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Companies Announcement Office
Via Electronic Lodgement

DRILLING SUCCESS CONTINUES AT LANCE PROJECTS

Highlights

- **Significant Intercepts include:**
  - **30.0 ft @ 307ppm** eU_3O_8 **(GT 0.92)** including **13.0 ft @ 500ppm** eU_3O_8
  - **13.0 ft @ 458ppm** eU_3O_8 **(GT 0.60)** including **5.5 ft @ 830ppm** eU_3O_8
  - **7.0 ft @ 730ppm** eU_3O_8 **(GT 0.51)** including **5.5 ft @ 880ppm** eU_3O_8
- **Drilling at Kendrick upgrading inferred resource to indicated category**
- **Drilling identifies southern extensions of existing mineralised roll fronts**
- **Combined lineal strike length of K3, K4,K5 and K6 roll fronts over 22km**
- **Drilling continues to return high grades, thick intervals and continuity of mineralisation**

Summary

Peninsula Energy Limited **(Peninsula)** is pleased to announce that it has completed a further 125 drill holes during the period from 20th July to 25th August for a total of 127,670 feet at the Lance Projects.

A total of 36 intersections >100ppm were obtained and 17 holes reported multiple zones of uranium. A total of 20 holes produced 22 GT (Grade-Thickness) intersections exceeding 0.2.

This drilling has been focused on converting inferred resources to the indicated category in the planned Kendrick Production Unit located to the west of the Ross Production Unit.

The recent drilling has extended the K4 and K5 roll fronts to the north and also the southern extensions of the K3, K4 and K5 roll fronts. As shown in Figure 1, indications are that the M3 and M4 roll front trends represent the southern extensions of the K3 and K5 trends located in the central Kendrick area.

Drilling in the area has previously identified the K3, K4, K5, K5A and K6 roll fronts. These roll fronts merge in places to produce wide areas of continuous mineralisation. This continuous mineralisation has now been identified over a combined strike length of 22 kilometres with horizontal widths of up to 60m in the northern K5 area.

The demonstrated continuity of the K3 roll front is over 7 kilometres, the K4 roll front over 1 kilometre, the K5 roll front over 4.3 kilometres and the K6 roll front over 9.2 kilometres.

Current interpretations suggest that there is a total of 312 line kilometres of mineralised roll fronts in the greater Lance Projects and that the delineated mineralisation to date in the Kendrick roll fronts represent only 7% of the estimated mineralised roll front systems.

The latest interpretation of the existing database by Peninsula's geological team has identified and priority ranked over 500 follow-up drill targets within the Lance Projects. It is estimated that these drill targets will form the basis for on-going exploration and development over the next 5-10 years.

Drilling Program

In November 2011 the Kendrick area to the west of the Ross Production Unit was targeted for exploration as success in this area could support a second ion exchange (IX) circuit within the central processing plant.

Since drilling commenced in the Kendrick area, the Company has reported 144 intersections exceeding 0.2 GT, of which 11 exceeded 1.0 GT. All mineralised holes have been logged using prompt fission neutron (PFN) methods to negate potential disequilibrium effects.

During the period 20th July 2012 to 25th August 2012 a further 125 holes were completed in this area and 36 intersections >100ppm were obtained and 20 holes reported GT values exceeding 0.2. The location of the drilling is shown in Figure 1 below.

The drilling along the Kendrick roll front system is consistently producing thick high grade intercepts. The continuity of mineralisation is expected to result in significant levels of inferred resources being upgraded to indicated category.

The most recent drilling has extended the K4 and K5 roll fronts to the north and also identified the southern extensions of the K3, K4 and K5 roll fronts (towards the Mellot Ranch area in the southern portion of the amendment area). The roll fronts in the Mellot Ranch area consist of mineral deposits in sands belonging to the Lower Fox Hills Formation, together with the sands of the Lower Lance Formation. In addition shallower roll front trends (M5) have been identified in two distinct sands in the Upper Lance Formation.

Within the Fox Hills Formation the sands contain continuous mineralised roll fronts, with stacked roll fronts occurring in the 'A' and 'B' horizons. Indications are that the M3 and M4 trends, as shown in Figure 1, represent the southern extensions of the K3 and K5 trends located in the central Kendrick area.

The shallower mineralisation within the Lance Formation occurs between 300ft to 450ft below surface and appears to be more tabular in nature.

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 system with its consistent high grade and thickness; this has significant implications for the resource potential of the Kendrick area.

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.

The successful targeting of the roll front nose is expected to increase the average grade and GT of the resource in other key areas of the Lance Projects.

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

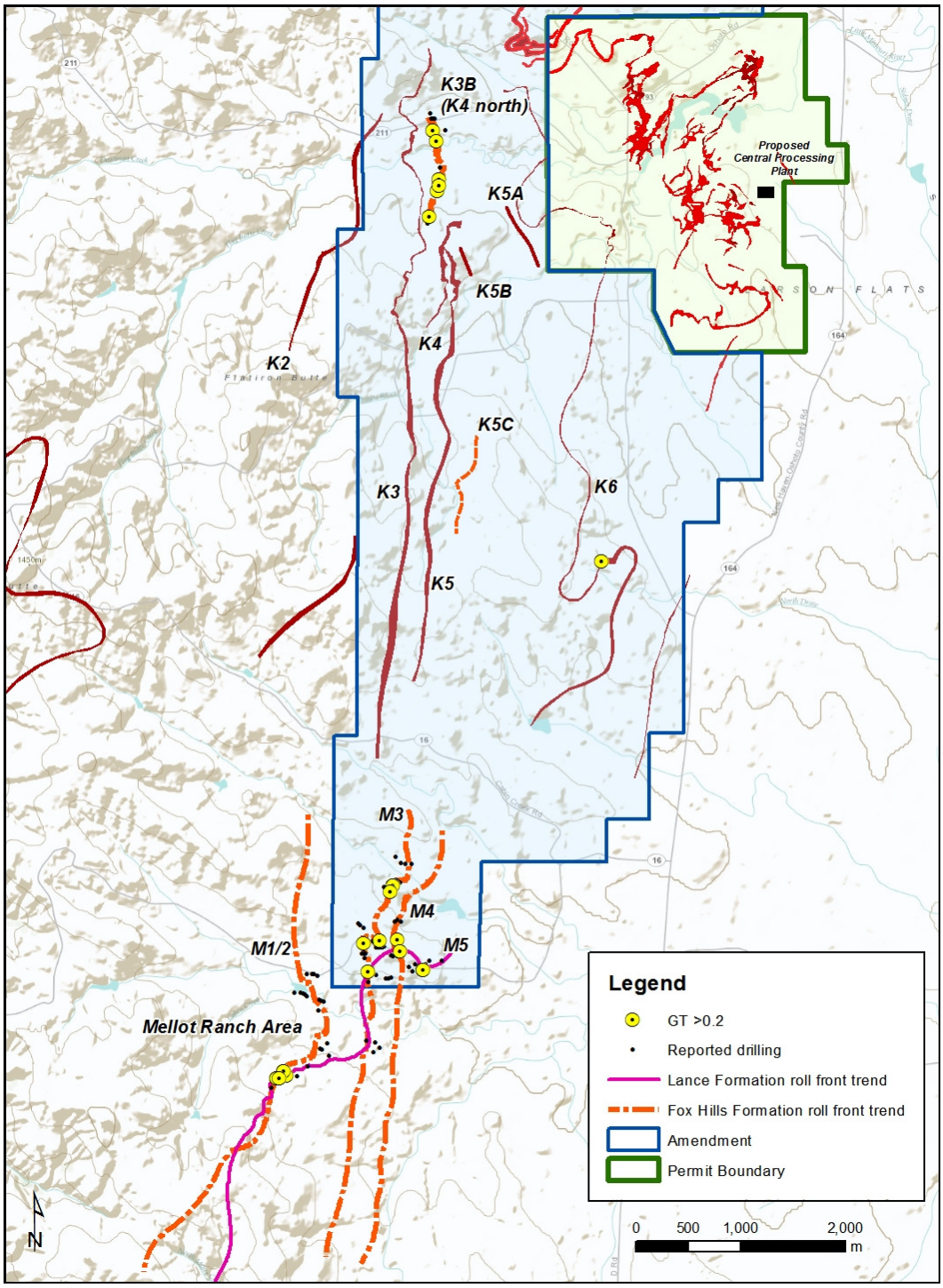

TABLE 1: Drilling Results (>0.2GT) Kendrick 20 July 2012 - 25 August 2012 (PFN Measurement)

Hole ID	Northing	Easting	Total Depth (ft)	From (ft)	Intercept ft over PFN U3O8 grade ppm	Peak Concentration Grade	GT
RMR2328	499590	4927015	1220	434.0	30'@307ppm	13' @ 500 ppm	0.92
RMR2397	500631	4928787	1060	922.5	13'@458ppm	5.5' @ 830 ppm	0.60
RMR2332	500505	4928259	1140	1043.8	7'@730ppm	5.5' @ 880 ppm	0.51
RMR2307	501076	4935524	820	736.0	13.5'@340ppm	8' @ 470 ppm	0.46
RMR2309	501014	4935994	820	775.0	18'@245ppm	4' @ 460 ppm	0.44
RMR2353	500355	4928238	1120	1002.3	14'@290ppm	9'@360 ppm	0.41
RMR2348	499615	4926976	1220	442.3	12.5'@300ppm	5' @ 410 ppm	0.38
RMR2267	502624	4931881	900	91.3	28'@129ppm	4.5'@360ppm	0.36
RMR2334	500604	4928725	1060	939.0	11.5'@309ppm	3' @ 890 ppm	0.36
RMR2328	499590	4927015	1220	284.0	14'@252ppm	6' @ 390 ppm	0.35
RMR2362	500395	4927964	1160	1023.3	7'@500ppm	4' @ 670ppm	0.35
RMR2321	500978	4935169	900	830.0	28.5'@100ppm	2' @ 520 ppm	0.29
RMR2344	499531	4926951	1240	1103.3	29'@96ppm	11' of 136 ppm	0.28
RMR2336	500674	4928269	1100	308.5	17.5'@154ppm	6'@ 270 ppm	0.27
RMR2325	501051	4935413	840	782.3	6.5'@390ppm	5.5' @ 440 ppm	0.26
RMR2319	501072	4935469	820	748.5	17'@140ppm	3' @ 340 ppm	0.24
RMR2310	500698	4928159	1100	372.5	15'@150ppm	3' @ 540 ppm	0.23
RMR2375	500922	4927983	500	248.3	20.5'@109ppm	6'@213ppm	0.22
RMR2363	499519	4926951	1240	325.8	14'@155ppm	8.5'@185ppm	0.22
RMR2305	501049	4935891	800	738.0	23.5'@92ppm		0.22
RMR2375	500922	4927983	500	306.3	8'@270ppm	6.5'@300ppm	0.22
RMR2356	499543	4926950	1240	327.3	6.5'@300ppm	5'@350ppm	0.20

Conclusion

Peninsula is pursuing a strategy of converting inferred resource to indicated resource as well as undertaking regional exploration that aims to delineate 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 add to 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)	eU_3O_8 kg (M)	eU_3O_8 lbs (M)	Grade (ppm eU_3O_8)
Measured	3.6	1.8	4.0	505
Indicated	9.4	4.9	10.7	517
Inferred	35.1	16.7	36.8	475
Total	48.1	23.4	51.5	485

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