Core Exploration Ltd: Napperby Uranium Resource Update and Increase

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Adelaide, Australia - Core Exploration Ltd. (ASX:CXO) ("Core" or the "Company") is pleased to announce that the Mineral Resource for its 100%-owned Napperby Uranium Deposit in the Northern Territory has been re-estimated to follow the JORC 2012 Code guidelines. The Napperby Uranium Inferred Mineral Resource estimation defined by SRK Consulting comprises 9.54Mt at 382ppm U3O8 for 8.03 Mlb of contained U3O8 at a 200 ppm U3O8 cut-off (see Table 1 and Figure 2 in link below).

HIGHLIGHTS

- The Napperby Uranium Resource has been re-estimated to 2012 JORC Code-Inferred Mineral Resource of 9.54Mt at 382ppm U3O8 for 8.03 Mlb of contained U3O8 (at a 200 ppm U3O8 cut-off)

- New Mineral Resource estimate reflects an improved grade and increased contained uranium from the historic 2004-JORC Resource

- Napperby is one of the few undeveloped uranium deposits in Australia within a favourable jurisdiction where uranium is currently produced

- Significant potential remains to grow Napperby through further drilling of the immediately surrounding mineralisation

- In addition, there is substantial potential for additional uranium mineralisation within Core's large 714 km2 prospective project area at Napperby

- Core has been contacted by multiple parties expressing interest in Napperby, and will assess various avenues to maximise the value to Core shareholders, whilst our focus remains on the development of the Finniss Lithium Project

- Uranium spot price has increased by 35% over past year as new reactor builds come on-line globally

- Innovative ore processing technologies are improving economics of similar uranium projects in Australia and Africa

Napperby also includes significant Vanadium mineralisation that represents a 9.54Mt Inferred Mineral Resource at 236ppm V2O5.

Only a quarter of the known mineralised area defined by Uranerz in the 1980's at Napperby has been drilled to sufficient density to estimate a mineral resource. The larger mineralised area (25km x 5km) surrounding and adjacent to the deposit has strong potential to be incorporated into Mineral Resources through further drilling (see Figure 1 in link below).

Core is also confident that further calcrete uranium mineralisation can be defined in the 750km2 project area held by the Company (see Figure 3 in link below). Potential for additional calcrete-style uranium mineralisation in the district is also highlighted by the nearby Cappers uranium resource of 7Mlb at 145 ppm U3O8 (Energy Metals Annual Report 2017; see Figure 3 in link below).

The mineral resource re-estimation by Core supersedes a previous estimation carried out under the 2004-JORC Code by Toro Energy (Deep Yellow ASX release 9/9/2016; CXO ASX release 15/2/2017) and has resulted in an increase in the contained U3O8 tonnes and an improvement in average grade.

Companies such as Paladin Energy, Toro Energy and Marenica Energy are developing techniques to beneficiate mineralised material prior to delivery to a leach-processing plant. These new beneficiation improvements are designed to provide a step change to the development-economics of shallow calcrete-type uranium deposits like Napperby. For example, Marenica's U-pgradeTM technology has demonstrated on bench-scale to concentrate uranium by a factor of 50, while reducing the mass to 2% of the original feed, with process recovery >70% (MEY:ASX 25/09/18).

Most importantly, Napperby is located in the NT, a low-risk Australian jurisdiction with a long consistent

history of uranium production. The Ranger Uranium Mine in the NT has been operating since 1981.

In the context of the uranium price increasing 35% over the past 12-months, Core has received expressions of interest from multiple parties with respect to Napperby. As at October 2018, globally there are about 50 new reactors under construction, compared to 450 operating in 30 countries.*

To enable Core to remain focussed on the development of the Finniss Lithium Project and also achieve full value of the Napperby Uranium Deposit for shareholders, Core will now commence engaging with these parties regarding a sale or partial sale of Napperby.

Core's MD Stephen Biggins commented:

"The upgrade of Napperby to JORC 2012 guidelines is particularly exciting during a time of increasing uranium prices. Core notes with interest that the spot uranium price has increased close to 35% over the past year.

We remain committed to moving as quickly as possible towards development of our Finniss Lithium Project, and to this end, with the Resource estimate now completed, we can move forward on divestment discussions on Napperby to extract value for Core shareholders"

Cut-off (U3O8 ppm)	Ore Tonnage (Mt)	Grade U3O8 (ppm)	Metal (U3O8 t)	Metal (U3O8 Mlb)	Vanadium (V2O5 ppm)
200	9.54	382	3643	8.03	236

Summary of Mineral Resource Estimate and Reporting Criteria

The results of the Mineral Resource Estimate ("MRE") are provided in Table 1 and Figure 4(see link below).

Background and Scope

The Napperby Uranium Deposit was originally discovered by CRA Exploration and Uranerz in the late 1970's during the course of regional auger drilling exploration. By the early 1980's they had defined a mineralised zone over some 20 kilometres in strike length (outlined in Figure 2 in link below), then named "New Well" Prospect, via aircore drilling (820 holes).

Following a period of quiescence in the uranium market, Deep Yellow Ltd. undertook an initial drill program of aircore and auger in 2005-2006, covering a small part of the resource outlined herein (831 holes). Under an option agreement, Toro Energy Ltd. (Toro) undertook further exploration in 2006 to 2009, including detailed aircore, sonic and auger drilling programs (1,475 holes). This led to the estimation of a resource in 2009, the data from which is the basis of the current re-estimation. The project has since been dormant in the face of a depressed uranium market and was relinquished in 2017. Core applied for and was granted EL31449 and now has 100% ownership of all minerals.

SRK Consulting was contracted by Core to undertake the MRE for the Napperby Uranium Deposit. SRK undertook the previous MRE for Toro Energy in 2009 using similar methodologies, however, the data has effectively been re-assessed and a new block model developed. SRK built a new mineralisation model using Leapfrog and Vulcan software, taking the original 2009 model parameters into account. There have been no further drillholes considered as part of the re-estimation. Only chemical assay data has been utilised for this MRE.

Geology and geological interpretation

The extensive mineralised zone at Napperby occurs within 3 to 8 metres of the surface in semi-consolidated and unconsolidated sediments along a Tertiary palaeochannel that flows into Lake Lewis. While it is classed as "calcrete style", it is almost exclusively hosted by clayey sand sediments below the calcrete surface. In this respect, it is geologically similar to a number of operating and approved calcrete-uranium projects in Australia and Africa, including Yeelirrie (Cameco), Wiluna (Toro) and Langer Heinrich (Paladin).

Uranium is exclusively contained in a bright yellow vanadium-bearing mineral called carnotite (see Figure 5 in link below). It is regarded as forming during the process of outflow of groundwater into an evaporative environment, whereby the uranium precipitates as a vanadate in the near surface. Most calcrete style deposits are modern accumulations that are actively moving along the groundwater system. They are thus

affected by the disequilibrium between uranium and its radiogenic daughter isotopes that are measured by tools such as gamma ray probes. The use of chemical assays overcomes any issues associated with disequilibrium.

Drilling techniques and hole spacing

The Napperby drill hole database used for the MRE contains a total of 900 holes:

- Deep Yellow - Auger drillhole assays and collars (prefix "NP"): 262 holes

- Toro Energy - Auger drillhole assays and collars (prefix "NA"): 123 holes

- Toro Energy - Sonic drillhole assays and collars (prefix "NS"): 515 holes

All of holes have been drilled in a vertical orientation to depths of up to 17m, but the average is 9.4m deep. None of the aircore holes have been used for the MRE.

The Deep Yellow drilling is on a different grid orientation and spacing to the Toro drilling (see Figure 1 in link below). The Toro holes are mostly on 100 x 100 m grid and cover a total area of ~740 ha, whereas the Deep Yellow holes are on a 50 x 50 m grid, covering ~57 ha.

Sampling and sub-sampling

Auger drillholes were sampled on either a 0.5m or 1m basis, with a large split collected from the bulk spoils at site via either channel sampling (Deep Yellow) or riffle splitting (Toro).

Sonic cores of average 0.5m length were cut in half at site and submitted to the laboratory without further splitting.

Sample analysis method

The samples upon reaching the laboratory were sorted and dried. Primary preparation has been by Boyd crushing the whole sample. The samples were then split to obtain a sub-fraction, which has then been pulverised to 90% passing 75microns m.

Toro assayed for a multi-element suite that included U and V at ALS Laboratory by 4-acid-digest ICP-AEA, ICP-MS and XRF pressed pellet, the latter being the routine method. Detailed trials were undertaken to establish the preferred (reliable) method. Matrix-matched standards were created from this process, using a variety of other laboratories and methods, including NAA at Becquerel.

Deep Yellow assaying was done at ALS Laboratory by XRF pressed pellet for U and V.

Standards, blanks and duplicates have all been applied in the QAQC methodology. Sufficient accuracy and precision have been established for the type of mineralisation encountered and is appropriate for QAQC in the MRE.

Cut-off grades

The MRE for the Napperby Deposit has been reported at a cut-off grade of 200ppm U3O8, which represent the most likely cut-off compared to similar style deposits, but the choice will depend on economic assumptions to be determined by Feasibility Studies. Grade-tonnage curve shows the sensitivity of the resources to the cut-off grade (see Figure 4 in link below).

A top cut of 2,500 ppm U3O8 was applied, based on results of statistical analysis and variography.

Marenica's U-pgradeTM technology has demonstrated on bench-scale to concentrate uranium by a factor of 50, while reducing the mass to 2% of the original feed, with process recovery >70%. To date, Langer Heinrich is the only deposit of this "calcrete style" to be developed and operated. Core believes it will able to take advantage of modern advances in beneficiation, such as optical and X-ray sorting, to develop a functional beneficiation technique.

If these techniques prove successful, it is inevitable that a lower cut-off grade can be applied to mining. This is very important for Napperby, as the Grade-Tonnage curve is steep at lower grades, potentially increasing the economic uranium in the current wireframe to 12.88 Mlb at 50 ppm U3O8 cut-off (see Figure 4 in link below). This is not inconceivable, as many calcrete resources are now estimated at these low cut-offs, for example, the Marenica Project resource is 276Mt at 94ppm U3O8 for 57 Mlb using a 50ppm cut-off.

Mineralisation model

The mineralisation model was built following the same method described in SRK's 2009 MRE for Toro, with a 50 ppm cut-off to define the footwall and hanging wall. The modelling was done using a combination of Leapfrog and Vulcan software to obtain a reasonably smooth envelope reflecting the mineralised layer as well as possible within the constraint of the large drill spacing (50 m or 100 m typically) compared to a very narrow vertical thickness (a few metres maximum). A plan view of the model is shown in Figure 2(see link below).

Estimation methodology

There are several considerations that drive the choice of estimation method:

- Link with the likely mining method and mining selectivity: The Napperby mineralisation will likely be mined by open pit, possibly using some form of continuous miner. At the mining stage, the mineralisation will be defined by grade control, probably through gamma measurements.

- Link between drilling density, mining selectivity and the continuity of the grade: In an ideal scenario, SMU size blocks are estimated directly by Kriging, for instance. Unfortunately, given the current drilling density and limited grade continuity, this is not an option and it was necessary to use a non-linear estimation method, where the proportion and grade of SMU parcels are estimated within suitably large panels.

- Tests done by SRK and described in SRK's 2009 report show that a Gaussian-based uniform conditioning method is applicable to Napperby.

Uniform conditioning is performed in two steps:

1. Ordinary Kriging of panels of a suitable size which will give the grade to which the local grade-tonnage curve will be conditioned

2. Estimation within each panel of the proportion of ore above a given cut-off grade and its average grade for a given SMU size.

Note that uniform conditioning is only used for U3O8; estimation of V2O5 is done by ordinary Kriging as there are less composites to consider.

The mineralisation model indicates a 50 x 50 x 1 m panel size is the most appropriate to use. The SMU size depends essentially on the selectivity of the mining operation and this has not yet been studied in detail. However, it likely that there is potential for very selective mining based on the possible use of continuous miners and radiometric data for grade control. Based on a plausible SMU, SRK chose blocks of 10 x 10 x 1 m.

An average density of 1.73 t/m3 was applied for the MRE, which was established in a 2007 study undertaken by FinOre. Density data was also supplied by Core via various other methods is consistent with the expected values for the lithologies present and the degree of porosity.

The re-estimated MRE differs from that carried out in 2009 for Toro, with a slightly decreased gross tonnage (9.34?9.54 Mt; 2%), increased grade (359?382ppm U3O8; 6%) and increased contained U3O8 (7.39?8.03 Mlb; 9%) at a 200 ppm U3O8 cut-off, which are linked to a tightening of the mineralisation model and the use of a higher top-cut.

Classification criteria

The current drill spacing is too wide to adequately understand the lateral continuity of the mineralisation, and the local estimation of 50 x 50 x 1 m panels is therefore of lower confidence. In addition, in the drilled areas of higher density where Deep Yellow holes are present, there is potential bias with respect to the Toro drillholes. Because of these uncertainties, the Mineral Resources are classified as Inferred according to the JORC Code (2012) guidelines. The classification reflects the view of the Competent Person.

Mining and Metallurgy

No detailed mining methodologies or metallurgical recoveries have been applied to the MRE. The comparable style Wiluna Deposit in WA (Toro) will be mined by open pit, possibly using some form of continuous miner. At the mining stage, the mineralisation will be defined by grade control, probably through gamma measurements. Metallurgical sighter test work was carried out by Toro for Napperby and found similar characteristics to other calcrete style deposits. Further test-work is planned by Core to determine the

metallurgical amenability of the mineralization to on-site beneficiation, where there has been considerable technological advancement in recent years.

Eventual Economic Extraction

It is the view of the Competent Person that at the time of estimation there are no known issues that could materially impact on the eventual extraction of the MRE.

To view tables and figures, please visit:
http://abnnewswire.net/lnk/EZ03K3HR

About Core Exploration Ltd:

Core Exploration Ltd. (ASX:CXO) is an emerging lithium producer focused on development of its Finniss Project near Darwin in the Northern Territory. Core owns 100% of Finniss, a major developing project that lies close to existing infrastructure such as the Darwin Port, grid power, gas and rail infrastructure.

The Finniss Project covers a 500km2 tenement holding and 25 historic pegmatite mines. The project area is about 80km from Darwin Port. Exploration work has generated a near term development timeline, with feasibility studies to be completed over the course of 2018 ahead of receipt of approvals in early 2019 and planned first production during 2019.

An aggressive exploration program is under way, which has confirmed the high quality prospectivity across much of the Finniss Project area. Core's stated ambition is to upgrade Finniss' resource base to fast-track commercialisation options.

Source:

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