Surface Geochemical Study Completed over the Centennial Uranium Deposit

Uravan Minerals Inc. (Uravan), in collaboration with Cameco Corporation (Cameco), the Queen's Facility for Isotope Research (QFIR)[1], and Environmental BioTechnologies Inc. (EBT)[2], completed a multi-faceted surface geochemical sampling program over the Centennial uranium deposit (Centennial Survey), located on the Virgin River structural trend within the south-central portion of the Athabasca Basin[3], Saskatchewan [**map link**]. The Centennial deposit is a high-grade unconformity-type uranium deposit occurring at a depth of approximately 800 m that is currently in the drill-developed stage by Cameco and its joint venture partners, Areva Resources Canada Inc. (AREVA) and Formation Metals Inc. (Coronation Mines).

The Centennial Survey is an applied research study that capitalized on our cumulative knowledge obtained from previous surface studies, including the Cigar West Study[4] and similar surface geochemical surveys conducted over five (5) of Uravan's active exploration projects. The purpose in developing these surface geochemical techniques is to provide a means of rapidly evaluating under-explored basin environments with the goal to get to mineral discovery more quickly and cost effectively (i.e. fewer drill-holes to discovery). The objective of this survey is to advance our remote sensing geochemical technology by (a) determining if we can identify unique geochemical and isotopic signatures in the surface environment (soils and trees) that support element migration from a high-grade uranium deposit at depths >800m; and (b) investigating if these elements and isotopic signatures can be characterized as distinct, deposit-sourced geochemical signals or derived from the natural geochemical variations related to surficial geology and/or environmental effects.

The survey was completed in June 2013 and managed by Uravan's technical group. The sampling grid of 533 survey stations: (a) a primary sampling grid covering a 600 x 950 m area was centered over the surface projection of the Centennial uranium deposit. The central grid included 230 sample stations distributed on an offset 50 m grid. An additional 303 survey stations were distributed on 100, 200 and 500 m spacing extending further into background away from the deposit [**map link**].

Sample Media Collected

1. 495 B- and C-horizon soil samples;
2. 478 tree-core samples from black spruce and/or jack pine trees;
3. 557 MET samples from A2-horizon soils and;
4. 45 bulk B-horizon soil samples.

Sample Preparation and Analysis

Sample preparation of the tree-cores and separation of the clay-sized fraction *(<2µm)* from the B-and C-horizon soils were completed by QFIR. All clay-sized sample material from the B-and C-horizon soil samples were analysed at Acme Laboratories in Vancouver by ICP-MS following an aqua regia digestion for a suite of fifty-three (53) elements, plus all rare earth elements (REE) and lead (Pb) isotopes. QFIR undertook the preparation and analytical work on all tree-cores. Selected tree-ring intervals underwent total digestion and analysis using high resolution ICP-SFMS for fifty (50) elements and Pb isotopes.

A separate A2-horizon soil sample from each survey station was collected for analysis using EBT's Microbial Exploration Technology (MET) process. Conceptually, the MET analysis measures the population of hydrocarbon-metabolizing microbes living in the near-surface aerobic environment. Elevated populations of these micro-organisms in a soil sample may be indicative of thriving microbial activity due to an increase in hydrocarbon gas flux (primarily methane) that has migrated to the surface from the redox environment of a uranium deposit at depth.

Survey Results - Data Analysis and Interpretation

The combined anomalous surface geochemical signals obtained from the various surface media analyzed (tree-cores, clay-sized fractions of soils, and MET samples) have clearly defined the surface projection of the Centennial uranium deposit, which occurs at depths greater than 800 m [**map link**]. The spatial relationship and surface distribution of certain pathfinder elements, lead (Pb) isotopic ratios ($^{207}Pb/^{206}Pb$), and MET microbial values in the media analyzed, provide a compelling, coincident surface anomaly that, when displayed with other known geophysical survey data and interpreted structural patterns, would certainly vector drilling to a deposit at 800 meters depth in a 'green-fields' exploration setting.

These anomalous surface geochemical signals are interpreted to be the result of the migration of gaseous compounds, mobilized metals, and distinct isotopic compositions from the deposit at depth. The movement of these distinct elements and gaseous compounds to the surface environment (soils and trees) is interpreted to occur preferentially along fractures and fault systems, as well as along grain boundaries through the Athabasca Sandstone. The structural pathways extending upward through the overlying Athabasca Sandstone are a result of basement structural reactivation and concurrent hydrothermal activity, both of which are key components necessary for all unconformity-related uranium deposits in the Athabasca Basin.

Proof of Concept

A drilling program on the Stewardson Lake project is the next step in Uravan's objective to apply our cumulative knowledge from these surface geochemical surveys to active projects. In July 2011 a surface geochemical program was completed over the Stewardson project followed by an airborne ZTEM geophysical survey in June 2013 [**map link**]. A program and budget for the Stewardson project for 2014 is currently under review by Cameco Corporation (Cameco). Cameco has an exclusive option to earn a 51% interest in Uravan's 100% owned Halliday Lake and Stewardson Lake projects. Uravan is currently the operator with the responsibility to plan and implement the exploration programs on the Stewardson project in consultation with and on behalf of Cameco. Details of the approved 2014 program and budget will be announced in the near future.

Dr. Colin Dunn, P. Geo., technical advisor for Uravan, is the Qualified Person for the purposes of NI 43-101 with respect to the technical information in this press release. Dr. Colin Dunn, an independent specialist in biogeochemistry, is working closely with Uravan's technical group and QFIR to advance the interpretation of biogeochemical results.

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[1]The Queen's Facility for Isotope Research (QFIR) at Queens's University, Ontario is a state-of-the-art research facility, comprising a group of highly experienced research geochemists. The QFIR lab contains some of the most technologically advanced analytical equipment in Canada. Under the direction of Dr. Kurt Kyser, the QFIR research team is working collaboratively with Uravan's technical group to develop new exploration technologies using applied research.

[2]Environment BioTechnologies Inc. (EBT) is a Lodi, California based laboratory and provider of biotechnology-based analytical processes primarily for the oil, gas and environmental industries since 1991. EBT, in collaboration with Uravan, has been testing and evaluating its* Microbial Exploration Technology *(MET) process for uranium exploration since 2007, on projects such as the Boomerang property in the Thelon Basin, Northwest Territories, and the Cigar West Study in the Athabasca Basin, Saskatchewan. The MET process assumes that gaseous hydrocarbons (methane) migrate from the redox environment at the surface of a uranium deposit at depth to the surface environment. These hydrocarbons serve as a nutrient source that promotes the growth of soil-based micro-organisms that exist in the aerobic zone of the surface environment. The MET process then measures the increased microbial activity from each soil sample collected.

[3]The Athabasca Basin is an ancient (Paleoproterozoic) sandstone basin located in northern Saskatchewan, Canada. The Athabasca Sandstone (Manitou Falls (MF) Formation) hosts high-grade uranium deposits at and below the unconformity between the sandstone and the older crystalline basement rocks. These

unconformity-type uranium deposits occur in sandstones at the sandstone-basement unconformity contact (sandstone-hosted mineralization) and within the underlying structurally disrupted crystalline basement (basement-hosted mineralization). These unconformity-type uranium deposits account for about 28 percent of the world's primary uranium production. The ore grades are high, typically grading 2% to 20% U_3O_8.

[4]The Cigar West Study was an applied research program conducted by Uravan in 2009, in collaboration with QFIR, EBT, Colin Dunn (biogeochemical specialist), Cameco, and AREVA (the operator of the Waterbury/Cigar uranium property JV). The multi-faceted surface geochemical survey was completed over a known high-grade unconformity-type uranium deposit. The study was designed to develop new surface geochemical techniques that can better identify bedrock sources of uranium mineralization that has migrated from depth. The data analysis and interpretation of this research clearly identified elevated microbial activity in the soils, distinctive pathfinder elements and unique isotopic compositions ($^{207}Pb/^{206}Pb$) that have been mobilized from the deposit (geosphere) to the surface media (plants and soils) from depths >450 m. The Cigar Lake deposit is on the Waterbury/Cigar uranium property located in the Athabasca Basin, Saskatchewan, and is a joint venture partnership between Cameco Corporation, AREVA, Idemitsu Kosan Co. Ltd., and Tokyo Electric Power Co. [TEPCO]). Uravan thanks both AREVA and Cameco for their collaboration and gracious support for the Cigar West Study, and the support provided by the Cigar Lake facility during our field operations.

Uravan is a Calgary, Alberta-based diversified mineral exploration company that utilizes applied research to develop new innovative exploration technologies to identify buried uranium and nickel-copper-platinum group element (Ni-Cu-PGE) deposits in under-explored areas. Our exploration focus in uranium is for potential high-grade unconformity-type uranium deposits in the Athabasca and Thelon Basins in Canada and other basin environments globally. Uravan is a publicly listed company on the TSX Venture Exchange under the trading symbol UVN. All of the mineral properties Uravan owns are considered in the exploration stage of development.

This press release may contain forward looking statements including those describing Uravan's future plans and the expectations of management that a stated result or condition will occur. Any statement addressing future events or conditions necessarily involves inherent risk and uncertainty. Actual results can differ materially from those anticipated by management at the time of writing due to many factors, the majority of which are beyond the control of Uravan and its management. In particular, this news release contains forward-looking statements pertaining, directly or indirectly, to the use of proceeds of the Offering. Readers are cautioned that the foregoing list of risk factors should not be construed as exhaustive. These statements speak only as of the date of this release or as of the date specified in the documents accompanying this release, as the case may be. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements except as expressly required by applicable securities laws.

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