remain an open exploration target with several near-seepage and remote barren zones, which are indicative of roll front systems, having been identified. On-going drilling is extending this mineralisation to the west and south within the Lower Lance Formation together with further testing of the roll fronts located in the underlying Fox Hills Formation.

The recent drilling has produced thick higher grade intercepts, and the area is now recognised as a key area for resource expansion given its close proximity to the proposed Central Processing Plant site.

A total of 126 holes were drilled in the Met Hill and Turtle Hill area (refer Figure 1) during the current program, of which 15 holes recorded intersections in excess of 0.2 GT. The highlight of the drilling was hole RMR1531 which intersected **21ft @ 830ppm** eU3O8 (GT 1.70) from 714.75ft to 735.75ft. Significantly, this intersection contained a 11.5ft peak intersection grading 1,150ppm eU3O8. In addition, hole RMR1431 which is located 1,200m (3,950ft) northeast from RMR1531, intersected **26.5ft @ 390ppm** eU3O8 demonstrating the continuation of strong mineralisation in this roll front system.

While this drilling is exploring the potential for additional roll front systems not previously identified, results such as these also contribute directly to the indicated resource inventory.

TABLE 1: Drilling Results Ross September -December 2011

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
RMR1489	4936670	500960	940	846.25	9.5' @ 185ppm	7.5 @ 210ppm	0.18
RMR1491	4936662	500702	940	165.75	6'@420ppm	4' @ 560 ppm	0.25
RMR1495	4936672	500984	970	848.25	13'@200ppm	2.5'@310ppm	0.26
RMR1501	4936617	500983	960	865.25	11'@390ppm	3.5'@730ppm	0.43
RMR1505	4936573	500960	1000	824.75	16.5'@164ppm	2'@670ppm	0.27
RMR1514	4935918	500794	880	714.25	17'@240ppm	2.5'@320ppm	0.41
RMR1519	4936706	500985	980	854.25	20.5'@123ppm	2'@610ppm	0.25
RMR1531	4935919	500813	880	714.75	21'@830ppm	11.5' @1150ppm	1.74
RMR1560	4935859	500814	840	697.75	5.5'@230ppm	4'@270ppm	0.13
RMR1568	4935796	500787	840	703.25	10.5'@460ppm	2'@1000ppm	0.48
RMR1570	4935857	500805	840	694.25	10.5'@310ppm	1.5'@540ppm	0.33
RMR1570	4935857	500805	840	716.75	5.5'@614ppm	2'@1450ppm	0.34
RMR1591	4935802	500772	860	722.75	6'@550ppm	4.5' @ 690 ppm	0.33
RMR1595	500749	4935785	860	711.75	20.5'@371ppm	2.5'@1750ppm	0.76
RMR1607	4935822	500807	860	692.75	2.5'@400ppm	2.5'@400ppm	0.31
RMR1610	500841	4935602	860	716.25	26.5'@390ppm	6.5' @ 540 ppm	1.03
RMR1615	4935778	500720	860	723	13.5'@156ppm	3' @ 480 ppm	0.21

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 linear kilometres (194 linear miles) of mapped redox boundaries. To date this regional exploration is proving very successful in identifying new mineralised roll front systems and drilling will continue to step out into these targeted areas that have the potential to significantly increase 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 Guiling. 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 Guiling 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 Guiling is Principal of independent consultants World Industrial Minerals. Both Mr Gillman and Mr Guiling 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 Guiling 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 from the 2008-2011 drilling are obtained either from the prompt fission neutron (PFN) down-hole probe and are not subject to disequilibrium effects or a downhole gamma tool which are 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)