The **Uranium** Discovery Company

U3O8 CORP

8 King Street East
Suite 710
Toronto, ON M5C 1B5
Canada

T 416.868.1491
F 416.868.1497
www.u3o8corp.com
TSX-V: UWE

Press Release

U3O8 Corp. reports further positive metallurgical test results from the Laguna Salada Project, Argentina

Rapid extraction using alkaline leaching could benefit the economics of project

Toronto, Ontario – September 21, 2011 – **U3O8 Corp. (TSX Venture: UWE)**, a Canadian-based company focused on exploration and resource expansion of uranium and associated commodities in South America, reports positive alkaline leach results on the uranium- and vanadium-bearing gravels from the Guanaco area of the Laguna Salada Project, Chubut Province, Argentina, which show:

- 94% uranium extraction and 51% vanadium recovery from the upgraded fine component of the gravels; and
- Rapid uranium-vanadium extraction, with the best results achieved after only four hours of leaching.

"This excellent uranium recovery using alkaline leach – which is potentially lower cost than acid leach due to the modest reagent consumption expected – could further enhance the economic viability of the Laguna Salada as a potentially low-cost project," said Richard Spencer, U3O8 Corp's President and CEO. "Laguna Salada has many positive characteristics. Firstly, uranium and vanadium lie within a few metres from surface in soft, unconsolidated gravel that should be amenable to low-cost mining techniques with no blasting or crushing required. Secondly, simple screening separation of the pebbles and coarse sand concentrates the uranium-vanadium in the fine material and increases uranium grades to approximately 620-670ppm – comparable to the head grades of similar deposits operating elsewhere in the world[1]. Thirdly, most of the fine metal-rich material in the Guanaco area, which constitutes 90% of the Laguna Salada deposit, can be leached quickly with alkaline reagents achieving maximum uranium recoveries in only four hours. Metallurgical testing will be ongoing to optimize the recovery and beneficiation results that we have achieved to date."

Metallurgical Test Work

The Laguna Salada Project contains two slightly different types of gravel located in distinct areas: the Guanaco and the Lago Seco sectors. Both gravels are soft and unconsolidated. Samples from various sites in each area were excavated with a backhoe and sent, without any processing or crushing, to SGS Lakefield's laboratory in Lakefield, Ontario, where they were combined into one large sample from each area and underwent metallurgical testing. The test results from the two areas are summarized as follows:

1. Leach Tests

Guanaco Area

Two alkaline leach tests were conducted on the Guanaco fines: one at a temperature of 80°C over a 72-hour period and another at 90°C over a 48-hour period. The best uranium recovery of 94.1% was achieved at a temperature of 90°C after four hours of leaching. Uranium extraction decreased with time due to re-precipitation of uranium; hence, shorter leach times are advantageous. Vanadium extraction was 50.9% at four hours, rising to 59.1% after 48 hours (Table 1).

Acid leach tests showed 74% uranium and 86% vanadium recovery after a leach time of 36 hours (see March 2, 2011 press release). Net acid consumption was 18.6 kilogram/tonne ("kg/t") per tonne of raw mineralized gravel.

Given the effectiveness of alkaline leach on the uranium at Guanaco and the expected modest consumption of reagents, alkaline leaching is probably an economically superior option at Guanaco, which contains 90% of the National Instrument 43-101 ("NI 43-101") uranium-vanadium resource at Laguna Salada.

Table 1 – Results from an Alkaline Leach Test on the Fine-Grained Component of Guanaco Gravel

Time	Uranium grade (ppm)	Vanadium grade (ppm)	Uranium recovery	Vanadium recovery
Calculated head grade	658	1,131		
	Residue grade in leach test			
4 hours	39	555	94.1%	50.9%
22 hours	55	476	91.7%	57.9%
48 hours	117	468	82.2%	59.1%

Lago Seco Area

Alkaline leach results were poor for material from Lago Seco due to the presence of gypsum, a mineral that reacts with, and consumes, the alkaline reagents. Tests conducted at temperatures of 80°C and 90°C showed recoveries of <5% for uranium and <10% for vanadium. In contrast, acid leach was very effective showing recoveries of 96% for uranium and 71% for vanadium after 36 hours of leaching with 49.5kg/t of acid consumption per tonne of raw mineralized gravel (see March 2, 2011 press release).

Additional metallurgical testwork will evaluate ways of optimizing the recovery of uranium and vanadium from the Guanaco and Lago Seco areas of the Laguna Salada deposit.

2. Beneficiation

A key attribute of Laguna Salada is the ease with which the fine-grained uranium and vanadium minerals can be concentrated into a small fraction of the raw gravel by simple screening to remove the coarse particles and pebbles (see March 2, 2011 press release). Tests conducted by SGS Lakefield showed that uranium and vanadium grades can be increased by four to 11 times (Table 2) in the screened fines. For uranium, this would lead to a head grade (the metal-rich fines that would enter a processing plant) of approximately 620-670ppm – similar to head grades of operating surficial uranium deposits elsewhere in the world[1].

The Guanaco sector of Laguna Salada showed that a grade of 55ppm U_3O_8 was upgraded to a value of 623ppm U_3O_8 in the screened fines (11.4 times increase in uranium grade from the original raw gravel). A vanadium value of 349ppm V_2O_5 in the raw gravel increased to 1,893ppm V_2O_5 in the fine material (5.4 times increase in vanadium grade).

A U_3O_8 grade of 161ppm from the Lago Seco area increased to 668ppm U_3O_8 as a result of the screening (4.1 times increase in uranium grade). A V_2O_5 grade of 416ppm increased to 1,202ppm V_2O_5 in the screened fines (2.9 times increase in vanadium grade).

Table 2 – Summary Results from the Screen Samples at Laguna Salada

Sector of the Laguna Salada deposit	Uranium Grade			Vanadium Grade			Percentage of fines (finer than 0.1mm) in raw gravel
	U_3O_8 grade in raw gravel (ppm)	U_3O_8 grade in screened fines (ppm)	Upgrade factor for Uranium in screened fines	V_2O_5 grade in raw gravel (ppm)	V_2O_5 grade in screened fines (ppm)	Upgrade factor for Vanadium in screened fines	
Guanaco	55	623	11.4 X	349	1,893	5.4 X	8.0%
Lago Seco	161	668	4.1 X	416	1,202	2.9 X	23.3%

Regulatory Update on Chubut Province

While there is presently an open-pit mining ban in Chubut Province, draft legislation is reported to propose that open-pit mining be allowed in the central semi-desert plain of the province. A similar approach, that allows mining in the central plain, is in effect in the adjacent Santa Cruz Province. Laguna Salada and several other mining projects are situated in this central plain of Chubut Province including CNEA's (Argentinean National Nuclear Authority) Cerro Solo uranium deposit and Pan American Silver's Navidad silver project, both of which are reported to be due for development by open-pit mining methods. Both of these projects are moving towards production and indications are that a change in Chubut Province's mining policy may be made in the short- to medium-term.

Qualified Persons & Accreditation

Mr. John Goode, P.Eng., a Qualified Person within the definition of that term in NI 43-101 of the Canadian Securities Administrators, has overseen the metallurgical testwork carried out by SGS Lakefield, and verified the technical information relating to the tests from which results are reported in this press release. Dr. Richard Spencer, P. Geo., President & CEO of U3O8 Corp., a Qualified Person within the definition of that term in NI 43-101 of the Canadian Securities Administrators, has supervised the preparation of, and verified the technical information relating to the Laguna Salada Project provided above.

SGS has been undertaking metallurgical testwork for over 50 years and its Lakefield facility is ISO/IEC 17025 accredited.

About U3O8 Corp.

U3O8 Corp. is a Toronto-based exploration company focused on exploration and resource expansion of uranium and associated commodities in South America – a promising new frontier for uranium exploration and development. U3O8 Corp. has one of the most advanced portfolios of uranium projects in the region comprising NI 43-101 compliant resources in Guyana and Argentina to significant historic resources in Colombia.

For information on U3O8 Corp's Laguna Salada Project, refer to the technical report dated May 20, 2011 titled, "Laguna Salada Project, Chubut Province, Argentina: NI 43-101 Technical Report: Initial Resource Estimate" available on U3O8 Corp's web site at www.u3o8corp.com and on SEDAR at www.sedar.com.

(1) Similar deposits elsewhere in the world such as Langer Heinrich typically have a mill feed grade of 550-600ppm after beneficiation. These deposits have not been independently verified by U3O8 Corp. and information regarding these deposits is drawn from publicly available information.

Forward-Looking Statements

Certain information set forth in this news release may contain forward-looking statements that involve substantial known and unknown risks and uncertainties. These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond the control of U3O8 Corp., including, but not limited to, the possibility that the open-pit mining ban in Chubut Province may not be lifted or amended on terms that would allow for mining of the Laguna Salada Project, the impact of general economic conditions, industry conditions, volatility of commodity prices, risks associated with the uncertainty of exploration results and estimates and that the resource potential will be achieved on exploration projects, currency fluctuations, dependence upon regulatory approvals, and the uncertainty of obtaining additional financing and exploration risk. Readers are cautioned that the assumptions used in the preparation of such information, although considered reasonable at the time of preparation, may prove to be imprecise and, as such, undue reliance should not be placed on forward-looking statements.

For information, please contact:
U3O8 Corp. (416) 868-1491

Nancy Chan-Palmateer
Vice President, Investor Relations
nancy@u3o8corp.com

Richard Spencer
President & CEO
richard@u3o8corp.com