

Peninsula Minerals Ltd

12 May 2010

Companies Announcement Office
Via Electronic Lodgement

FURTHER HIGH GRADE RESULTS AS RESOURCE DRILLING TARGETS UPGRADE

Highlights

- **High Grade Intersections expand mineralised zones at Ross**
- **Drilling focused on converting resource status from Inferred to Indicated**
- Hole RMR0399 intersected **7.5ft @ 1,370ppm U₃O₈** from 565.25' to 572.75' **GT 1.03**
- Hole RMR0452 intersected **19.5ft @ 310ppm U₃O₈** from 611.25' to 630.50' **GT 0.60**
- Hole RMR0447 intersected **10ft @ 450ppm U₃O₈** from 589.25' to 599.25' **GT 0.46**
- Hole RMR0393 intersected **14.5ft @ 310ppm U₃O₈** from 402.75' to 417.25' **GT 0.45**
- Hole RMR0370 intersected **6ft @ 640ppm U₃O₈** from 598.25' to 604.25' **GT 0.38**

Summary

Peninsula Minerals Limited (**Peninsula**) is pleased to announce that it has completed 175 development drill holes during March and April 2010 for a total of 85,933 feet at the Ross Project (**Ross**).

During this period the focus of the drilling has been on enhancing the grade and definition of the existing drill-defined resources and to convert inferred resource to indicated status. Numerous high-grade intersections were encountered including **7.5ft @ 1,370ppm U₃O₈** returned from drill hole RMR0399.

Three drill rigs are currently engaged at Ross chasing extensions of the known target zones identified by the resource model. A fourth rig continues to test sparsely drilled target zones, with the aim of expanding the current JORC compliant resource.

Executive Chairman Gus Simpson said *"The current drill results continue to build on PEN's aim of moving the Lance projects to development"*

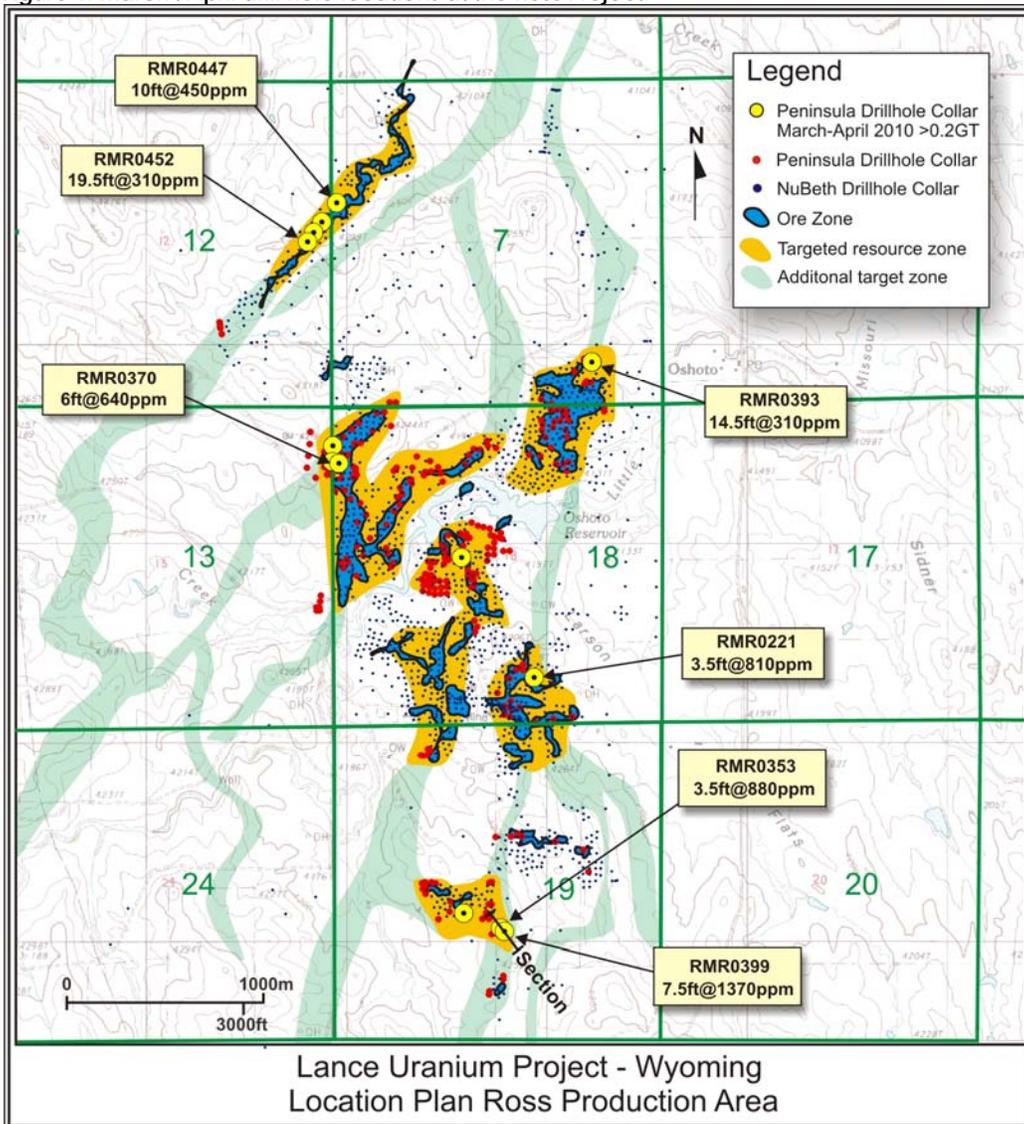
Ross Drilling Program – March/April 2010

In the period March 2 to April 28, 2010 Peninsula completed 175 drill holes at Ross, of which 78 holes encountered significant mineralisation. A total of 26 holes recorded multiple stacked intersections of uranium mineralisation.

The focus of the drilling in March and April has been predominantly within the resource zones in Sections 18 and 19 as shown in Figure 1. Having established an initial JORC compliant resource Peninsula is now focused on enhancing both the grade and definition of the existing resources and converting current inferred resources to indicated status. In Sections 19, 13 and 7 there are extensive resource target zones that have yet to be tested, as indicated in the figure below. Three rigs are currently operating to expand these mineralised systems.

A fourth rig is systematically testing for extensions of mineralised trends in the sparsely drilled Section 13.

Figure 1: March /April drill hole locations at the Ross Project.



A summary of the best drill results during the period is shown in Table 1 below.

TABLE 1: Drilling Results (based on grade thickness > 0.2 ft%)

Hole ID	Local Northing (ft)	Local Easting (ft)	Depth (ft)	From ft	Intercept ft over PFN U ₃ O ₈ grade ppm	Peak Concentration U ₃ O ₈ ppm	Grade Thickness ft% U ₃ O ₈
RMR0221	33856	135333	540	481.75	3.5' @ 810 ppm	1' @ 1,310 ppm	0.28
RMR0331	33395	134273	615	492.75	14.5' @ 200 ppm	-	0.30
RMR0353	34121	103697	620	581.25	3.5' @ 880 ppm	2.5' @ 1,080 ppm	0.31
RMR0367	32888	136452	680	618.25	10' @ 320 ppm	8.5' @ 340 ppm	0.32
RMR0368	32885	136376	680	590.25	10' @ 220 ppm	4' @ 310 ppm	0.22
RMR0370	32918	136367	660	598.25	6' @ 640 ppm	4.5' @ 770 ppm	0.38
RMR0372	35913	103509	540	464.75	8' @ 310 ppm	3' @ 460 ppm	0.25
RMR0393	36859	104136	540	402.75	14.5' @ 310 ppm	10.5' @ 350 ppm	0.45
RMR0399	34105	103713	620	565.25	7.5' @ 1370 ppm	4.5' @ 1,970 ppm	1.03
RMR0408	34192	103518	600	476.75	8' @ 290 ppm	5' @ 360 ppm	0.23
RMR0447	32906	103627	720	589.25	10' @ 450 ppm	2.5' @ 590 ppm	0.46
RMR0449	32837	137533	740	615.25	14' @ 170 ppm	3' @ 250 ppm	0.24
RMR0450	37313	102639	740	629.25	6.5' @ 420 ppm	3' @ 590 ppm	0.28
RMR0451	37438	102767	740	619.75	3' @ 670 ppm	1' @ 1,080 ppm	0.20
RMR0452	37484	102797	740	611.25	19.5' @ 310 ppm	2' @ 670 ppm	0.60

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 Gullinger. 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 Gullinger 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 Gullinger is Principal of independent consultants World Industrial Minerals. Both Mr Gillman and Mr Gullinger 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 Gullinger consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

All U3O8 grades from the 2009 drilling were obtained from the prompt fission neutron (PFN) down-hole probe and are not subject to disequilibrium effects.