

# **Uranium Sector**

June 12, 2019

# Uranium on the Cranium - Charging a Tesla Model S in Germany Emits Almost 8x the CO2 vs. Charging in France



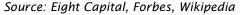


Source: Tradetech

David A. Talbot / (416) 350 -3082 <u>dtalbot@viiicapital.com</u> Mitch Vanderydt, P.Eng, MBA / (416) 849-7887 <u>mvanderydt@viiicapital.com</u> Stocks: BKY-ASX, DML, FCU, ISO, KAP-LON, NXE, PTU, RIO-LON, U1, UEX, VO

Enviro Minister Schulze recently said that Germany will stick to its timetable to close the last nuclear reactor by YE22. Some critics like Volkswagen CEO Herbert Diess believe that it should wind down coal before nuclear. A recent Forbes article <u>What Does It Actually Cost To Charge Up An Electric Car?</u> focused on cost of charging an EV. We took it one step further and also determined the environmental impact of Germany's decision. Given that France's electricity generation is 73% nuclear and Germany is only 12%, we compared estimated costs and emissions associated with charging a Tesla Model S with a 100 kWh battery. First off, electricity generation to charge an EV in France is just 13% of what it is in Germany. Yes, Germans would see a 140% CO2 reduction by using EV's versus that from an average ICE vehicle, but the French would see a 1,720% CO2 reduction.

	Metric	Germany	France	
Share of Electrical	Nuclear	12%	72%	
	Fossil Fuels	53%	9%	
Power Output:	Renewables	35%	18%	
	Electricity price per kWh (US\$/kWh)	\$0.35	\$0.19	
	Cost to charge 100 kWh EV (US\$)	\$35	\$19	
Driving Costs:	Cost to fill up a ICE vehicle with 50L tank (US\$/50L tank)	\$50	\$50	
J.	[assumes gasoline cost of US\$1/L]	\$20	200	
	% Cost reduction with EVs	43%	163%	
Driving Emissions:	Emissions from fossil fuel electricity output (g CO2/kWh)	486	64	
	Emissions to Charge 100 kWh EV (kg CO2)	48.6	6.4	
	Emissions from ICE 50L Tank (kg CO2/50L Tank)	116.5	116.5	
	[assumes 2.33 kg CO2 / L gasoline burned]	110.5	110.5	
	% Emissions reduction with EVs	140%	1720%	



Australian miners welcome federal election outcome. Liberal-led Coalition of Prime Minister Scott Morrison won on May 18th. Minerals Council of Australia CEO Tania Constable noted that there is now a clear mandate for approved resource projects to proceed, such as Cameco's Yeelirrie and Vimy Resources' (VMY-ASX, Not Rated) Mulga Rock in WA, and Toro Energy's Wiluna project in NT. That said, development still depends on U3O8 prices.

**UxC uranium spot price rose US\$0.75 to US\$24.75/lb** as of 10-Jun-19. UxC's 3-year and 5-year prices rose to US\$29.25 and US\$33.00. Long term U308 stayed at US\$32. For the first time since April, trading volumes rose on rising demand. Almost 1 MM lbs traded at spot this week (26.5 MM lbs YTD).

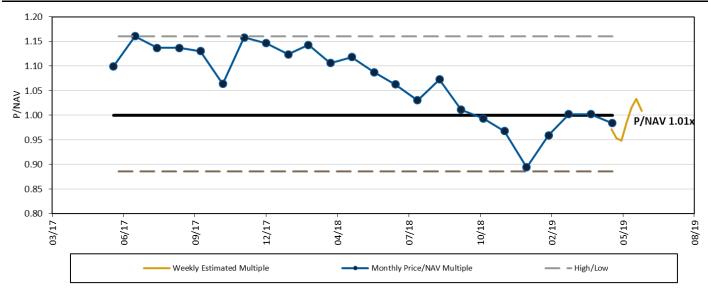
**Uranium equity performance remained flat overall** after starting off 2019 well before falling early in Q2. Interestingly, producers are up 10% over the past quarter lead by Ur Energy and Peninsula, but explorers with projects in the lithium and vanadium sectors have led the pullback.

**Uranium Participation (U-T, BUY, C\$6.60 target):** We saw P/NAV fall 1.9% this week as uranium prices rose. Our estimated NAV is up 0.9% to C\$4.27 on 10-Jun-19, while the stock remained flat. Current P/NAV is 1.01 or 1% premium to its NAV, implying an underlying uranium price of US\$25.04/lb U308. Our NAV estimate increased by 10 cents on the stronger uranium price, but gave up 6 cents on the stronger CAD.

	Stock, Con	nmodities a	Uranium Participation P/NAV										
	Price	1 Wk	1 Mo	3 Mos	6 Mos	12 Mos		This Week	Last Week	WoW			
U Holder Avg.		-1.4%	2.5%	-8.8%	-8.4%	-0.7%	NAV	4.27	4.23	0.9%			
U Producer Avg.		0.8%	-0.4%	9.2%	9.5%	15.4%	FX Impact	-0.					
U Developer Avg.		-2.4%	-0.8%	-6.3%	-1.8%	-27.7%	U3O8 Impact	Impact 0.10					
U Explorer Avg.		2.5%	4.6%	-4.8%	-4.3%	-24.8%	P/NAV	1.01	1.03	-1.9%			
TSX	16,216	0.3%	-0.5%	0.7%	10.6%	-0.3%	Implied U3O8	25.04	24.98	0.2%			
S&P500	2,887	2.9%	0.1%	3.7%	9.4%	3.7%							
UxC Spot (US\$)	24.75	2.7%	-3.9%	-13.6%	-15.1%	9.3%	NAV in C\$, U308	NAV in C\$, U3O8 in US\$					
UxC Term (US\$)	32.00	0.0%	0.0%	0.0%	1.6%	6.7%							

Table 1: LEFT - Stock, Commodities and Index Performance; RIGHT - Uranium Participation WoW NAV and P/NAV.

*Source: Factset, Company Reports, Eight Capital estimates, UxC* 





Source: Factset, Company Reports, Eight Capital estimates

## THE NUCLEAR SECTOR

**USA:** <u>IEA:</u> Steep Decline in Nuclear Power Would Threaten Energy Security and Climate Goals (May 28). With nuclear power facing an uncertain future in many countries, the world risks a steep decline in its use that could result in billions of tonnes of additional carbon emissions. Nuclear is the second-largest low-carbon power source in the world, accounting for 10% of global electricity generation, and second only to hydropower at 16%. Without policy changes, advanced economies could lose 25% of their nuclear capacity by 2025, and as much as two-thirds by 2040 (International Energy Agency (IEA)).

• **Eight Capital:** We agree with the IEA in that policy makers hold the key to nuclear power's future. Electricity market design must value the environmental and energy security attributes of nuclear power and other clean energy sources. In particular, Governments should recognize the cost-competitiveness of extending the lives of existing nuclear plants when compared to starting from scratch in building new reactors.

**USA:** <u>Ohio House advances nuclear subsidy Bill, ditching renewable components (May 24).</u> Ohio House Energy and Natural Resources Committee approve a Bill that includes subsidies for Perry and Davis-Besse nuclear power plants. A new tax will provide the majority of \$190 MM required by the plants (Utility Drive).

• **Eight Capital:** Similar deals are being struck in many of the NE states that host nuclear power plants, including NJ, NY, PA and IL. The risk to some of these deals are optics - they aren't seen as clean energy Bills but blatant nuclear utilities bailouts that may even go as far as subsidizing some of these power companies' coal burning power plants.

**USA:** <u>US must 'reassert global leadership' in nuclear energy or lose out to Russia and China (May 22).</u> Senators Mike Crapo (R-ID) and Sheldon Whitehouse (D-RI) write a column about bipartisan support for advancing nuclear energy leadership (CNBC). Key points include: (a) American nuclear energy leadership faces stiff headwinds, and (2) Nuclear plants are shuttering nationwide due to competition from cheap natural gas. This means more fossil fuels, less clean energy, and a big step backward for emissions reductions in response to climate change. Regardless of our political affiliation or region, developing advanced nuclear energy technologies is a win for the country.

• **Eight Capital:** The two Senators are effective on two fronts...demonstrating why nuclear power is required, and what is happening to USA's dominance in the industry. They reiterated EIA data, 12 US reactors (11.7 GW) are scheduled to retire within the next seven years. That is equivalent to 36.5 MM solar panels or 5,043 utility-scale wind turbines of carbon-free power. Meanwhile, China and Russia have been exporting their nuclear services across the globe and they now account for over 60% of new nuclear plants under construction worldwide.

#### THE URANIUM SECTOR

India: Kazakhstan: Exclusive: Boost to Indian nuclear program as Kazakhstan assures increased supply of uranium (May 31). Kazakhstan Ambassador Bulat Sarsenbayev says a new contract is being negotiated that will provide India with more uranium from Kazakhstan (Times Now News).

• Eight Capital: A previous contract saw India receive 13 MM lbs U3O8 from Kazakhstan, and while not providing details, Sarsenbayev states that a new agreement to increase uranium supplies is being finalized. India has 22 reactors in operation using 2.1 MM lbs U3O8 pa. However, it has seven under construction, 14 being planned and another 28 proposed. Eighteen of its existing fleet of 22 reactors are quite small at 202 MWe each or less than 6.2 GWe in total. The seven reactors under construction are much larger (5.4 GWe total) and require more uranium for both increased amounts of fuel and uranium enrichment.

**USA:** <u>Uranium Marketing Annual Report (May 30)</u>. The EIA says owners and operators of U.S. power reactors purchased 40 MM lbs U3O8 at a weighted-average price of \$38.81/lb in 2018, down 6% YoY. US-origin uranium accounted for 10% or 4 MM lbs U3O8, up 33% from 2017 at a realized weighted-average price of \$45.26 per pound U3O8, up 27% YoY. Foreign-origin uranium accounted for 90% of deliveries in 2018 (36.4 MM lbs). Canada and Australia accounted for 42% of foreign deliveries (~16.8 MM lbs) of Uranium from Kazakhstan, Russia, and Uzbekistan accounted for 40% (16.1 MM lbs) (US Energy Information Administration).</u>

• Eight Capital. Uranium deliveries last year were 19% below reactor requirements, as US nuclear utilities use ~49.3 MM Ibs U3O8 annually. Uncertainty is weighing on US nuclear utilities and reduced their uranium procurement activities while the Uranium Section 232 review was ongoing. We anticipate the Trump Administration to make a decision before its July 14th deadline. Which way the decision might go is up in the air - perhaps we will see quotas for US production (with Canadian and Aussie exemptions), but we don't expect tariffs. Even if nothing comes of the Department of Commerce review, we believe that a decision will finally allow nuclear utilities to plan their futures and get back to contracting. That in itself should help boost uranium prices.

**Canada:** <u>Sask. premier plans to talk uranium, NAFTA replacement agreement during U.S. trade visit (May 22).</u> Saskatchewan Premier Scott Moe to meet with US senators, House Reps, and Trump administration officials to discuss trade issues (CBC).

• **Eight Capital:** Uranium will be an important part of these discussions. Canada continues to deliver more uranium to US nuclear utilities than anyone else and the SK and Federal Governments are concerned about the implications of the ongoing Section 232 review. Canadian uranium companies have shown solidarity against any undue trade action that might be implemented. Should the USA be concerned about its security of supply, we don't expect it will bite the hand that literally feeds its nuclear industry. That said - Canadian production is down considerably over the past couple of years due to sinking uranium prices. With only Cigar Lake in operation and both Rabbit Lake and McArthur River offline, one can see how even America's security of supply from Canada continues to be at risk.

**USA:** <u>House Funding Plan Includes No Uranium Barter for Nuclear Cleanup (May 21).</u> The US House Appropriations energy and water subcommittee has said that bartering excess government uranium to help fund remediation of the US Energy Department's Portsmouth Site in Ohio will not be allowed in fiscal 2020. The subcommittee's Appropriations Bill for the next budget year would provide Portsmouth with US\$60 million above the Trump administration's budget request for clean-up operations (Exchange Monitor).

• **Eight Capital:** This is good news and should come as no surprise, given that the DOE had confirmed early during the Trump Administration that it would not sell excess uranium into the market to pay for nuclear site clean-up programs.

## URANIUM STOCKS UNDER COVERAGE

**Purepoint Uranium Group (PTU-V, Not Rated):** <u>Purepoint Uranium Group Inc: Joint Venture Partners Plan Next Program at</u> <u>Hook Lake (June 5)</u>. Hook Lake project (Cameco Corp. (39.5%), Orano Canada Inc. (39.5%) and Purepoint Uranium Group Inc. (21%)) located along the SW edge of the Athabasca Basin and is adjacent to and on trend with Fission Uranium's Triple R deposit and NexGen's Arrow deposit. This year's ground EM results support structural interpretations and a new priority drill target includes a previously unknown structure that links Dragon and Spitfire areas.

• **Eight Capital:** The SW edge of the Athabasca Basin is one of the most exciting areas for uranium exploration. Only the last few years of successful uranium exploration has started to result in critical mass as resources approach 500 MM lbs in this area. Purepoint and its senior partners host an 8km long extension of the prolific Patterson Lake corridor. As positive drill results continue, this is one of the new uranium exploration projects that Cameco and Orano have not removed for focus.

**Denison Mines:** <u>Denison Announces Initiation of Environmental Impact Assessment Process and Execution of MOU with</u> <u>Local Communities for the Wheeler River Project (June 3).</u> Canadian Nuclear Safety Commission and Saskatchewan Ministry of Environment accept Denison's Provincial Technical Proposal and Federal Project Description for proposed Wheeler River In-Situ Recovery uranium mine and processing plant.

• **Eight Capital:** The acceptance of the Project Description is a major milestone and the first step in the EIA process. While this milestone is often glossed over by investors, it should be received positively given that it is the first sign from both Governments that the Wheeler River Project Description has the required information to allow said Governments to make a decision as to whether Denison's plans will meet requirements of both the Canadian Environmental Assessment Act, 2012 (Canada), and The Environmental Assessment Act (Saskatchewan). See our 25-Sep-18 note <u>PFS Improves Economics as ISR Prioritizes Phoenix</u>.

**Fission Uranium**: <u>Fission Files Prefeasibility Study for PLS (May 30)</u>. The technical report for Fission's Triple R Deposit at its PLS Project in the Athabasca Basin was filed on Sedar.com.

• **Eight Capital:** Lower Operating Costs, Higher Production Rate, and UG Mining Optionality Offset Higher Capex in PFS. The recent PFS demonstrates strong economics, significant resource growth potential and economic upside. It contemplates both 1) a combined open pit/underground operation; and 2) an entirely underground operation. Both options promote quite low operating costs (on higher production and larger reserves), while the underground option (studies at PEA level only) may offer opportunities such as lower Capex, dilution, easier and quicker permitting.

**NexGen Energy:** <u>NexGen Intersects High-Grade Mineralization in all A2 and A3 Targets from the 2019 Feasibility Stage Drilling</u> <u>Program (May 28)</u>. Scintillometer results have been provided for an additional 20 holes (7,969.5m) of 125,000m of planned Feasibility stage drilling on the Arrow Deposit at the Rook I property in the Athabasca Basin. Off-scale scintillometer/radioactivity measurements were encountered in nine holes. This included 80m with radioactivity of >10,000 cps, and 18m with radioactivity of >60,000 cps, within a combined 386m of composite mineralization. Feasibilitystage engineering, metallurgical, and environmental studies, permitting and community programs are all progressing.

• **Eight Capital:** This is positive news and largely expected given that this drilling was focused in the heart of the A2 Shear high grade core. The goal for this huge drill program is reduce spacing to between 9m and 16.7m in order to upgrade uranium resources from Indicated to Measured for the upcoming Feasibility Study. While we don't expect the market to treat every scintillometer or corresponding assays news release as if it were discussing first pass drilling, as time goes on, we do expect the geological risk associated with Arrow to decline.

**Berkeley Energia:** <u>Miner Berkeley Says It Has No New information on Spanish Uranium Project After Shares Surge (May 28)</u>.</u> Management has told the ASX that it doesn't know why its shares rose 31% on May 28th, from 26 cents to 34 cents Australian under much heavier than normal trading volumes. That said, the shares jumped the day after local elections gave Spain's conservative opposition People's Party four out of five council seats in the local town of Retortillo, Spain.

• **Eight Capital.** Two final permits remain outstanding, including the Initial Authorization of its process plant as a radioactive facility, and an Exceptional Authorization for land. The local government had said that it cannot issue a building license if other permits have not been issued. It is believed that BKY needed to gain legal ownership of some of the land that it requires to build the Salamanca uranium mine. Management is pleased with local support, as it plans

to bring jobs, training and business to the area. The \$100 MM project is to become Europe's only major uranium mine, producing 4 MM lbs U3O8 pa or 10% of Europe's annual supply requirements. At total cash costs of US\$16/lb U3O8, BKY aims to be one of the lowest cost producers.

**Berkeley Energia** <u>Municipal election result and award of three new licenses (June 11)</u>. The company recently announced it was awarded additional exploration licenses that will allow it to diversify into battery metals exploration across 266 sq. km near its flagship Spanish Uranium Project. The company used advanced geochemical sampling techniques to detect levels of mobile metal ions in the soils that suggest the presence of lithium, cobalt, tin, tungsten, and rare earth elements, among others, that will be targeted with future exploration drilling.

**ValOre Metals:** <u>ValOre to Acquire the Pedra Branca PGM District in Brazil (May 28)</u>. Valore Metals has entered into a binding agreement to purchase Jangada Mines PLC's Pedra Branca Platinum Group Metals project. Five deposits host an inferred resource of 1,165,500 ounces PGM+Gold (Palladium, Platinum and Gold; Pd, Pt+Au) in 28.8 MMt grading 1.26 g/t PGM+Au. Mineralization outcrops at surface and VO suggests that all of the inferred resources are potentially open pittable. Total compensation is \$7.75 MM including \$3 MM in cash and 25 MM shares of VO worth \$4.75 MM at time of the deal.

- Eight Capital. Sub-\$25/lb U308 has made survival difficult for many in the uranium sector, and it is likely that we can chalk VO's opportunistic purchase up to the need for diversification. This has become more common as of late. Berkeley is kicking off a battery metals exploration program near its Spanish flagship; Mawson Resources focuses not just on gold but has added cobalt to the mix (pushing its uranium even further into the background); Plateau Energy Metals is advancing its lithium deposit in addition to its uranium project; UEX Corp. drilling has focused on Co and Ni mineralization found on its West Bear project (although it continues to push its high grade Christie Lake uranium project forward); Toro Energy has drilled its Yandal Gold project, located close to the Bronzewing Gold Mines in Western Australia; both U308 Corp. and Energy Fuels have turned sights to vanadium; and CanAlaska Uranium (CVV-V, Not Rated) is working on defining a nickel resource in Manitoba.
- UEX Corp:: UEX intersects 0.55% Co & 1.39% Ni over 4.0 m at West Bear (May 22). A total of 126 holes (11,412.5m) were completed this winter at the West Bear Cobalt-Nickel Deposit in the Athabasca Basin. The final 24 hole tranche of assay results were highlighted by 0.33% Co and 0.75% Ni over 8.3m, including 0.55% Co and 1.39% Ni over 4.0m (WBC-143). Nineteen of the 24 holes reported this tranche exceeded the cobalt equivalent ("CoEq") cut-off grade of 0.023% CoEq used in the initial resource estimate.
- **Eight Capital:** Positive drill results continue for West Bear Co-Ni deposit. Mineralization continues to be identified well along strike of the existing resource, and below the existing West Bear uranium deposit. As its drill theory holds true, we expect the deposit to continue to grow and ultimately the next resource estimate update should outline a deposit that is a few times the size of the existing resource.

## OTHER URANIUM MINING AND EXPLORATION NEWS

KazAtomProm (KAP-LON, Not Rated): <u>Top Uranium Producer Is Gloomy About Nuclear Power</u>, for Now (June 6). KazAtomProm will increase uranium production by about 5% this year but plans to keep production flat in 2020 (Bloomberg).

• **Eight Capital:** Kazakhstan produces 40% of the world's uranium and KazAtomProm provides roughly half of that. As the lowest cost producer, KAP can afford to sell its production at current spot prices. Some of its production is heading straight into firms that buy physical uranium such as Yellow Cake LLC (YCA-LON, Not Rated). Yellow Cake raised almost US\$33 MM in April to buy another 1.175 MM lbs of U3O8 from KAP.

**IsoEnergy (ISO-V, Not Rated):** <u>IsoEnergy Targets Eastern Strike Extension of Hurricane Uranium Zone (May 29).</u> The primary objective is to test for an eastern extension of mineralization to the shallow, high grade Hurricane Zone deposit at its 100% owned Larocque East project in SK.

• **Eight Capital:** We see excellent probability of success given that mineralization is open to the east and recent geophysical results suggest Hole KER-07 located about 1km along strike was drilled to the south of the target. Clay alteration within the sandstone is typical of large uranium deposits in the Athabasca Basin. We also note that <u>lsoEnergy</u> <u>Expands Larocque East Uranium Property Through Staking (June 5)</u>.

**Rio Tinto (RIO-LON, Not Rated):** <u>Namibia says China can buy Rio's uranium stake if it respects laws (May 29)</u>. Namibia's Mines and Energy minister says that sale of Rio's 69% stake in Rössing uranium mine to China can go ahead, provided that it respects the nation's laws. Rössing could close in 2020 if sale to CNUC falls through (Reuters).

• **Eight Capital:** To ensure production continues, we believe sale to the Chinese is a must. Rio Tinto cannot continue sustaining a loss-making business and this has led to a decision to close the mine if the sale doesn't go through. The mine had been targeted for closure in 2015, but the combination of uranium sales contracts with Ranger likely gate the mine some added life. But now Ranger too is nearing closure. While there are sufficient resources to last through 2025, the lack of high priced contracts simply makes this operation uneconomic. That is less of a concern in Chinese hands as China appears more worried about security of supply than mine economics.

**Uranium One:** (Private, Not Rated): <u>Uranium One Announces Changes in Senior Management (May 29)</u>. Fletcher Newton was appointed CEO of Uranium One. He is a member of the board of directors and president of TENEX-USA, Inc., a marketing affiliate of Uranium One. Newton was EVP, Corporate and Strategic Affairs at Uranium One from 2007 through 2012. He succeeds Eduard Smirnov, CEO since 2017. Ms. Jane Luck, VP Legal was appointed to the board.

• **Eight Capital.** It was a pleasure to know and work with Eduard, as despite U1 not being a public corporation, it continues to be a global uranium mining leader. U1 has achieved all of its development goals and outperformed its peers over the past three years with Eduard at the helm.

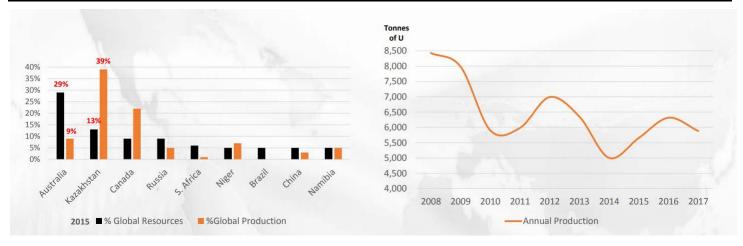
#### **URANIUM ON THE CRANIUM**

**Tania Constable, Minerals Council of Australia CEO:** "The [new] Coalition government's strategic economic reform agenda to keep taxes low, in conjunction with responsible 2019-2020 budget measures, provides opportunities for large and small business to be successful. It also means that the mining industry will continue to develop the nation's minerals for the benefit of everyone".

**Werner Duvenhage, former MD of Rössing:** "The Rössing uranium mine in Namibia could shut down as soon as June 2020 if the N\$1.5 billion sale of the mine to China National Uranium Corporation (CNUC) is not approved by the Namibia Competition Commission (NaCC)".

## FIGURE OF THE WEEK

## Figure 2: Australia hosts more uranium resources than any other country, yet only three mines are in production.



Source: Purepoint Uranium, NEI & IAEA Red Book

## **RECENT NOTES**

Date	Ticker	Company	Note Title								
Jun 3	PLU	Plateau Energy Metals	New Li Trend Suggests Multiple Volcanic Centres, Upside								
May 22		Uranium Sector	Uranium on the Cranium - (Bi-)Weekly Sector Commentary								
May 7	URE	Ur Energy	Early Deliveries Mean FY19 U3O8 Sales to Increase 33%								
Apr 22	FCU	Fission Uranium	Lower Operating Costs, Higher Production Rate, and UG Mining								
Apr 15	FCU	Fission Uranium	PFS: Higher Triple R Capex Impacts Economics, UG Option								
Apr 15		Uranium Sector	Section 232 Decision Approaches: Higher Uranium Prices								
Apr 1	EFR	Energy Fuels	Highest Purity Vanadium to Date; Readying the Mines								
Apr 1	PEN	Peninsula Energy	Grades Improve 3.5-4.5 Fold During Low pH Test Mining								
Mar 25	URE	Ur Energy	Preparing the Pipeline for Higher Price Potential								
Feb 20	UEC	Uranium Energy	Burke Hollow Receives Radioactive Materials License								
Feb 1	PLU	Plateau Energy Metals	Falchani West Footprint Continues to Expand								
Jan 24		Mining Sector	Industrial Metals & Precious Metals - Macro Headwinds Remain								
Jan 17	PEN	Peninsula Energy	Management Upbeat That Technical Turnaround Nears								
Jan 16	UEC	Uranium Energy	Consolidated Reno Creek Uranium Resource Estimate Hints of								
Jan 15	URE	Ur Energy	Buy Low, Sell High: Another Year of Uranium Purchases								
Jan 7	EFR	Energy Fuels	Vanadium Production, Uranium Production Readiness								
Dec 20	LAM	Laramide Resources	Initial Crownpoint Resource Paves Way for Joint PEA								
Dec 19	UEX	UEX Corporation	Initial High Grade Resource Confirms Potential at Christie Lake								
Nov 11		U and Battery Material	Power Up 3.0 - Global Electrification Nuclear Power & EVs								

PEER TABLE

VIII EIGHT CAPITAL																dtalbo	ot@viiica	oital.com 3) 350 3082		<u>m</u>	vanderydt@viii	iicapital.co (416) 849 78
CAPITAL									PEER TABL	E - URANIU	м						(41	1) 230 2002				(410) 043 7
June 12, 2019	-		Last Price			Target	Return	Shares O/S		Cash	Debt	EV		Inventory	EV/lb			erforma			Net Asse	
	Ticker	Currency	\$/sh	Analyst	Rating	Price	to TP	MM	(\$MM)	(\$MM)	(\$MM)	(\$MM)	%U3O8	MMlbs U3O8	US\$/lb	1 wk	1 mo	3 mo	6 mo	1 yr	NAVPS	P/NAV
Inventory Holders Uranium Participation	U-TSX	CAD	C\$ 4.35	D. Talbot	BUY	C\$ 6.60	52%	138	C\$ 601	C\$ 6	C\$ 0	C\$ 595	n/a	16.2	27.6	0%	5%	(8%)	(5%)	3%	C\$ 6.63	0.66
Yellow Cake	YCA-LON	GBP	GBP\$ 2.08	n/a	n/a	n/a	n/a	88	GBP\$ 183	GBP\$ 7	GBP\$ 0	GBP\$ 176	n/a	9.6	23.4	(5%)	0%	(11%)	(10%)	n/a	n/a	n/a
Inventory Holder Aver		GDI	001 \$ 2.00	Π/u	- ny u	Πγα	ny u		001 \$ 105	001.97	00130	0013170	11/ 4	5.0	25.5	(2%)	3%	(10%)	( )	3%	- ny u	0.66
	aye														23.5	(2/0)	3/0	(10/0)	(7/0)	3/6		0.00/
Producers Cameco Corp	CCO-TSX	CAD	C\$ 13.55	R. Profiti	BUY	C\$ 18.00	33%	396	C\$ 5.363	C\$ 1.104	C\$ 1.496	C\$ 5.755	6.4%	1065	4.1	(0%)	(2%)	(15%)	(16%)	(12%)	C\$ 14.24	0.95>
Energy Fuels	EFR-TSX	CAD	C\$ 4.04	D. Talbot	BUY	C\$ 6.15	52%	93	C\$ 377	C\$ 57	C\$ 22	C\$ 342	0.14%	152	1.7	5%	11%	13%	(17%)	47%	C\$ 6.15	0.66
UR Energy	URF-TSX	CAD	C\$ 1.18	D. Talbot	BUY	C\$ 2.55	116%	160	C\$ 188	C\$ 9	C\$ 20	C\$ 200	0.061%	43	3.5	3%	6%	24%	23%	22%	C\$ 2.61	0.45
Peninsula Energy	PEN-ASX	AUD	A\$ 0.26	D. Talbot	BUY	A\$ 0.60	135%	247	A\$ 63	A\$ 20	A\$ 22	A\$ 65	0.067%	96	0.5	6%	(12%)	23%	32%	0%	A\$ 0.67	0.38
Kazatomprom	KAP-LON	GBP	GBP\$ 14.55	n/a	n/a	n/a	n/a	259	GBP\$ 3,774	GBP\$ 340	GBP\$ 526	GBP\$ 3,960	0.054%	1391	3.6	(3%)	(7%)	(2%)	6%	n/a	n/a	n/a
Producer Average								-							2.7	2%	(1%)	9%	6%	14%		0.61
Developers																						
Uranium Energy	UEC-NYSE	USD	US\$ 1.31	D. Talbot	BUY	US\$ 3.40	160%	181	US\$ 237	US\$ 7	US\$ 20	US\$ 249	0.048%	105	2.4	(2%)	(5%)	2%	2%	(20%)	US\$ 3.73	0.35
NexGen Energy	NXE-TSX	CAD	C\$ 1.92	D. Talbot	BUY	C\$ 6.95	262%	352	C\$ 676	C\$ 125	C\$ 138	C\$ 689	2.0%	348	1.5	(4%)	0%	(11%)	(30%)	(34%)	C\$ 8.71	0.22
Denison Mines	DML-TSX	CAD	C\$ 0.70	D. Talbot	BUY	C\$ 1.70	143%	589	C\$ 412	C\$ 23	C\$ 0	C\$ 389	2.9%	153	1.9	0%	4%	3%	0%	(4%)	C\$ 2.32	0.30
Fission Uranium	FCU-TSX	CAD	C\$ 0.48	D. Talbot	BUY	C\$ 2.00	317%	486	C\$ 233	C\$ 21	C\$ 0	C\$ 212	1.8%	141	1.1	1%	(6%)	(1%)	(23%)	(38%)	C\$ 2.35	0.20
Berkeley Energia	BKY-ASX	AUD	A\$ 0.30	D. Talbot	BUY	A\$ 1.20	300%	258	A\$ 78	A\$ 101	A\$ 70	A\$ 46	0.049%	89	0.4	32%	23%	(18%)	108%	(53%)	A\$ 1.46	0.20
Laramide Resources	LAM-TSX	CAD	C\$ 0.34	D. Talbot	BUY	C\$ 0.70	106%	135	C\$ 46	C\$ 1	C\$ 11	C\$ 56	0.11%	118	0.4	(4%)	(11%)	(3%)	(17%)	15%	C\$ 0.86	0.39
Azarga Uranium	AZZ-TSX	CAD	C\$ 0.23	D. Talbot	BUY	C\$ 0.50	122%	183	C\$ 41	C\$ 0	C\$ 0	C\$ 41	0.060%	31	1.0	0%	2%	7%	(8%)	(20%)	C\$ 0.59	0.38
Plateau Energy Metals	PLU-TSX	CAD	C\$ 0.56	D. Talbot	BUY	C\$ 2.70	382%	80	C\$ 45	C\$ 1	C\$ 0	C\$ 44	0.021%	124	0.3	(2%)	10%	(19%)	(19%)	(50%)	C\$ 3.80	0.15
Developers Average															1.1	3%	2%	(5%)	2%	(25%)		0.28>
Explorers								_														
Toro Energy	TOE-ASX	AUD	A\$ 0.02		NEUTRAL	C\$ 0.04	92%	2,172	A\$ 48	A\$ 4	A\$ 16	A\$ 59	0.48%	91	0.5	0%	(5%)	(19%)	(30%)	(22%)	A\$ 0.07	0.34
UEX Corp	UEX-TSX	CAD	C\$ 0.19	D.Talbot	BUY	C\$ 0.45	143%	381	C\$ 71	C\$ 10	C\$ 0	C\$ 60	0.43%	99	0.5	3%	12%	19%	6%	(33%)	C\$ 0.54	0.34
ValOre Metals	VO-TSX	CAD	C\$ 0.27	D.Talbot	BUY	No Target	n/a	49	C\$ 13	C\$ 0	C\$ 0	C\$ 13	n/a	n/a	n/a	15%	23%	15%	61%	(51%)	n/a	n/a
U3O8 Corp	UWE-TSX	CAD	C\$ 0.11	D.Talbot	BUY	No Target	n/a	23	C\$ 2	C\$ 0	C\$ 0	C\$ 3	n/a	n/a	n/a	0%	(19%)	(30%)	(53%)	(72%)	n/a	n/a
Skyharbour Resources	SYH-TSX	CAD	C\$ 0.35	n/a	n/a	n/a	n/a	64	C\$ 22	C\$ 2	C\$ 0	C\$ 20	n/a	n/a	n/a	5%	1%	1%	(15%)	(27%)	n/a	n/a
soEnergy Ltd	ISO-TSX	CAD	C\$ 0.50	n/a	n/a	n/a	n/a	64	C\$ 32	C\$ 6	C\$ 0	C\$ 25	n/a	n/a	n/a	(3%)	10%	(7%)	24%	43%	n/a	n/a

Source: FactSet, Company Reports, Eight Capital estimates

#### **Disclosures and Disclaimers**

This research report (as defined in IIROC Rule 3400) is issued and approved for distribution in Canada by Eight Capital, a member of the Investment Industry Regulatory Organization of Canada, and the Canadian Investor Protection Fund. Eight Capital accepts responsibility for the dissemination of this report. Non-client recipients of the research report should not rely solely on the investment recommendations contained herein and should consult their own professional advisors. Eight Capital will not treat any non-client receiving this report as its own. Institutional clients who require additional information on securities discussed in this report should contact a qualified sales person at Eight Capital.

Eight Capital accepts no liability whatsoever for any loss arising from any use or reliance on this research report or the information contained herein.

This research report is being provided only to institutional clients of Eight Capital and is intended for informational purposes only. This research report is not an offer to sell or the solicitation of an offer to buy any of the securities discussed herein. The information contained in this research report is prepared from publicly available information, internally developed data and other sources believed to be reliable, but has not been independently verified by Eight Capital. Eight Capital makes no representations or warranties with respect to the accuracy, correctness or completeness of such information and they should not be relied upon as such.

All estimates, opinions and recommendations expressed herein constitute judgments as of the date of this research report and are subject to change without notice. Eight Capital does not accept any obligation to update, modify or amend this research report or to otherwise notify a recipient of this research report in the event that any estimates, opinions and recommendations contained herein change or subsequently become inaccurate or if this research report is subsequently withdrawn.

Past performance is not a guarantee of future results, and no representation or warranty, expressed or implied, is made regarding future performance of any security mentioned in this research report. The price of the securities mentioned in this research report and the income they generate may fluctuate and/or be adversely affected by market factors or exchange rates, and investors may realize losses on investments in such securities, including the loss of investment principal. Nothing in this research report constitutes legal, accounting or tax advice. Investors should consult with his or her independent legal or tax adviser in this regard.

**US Residents:** This report is provided to US residents under a chaperoning arrangement pursuant to Rule 15a-6 of the U.S. Securities Exchange Act of 1934 (the "Rule"). Eight Capital is a non-U.S. broker-dealer for the purposes of the Rule and is not registered with the Financial Industry Regulatory Authority, the Securities and Exchange Commission or any state securities regulatory authority. This research report is intended only for persons who are a "major U.S. institutional investor" which is defined as a U.S. institutional investor or any other entity which owns or manages at least \$100 million in financial assets. This research report is not a solicitation to sell the securities discussed herein; however, should you choose to make an unsolicited transaction in such securities we may refer you to our chaperone. Please be advised that Eight Capital may earn a commission in connection with transactions through our chaperone and, in certain cases, our chaperone may give up trading to Eight Capital for execution.

Eight Capital Corp. is a U.S. registered broker-dealer, a member of FINRA and an affiliate of Eight Capital. Eight Capital Corp. accepts responsibility for the contents of this research report, subject to the terms and limitations as set out above. U.S. residents seeking to effect a transaction in any security discussed herein should contact Eight Capital Corp. directly. Research reports published by Eight Capital are intended for distribution in the United States only to Major Institutional Investors (as such term is defined in SEC 15a-6 and Section 15 of the Securities Exchange Act of 1934, as amended) and are not intended for the use of any person or entity.

#### Dissemination of Research

Eight Capital's Research is distributed electronically through email, website (password protected) or hard copy. Dissemination of initial research reports and any subsequent research reports is made simultaneously to a pre-determined list of clients of Eight Capital's Institutional Sales and Trading representatives.

#### **Conflicts of Interest**

Eight Capital has written procedures designed to identify and manage potential conflicts of interest that arise in connection with its research and other businesses. The compensation of each Research Analyst/Associate involved in the preparation of this research report is based competitively upon several criteria, including performance assessment criteria, the quality of research and the value of the services they provide to clients of Eight Capital. The Research Analyst compensation pool includes revenues from several sources, including sales, trading and investment banking. Research analysts and associates do not receive compensation based upon revenues from specific investment banking transactions.

Eight Capital generally restricts any research analyst/associate and any member of his or her household from executing trades in the securities of a company that such research analyst covers, with limited exception.

Should this research report provide web addresses of, or contain hyperlinks to, third party web sites, Eight Capital has not reviewed the contents of such links and takes no responsibility whatsoever for the contents of such web sites. Web EIGHT CAPITAL Page 9 addresses and/or hyperlinks are provided solely for the recipient's convenience and information, and the content of third party web sites is not in any way incorporated into this research report. Recipients who choose to access such web addresses or use such hyperlinks do so at their own risk.

Unless publications are specifically marked as research publications of Eight Capital, the views expressed therein (including recommendations) are those of the author and, if applicable, any named issuer or Investment Dealer alone, and have not been approved by, nor are they necessarily those of, Eight Capital. Eight Capital expressly disclaims any and all liability for the content of any publication that is not expressly marked as a research publication of Eight Capital.

Forward-looking statements are based on current expectations, estimates, forecasts and projections based on beliefs and assumptions made by the author. These statements involve risks and uncertainties and are not guarantees of future performance or results and no assurance can be given that these estimates and expectations will prove to have been correct, and actual outcomes and results may differ materially from what is expressed, implied or projected in such forward-looking statements.

#### **Research Analyst Certification**

Each Research Analyst and/or Associate who is involved in the preparation of this research report hereby certifies that:

- the views and recommendations expressed herein accurately reflect his/her personal views about any and all of the securities or issuers that are the subject matter of this research report;
- his/her compensation is not and will not be directly related to the specific recommendations or views expressed by the Research Analyst in this research report;
- they have not affected a trade in a security of any class of the issuer whether directly or indirectly through derivatives within the 30-day period prior to the publication of this research report;
- they have not distributed or discussed this Research Report to/with the issuer, investment banking at Eight Capital or any other third party except for the sole purpose of verifying factual information; and
- they are unaware of any other potential conflicts of interest.

The Research Analyst involved in the preparation of this research report does not have any authority whatsoever (actual, implied or apparent) to act on behalf of any issuer mentioned in this research report.

#### Informal Comment

Informal Comments are analysts' informal comments that are posted on the Eight Capital website. They generally pertain to news flow and do not contain any change in analysts' opinion, estimates, rating or target price. Any rating(s) and target price(s) in an Informal Comment are from prior formal published research reports. A link is provided in any Informal Comment to all company specific disclosures and analyst specific disclosures for companies under coverage, as well as general disclosures and disclaimers.

#### Presentations

Presentations do not include disclosures that are specific to analysts and specific to companies under coverage. Please refer to formal published research reports for company specific disclosures, analyst specific disclosures and valuation methodologies used in determining target prices for companies under coverage.

#### Idea of Interest

Eight Capital has not initiated formal and continuous coverage of the companies mentioned in these publications, and maintain no recommendation, price target or earnings forecast. Statements and analysis in these publications are introductory in nature and may be published from time to time based on publicly available information.

**IIROC Rule 3400 Disclosures:** A link <u>(here)</u> is provided in all research reports delivered by electronic means to disclosures required under IIROC Rule 3400, including disclosures for sector research reports covering six or more issuers.

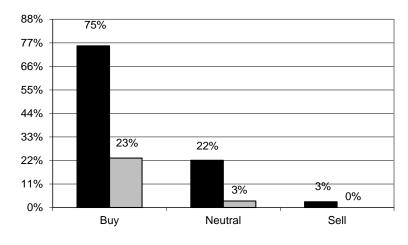
#### Explanation of Recommendations

**Eight Capital target:** Represents the price target as required under IIROC Rule 3400. Valuation methodologies used in determining the price target(s) for the issuer(s) mentioned in this research report are contained in current and/or prior research. Eight Capital target N/A: a price target and/or NAV are not available if the analyst deems there are limited financial metrics upon which to base a reasonable valuation.

**Recommendations: BUY**: Total returns expected to be materially better than the overall market with higher return expectations needed for more risky securities. **NEUTRAL**: Total returns expected to be in line with the overall market. **SELL**: Total returns expected to be materially lower than the overall market. **TENDER**: The analyst recommends tendering shares to a formal tender offer. **UNDER REVIEW**: The analyst will place the rating and/or target price Under Review when there is a significant material event with further information pending; and/or when the analyst determines it is necessary to await adequate information that could potentially lead to a re-evaluation of the rating, target price or forecast; and/or when coverage of a particular security is transferred from one analyst to another to give the new analyst time to reconfirm the rating, target price or forecast.

**SECURITY ABBREVIATIONS**: NVS (non-voting shares); RVS (restricted voting shares); RS (restricted shares); SVS (subordinate voting shares).

# **Eight Capital Equity Research Ratings:**



As at March 31, 2019 Source: Eight Capital % of companies covered by Eight Capital in each rating category

■% of companies within each rating category for which Eight Capital has provided investment banking services for a fee in the past 12 months.