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# 2011 U<sub>3</sub>O<sub>8</sub> Production Review

Worldwide uranium production totaled approximately 138 million pounds U<sub>3</sub>O<sub>8</sub> in 2011, which was 1 million pounds shy of the 139 million pounds U<sub>3</sub>O<sub>8</sub> yielded in 2010. This marks the first time we have witnessed a reduction in global production since 2006 when worldwide production fell to 103 million pounds U<sub>3</sub>O<sub>8</sub> from 108 million pounds U<sub>3</sub>O<sub>8</sub> in 2005. While we forecasted that 2011 worldwide production would grow by about 4%, with a target of 145 million pounds U<sub>3</sub>O<sub>8</sub> for the year, production lapses in Namibia, Russia, and Australia contributed to the year's shortcoming. It is important to note that none of these production declines were in reaction to the Fukushima accident.

**Kazakhstan** remained the world's largest uranium producing country for the third straight year, yielding an amazing 50.6 million pounds U<sub>3</sub>O<sub>8</sub> and accounting for 36.6% of the world's total in

2011. For 2012, Kazatomprom plans to maintain its course in terms of growth, increasing uranium production to 21,346 tU ( $\sim$ 55.5 million pounds  $U_3O_8$ ).

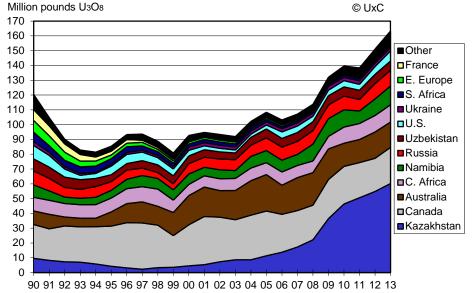
Kazatomprom's three 100%-owned ISR mining groups (Stepnoye, Taukent, and RU-6) combined to produce an estimated 8.5 million pounds U<sub>3</sub>O<sub>8</sub> in 2011, which was slightly below the 8.7 million pounds U<sub>3</sub>O<sub>8</sub> produced in 2010. The underground Stepnogorsk mine (SGHK LLP) produced up an estimated 1.0 million pounds  $U_3O_8$  for the year. AREVA's majority-owned KATCO joint venture (51% AREVA, 49% Kazatomprom) proved itself as the world's largest ISR project, producing almost 9.4 million pounds U<sub>3</sub>O<sub>8</sub> from the Muyunkum/Tortkuduk ISR project, which was an 8% increase from 8.7 million pounds U<sub>3</sub>O<sub>8</sub> in 2010. Karatau LLP (50% Kazatomprom, 50% Uranium One) increased production at its Budenovskoye 2 ISR

Ux U<sub>3</sub>O<sub>8</sub> Price: (4/16/12) \$51.25 (Unch.) Ux LT U<sub>3</sub>O<sub>8</sub> Price: (3/26/12) \$60.00

mine by 25% to 5.6 million pounds U<sub>3</sub>O<sub>8</sub> from 4.4 million pounds in 2010. Cameco's majority-owned Inkai JV (60% Cameco, 40% Kazatomprom) yielded almost 4.2 million pounds U<sub>3</sub>O<sub>8</sub>, but was 4% lower than in 2010 as a result of inprocess uranium inventory changes. For 2012, JV Inkai expects to increase production marginally to 4.3 million pounds U<sub>3</sub>O<sub>8</sub>. The South Inkai ISR project, which is part of the Betpak Dala JV (70% Uranium One, 30% Kazatomprom), pumped 4.0 million pounds U<sub>3</sub>O<sub>8</sub> out of its wellfields, which was 9% less than in 2010 due to lower than expected concentration in solution from new well fields. For 2012, South Inkai is expected to reach its designed production capacity of 5.2 million pounds. The Akdala ISR project, which is also part of the Betpak Dala JV, produced almost 2.9 million pounds U<sub>3</sub>O<sub>8</sub>, which was 9% higher than in 2010 and above the permitted production rate of 2.6 million pounds U<sub>3</sub>O<sub>8</sub> per annum. The Akbastau JV (50% Kazatomprom, 50% Uranium One) yielded 2.9 million pounds U<sub>3</sub>O<sub>8</sub> from the Budenovskoye 1 and 3 mines, which was 49% higher than in 2010. A new wellfield from Budenovskoye 4 is scheduled to come online this year. Zarechnove JSC (49.67% Kazatomprom, 49.67% Uranium One, 0.66% Kara Balta), in southern Kazakhstan, produced 1.9 million pounds U<sub>3</sub>O<sub>8</sub>, which was slightly below the 2.0 million pounds U<sub>3</sub>O<sub>8</sub> extracted in 2010.

Among the Kazakh uranium projects with Asian interests or offtake agreements, JV Kendala, through which Japan's Itochu Corporation has an offtake

### **Uranium Production: Historical & Planned**



agreement, produced an estimated 3.7 million pounds U<sub>3</sub>O<sub>8</sub> from the Central Mynkuduk ISR project. At APPAK LLP (65% Kazatomprom, 25% Sumitomo Corp., 10% Kansai Electric), an estimated 1.8 million pounds U<sub>3</sub>O<sub>8</sub> was pulled from the Western Mynkuduk ISR project. Pilot production at Kharasan 1 (Kyzylkum LLP - 40% Energy Asia, 30% Kazatomprom, 30% Uranium One) totaled 1.1 million pounds U<sub>3</sub>O<sub>8</sub>, which was up 64% from 676,000 pounds U<sub>3</sub>O<sub>8</sub> in 2010. At Kharasan 2 (Baiken U LLP -95% Energy Asia, 5% Kazatomprom), pilot production increased by an estimated 33% to 907,000 pounds  $U_3O_8$ . The Sino-Kazakh Semizbai U LLP (51% Kazatomprom, 49% China Guangdong NPC) totaled nearly 2.8 million pounds U<sub>3</sub>O<sub>8</sub> from the Semizbai and Irkol ISR projects, which was 9% higher than the 2.5 million pounds U<sub>3</sub>O<sub>8</sub> produced from the two mines in 2010.

Canada was once again the second largest uranium producing country in 2011 with production of 23.8 million pounds U<sub>3</sub>O<sub>8</sub>, which accounted for 17.2% of world production. Canadian production slipped 6% in 2011, primarily due to AREVA's majority-owned McClean Lake project ceasing production in the second half of 2010. Cameco's majority-owned McArthur River

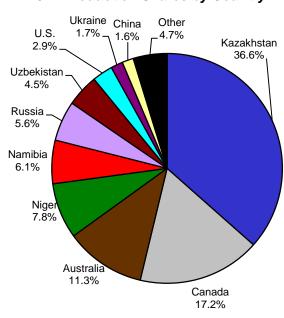
mine produced nearly 20 million pounds U<sub>3</sub>O<sub>8</sub>, making it the top-producing uranium mine in 2011 and for the 12th straight year. Cameco's Rabbit Lake mine produced 3.8 million pounds U<sub>3</sub>O<sub>8</sub> in 2011, which was identical to 2010. For 2012, Canadian uranium production is projected to be 22.4 million pounds U<sub>3</sub>O<sub>8</sub> but should see a small boost in 2013 when the planned Cigar

Lake mine commences production.

Australian uranium production inched up slightly to 15.6 million pounds U<sub>3</sub>O<sub>8</sub> in 2011, and the country retained its position as the third largest uranium producing country in capturing an 11.3% share of world production. BHP Billiton's Olympic Dam mine recovered well from the ore hoisting incident in 2009 that also limited uranium production in 2010. BHP managed to produce 8.8 million pounds U<sub>3</sub>O<sub>8</sub> from by-product operations at Olympic Dam in 2011, which was 44% higher than in 2010 and just under that

facility's licensed annual capacity. However, Rio Tinto/Energy Resources of Australia's Ranger mine in the Northern Territory continued to be plagued by operational problems as a result of the heavy tropical rains in the region. Due to the record level of rainfall in December 2011, ERA has been unable to fully dewater Ranger Pit 3. As a result, access to the high grade ore

# 2011 Production Shares by Country

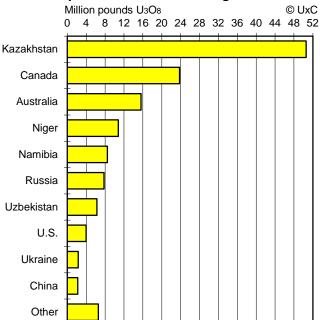


located at the bottom of the pit has been significantly restricted. For 2011, the Ranger mill produced 5.8 million pounds U<sub>3</sub>O<sub>8</sub>, which was 30% lower than 2010. ERA expects to be able to re-commence mining in Ranger Pit 3 by the end of April 2012, earlier than estimated at the beginning of this year. Dewatering of the pit is scheduled for completion in July 2012. For 2012, Rio Tinto/ERA expects Ranger production to be in the range of 7.1-8.2 million pounds U<sub>3</sub>O<sub>8</sub>, but this range is highly dependent on weather conditions.

Heathgate Resources' Beverley ISR mine in South Australia was also impacted by rain, with production totaling almost 1.0 million pounds U<sub>3</sub>O<sub>8</sub> in 2011. Production in commissioning from the new Honeymoon ISR project (51% Uranium One, 49% Mitsui) in South Australia was 100,000 pounds U<sub>3</sub>O<sub>8</sub> during 2011. The project has a design capacity of 880,000 pounds U<sub>3</sub>O<sub>8</sub> per year, with an expected mine life (including rampup) of eight years. For 2012, Honeymoon production is expected to increase to 600,000 pounds U<sub>3</sub>O<sub>8</sub>. The first shipment of uranium from Honeymoon to the U.S. occurred in February 2012.

**Niger** moved ahead of Namibia as the world's fourth largest uranium producing country in 2011, accounting for 10.8





million pounds U<sub>3</sub>O<sub>8</sub> and 7.8% of world production. AREVA's majority-owned SOMAIR (Arlit) open pit operation yielded almost 7.1 million pounds U<sub>3</sub>O<sub>8</sub>, while its majority-owned COMINAK (Akouta) facility extracted 3.7 million pounds U<sub>3</sub>O<sub>8</sub> from underground operations. The mill capacity at SOMAIR is being increased to 3,000 tU ( $\sim$ 7.8 million pounds U<sub>3</sub>O<sub>8</sub>) per annum by utilizing heap leaching. The Azelik mine (37.2% CNIUC, 33% Niger Government, 24.8% ZXJOY Invest., and 5.0% KORES) produced uranium from pilot production in 2011, but to date, no quantity figure has been released. Niger's Mine Minister Omar Hamidou Tchiana said in February that Azelik is expected to commence commercial production later this year, ramping up to a production rate of 700 tU ( $\sim$ 1.82 million pounds U<sub>3</sub>O<sub>8</sub>).

Southern African production – Namibia, South Africa, and Malawi – declined by 19% to 12.2 million pounds  $U_3O_8$  in 2011 due primarily to production issues at Rio Tinto's Rössing mine in Namibia. **Namibian** production slid 28% to 8.5 million pounds  $U_3O_8$  from 11.7 million pounds  $U_3O_8$  in 2010; Namibia accounted for only 6.1% of world production, dropping to fifth place behind Niger. The Rössing mine produced a total of 4.7 pounds  $U_3O_8$  in 2011, which was 41% lower than production of 8.0 million pounds  $U_3O_8$  in 2010. Rio Tinto encoun-

tered significantly lower grades, lower milled tonnes, and lower extraction rates from the mine. To the southeast of Rössing, Paladin's Langer Heinrich mine produced 3.7 million pounds  $U_3O_8$ , which was just slightly above the level achieved in 2010. Ramp-up of Langer Heinrich to a production rate of 5.2 million pounds  $U_3O_8$  was stymied by high rainfall in the first half of 2011 and various operational issues. For 2012, Paladin expects to operate near Stage 3 nameplate production, yielding 4.7 million pounds  $U_3O_8$ .

In South Africa, AngloGold Ashanti's Vaal River operation produced 1.4 million pounds U<sub>3</sub>O<sub>8</sub> in 2011, which was slightly below 2010 production of almost 1.5 million pounds U<sub>3</sub>O<sub>8</sub>. AngloGold is currently working on a uranium expansion project to upgrade infrastructure to transport Kopanang ore to the South Uranium Plant to recover additional uranium. Completion is scheduled for July 2012, which could boost future production closer to 2 million pounds U<sub>3</sub>O<sub>8</sub>. First Uranium's Ezulwini mine reportedly produced 87,000 pounds U<sub>3</sub>O<sub>8</sub> as a by-product of gold in 2011. In the fourth quarter of 2011, First Uranium said it was placing its Ezuliwini mine on stand-by until a new operating plan could be implemented to make the company profitable. First Uranium is currently in the process of being acquired by

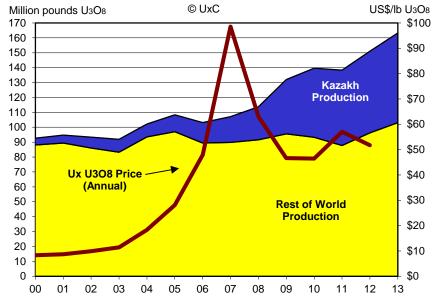
### Gold One.

Paladin's Kayelekera mine in Malawi encountered a rash of problems in 2011, which limited production to 2.2 million pounds U<sub>3</sub>O<sub>8</sub> in its ramp up to nameplate capacity of 3.3 million pounds U<sub>3</sub>O<sub>8</sub>. In the third quarter of 2011, Paladin commenced plant upgrade work during a shutdown to address reduced leach and resin-in-pulp (RIP) efficiencies. Additionally, Paladin relocated its drying and packaging plant due to damage caused by localized movement related to land slippage. Paladin's focus remains on the RIP circuit to maintain an effective maintenance regime to manage acid corrosion and reduce downtime.

Russia held onto sixth place among uranium producing countries in 2011, but production declined 16% to 7.8 million pounds U<sub>3</sub>O<sub>8</sub> from 9.3 million pounds U<sub>3</sub>O<sub>8</sub> in 2010. Production from Russia's flagship underground mine, Priargunsky, slid to 5.7 million pounds U<sub>3</sub>O<sub>8</sub> from 7.6 million pounds U<sub>3</sub>O<sub>8</sub> in 2010. Meanwhile, the Dalur and Khiagda ISR mines extracted 1.4 million pounds U<sub>3</sub>O<sub>8</sub> and 693,000 pounds U<sub>3</sub>O<sub>8</sub>, respectively, in 2011. Uzbekistan's Navoi Mining and Metallurgical Combine produced an estimated 6.3 million pounds U<sub>3</sub>O<sub>8</sub> from the Nurabad, Uchkuduk, and Zafarabad ISR mines in 2011. Ukraine's VostGOK yielded 2.3 million pounds U<sub>3</sub>O<sub>8</sub> from the Zheltiye Vody mill in 2011, which was a slight increase on 2.2 million pounds U<sub>3</sub>O<sub>8</sub> in 2010. For 2012, VostGOK plans to increase output to 980 tU (~2.5 million pounds U<sub>3</sub>O<sub>8</sub>) from continued development of the Novokonstantinovskoye deposit.

**U.S.** production declined 6% in 2011 to 4.0 million pounds  $U_3O_8$  from 4.2 million pounds  $U_3O_8$  in 2010. Cameco's Smith Ranch-Highland ISR operation in Wyoming extracted 1.4 million pounds  $U_3O_8$ , but this figure was 20% lower than in 2010 as the review process to obtain regulatory approvals has lengthened the timeline to bring new wellfields into production. Uranium One's Willow Creek ISR project commenced operation in





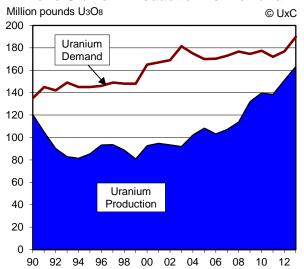
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Wyoming this year, with production totaling 214,800 pounds  $U_3O_8$ . The current design capacity of Willow Creek is 1.3 million pounds  $U_3O_8$  per year, but Uranium One plans to expand the processing capacity to 2.5 million pounds  $U_3O_8$  per year by incorporating a vacuum dryer that was purchased for use at Moore Ranch. Cameco's Crow Butte ISR operation in Nebraska netted 769,000 pounds  $U_3O_8$ , up 36,000 pounds from 2010.

In southeast Utah, Denison Mines' White Mesa mill processed 1.0 million pounds  $U_3O_8$ , which was nearly identical to 2010. The mill resumed processing conventional ore in November 2011, but production was lower than expected due to more difficult operating conditions with the Daneros mine. For 2012, Denison expects to produce 1.4 million pounds  $U_3O_8$  from conventional ore and alternate feed sources. South Texas production is estimated at 583,000 pounds  $U_3O_8$  in 2011 from Mestena Uranium's Alta Mesa ISR mine and Uranium Energy Corporation's Palangana ISR mine.

Based solely on current company plans, worldwide production in 2012 is expected to increase 9% to 151 million pounds U<sub>3</sub>O<sub>8</sub>. The majority of this production increase is expected to come from Kazakhstan, Africa, Australia, Russia, and the U.S. The continued rampup of production from Kazakh joint venture projects should increase production

World Uranium Production vs. Demand



there by at least 4 million pounds U<sub>3</sub>O<sub>8</sub>. In Namibia, Paladin will push its Langer Heinrich mine toward a nominal capacity of 5.2 million pounds U<sub>3</sub>O<sub>8</sub>, with Rio Tinto looking to rebound from its underperformance at Rössing in 2011 with new supply being fed from the SK4 satellite pit. Niger production should increase slightly with SOMINA's new Azelik project coming online this year and potential further gains from the expansion of SOMAIR. Australian production is expected to increase by at least 2 million pounds U<sub>3</sub>O<sub>8</sub> in 2012 with Rio Tinto/ERA looking to yield more uranium from Ranger (weather dependent) and Uranium One's majority-owned Honeymoon ISR project in a ramp-up stage. In Russia, ARMZ will be aiming to recover from a down production year at Priargunsky, and a production gain of up to 1 million pounds U<sub>3</sub>O<sub>8</sub> is projected from various U.S. mines. Assuming slightly more conservative growth than current company plans, UxC projects that actual world production for 2012 will reside in the range of 145-148 million pounds U<sub>3</sub>O<sub>8</sub>.

# News Briefs

# Japanese reactors move closer to restart

Japan's trade minister, Yukio Edano, has stated that Units 3 and 4 at the Ohi nuclear power plant can now be safely

restarted. However, approval from local governments is still needed before the two reactors can resume operation. On Saturday, Edano visited local officials to seek their support for restarting the two reactors; however, the governor of the Fukui prefecture, where the Ohi plant is located, has not yet given a firm commitment to supporting the restart.

Currently, Unit 3 at the

# Industry

### Calendar

- April 17-19, 2012
   World Nuclear Fuel Cycle
   NEI/WNA
   <a href="http://www.wnfc.info/">http://www.wnfc.info/</a>
   Helsinki Congress Paasitorni
   Helsinki, Finland
- April 24-25, 2012
   Small Modular Reactor Conf.
   Nuclear Energy Insider
   <a href="http://www.nuclearenergyinsider.com/smr/">http://www.nuclearenergyinsider.com/smr/</a>
   Embassy Suites
   Columbia, South Carolina, USA
- April 30-May 1, 2012
   3<sup>rd</sup> Annual Nuclear Symposium
   The Canadian Institute
   <a href="http://www.canadianinstitute.com/nuclear">http://www.canadianinstitute.com/nuclear</a>

   Sutton Place Hotel
   Toronto, Ontario, Canada
- May 17-18, 2012
   China Nuclear Energy Congress
   China Decision Makers
   <a href="http://www.cdmc.org.cn/cnec2012/">http://www.cdmc.org.cn/cnec2012/</a>
   Marriott Beijing Northeast
   Beijing, China
- May 21-22, 2012
   Platts Small Modular Reactors
   Platts Nuclear Energy
   <a href="http://www.platts.com/Conference">http://www.platts.com/Conference</a>
   Hilton Crystal City
   Arlington, Virginia, USA
- May 21-23, 2012
   Nuclear Energy Assembly
   NEI
   <a href="http://www.nei.org/newsandevents/">http://www.nei.org/newsandevents/</a>
   Westin Charlotte
   Charlotte North Carolina, USA
- June 3-5, 2012
   WNFM 39<sup>th</sup> Annual Meeting
   World Nuclear Fuel Market
   <a href="http://www.wnfm.com/annualmeeting/">http://www.wnfm.com/annualmeeting/</a>
   The Fairmont Banff Springs Hotel
   Banff, Alberta, Canada
- June 4-6, 2012
   AtomEXPO 2012
   Rosatom
   <a href="http://2012.atomexpo.ru/en/">http://2012.atomexpo.ru/en/</a>
   Gostiny Dvor
   Moscow, Russia
- June 13-14, 2012
   AusIMM International Uranium Conference 2012
   AusIMM <a href="http://www.ausimm.com.au/uranium2012/">http://www.ausimm.com.au/uranium2012/</a>

   Adelaide Convention Center Adelaide, Australia

Details are available at: http://www.uxc.com/c/data-industry/uxc\_calendar.aspx Tomari nuclear power plant is the only reactor online in Japan, and it is scheduled to go offline for a mandatory inspection on May 6. Edano has warned that Japan will face power shortages this summer unless some of the reactors now offline resume operation.

# Bulgaria approves new unit at Kozloduy

The Bulgarian government gave preliminary approval for a new unit at the country's Kozloduy nuclear power plant on April 11. During a Cabinet meeting, the ministers authorized Bulgaria's Minister of Energy and Economy to submit a report on the merits of the project. The government also emphasized that the reactor will have to be built without any state support, be it government financing or state guarantees. To that extent, it is envisioned that construction will be carried out by a project company.

The announcement follows recent news regarding cancellation of a two-reactor project at Belene, which was being built by Russia's Atomstroyexport. The fate of the troubled project remained uncertain for a number of years as a number of critical issues were unresolved, including the cost of the project, the final version of the construction contract, and financing of the project.

# Unit 2 at Wylfa nuclear plant to close on April 30

On April 3, EnergySolutions subsidiary Magnox Ltd. announced that Unit 2 at the Wylfa nuclear power plant in Wales will permanently close on April 30. The move comes just two months after Oldbury 2 closed. Wylfa is the UK's last operational Magnox plant, and Unit 2 is closing so that efforts can be focused on continuing to operate Unit 1. This summer, the UK's Office of Nuclear Regulation is expected to decide whether to allow the remaining fuel in Unit 2 to be transferred to Unit 1. If the fuel transfer is authorized, Unit 1 at Wylfa will most likely operate until 2014.

# China, Turkey sign nuclear agreements

As part of the first official trip to China by a Turkish head of state in 27 years, Turkish Prime Minister Recep Tayyip Erdogan signed two nuclear agreements that should increase cooperation between the two countries. Turkey hopes to have three nuclear power plants operating by 2023.

# Santee Cooper, South Mississippi sign letter of intent for Summer expansion

On April 13, Santee Cooper announced that it executed a letter of intent with South Mississippi Electric Power Association (South Mississippi) for the development of a power purchase agreement that would allow South Mississippi to potentially acquire a minority interest in the under-construction Units 2 and 3 at the V.C. Summer Nuclear Station.

SCE&G is the 55% majority owner of the V.C. Summer expansion. Santee Cooper currently owns the remaining 45%; the letter of intent would allow South Mississippi to acquire 2-7% of the overall capacity and energy output. South Mississippi is a not-for-profit wholesale electricity supplier in Mississippi.

### San Onofre remains offline

Southern California Edison's San Onofre Nuclear Generating Station has been offline for over two months as investigators try to determine why tubing is eroding faster than expected. The explanation remains out of reach, and on April 16, Southern California Edison announced that further damage had been discovered. Both Unit 2 and Unit 3 are afflicted, with the latter being the more serious case.

Unit 3 was shut down as a precautionary measure in January following a tube break. Unit 2 was offline for maintenance. Neither has restarted, with NRC Chairman Gregory Jaczko telling reporters on April 7 that neither

would be allowed to restart until the cause could be identified. More recently, the NRC had signaled that Unit 2 may be close to being able to restart, but following the most recent announcement, that appears less likely.

# Columbia nuclear power plant moves closer to obtaining 20year license renewal

On April 11, the U.S. Nuclear Regulatory Commission (NRC) issued a final supplemental environmental impact statement in support of the proposed 20-year license renewal for Energy Northwest's single unit Columbia nuclear power plant in Benton County, Washington. NRC staff has concluded that there are no environmental impacts that would prevent the plant from obtaining license renewal. If the NRC decides to grant final approval for license renewal, Columbia will be able to operate until December 20, 2043. Otherwise, the reactor will need to close in 2023.

# Japan and UK sign nuclear cooperation agreement

On April 10, the UK and Japan signed a framework nuclear cooperation agreement that gives UK companies access to Japan's market for nuclear decommissioning. The agreement also enables Japanese companies to provide the UK will their expertise in the design and construction of new reactors. In addition, the UK and Japan have agreed to cooperate in nuclear safety and the exchange of expertise for nuclear regulation.

"The UK has a wealth of expertise and experience in the area of nuclear decommissioning and waste management. I am in no doubt that cooperation with Japan in these areas will bring mutual benefits," said UK Energy Minister Charles Hendry.

# NuScale partners with NuHub to develop SMRs

On April 11, NuScale Power announced an agreement with South Carolina col-

laborative development group NuHub to work towards building small modular reactors in South Carolina. Under the agreement, NuHub will help in the effort to obtain design certification for NuScale's 45 megawatt modular reactor design and a combined construction and operating license to build one or more reactors at the Savannah River Site. In exchange, NuScale will support NuHub's efforts to use the reactor's development as a catalyst to boost economic opportunity in South Carolina. NuScale and NuHub also plan to seek assistance from one or more utilities in the certification and licensing effort. The U.S. Department of Energy is offering two federal grants of up to \$452 million to support engineering design and licensing for small modular reactor designs at the Savannah River Site, and NuScale Power is competing with three other companies for the funding.

# Anne Lauvergeon claims Sarkozy wanted to sell reactors to Libya

In an interview with *L-Express*, former AREVA CEO Anne Lauvergeon claims that French President Nicholas Sarkozy had sought to sell a nuclear power plant for water desalination to Libya in 2010. Lauvergeon also said that she was strongly opposed to providing Libya with nuclear technology. These allegations from a former top aide to Socialist President Francois Mitterand comes just before France holds the first round of a presidential election on April 22. A government spokeswoman has disputed Lauvergeon's accusation and claims that she is trying to "settle scores."

Sarkozy strongly supports nuclear power, but the Socialist candidate Francois Hollande has promised to close the Fessenheim nuclear power plant during his first term in office if he wins election. The Socialist Party has reached an agreement with the Green Party that calls for France's total share of nuclear energy to fall from more than 75% of total electricity generation today to 50%

by 2025. However, Hollande says that the two 900 megawatt reactors at Fessenheim would be the only units he would close during his first term in office, and he would allow the European Pressurized Reactor (EPR) now under construction at Flamanville to be completed.

# AREVA signs agreement with EDF on fuel assemblies

In an April 13 press release, AREVA announced that it signed an agreement to provide EDF will fuel assemblies and other services in 2013 and 2014. The two companies also agreed to discuss an agreement for fuel assemblies over the medium- to long-term.

# ERA reports higher quarterly production

On April 10, Energy Resources Australia Ltd. (ERA) announced production results for the guarter ended March 31, 2012 from its Ranger uranium mine in the Northern Territory of Australia. Uranium oxide produced by ERA in the March quarter was 612 tonnes U<sub>3</sub>O<sub>8</sub> (1,349,000 pounds U<sub>3</sub>O<sub>8</sub>), which is 18% higher than the corresponding quarter in 2011 despite lower mill head grades. Production was off 41% from 1,030 tonnes U<sub>3</sub>O<sub>8</sub> (2,271,000 pounds U<sub>3</sub>O<sub>8</sub>) produced during the quarter ended December 31, 2011. This quarter-on-quarter reduction was due to significantly restricted mining operations during the March 2012 quarter as a result of high water levels in the Ranger pit, which ultimately resulted in significantly lower total ore mined. And, while the high level of plant performance achieved in the December 2011 guarter continued into the March 2012 quarter, lower mill head grades were encountered, which lead to a further reduction in production during the quarter.

The ore milled in the March 2012 quarter was sourced from stockpiled material as the company was unable to access the high grade ore located at the bottom of the Ranger 3 pit. ERA advised that 1,499 mm (59 inches) of rain has fallen at the Jabiru Airport in the

period from September 1, 2011 to April 9, 2012. As a result of the recently encountered weather conditions at Ranger, ERA expects to be able to recommence mining in the Ranger Pit 3 by the end of April 2012, which is actually earlier than estimated at the beginning of 2012. Dewatering of the pit is scheduled for completion in July 2012.

During the quarter, ERA announced the award of the contract for the construction of the box cut and decline of the Ranger 3 Deeps Exploration Decline project to Macmahon Holdings Ltd. Work on the box cut is scheduled to commence in May 2012, with construction of the decline expected to commence in October 2012.

In light of the earlier than estimated recommencement of mining in Ranger Pit 3, the company has revised its production guidance and now expects production for 2012 to be within the range of 3,200 to 3,700 tonnes  $U_3O_8$  (~7.1 - 8.2 million pounds  $U_3O_8$ ), which is an increase from the previous guidance of 3,000 tonnes to 3,700 tonnes (~6.6 - 8.2 million pounds  $U_3O_8$ ). However, ERA stated that production for 2012 remains highly dependent on the level of actual rainfall encountered for the remainder of the year.

# Paladin records slight decrease in total Q1 production

Paladin Energy Ltd. announced on April 16 production results for the period ending March 31, 2012 (Q1 2012). Total production from Paladin's Langer Heinrich and Kayelekera mines during the quarter topped 1.77 million pounds U<sub>3</sub>O<sub>8</sub>, which is 2.6% below the record December 2011 quarter. At the Langer Heinrich mine in Namibia, production was 1,052,364 pounds U<sub>3</sub>O<sub>8</sub> during Q1 2012, which is 10% shy of the company's internal target of 1,150,000 pounds U<sub>3</sub>O<sub>8</sub> for the quarter. Paladin reported that early quarter issues with ramping up the additional CCD circuit caused delays, as did issues with the tailings thickener.

Throughout the quarter, the Langer Heinrich plant continued its Stage 3 ramp-up with crushed tonnes increasing by 8% overall. The company reported that mining continues to concentrate on extending the open pit to the west of the mine and that Run of Mine (ROM) stocks were maintained at between four and six weeks of ore supply.

Paladin reported that the Stage 4 feasibility study has been deferred to the end of the calendar year 2012 as a result of additional capabilities found in Stage 3 equipment. Paladin expects this delay to give it time to properly review and establish the degree of positive performance for this equipment prior to its integration into the Stage 4 flowsheet. The Environmental Impact Assessment (EIA) for the Stage 4 expansion has been submitted to Namibia's government and the company expects approval of the EIA in the June 2012 quarter.

At Paladin's Kayelekera mine in Malawi, record uranium production of 724,551 pounds U<sub>3</sub>O<sub>8</sub> was achieved during the quarter ended March 31, 2012. This result is 15% above the December 2011 quarterly total of 631,780 pounds U<sub>3</sub>O<sub>8</sub>. Production during the quarter at Kayelekera was temporarily impacted by the use of a lowercost reagent that was tested and ultimately proved problematic. The Kayelekera process plant achieved record mill feed and operating time averaged 15% above the previous quarter. However, total recovery was down 1.5% as a result of a higher component of reduced arkose ore and delays in peroxide deliveries due to dockside weather issues. Paladin has countered these issues by increasing stocks of onsite peroxide. Furthermore, landslip mitigation of the areas to the west of the process plant is now complete. Monitoring of ground movement is being conducted by external consultants.

The 90-day Bankers' Completion Test was completed at the end of January at Kayelekera and the company believes the project performed well against test

parameters. Paladin still awaits final certification from this test.

Sales for the quarter ended March 31, 2012 were 1,137,477 pounds  $U_3O_8$ , which generated revenue of US\$67.3 million at an average sales price of US\$59.17 per pound  $U_3O_8$ . Sales are reportedly distributed unevenly throughout the year and the March 2012 quarter has seen some inventory build in anticipation of significantly higher volumes booked for sale in the June 2012 quarter. In terms of future production, Paladin now expects FY 2012 production to be about 2% below the previously announced lower guidance of 7.1 million pounds  $U_3O_8$ .

Paladin reported in a separate release on April 10 that it was in discussions with a select group of nuclear industry parties to seek a minority Joint Venture (JV) participation in its non-producing uranium assets in order to further strengthen and consolidate the company's extensive land position. The company reported that the participation proposals received are diverse and reflect a broader and deeper interest to become part of Paladin's future production platform.

# Bannerman reports DFS results and deal with Epangelo

On April 10, Bannerman Resources Ltd. announced results from the Definitive Feasibility Study (DFS) for its 80%-owned Etango uranium project in Namibia. The company contends that the DFS confirms the viability of the Etango project in Namibia. Bannerman and its independent technical consultants have completed the DFS for the Etango project on time and within budget.

The DFS shows an 80% conversion of measured and indicated resources into proved and probable ore reserves totaling 119.3 million pounds of contained  $U_3O_8$ . The DFS assumes production of 7-9 million pounds  $U_3O_8$  per year for the first five years and 6-8 million pounds  $U_3O_8$  per year thereafter. Cash operating costs are estimated at US\$41 per pound  $U_3O_8$  in the first five years and an

average of US\$46 per pound  $U_3O_8$  over the life of mine. The DFS shows a cash operating margin of 24% at current long term prices and 39% at an assumed base case long term price of \$75 per pound  $U_3O_8$ .

Bannerman stated the DFS shows pre-production capital costs of US\$870 million with a minimum open pit mine life of 16 years, with further extensions sought throughout the conversion of existing inferred resources and new drilling programs launched on the property. Following completion of the DFS, Bannerman has commenced a resource expansion drilling program targeted to add new mineral resources and extend the mine life beyond 20 years. The company will also shortly lodge the DFS, and Environmental and Social Impact Assessment, and an Environmental and Social Management Plan with the relevant Namibian authorities in support of the existing mining license application. Furthermore, Bannerman said that following completion of the DFS, it planned to increase its engagement with potential development partners at Etango.

In its DFS release, Bannerman also announced it had signed a binding Term Sheet with Namibian state-owned mining company, Epangelo Mining Company (Pty) Ltd, for a 5% interest in Bannerman's Namibian subsidiary, Bannerman Mining Resources Ltd. (BMRN), which owns 100% of the Etango project. Epangelo can acquire its 5% stake in Etango by acquiring interests from the existing BMRN on a pro-rata basis for the look-through value of the Etango project calculated at a Bannerman share price of A\$0.225. This equates to sales proceeds for Bannerman of approximately A\$3.9 million. Should Epangelo proceed with this acquisition, the postacquisition shareholdings in BMRN will be Bannerman (76%), Epangelo (5%), and the existing private shareholder (19%).

Epangelo has four months to obtain the necessary acquisition finance from the Development Bank of Namibia or another financing institution acceptable to BMRN's shareholders, and then to acquire the BMRN shares. Epangelo shall appoint one representative to the BMRN Board and this representative must resign from the Board should the acquisition not be completed within the four month period.

# Summit announces results of settlement with Resolute and Mt Isa

Summit Resources Ltd. announced on April 12 results of an ongoing court battle between the company, Resolute Pty Ltd., and Mt Isa Uranium Pty Ltd. (MIU), which began in 2007. On May 4, 2011, Summit's wholly owned subsidiary, Summit Resources Australia Pty Ltd. (SRA), made an application to the Supreme Court of Western Australia for orders that SRA be permitted to give effect to the deed of settlement entered into with Resolute and MIU. SRA's application to the Supreme Court was heard on December 7, 2011 and the Honorable Chief Justice Martin reserved his decision. Judgment was finally handed down on April 12 that stated the proceedings that SRA brought against Resolute and MIU had no real prospects of success and that orders dismissing those proceedings on terms with avoids any adverse costs order against SRA are not prejudicial to the interests of Summit or its shareholders as a whole, but rather, advance those interests.

Chief Justice Martin has made orders

Ux U<sub>3</sub>O<sub>8</sub> Price vs. Find Implied Price (FIP) US\$/lb U<sub>3</sub>O<sub>8</sub> © UxC \$75 \$72 Ux U3O8 Price \$69 Fund Implied Price \$66 \$63 \$60 \$57 \$54 \$51 \$48 \$45 \$42 \$39 \$36 \$33 F M A M J J A S O N D J 

that will enable the proceedings that SRA brought against Resolute and MIU to be dismissed in 21 days. The independent committee of the Boards of Summit and SRA reported that they are pleased that this matter has now been resolved and that the companies can now focus on their business activities without distraction. Summit Resources Ltd.'s majority equity shareholder is Paladin Energy Ltd., which holds an 82.08% stake in the company.

# Forte announces increase in A238 mineral resources

On April 11, Forte Energy NL announced that following completion of 63 reverse circulation (RC) drill holes at the company's A238 prospect in Mauritania and receipt of all the chemical assay results, CSA Global Ltd has completed the JORC compliant mineral resource update for the property. In comparison to the maiden resource estimate of 14.9 million pounds U<sub>3</sub>O<sub>8</sub> filed in June 2011, this new resource is up 57% to 23.4 million pounds U<sub>3</sub>O<sub>8</sub> at an average grade of 0.0235% U<sub>3</sub>O<sub>8</sub>. The company reported that 46% of the contained uranium in this latest mineral resource estimate (10.2 million pounds U<sub>3</sub>O<sub>8</sub>) lies between the surface and 150 meters vertical depth in the prospect's main zone.

Current drilling at A238 is concentrated on the area between the Main Zone and the North West anomaly and will later switch to the southern tip of the

Main Zone. Forte expects that the results of this drilling, supported by chemical assays, will be incorporated in another resource update scheduled for release in July 2012.

# Sweetwater U project purchased by unnamed company

On April 16, Wildhorse Energy Ltd. announced

that an unnamed "major mining company" had purchased its Sweetwater uranium project in Sweetwater County, Wyoming for US\$1.4 million.

Under the terms of the Asset Purchase, Sale and Option Agreement, the buyer will hold back US\$200,000 in order to satisfy certain conditions. The unnamed company also has the option to purchase Wildhorse's Bison Basin insitu recovery (ISR) mining project for an additional US\$100,000 for a period of 120 days commencing on the date of the agreement.

"Although these U.S. assets are prospective, we are focused on developing our European energy portfolio, comprised of UCG and uranium assets, which provide us with exposure to the compelling regional gas dynamics," stated Wildhorse Managing Director Matt Swinney. Swinney said that the disposal of Wildhorse's U.S. uranium assets was in keeping with the company's strategy to focus on becoming a leading fuel supplier to power stations in Central and Eastern Europe. Furthermore, he stated that the cash proceeds from this purchase would be used to further progress the company's Mecsek Hills UCG project in Hungary.

# Pinetree Capital acquires Macusani Yellowcake securities

On April 16, Pinetree Capital Ltd. announced that, further to the merger of Macusani Yellowcake Inc. and Southern Andes Energy Inc. on April 13, 2012, it acquired ownership of 9,286,133 common shares and 2,766,666 common share purchase warrants of Macusani. In the event that the warrants are fully exercised, these holdings represent approximately 7.1% of the total issued and outstanding shares of Macusani. Pinetree stated that these transactions were made for investment purposes and Pinetree or its joint actors could increase or decrease their investment in Macusani Yellowcake depending on market conditions or any other relevant factor.

# The Market

### **Uranium Spot Market**

Spot activity has continued on the light side over the past couple of weeks leading up to this week's WNFC conference in Helsinki with only a limited number of transactions being reported. Another four transactions were booked over the past week, bringing the totals for the month to seven transactions involving about 1.1 million pounds U<sub>3</sub>O<sub>8</sub>. Annual spot volume now stands at 10.5 million pounds U<sub>3</sub>O<sub>8</sub> equivalent under 68 transactions. The bid/offer range experienced little variation during the past week, a pattern that has become commonplace in recent weeks. Based on recent activity, the Ux U<sub>3</sub>O<sub>8</sub> Price is unchanged for the week at \$51.25 per pound.

Heading into Helsinki, some market participants are seeing positive signs for market prices, including a belief that price has formed a firm bottom, the reappearance of some utility demand for both spot and term purchases, and the anticipated restart of some reactors in Japan. The logic seems to be that if price will not retreat further, the only direction it has to go is up, so now might

be as good a time as any to buy. Sensing this, some utility and related demand is reemerging, but the associated spot bids do not appear to be very aggressive, which indicates this demand is at least somewhat discretionary. Discussions of mid-term and longer-term demand, as detailed below, have also added to this perception that the spot price may have found a bottom over the past several weeks.

Tempering this optimism is an uncertain political climate for nuclear in 2012. This is clearly seen in the case of Japan, where as the future of nuclear power is under constant debate, not just on the national level but on the local level as well. There is also concern about the future of nuclear power in France should the socialist party win the upcoming national election. To date, the socialist party has not embraced the future nuclear power in France. Although there has been some positive news on the South Korean front recently, the outlook for nuclear is not entirely rosy.

## UxC Broker Average Price

The UxC Broker Average Price (BAP) began the week flat, only to dip by midweek as the midpoint started the week

Ux Price Indicators (€Equiv**)								
Weekly (4/16/12) 1 US\$ = .76461€								
Ux	U₃O <sub>8</sub> Price	\$51.25	€39.19					
Mt	h-end (3/26/	<b>12</b> ) 1 US\$	= .74935€					
ő	Spot	\$51.00	€38.22					
U <sub>3</sub> (	Long-Term	\$60.00	€44.96					
o	NA Spot	\$6.50	€4.87					
	NA Term	\$16.75	€12.55					
Conversi	EU Spot	\$7.00	€5.25					
ပိ	EU Term	\$17.25	€12.93					
Spot	NA Price	\$137.50	€103.04					
S	NA Value*	\$139.76	€104.72					
UF	EU Value*	\$140.26	€105.09					
3	Spot	\$133.00	€99.66					
SWU	Long-Term	\$143.00	€107.16					
EUP	NA Spot**	\$2,257	€1,691					
国	NA Term**	\$2,664	€1,996					

on Tuesday unchanged at \$51.44. The BAP held that level until Thursday when it slipped by a modest \$0.06 to \$51.38 before jumping again by \$0.06 to \$51.44 on Friday. Today's UxC BAP continues its flat trend, as it is unchanged at \$51.44, which was the same value last Monday. The BA Bid is showing \$51, which is unchanged from last Monday, and the BA Offer is \$51.88, also unchanged from last Monday.

### Fund Implied Price (FIP)

Fund Implied Prices (FIP) began the

UxC Market Statistics							
Monthly (Apr)	Spot		Term				
Wichilling (Apr)	Volume	# Deals	Volume	# Deals			
U <sub>3</sub> O <sub>8</sub> e (million lbs)	1.1	7	0	0			
Conv. (thousand kgU)	0	0	0	0			
<b>SWU</b> (thousand SWU)	0	0	0	0			
2012 Y-T-D	Spot		Term				
2012 1-1-0	Volume	# Deals	Volume	# Deals			
U <sub>3</sub> O <sub>8</sub> e (million lbs)	10.5	68	>70.8	8			
Conv. (thousand kgU)	1,395	21	W	3			
<b>SWU</b> (thousand SWU)	W	2	W	4			
Key: N/A – Not available. W – Withheld due to client confidentiality.							

# UxC Leading Price Indicators

Three-month forward looking price indicators, with publication delayed one month. Readings as of Mar 2012.

Uranium (Range: -17 to +17)
Conversion (Range: -16 to +16)
Enrichment (Range: -18 to +18)

-5 [unchanged]

-6 [unchanged]

-7 [down 1 point]

Platts Forward Uranium Indicator
A forward one-week outlook.

**\$50.75-52.50** As of 4/16/12 (US\$/lb)

# Ux U<sub>3</sub>O<sub>8</sub> Price vs. Spot Volume by Method

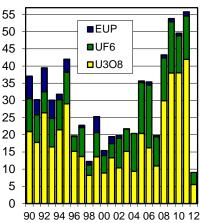


### **Helmsman Training**

A young man, who wants to see the world, signs on to a steamship to be trained as a helmsman. He masters the classroom instruction, then starts his practical training on the wheel of the vessel. In his first lesson, the mate gives him a heading, and the young fellow holds to it. Then the mate orders, "Come starboard." Pleased at knowing immediately which way starboard is, the young man leaves the helm and walks over to his instructor. The mate has an incredulous look on his face as the helm swings freely. Then, rather gently considering the circumstance, he asks politely, "Could you bring the ship with you?"

# ### Company of the co

Annual Spot Uranium Volumes
Million pounds U3O8e © UxC



week on Tuesday down sharply to \$41.15, down \$1.33 on the day. Over the week's duration, the FIP was generally flat before jumping today to \$41.60, up \$0.40 on the day, but down \$0.88 from last Monday's FIP of \$42.48. The latest FIP information can be found in the chart on page 8.

### U<sub>3</sub>O<sub>8</sub> Futures Market

The CME Group futures market for uranium realized another week of inactivity in terms of contract volume. Prices for the week were also largely unchanged with the exception of only a couple futures months that received price increases. The latest futures market prices can be found in the table on the next page. The 2012 annum contracting total remains unchanged at 1,930 (482,500 pounds U<sub>3</sub>O<sub>8</sub>). Open interest also remained unchanged throughout the week and stands at 4,567 contracts (1,141,750 pounds U<sub>3</sub>O<sub>8</sub>). One question that remains is whether discussions at this week's WNFC in Helsinki, Finland will have any impact on the recently all but lifeless uranium futures market.

### **Uranium Term Market**

As noted last week, several utilities have been reviewing when to enter the market. As prices have been fairly stable over the past couple of months, several utilities have started informal discussions looking at term coverage, although some are focusing on mid-term needs. Additional inquiries have begun by several utilities over the past two weeks and are expected to continue this week at the WNFC meetings in Helsinki. It will be interesting to see if this activity will impact prices under carry trade offers.

Although no contract awards have been reported over the past week, sev-

eral utilities remain active either awaiting term offers or continuing negotiations with potential suppliers. A U.S. utility is seeking offers for about 1.5 million pounds as either U<sub>3</sub>O<sub>8</sub> or UF<sub>6</sub> equivalent with delivery starting in 2014. Another U.S. utility is also seeking offers for midterm delivery of U<sub>3</sub>O<sub>8</sub> with delivery starting in 2014. A non-U.S. utility is seeking offers for U<sub>3</sub>O<sub>8</sub> involving about 1.5 million pounds with delivery starting in 2014. A second non-U.S. utility is out for between 1.5 and 2 million pounds U<sub>3</sub>O<sub>8</sub> with delivery starting in 2014. A third non-U.S. utility is out for about 1.2 million pounds U<sub>3</sub>O<sub>8</sub> with delivery over four years and initial delivery starting in 2014. A fourth non-U.S. utility is pursuing additional long-term coverage following its evaluation from last year. A few other utilities are also seeking mid-term or longer-term coverage.

### **Conversion & Enrichment**

Little activity is reported for either the conversion or enrichment markets with no new demand or contract awards reported over the past week. Spot pricing remains under slight downward pressure as demand continues to be very limited. Term activity in both markets also remains very limited. A U.S. utility is seeking offers in conjunction with its mid-term request for uranium with an option to deliver UF<sub>6</sub> starting in 2014. A few other utilities remain active, but this activity is limited.

### **Ux Price Indicator Definitions**

The Ux Spot Prices indicate, subject to the terms listed, the most competitive offers available for the respective product or service of which The Ux Consulting Company, LLC (UxC) is aware, taking into consideration information on bid prices for these products and services and the timing of bids and offers as well. The  $Ux\ U_3O_8$   $Price\ (Spot)\ includes$ conditions for delivery timeframe (≤ 3 months), quantity (≥ 100,000 pounds), and origin considerations, and is published weekly. The Ux LT U3O8 Price (Long-Term) includes conditions for escalation (from current quarter), delivery timeframe (≥ 24 months), and quantity flexibility (up to ±10%) considerations. The Ux Conversion Prices consider offers for delivery up to twelve months forward (Spot) and base-escalated long-term offers (LT) for multi-annual deliveries with delivery in North America (NA) or Europe (EU). The Ux NA UF Price includes conditions for delivery timeframe (6 months), quantity (50-150,000 kgU), and delivery considerations. \*The Ux NA and EU UF, Values represent the sum of the component conversion and U<sub>3</sub>O<sub>8</sub> (multiplied by 2.61285) spot prices as discussed above and, therefore, do not necessarily represent the most competitive UF<sub>6</sub> spot offers available. The Ux SWU Price (Spot) considers spot offers for deliveries up to twelve months forward for other than Russian-origin SWU. The Ux LT SWU Price (Long-Term) reflects base-escalated long-term offers for multi-annual deliveries. \*\*The Ux Spot and Term EUP Values represent calculated prices per kgU of enriched uranium product based on a product assay of 4.50% and a tails assay of 0.30%, using spot and term Ux NA and appropriate spot and term price indicators and are provided for comparison purposes only. All prices, except for the weekly Ux U₃O<sub>8</sub> Price, are published the last Monday of each month. (Units:  $U_3O_8 = US$ \$ per pound, Conversion/UF<sub>6</sub>: US\$ per kgU, SWU: US\$ per SWU, EUP: US\$ per kgU) The Ux Prices represent neither an offer to sell nor a bid to buy the products or services listed. \*\*The Euro price equivalents are based on exchange rate estimates at the time of publication and are for comparison purposes only.

The Platts Forward Uranium Indicator price range belongs to Platts, a McGraw Hill Company, and is published with permission. Definitions of these prices are available from their original source.

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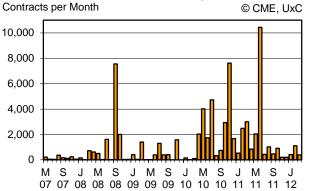
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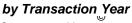
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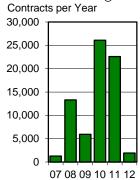
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# NYMEX UX Futures Activity

# Total Contracts by Transaction Month,



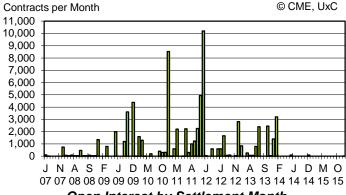




### CME UxC Uranium U<sub>3</sub>O<sub>8</sub> (UX) Futures Activity as of Apr 13 2012

Activity as of Apr 13, 2012								
S	ettlement	Price	Volume	Open				
U <sub>3</sub> O <sub>8</sub>	Sep 2011	\$52.50	1,241	N/A				
	Oct 2011	\$52.00	2,254	N/A				
	Nov 2011	\$51.75	4,936	N/A				
	Dec 2011	\$51.75	10,205	N/A				
	Jan 2012	\$52.00	50	N/A				
	Mar 2012	\$51.00	600	0				
	May 2012	\$51.40	600	300				
	Jun 2012	\$51.40	597	366				
	Jul 2012	\$51.50	1,665	65				
	Aug 2012	\$51.90	65	65				
	Sep 2012	\$52.15	101	101				
	Nov 2011	\$52.55	50	50				
	Dec 2012	\$52.80	2,821	980				
	Jan 2013	\$52.95	850	50				
	Mar 2013	\$53.05	265	200				
	Apr 2013	\$53.05	65	65				
	May 2013	\$53.20	65	65				
	Jun 2013	N/A	800	0				
	Jul 2013	N/A	2,400	0				
	Oct 2013	\$53.90	2,450	600				
	Nov 2013	\$54.20	50	50				
	Dec 2013	\$54.95	1,408	601				
	Jan 2014	\$54.65	3,200	800				
	Jun 2014	\$55.10	100	100				
	Dec 2014	\$56.70	102	101				
	Dec 2015	\$59.75	10	8				

### Total Contracts by Settlement Month



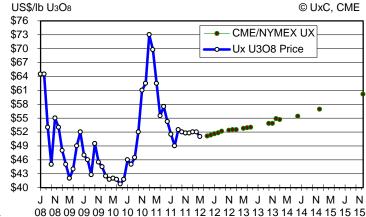
# Ux U<sub>3</sub>O<sub>8</sub> Price vs. CME/NYMEX Forward UX Price Curve

Totals:

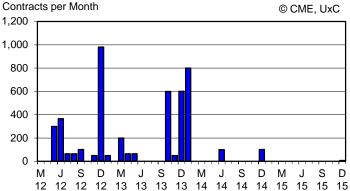
71,157\*

4,567

\*From May 2007



### Open Interest by Settlement Month



### UxC Broker Average Price (BAP) Definition

The UxC BAP (Broker Average Price), subject to the terms listed, is a calculated average mid-point of bid and offer prices as supplied to UxC by participating brokers. The participating brokers are Evolution Markets and Armajaro Securities (the "Brokers"). Data posted by the Brokers are kept confidential and will not be published or made available independently. The Broker data are subject to verification by The Ux Consulting Company, LLC (UxC), which compiles and reports the UxC BAP. In order to have a sufficient number of data points and to represent submissions by all of the Brokers, the UxC BAP includes the best bids and offers reported over a three-month forward period. This period is consistent with the three-month delivery period for offers considered in the determination of the Ux U3O8 Price. On a daily basis, the Brokers submit their best bids and offers over a forward three-month period through a secure system. From these postings, UxC separately calculates the UxC Broker Average (BA) Bid and the UxC Broker Average (BA) Offer prices. The UxC BAP is a simple mid-point average of the UxC BA Bid and UxC BA Offer prices. Other Broker data collected include lot volume on a per offer basis. The UxC BAP is published on a daily basis and is made available to subscribers through email updates and UxC's Subscriber Services website.

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