

Uranium Stocks Waking up in Short Week as Stream of Positive Sector News Continues

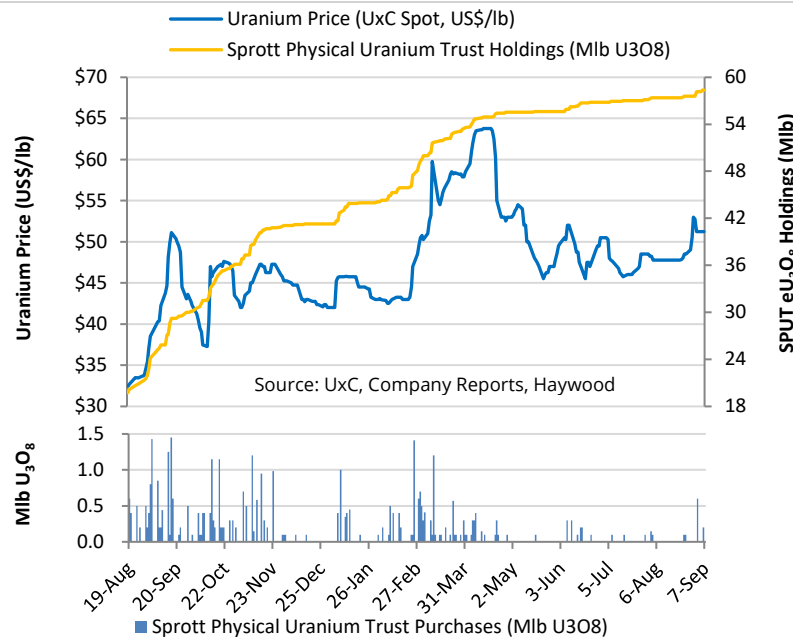
SPUT ADDS 800,000 TO INVENTORY OVER 2 SESSIONS

Uranium Price Update & Sector Commentary: Close of September 7th, 2022

While uranium spot price pulled back week-over-week, giving back half of last week's gain, uranium stocks followed suit, as shown on the chart at left, but, on a static uranium price since Friday, stocks have regained ground, with our 'producers + explorers' universe gaining an average of 4.8% in this shortened trading week. The Sprott Physical Uranium Trust (aka SPUT, U.UN-T (C\$), U.U-T (US\$), *Not Rated*) got active Friday, adding 600 klb U₃O₈, and another 200 klb Tuesday, likely deploying in the range of ~US\$41M, adding more pounds in back-to-back trading sessions than the total of all buying through July/August, as the Trust was able to shed the bulk of its market discount to NAV recently and issue units to raise cash. That buying however, failed to generate an uptick in spot price. Meanwhile, the nuclear sector continues to be the subject of solid developments with positive fundamental implications. The California legislature voted to keep the Diablo Canyon NP open for five additional years, as the reality of losing more than a 10th of the State's electricity generating capacity was underscored by intermittent brownouts. Mitsubishi Nuclear Fuel announced it will resume production of PWR fuel after receiving approval from Japanese regulators. Electricite de France (EDF) announced it is committed to restarting all of its reactors that are currently offline for maintenance or repair by this winter. Thirty-two (32) of EDF's 56 reactors are currently undergoing maintenance. [Bloomberg reported Monday](#) that the China Nuclear Energy Association has said it has the ability to increase new nuclear reactor construction to 10 units per year from its current target of 6-8 units. China has 54 operating reactors currently, up from 20 in August 2014 and has built more units over the period than any other country by several times.

Uranium Equities - News

- ◆ **Searchlight Resources Inc. (SCLT-V, Not Rated):** Confirmed critical elements mineralization at Kulyk Lake – [link to Sept. 2nd PR](#)
- ◆ **enCore Energy Corp. (EU-V, Not Rated):** Announced the installation of all baseline wells at its Rosita Extension PAA – [link to Sept. 6th PR](#)
- ◆ **Forum Energy Metals Corp. (FMC-V, Not Rated):** Provided Nunavut Uranium Project Update – [link to Sept. 6th PR](#)
- ◆ **Consolidated Uranium Inc. (CUR-V, Not Rated):** Acquired 3 uranium, vanadium and rare earth projects in Queensland, Australia – [link to Sept. 6th PR](#)
- ◆ **Boss Energy (BOE-AU, Not Rated):** Announced its first 12 wells successfully drilled and cased at Honeymoon uranium project – [link to Sept. 6th PR](#)
- ◆ **Basin Uranium Corp. (NCLR-CSE, Not Rated):** Intersected uranium mineralization in phase one drill program at its Mann Lake project – [link to Sept. 7th PR](#)

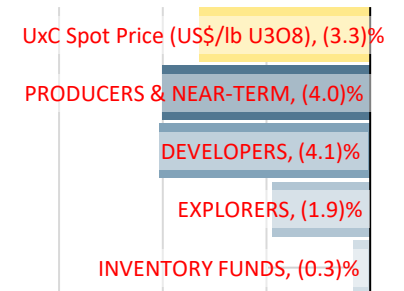


Uranium required and cost to make 1kg of EUP (4.5% U²³⁵): Mine/plant output of 26.7 lb U₃O₈ (\$1,368 cost) -> Conversion to UF₆ (\$388 cost) -> delivers 10.22 kgU as UF₆ (\$1,757 cumulative cost) -> enrichment: 6.23 SWU (\$561 cost) -> delivers 1kg EUP (\$2,317 cumulative cost). (US\$, spot U₃O₈, tails assay of 0.30% U²³⁵)

UxC U ₃ O ₈ Prices	(USD per pound)
SPOT (1-day Δ):	\$51.25 (unchanged)
(1-week Δ):	(-3.3%)
(1-month Δ):	(+7.3%)
3-year (1-week Δ):	\$55.25 (+1.4%)
5-year (1-week Δ):	\$58.50 (+1.3%)
LT (@August 29th, 1-mth Δ):	\$50.00 (unch.)

* UxC Spot Price published daily, 3y, 5y pricing published weekly on Monday. UxC Long-Term price published last Monday of month.

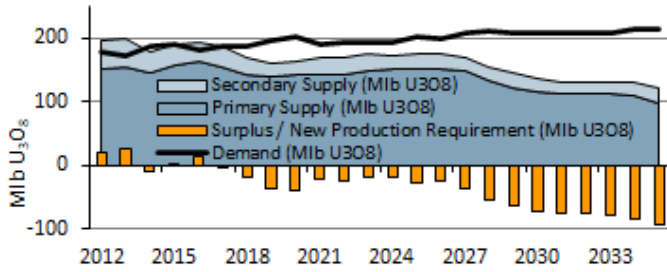
Performance - Aug. 31, 2022 to Sep. 07, 2022



(6.0)% (4.0)% (2.0)% 0.0%
Source: UxC, CapitalIQ, Haywood



Uranium Sector – Haywood Supply / Demand Model & Uranium Price History & Forecast (annual average)



Commodity Price History	2015	2016	2017	2018	2019	2020	2021
Spot price (US\$/lb U ₃ O ₈)	\$37	\$26	\$22	\$25	\$26	\$29	\$40
Long Term price (US\$/lb U ₃ O ₈)	\$47	\$40	\$31	\$31	\$32	\$32	\$35

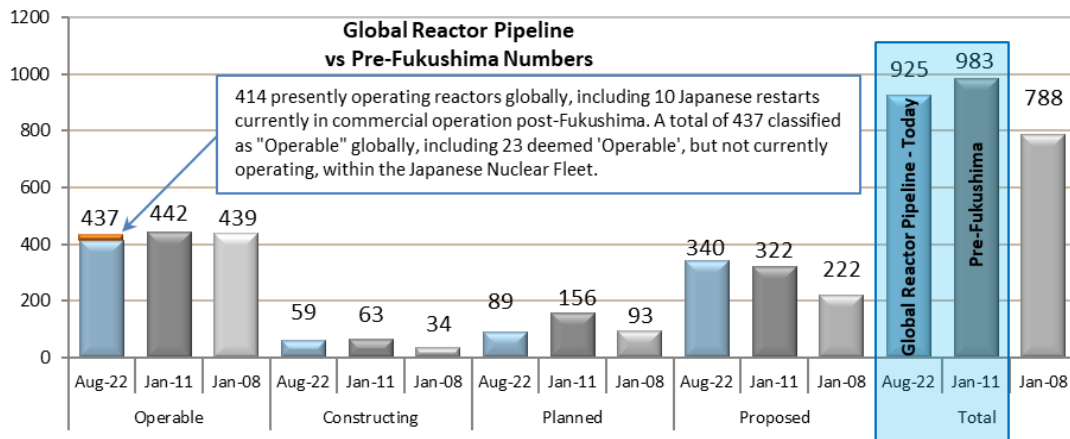
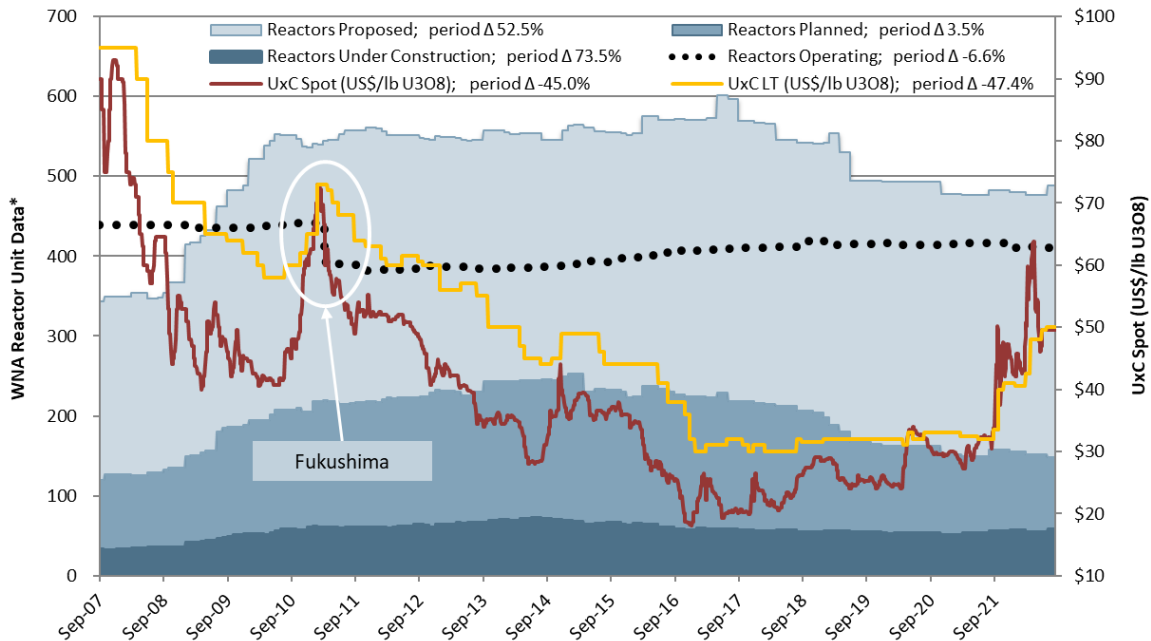
Commodity Price Forecast	2022	2023	2024	2025	2026	2027	2027
Spot price (US\$/lb U ₃ O ₈)	\$47	\$55	\$64	\$65	\$65	\$65	\$65
Long Term price (US\$/lb U ₃ O ₈)	\$55	\$63	\$70	\$65	\$65	\$65	\$65

Source: UxC history, Haywood Forecast

Source: UxC, WNA, IAEA, IEA, Haywood

Global Civil Nuclear Reactor Pipeline Evolution

Figure 1. Upper: Global Nuclear Reactor Pipeline vs Uranium Price; Lower: Global Nuclear Reactor Pipeline – Current vs Pre-Fukushima



Source: WNA, UxC, Haywood Securities



Uranium Sector Top Picks & Covered Names

NexGen (NXE-T, Rating: BUY, Target: \$7.50)

Our Take: NXE remains a top pick in the uranium space due to the disruptive potential of the Arrow deposit, with its massive scale and strong economics. [Link to Most Recent Report](#)

- ◆ **Top Asset:** We view the Arrow deposit as ‘the best undeveloped uranium asset globally and highly strategic’. The February 2021 Feasibility Study outlined a >21 Mlb U₃O₈ per year, 10-year mine operation with an after-tax NPV_{8%} of \$3.47B at US\$50/lb uranium.
- ◆ **Take-Out Candidate:** We believe that it is critical for major producers to control this deposit because of its disruptive potential and that this is the strategic key to preserving the value of existing deposits and maintaining the ability to affect price with output decisions.
- ◆ **Ultra Low-Cost:** The Feb. 2021 Arrow Feasibility Study suggests cash operating costs of US\$5.69/lb implying an industry leading margin for a tier 1 scale operation.
- ◆ **Catalysts:** H2/2022 results of field programs, including updates on FEED work and results of field and exploration activities.
- ◆ **Cash of \$164 million**

Denison Mines (DML-T, Rating: BUY, Target: \$2.90)

Our Take: The core strength of Denison remains its ability to leverage its technical team and knowledge gained in studying ISR and its applicability to unconformity-hosted uranium deposits in the Basin. Denison’s unique (to the Athabasca) plan to in-situ leach the Phoenix deposit is perceived as technically challenging, but with a very high potential reward, with a PFS-supported cost profile among the lowest in the world, due to the extremely high grades at Phoenix. [Link to Most Recent Report](#)

- ◆ **De-risking Phoenix with freeze-wall trade-off study.** Late 2020, Denison announced the results of a trade-off study examining the use of ‘freeze walls’ and sequential ISR mining phases to replace the ‘freeze dome’ outlined for the Phoenix deposit in the Wheeler River project Preliminary Feasibility Study (PFS). The proposed freeze wall approach is **simpler and offers more control in each mining cell/phase and improves the risk profile on the mine plan.**
- ◆ **New approach should mean lower CAPEX hurdle.** Mining of Phoenix via ISR was already a very attractive economic proposition, with initial CAPEX in the PFS at <\$325M and OPEX of US\$3.33/lb U₃O₈. The trade-off study is preliminary but **lower initial CAPEX is supportable as the phased freeze wall approach is simpler and less costly to initial production.**
- ◆ **Catalysts:** H1/2022 - **Further technical work** to de-risk the ISR mining approach to Phoenix at Wheeler River in support of a future full Feasibility Study (estimated late 2022 delivery) for Wheeler River integrating the extensive technical advancements made since the 2018 PFS. **2022 - Exploration results** - seeking satellite deposits at Wheeler River; and Studies for other potentially ISR amenable projects similar to THT/Waterbury.
- ◆ **Cash of ~\$64 million, plus 2.5 Mlb U₃O₈ as long-term investment.**

Other Covered Names

- ◆ **Energy Fuels Inc. (EFR-T, UUUU-US) – Rating: Buy; Target: US\$6.75 Target ([last report](#))**
- ◆ **IsoEnergy. (ISO-V) – Rating: Buy; Target: \$7.00 ([last report](#))**
- ◆ **Uranium Energy Corp. (UEC-US) – Rating: Buy; Target: US\$6.60 Target ([last report](#))**

Coverage Universe

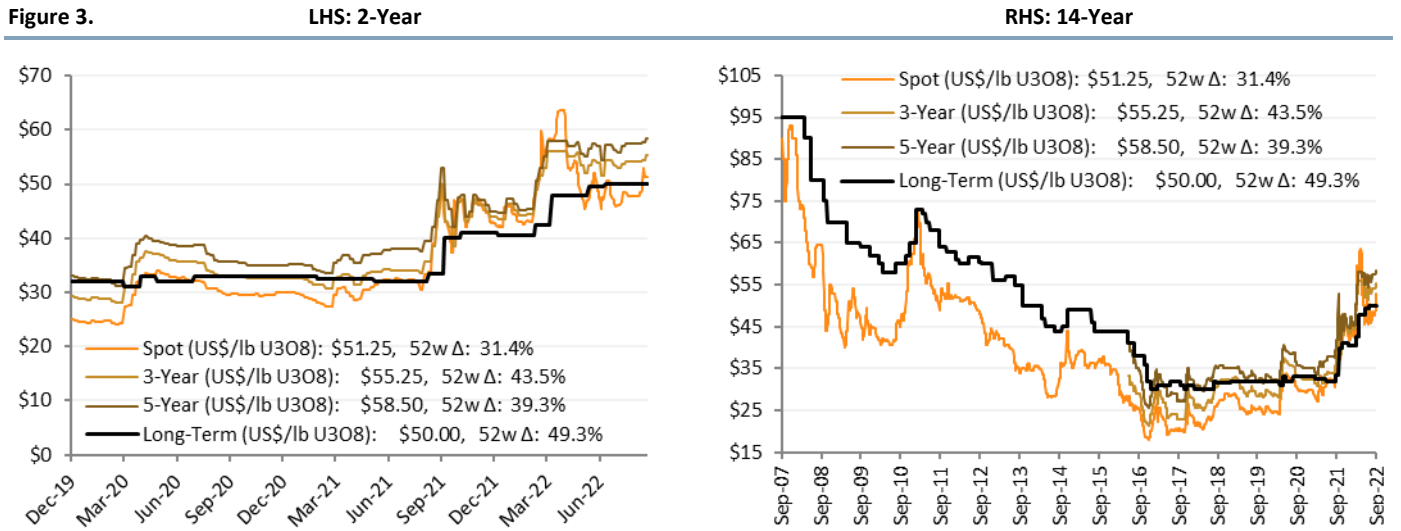
Figure 2. Uranium Sector Haywood Coverage

Company	Ticker	Analyst	Last Price (C\$)	Shares O/S (M)	MC (C\$M)	EV (C\$M)	Target (C\$)	Return (%)	Rating	NAVPS (US\$)	CFPS (US\$)	
											2022E	2023E
Denison Mines	DML-T	CH	\$1.77	818	\$1,447	\$1,381	\$2.90	64%	BUY	C\$2.85	(\$0.01)	(\$0.01)
Energy Fuels	UUUU-US	CH	US\$7.30	158	US\$1,150	US\$1,390	US\$6.75	-8%	BUY	\$6.73	(\$0.02)	\$0.20
IsoEnergy Ltd.	ISO-V	CH	\$4.40	107	\$470	\$479	\$7.00	59%	BUY	C\$7.02	(\$0.07)	(\$0.07)
NexGen Energy	NXE-T	CH	\$5.52	479	\$2,646	\$2,573	\$7.50	36%	BUY	C\$7.50	(\$0.03)	(\$0.03)
Uranium Energy	UEC-US	CH	US\$4.22	335	US\$1,413	US\$1,390	US\$6.60	56%	BUY	\$6.55	(\$0.08)	(\$0.08)

Source: Haywood Securities

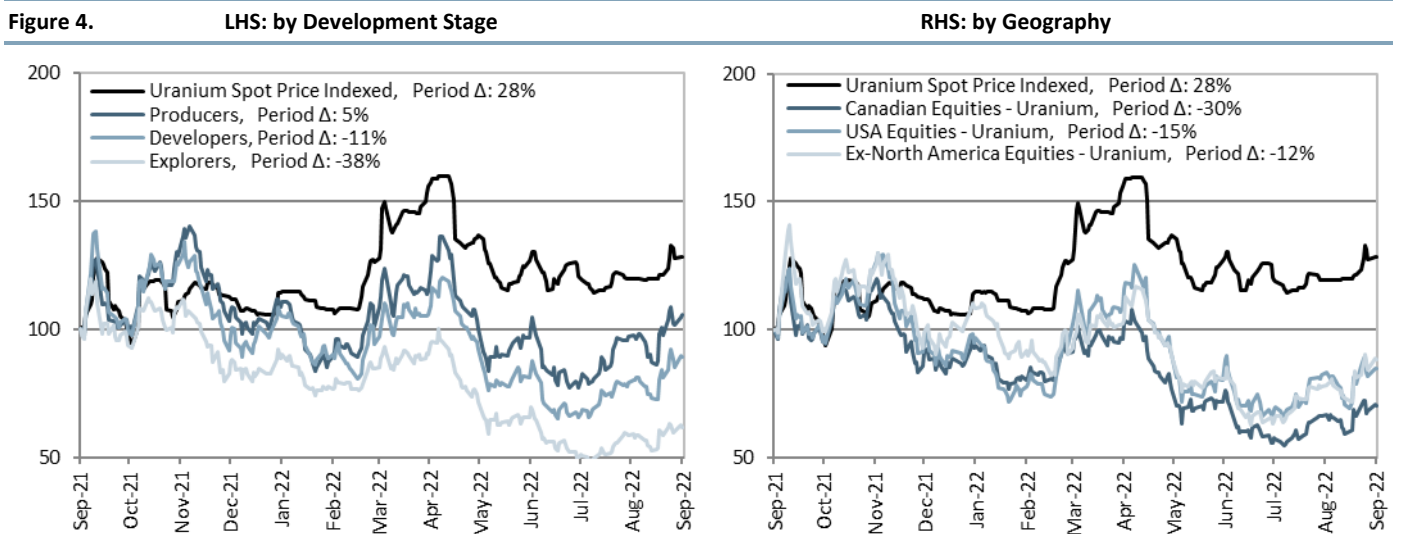


Uranium Price Charts



Source: UxC, Haywood Securities

Uranium Equity Relative Performance Charts (1-year, indexed to 100)



Source: UxC, S&P Capital IQ, Haywood Securities



Figure 5. Uranium Sector Comps with 1-Week Performance Data

Company (Ticker)	Share Price	Consensus Targets		Shares Outst. (millions)	Market Capitalization (millions)	In-Situ Comps - EV/lb U3O8			NAV Comps		Cash Flow Comps			Performance Aug. 31, 2022 to Sep. 07, 2022
		IBES Consensus Target	Implied Return			Enterprise Value (USD) (millions)	Total Reserves & Resources (M lb)	USD EV/lb Resource	IBES Consensus NAV	Price / Nav	2022 P/CFPS	2023	2024	
PRODUCERS & NEAR-TERM														
Haywood Covered Names bold														
Cameco Corporation (CCO-T)	\$38.59	\$44.08	14%	398	\$15,376	\$11,386	1078.5	\$10.56	\$28.74	1.34x	38.1x	20.5x	19.9x	0.1%
Kazatomprom (KAP-LSE)	\$31.46	\$38.91	24%	259	\$8,159	\$8,037	1339.5	\$6.00	\$34.44	0.91x	12.6x	8.3x	7.5x	(0.2)%
Paladin Energy (PDN-AU)	\$0.90	\$0.71	(21)%	2,978	\$2,680	\$1,655	381.7	\$4.34	\$1.19	0.76x	5625.0x			3.8%
Uranium Energy (UEC-US)	\$4.22	\$6.57	56%	335	\$1,413	\$1,390	306.7	\$4.53	\$5.77	0.73x				(6.6)%
Energy Fuels (UUUU-US)	\$7.30	\$9.70	33%	158	\$1,150	\$1,055	119.6	\$8.83	\$8.83	0.83x	24.7x		182.5x	(10.1)%
Boss Energy (BOE-AU)	\$2.74	\$3.08	12%	353	\$966.1	\$637.7	71.4	\$8.93	\$3.20	0.86x	30.6x			(1.3)%
EnergyResources (ERA-AU)	\$0.25			3,691	\$922.8	\$532.7	302.3	\$1.76						(5.8)%
Ur-Energy Inc. (URE-T)	\$1.82	\$4.08	124%	223	\$405.5	\$277.6	41.3	\$6.72	\$3.71	0.49x	22.8x			(0.7)%
Lotus Resources (LOT-AU)	\$0.26	\$0.32	24%	1,209	\$308.4	\$198.4	44.2	\$4.49	\$0.32	0.80x				(15.3)%
Peninsula Energy (PEN-AU)	\$0.19	\$0.35	92%	999	\$184.8	\$114.7	53.7	\$2.14	\$0.40	0.46x	130.3x			(9.3)%
Group Average - Producers								\$5.83		0.80x	60.3x	1140.2x	60.1x	(4.0)%
DEVELOPERS														
NexGen Energy (NXE-T)	\$5.52	\$9.47	71%	479	\$2,646	\$1,954	337.8	\$5.78	\$8.55	0.65x				(6.2)%
Denison Mines (DML-T)	\$1.77	\$2.20	24%	818	\$1,447	\$1,048	207.5	\$5.05	\$2.48	0.71x				(5.5)%
Global Atomic (GLO-T)	\$3.97	\$6.50	64%	178	\$706.4	\$525.4	161.1	\$3.26	\$6.47	0.61x				(4.3)%
Deep Yellow (DYL-AU)	\$1.13			732	\$826.6	\$507.8	392.2	\$1.29						(4.9)%
Fission Uranium (FCU-T)	\$0.79	\$1.25	58%	682	\$538.4	\$381.1	135.2	\$2.82	\$1.19	0.67x				(5.5)%
American Lithium (LI-V)	\$2.40	\$9.42	292%	208	\$499.4	\$367.1	123.4	\$2.97	\$11.00	0.22x				(4.7)%
IsoEnergy Ltd. (ISO-V)	\$4.40	\$6.50	48%	107	\$470.1	\$363.6	51.3	\$7.09	\$6.62	0.66x				(2.3)%
enCore Energy (EU-V)	\$1.38	\$2.75	99%	322	\$444.7	\$314.1	129.6	\$2.42						(5.5)%
Bannerman Energy (BMN-AU)	\$2.24	\$2.96	32%	150	\$335.1	\$219.4	238.8	\$0.92						(7.0)%
GovEx Uranium (GXU-V)	\$0.30	\$0.71	139%	593	\$174.8	\$136.3	201.7	\$0.68	\$0.75	0.39x				(4.0)%
Forsys Metals (FSY-T)	\$0.74			195	\$144.4	\$96.1	127.0	\$0.76						(9.3)%
Laramide Resources (LAM-T)	\$0.60	\$0.80	33%	208	\$124.8	\$92.2	122.7	\$0.75						(5.5)%
A-Cap Energy (ACB-AU)	\$0.09			1,232	\$113.4	\$73.5	190.6	\$0.39						0.2%
Berkeley Energia (BKY-AU)	\$0.35			446	\$156.0	\$51.2	89.4	\$0.57						0.9%
Western Uranium (WUC-L)	\$1.85			43	\$80.4	\$50.0	52.4	\$0.95						(2.8)%
Toro Energy (TOE-AU)	\$0.02			3,897	\$74.0	\$44.3	90.9	\$0.49						(6.9)%
Anfield Energy (AEC-V)	\$0.08	\$0.25	213%	624	\$49.9	\$31.7	22.5	\$1.41	\$0.42	0.19x				(6.6)%
EnergyMetals (EME-AU)	\$0.19			210	\$38.8	\$15.8	57.6	\$0.28						6.7%
Group Average - Developers								\$2.10		0.51x				(4.1)%
EXPLORERS														
Alligator Energy (AGE-AU)	\$0.07			3,303	\$218.0	\$131.6								(17.1)%
Consolidated Uranium (CUR-V)	\$2.37	\$4.15	75%	77	\$182.0	\$119.2	89.6	\$1.33						1.0%
Elevate Uranium (EL8-AU)	\$0.56			275	\$154.3	\$92.9	137.5	\$0.68						(5.4)%
DevEx Resources (DEV-AU)	\$0.38			360	\$136.6	\$83.6								(9.2)%
Mega Uranium (MGA-T)	\$0.27			359	\$96.9	\$62.3								(4.3)%
Skyharbour Resources (SYH-V)	\$0.52	\$0.98	88%	144	\$74.9	\$53.6	7.0	\$7.70	\$1.01	0.51x				(2.6)%
Baseload Energy (FIND-V)	\$0.80			86	\$69.0	\$44.2								(11.8)%
ValOre Metals (VO-V)	\$0.36	\$1.05	192%	154	\$55.3	\$39.8	43.5	\$0.91						(7.2)%
Appia Rare (APL)	\$0.50			123	\$61.6	\$40.8	55.8	\$0.73						(6.4)%
Azimut Exploration (AZM-V)	\$0.80	\$2.95	269%	82	\$65.8	\$34.7			\$2.66	0.30				(10.8)%
92 Energy (92E-AU)	\$0.59			88	\$51.9	\$28.4								(11.0)%
Aurania Resources (ARU-V)	\$0.60			54	\$32.4	\$28.8								1.0%
CanAlaska Uranium (CWV-V)	\$0.54			102	\$55.1	\$30.7								1.1%
Blue Sky (BSK-V)	\$0.17			200	\$33.9	\$23.8	22.7	\$1.05						(8.8)%
Okapi Resources (OKR-AU)	\$0.29			136	\$38.7	\$23.4								(2.0)%
Purepoint Uranium (PTU-V)	\$0.10			369	\$35.0	\$23.3								4.8%
Globex Mining (GMX-T)	\$0.79			56	\$44.0	\$18.5								(2.0)%
GTI Energy (GTR-AU)	\$0.02			1,505	\$31.6	\$18.1								2.9%
Forum Energy (FMC-V)	\$0.17			171	\$28.2	\$18.8	0.6	\$31.78						(3.7)%
Standard Uranium (STND-V)	\$0.12			148	\$17.7	\$13.1								(4.7)%
Fission 3.0 (FUU-V)	\$0.12			302	\$34.7	\$12.8								3.8%
Azincourt Energy (AAZ-V)	\$0.08			227	\$18.2	\$5.8								(0.7)%
ALX Resources (AL-V)	\$0.04			208	\$8.3	\$4.6								(0.7)%
Cauldron Energy (CXU-AU)	\$0.01			535	\$6.4	\$3.9	30.9	\$0.13						17.6%
Tarku Resources (TKU-V)	\$0.04			79	\$3.2	\$2.5								(20.6)%
Northern Uranium (UNOH-V)	\$0.03			162	\$4.1	\$3.1								(0.7)%
X-Terra Resources (XTT-V)	\$0.03			99	\$3.0	\$2.0								48.9%
Avrupa Minerals (AVU-V)	\$0.05			55	\$2.7	\$1.8								24.1%
International Prospect (IZZ-V)	\$0.05			40	\$2.0	\$1.4	0.6	\$2.36						(0.7)%
Vanadian Energy (VEC-V)	\$0.02			42	\$0.8	\$0.8								(33.8)%
Uruvan Minerals (UMV-V)	\$0.16			5	\$0.8	\$0.3								(0.7)%
Eros Resources (ERC-V)	\$0.07			98	\$6.4	(\$4.3)								(0.7)%
Group Average - Explorers								\$5.19						(1.9)%
INVENTORY FUNDS														
Sprott Physical (U.UN-T)	\$16.56	\$23.50	42%	233	\$2,935	\$2,993	58.4	\$51.28						(0.3)%
Yellow Cake (YCALN)	£4.25	£5.30	25%	183	£778.9	\$759.8	19.8	\$38.32						(0.3)%
ROYALTY COMPANIES														
Uranium Royalty (URC-V)	\$3.94	\$7.13	81%	97	\$383.3	\$213.3			\$5.08	0.78x				(6.0)%

Source: S&P Capital IQ, Bloomberg, Haywood Securities, Company Reports



Figure 6. Uranium Equities β to Uranium price, plus $\beta_{\text{equity/uranium}}/\sigma_{\text{equity}}$

Ticker	Company	β_{uranium} (Last 1-year, Weekly Simple Returns)	$\beta_{\text{uranium}}/\sigma_{\text{equity}}$	Absolute Return (%)	Rank Beta	Rank $\beta_{\text{uranium}}/\sigma_{\text{equity}}$	Rank Absolute Return
ASX:BMN	Bannerman Energy Ltd	1.37	9.241	(3%)	1	7	25
ASX:AGE	Alligator Energy Limited	1.32	9.489	12%	2	4	14
ASX:EL8	Elevate Uranium Ltd	1.27	9.428	15%	3	5	10
ASX:PEN	Peninsula Energy Limited	1.21	10.832	(10%)	4	1	30
ASX:TOE	Toro Energy Limited	1.13	8.331	(10%)	5	9	29
US:UEC	Uranium Energy Corp.	1.13	7.194	35%	6	19	3
TSXV:AEC	Anfield Energy Inc.	1.08	7.955	(58%)	7	12	54
ASX:DYL	Deep Yellow Limited	1.07	8.939	20%	8	8	8
TSXV:UNO.H	Northern Uranium Corp.	1.05	6.808	0%	9	23	21
ASX:ACB	A-Cap Energy Limited	1.04	5.833	30%	10	39	5
TSX:FSY	Forsys Metals Corp.	1.03	7.039	(24%)	11	20	37
ASX:92E	92 Energy Limited	1.02	8.021	9%	12	10	15
TSXV:URC	Uranium Royalty Corp.	0.99	7.883	(0%)	13	14	23
ASX:GTR	GTI Energy Ltd	0.99	7.343	(30%)	14	17	41
CNSX:WUC	Western Uranium & Vanadium I	0.93	6.626	(46%)	15	26	49
TSXV:FIND	Baselode Energy Corp.	0.92	6.452	13%	16	29	12
ASX:OKR	Okapi Resources Limited	0.92	7.195	(45%)	17	18	48
TSXV:FMC	Forum Energy Metals Corp.	0.91	6.247	(64%)	18	31	57
ASX:BOE	Boss Energy Limited	0.89	9.292	46%	19	6	1
ASX:LOT	Lotus Resources Limited	0.88	7.895	21%	20	13	7
TSX:URE	Ur-Energy Inc.	0.87	7.660	(6%)	21	15	26
TSX:EFR	Energy Fuels Inc.	0.85	6.701	15%	22	24	11
TSXV:VEC	Vanadian Energy Corp.	0.84	4.918	(78%)	23	46	63
TSXV:EU	enCore Energy Corp.	0.84	7.565	(23%)	24	16	35
TSXV:FUU	Fission 3.0 Corp.	0.83	6.312	(30%)	25	30	43
TSX:FCU	Fission Uranium Corp.	0.83	6.629	(8%)	26	25	28
TSXV:GXU	GoviEx Uranium Inc.	0.83	5.885	(21%)	27	38	34
TSXV:AAZ	Azinco Energy Corp.	0.80	6.557	(60%)	28	27	55
ASX:PDN	Paladin Energy Ltd	0.79	7.965	7%	29	11	17
TSXV:SYH	Skyharbour Resources Ltd.	0.78	5.696	(2%)	30	40	24
TSX:MGA	Mega Uranium Ltd.	0.78	5.907	(18%)	31	37	33
TSXV:AVU	Avrupa Minerals Ltd.	0.72	5.250	(33%)	32	43	44
AIM:YCA	Yellow Cake plc	0.72	10.535	36%	33	3	2
TSX:NXE	NexGen Energy Ltd.	0.71	6.829	(25%)	34	22	38
TSX:U.U	Sprott Physical Uranium Trust Fi	0.69	10.711	16%	35	2	9
TSX:GLO	Global Atomic Corporation	0.69	6.078	(0%)	36	35	22
TSX:DML	Denison Mines Corp.	0.68	6.156	(6%)	37	33	27
TSXV:CVV	CanAlaska Uranium Ltd.	0.68	4.373	(17%)	38	49	32
TSXV:ISO	IsoEnergy Ltd.	0.68	4.679	8%	39	47	16
ASX:BKY	Berkeley Energia Limited	0.67	5.420	1%	40	42	20
TSXV:BSK	Blue Sky Uranium Corp.	0.59	5.515	(36%)	41	41	46
ASX:EME	Energy Metals Limited	0.58	6.227	(38%)	42	32	47
TSX:CCO	Cameco Corporation	0.56	6.482	33%	43	28	4
TSXV:PTU	Purepoint Uranium Group Inc.	0.52	4.467	(34%)	44	48	45
TSX:GMX	Globex Mining Enterprises Inc.	0.50	6.074	(26%)	45	36	40
TSXV:CUR	Consolidated Uranium Inc.	0.50	5.179	3%	46	44	19
TSXV:VO	ValOre Metals Corp.	0.47	5.168	13%	47	45	13
TSXV:XTT	X-Terra Resources Inc.	0.47	2.938	(57%)	48	53	53
ASX:ERA	Energy Resources of Australia Li	0.44	6.094	(25%)	49	34	39
KAS:KZAP	JSC National Atomic Company K	0.44	6.881	6%	50	21	18
TSXV:STND	Standard Uranium Ltd.	0.44	3.502	(69%)	51	50	60
ASX:DEV	DevEx Resources Limited	0.40	2.642	23%	52	55	6
CNSX:API	Appia Rare Earths & Uranium Cc	0.37	2.743	(48%)	53	54	50
TSXV:LI	American Lithium Corp.	0.33	2.539	(12%)	54	56	31
TSXV:ERC	Eros Resources Corp.	0.32	3.448	(24%)	55	52	36
TSXV:UVN	Uravan Minerals Inc.	0.29	2.468	(70%)	56	57	61
TSXV:AZM	Azimut Exploration Inc.	0.25	3.465	(63%)	57	51	56
ASX:CXU	Cauldron Energy Limited	0.24	1.901	(67%)	58	58	58
TSXV:IZZ	International Prospect Venture.	0.22	1.813	(68%)	59	60	59
ASX:LAM	Laramide Resources Ltd.	0.16	1.862	(30%)	60	59	42
TSXV:AL	ALX Resources Corp.	0.15	1.462	(56%)	61	61	52
TSXV:TKU	Tarku Resources Ltd.	0.08	0.395	(55%)	62	63	51
TSXV:ARU	Aurania Resources Ltd.	0.06	0.576	(75%)	63	62	62

Source: UxC, CapitalIQ, Bloomberg, Haywood



Figure 7. Uranium Comps Performance with Short Interest / Days to Cover

Index	Ticker	Short Interest / Days to Cover	1-Day Δ (%)	5-Day Δ (%)	10-Day Δ (%)	30-Day Δ (%)	90-Day Δ (%)	YTD Δ (%)	12-Mth Δ (%)	2-year Δ (%)
S&P/TSX COMPOSITE INDEX	.TTT-T		0.8%	(0.2)%	(3.2)%	(2.2)%	(6.4)%	(9.3)%	(7.5)%	18.6%
S&P/TSX VENTURE COMPOSITE	.JX-T		1.3%	(0.1)%	(2.2)%	(5.5)%	(11.3)%	(32.7)%	(30.9)%	(13.9)%
S&P/TSX 60 INDEX	T.XLX-T		0.9%	(0.1)%	(3.1)%	(1.9)%	(6.3)%	(9.6)%	(6.6)%	19.6%
PRODUCERS										
CAMECO CORPORATION	CCO-T	1.5% / 2.3	2.3%	1.8%	11.1%	16.0%	16.2%	39.9%	33.3%	172.1%
KAZATOMPROM S	KAP-LN		1.2%	3.6%	1.5%	11.5%	4.2%	(14.4)%	(6.1)%	103.0%
PALADIN ENERGY L	PDN-AU	5.1% / 5.7	0.0%	14.6%	13.9%	18.4%	16.1%	2.3%	7.1%	492.1%
URANIUM ENERGY CORP	UEC-US	14.5% / 7.2	0.5%	1.9%	7.7%	(0.5)%	4.7%	26.0%	34.8%	294.4%
ENERGY FUELS INC	UUUU-US	15.6% / 11.2	1.4%	0.8%	3.7%	1.8%	13.0%	(4.3)%	10.9%	310.1%
BOSS EN FPO	BOE-AU	1.0% / 1.8	(1.8)%	8.7%	10.9%	9.6%	10.0%	21.8%	45.7%	333.5%
ENERGY RESOURCES	ERA-AU	0.0% / 0.2	0.0%	(3.8)%	(2.0)%	6.4%	(13.8)%	(26.5)%	(25.4)%	51.5%
UR ENERGY INC	URE-T	0.5% / 3.1	1.1%	5.2%	15.2%	19.7%	11.0%	18.2%	(5.7)%	149.3%
LOTUS RESOURCES	LOT-AU	1.0% / 0.6	(8.9)%	4.1%	2.0%	6.3%	(8.9)%	(17.7)%	21.4%	155.0%
PENINSULA ENERGY	PEN-AU	1.1% / 1.4	(2.6)%	8.8%	8.8%	(7.5)%	(11.9)%	(7.5)%	(9.8)%	172.1%
DEVELOPERS										
NEXGEN ENERGY LTD	NXE-T	1.7% / 2.1	(2.0)%	0.2%	3.8%	0.7%	(8.9)%	(0.4)%	(24.6)%	137.9%
DENISON MINES CORPORATION	DML-T	1.3% / 1.8	0.0%	1.1%	12.7%	10.6%	12.0%	1.7%	(5.9)%	185.5%
GLOBAL ATOMIC CORPORATION	GLO-T	0.3% / 0.7	1.3%	5.3%	11.2%	13.4%	28.5%	(5.3)%	(0.3)%	492.5%
DEEP YELLOW	DYL-AU	0.5% / 1.1	2.7%	10.2%	24.9%	42.1%	46.8%	31.4%	20.2%	380.9%
FISSION URANIUM CORP	FCU-T	0.5% / 0.9	2.6%	1.3%	6.8%	3.9%	(1.3)%	1.3%	(8.1)%	88.1%
AMERICAN LITHIUM CORP	LI-V	0.3% / 0.8	10.1%	8.6%	(8.7)%	(17.0)%	(3.2)%	(43.7)%	(11.8)%	73.9%
ISOENERGY LTD	ISO-V	1.5% / 2.9	2.6%	7.1%	21.2%	27.2%	25.0%	17.6%	7.6%	276.1%
ENCORE ENERGY CORP	EU-V	0.5% / 1.1	(2.1)%	(0.7)%	4.5%	(5.5)%	7.8%	(13.8)%	(22.9)%	283.3%
BANNERMAN ENERGY	BMN-AU	0.4% / 0.9	(4.7)%	6.7%	11.4%	3.7%	1.8%	(17.0)%	(2.6)%	474.4%
GOVIEK URANIUM INC	GXU-V	0.5% / 1.6	1.7%	7.3%	9.3%	(1.7)%	(11.9)%	(16.9)%	(21.3)%	126.9%
FORSYS METALS CORP	FSY-T	0.3% / 1.2	5.7%	5.7%	12.1%	(1.3)%	15.6%	(12.9)%	(24.5)%	393.3%
LARAMIDE RESOURCES LTD	LAM-T	0.9% / 2.1	1.7%	1.7%	20.0%	11.1%	3.4%	(15.5)%	(17.8)%	106.9%
A-CAP ENERGY	ACB-AU	0.1% / 0.8	0.0%	9.5%	22.7%	31.4%	2.2%	(36.6)%	35.3%	338.1%
BERKELEY ENERGIA	BKY-AU	0.0% / 4.2	2.9%	2.9%	1.4%	4.5%	(2.8)%	52.2%	1.4%	(62.8)%
WESTERN URANIUM & VANADIUM CORP	WUC-L		2.8%	12.1%	17.1%	3.9%	7.6%	(1.1)%	(45.7)%	146.7%
TORO ENERGY	TOE-AU	0.0% / 0.0	(5.0)%	11.8%	5.6%	26.7%	11.8%	(13.6)%	(9.5)%	35.7%
ANFIELD ENERGY INC	AEC-V	0.1% / 0.2	0.0%	6.7%	6.7%	0.0%	(23.8)%	(15.8)%	(57.9)%	23.1%
ENERGY MET FPO	EME-AU		(5.1)%	5.7%	8.8%	37.0%		(31.5)%	(38.3)%	42.3%
EXPLORES										
ALLIGATOR ENERGY	AGE-AU	2.2% / 1.3	(2.9)%	6.5%	10.0%	10.0%	(5.7)%	20.0%	11.9%	1,220.0%
CONSOLIDATED URANIUM INC	CUR-V	0.1% / 0.3	(1.3)%	1.3%	6.3%	15.0%	2.2%	(17.4)%	3.5%	323.2%
ELEVATE URANIUM	EL8-AU	1.7% / 4.6	(6.7)%	7.7%	17.9%	21.7%	9.8%	20.4%	15.5%	558.8%
DEVEX RESOURCES	DEV-AU	0.2% / 0.4	(5.0)%	(1.3)%	(1.3)%		11.8%	(22.4)%	22.6%	76.7%
MEGA URANIUM LTD	MGA-T	0.4% / 1.1	1.9%	5.9%	12.5%	14.9%	1.9%	5.9%	(18.2)%	107.7%
SKYHARBOR RESOURCES LTD	SYH-V	0.1% / 0.2	4.0%	5.1%	22.4%	25.3%	35.1%	7.2%	(1.9)%	173.7%
BASELODE ENERGY CORP	FIND-V	0.2% / 0.3	(1.2)%	5.3%	0.0%	0.0%	(19.2)%	(1.2)%	12.7%	
VALORE METALS CORP	VO-V	0.1% / 0.2	(4.0)%	(2.7)%	(6.5)%	(10.0)%	(16.3)%	(34.5)%	12.5%	20.0%
APPRIA RARE EARTHS & URANIUM CORP	API-L		1.0%	6.4%	29.9%	25.0%	33.3%	(13.8)%	(47.9)%	2.0%
AZIMUT EXPLORATION INC	AZM-V	0.0% / 0.3	2.6%	(2.4)%	(12.1)%	(7.0)%	(34.4)%	(51.5)%	(63.1)%	(52.9)%
92 ENERGY	92E-AU	8.1% / 2.7	(4.8)%	4.4%	16.8%	10.3%		(13.2)%	9.3%	
AURANIA RESOURCES LTD	ARU-V	0.0% / 0.2	(1.6)%	(3.2)%	(1.6)%	0.0%	(13.0)%	(48.7)%	(75.2)%	(85.9)%
CANALASKA URANIUM LTD	CVV-V	0.1% / 0.3	0.0%	3.8%	3.8%	0.0%	31.7%	22.7%	(16.9)%	134.8%
BLUE SKY URANIUM CORP	BSK-V	0.9% / 5.4	(0.0)%	(10.5)%	(0.0)%	(10.5)%	6.2%	(12.8)%	(35.8)%	30.8%
OKAPI RESOURCES	OKR-AU		(1.7)%	7.5%	29.5%	25.0%	(1.7)%	(17.4)%		50.0%
PUREPOINT URANIUM GRP INC	PTU-V	0.1% / 0.2	0.0%	11.8%	5.6%	18.8%	26.7%	11.8%	(34.5)%	90.0%
GLOBEX MINING ENTERPRISES INC	GMX-T	0.1% / 0.7	(2.5)%	(3.7)%	(8.1)%	(11.2)%	(36.3)%	(28.2)%	(26.2)%	17.9%
GTI ENERGY	GTR-AU		0.0%	10.5%	23.5%	16.7%	10.5%	(12.5)%	(25.0)%	(4.5)%
FORUM ENERGY METALS CORP	FMC-V	0.1% / 0.2	(2.9)%	6.5%	(0.0)%	(2.9)%	32.0%	(2.9)%	(64.1)%	10.0%
STANDARD URANIUM LTD	STND-V	1.7% / 4.6	(4.0)%	(4.0)%	(4.0)%	(7.7)%	9.1%	(44.2)%	(69.2)%	(51.0)%
FISSION 3.0 CORP	FUU-V	0.1% / 0.4	(0.0)%	4.5%	9.5%	21.1%	21.1%	(47.7)%	(30.3)%	35.3%
AZINCOURT ENERGY CORP	AAZ-V	0.1% / 0.3	(5.9)%	6.7%	23.1%	14.3%	(11.1)%	(54.3)%	(60.0)%	6.7%
ALX RESOURCES CORP	AL-V	0.1% / 0.3	0.0%	0.0%	14.3%	(11.1)%	(11.1)%	(55.6)%	(55.6)%	(46.7)%
CAULDRON ENERGY	CXU-AU		0.0%	20.0%	20.0%	20.0%	20.0%	(58.6)%	(66.7)%	(62.5)%
TARKU RESOURCES LTD	TKU-V	0.0% / 0.3	(18.2)%			(43.8)%	(25.0)%	(43.8)%		(62.5)%
NORTHERN URANIUM CORP	UNO'H-V		0.0%		25.0%		0.0%	(28.6)%	0.0%	
X-TERRA RESOURCES INC	XTT-V	0.0% / 0.1	0.0%	0.0%		100.0%	(25.0)%	0.0%	(57.1)%	(82.4)%
AVRUPA MINERALS LTD	AVU-V	0.1% / 0.2		0.0%	25.0%	66.7%				
INTERNATIONAL PROSPECT VENTURES LTD	IZZ-V	0.0% / 0.0				(9.1)%		(68.8)%		(58.3)%
VANADIAN ENERGY CORP	VEC-V	0.0% / 0.0					(20.0)%	(60.0)%	(77.8)%	(63.6)%
URAVAN MINERALS INC	UVN-V	0.10%							(70.4)%	(20.0)%
EROS RESOURCES CORP	ERC-V	0.0% / 0.0				(13.3)%				(27.8)%
INVENTORY FUNDS										
SPROTT PHYSICAL URANIUM TRUST	U.UN-T	1.5% / 1.7	(1.3)%	3.2%	8.0%	11.9%	6.7%	18.9%	16.5%	
YELLOW CAKE PLC	YCA-LN		(1.2)%	2.9%	7.5%	17.6%	5.9%	25.1%	35.7%	103.1%
ROYALTY COMPANIES										
URANIUM ROYALTY CORP	URC-V	0.3% / 1.0	3.1%	4.8%	6.5%	3.4%	0.8%	(14.0)%	(0.3)%	220.3%

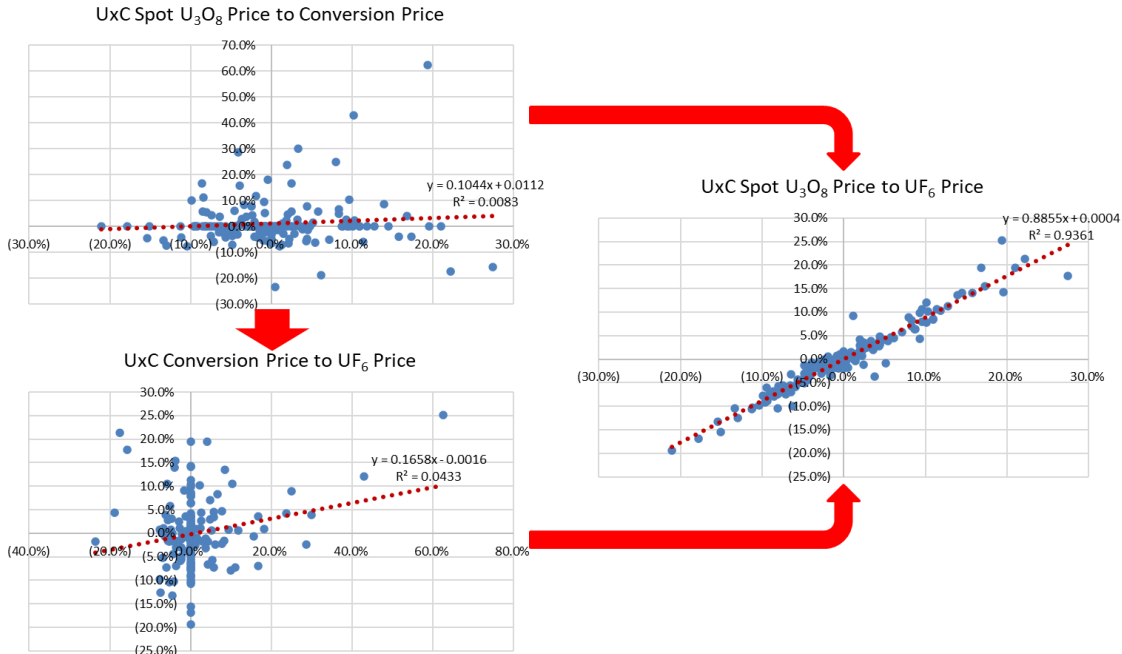
Source: UxC, CapitalIQ, Bloomberg, Haywood



Uranium Fuel Cycle Price Relationships

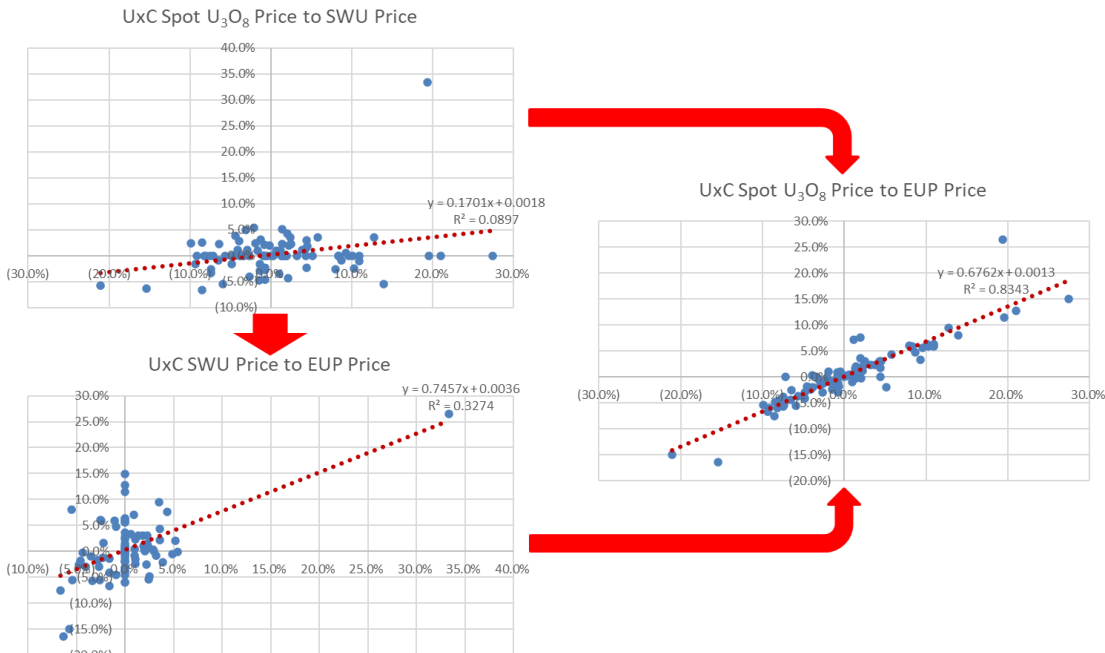
The charts below show that the price of uranium products (U_3O_8 , UF_6 and EUP) are tightly correlated (monthly % Δ) in the long term (RHS Figures 8 & 9). On the lower left chart of each Figure, we see that the cost of fuel services exhibit a much lower correlation with the monthly % change in uranium product (Conversion to UF_6 [$R^2=0.04$] or SWU to EUP [$R^2=0.33$]), owing to the fact that the uranium embedded in the product dominates value. Historically, conversion costs have made up an average of 10.5% of the cost of UF_6 (currently 22.1%), and SWU costs have made up an average of 26% of the price of EUP (currently 24.2%) (or, conversely, UF_6 historically makes up 74% of the cost of EUP).

Figure 8. U_3O_8 – Conversion – UF_6 Monthly Performance Correlations 2008 to August 31st, 2022 (at UxC spot prices)



Source: Haywood Securities Inc., UxC

Figure 9: U_3O_8 – SWU – EUP Monthly Performance Correlations – 2015 to August 31st, 2022



Source: Haywood Securities Inc., UxC



Important Information and Legal Disclosures

This report is intended for institutional investors and may only be distributed to non-institutional US clients in the following states: nil. Otherwise, this report may only be distributed into those states with an institutional buyer state securities registration exemption.

Analyst Certification

I, Colin Healey, hereby certify that the views expressed in this report (which includes the rating assigned to the issuer's shares as well as the analytical substance and tone of the report) accurately reflect my/our personal views about the subject securities and the issuer. No part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations.

Important Disclosures

Of the companies included in the report the following Important Disclosures apply:

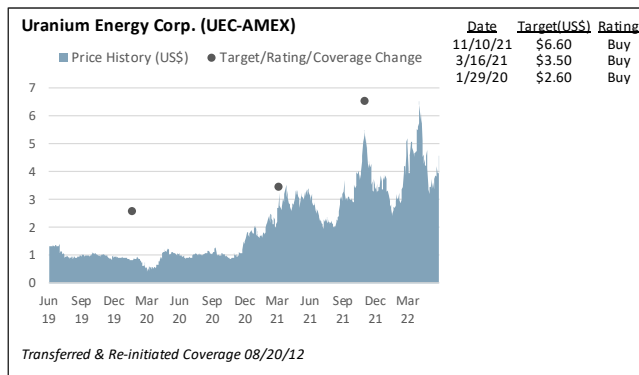
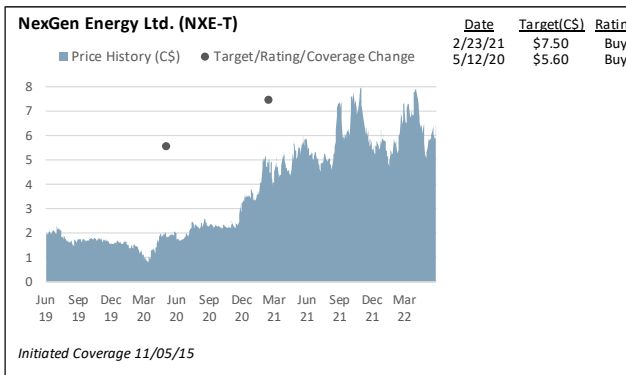
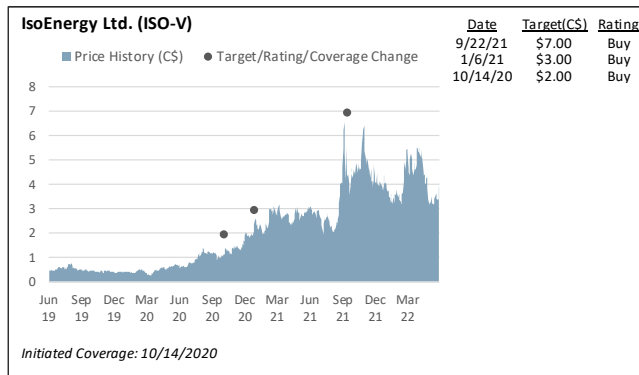
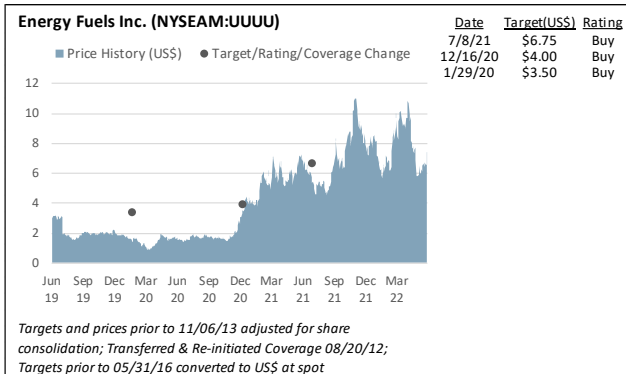
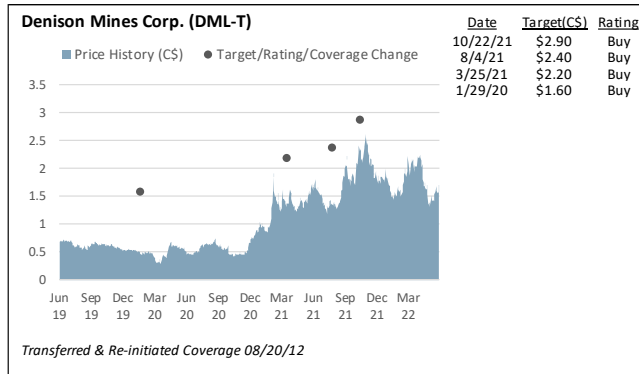
Ticker	Company	1	2	3	4	5	6	7	8	9
TSX:DML	Denison Mines Corp.			X			X			
TSX:EFR	Energy Fuels Inc.			X						
TSXV:ISO	IsoEnergy Ltd.			X						
TSX:NXE	NexGen Energy Ltd.			X						
US:UEC	Uranium Energy Corp.			X						
1	The Analyst(s) preparing this report (or a member of the Analysts' households) have a financial interest in this company.									
2	As of the end of the month immediately preceding this publication either Haywood Securities, Inc., one of its subsidiaries, its officers or directors beneficially owned 1% or more of this company.									
3	Haywood Securities, Inc. has reviewed lead projects of this company and a portion of the expenses for this travel may have been reimbursed by the issuer.									
4	Haywood Securities Inc. or one of its subsidiaries has managed or co-managed or participated as selling group in a public offering of securities for this company in the past 12 months.									
5	Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking services from this company in the past 12 months.									
6	Haywood Securities, Inc. or one of its subsidiaries has received compensation for investment banking services from this company in the past 24 months.									
7	Haywood Securities, Inc. or one of its subsidiaries is restricted on this company at the time of publication.									
8	Haywood Securities, Inc. or one of its subsidiaries expects to receive or intends to seek compensation for investment banking services from this company in the next three months.									
9	Haywood Securities, Inc. or one of its subsidiaries currently provides market making services to this company, for which Haywood is compensated by the Issuer on a monthly basis.									

Distribution of Ratings (as of September 8, 2022)

	%	#	IB Clients (TTM)
Buy	74.0%	74	70.0%
Hold	11.0%	11	15.0%
Sell	0.0%	0	0.0%
Tender	1.0%	1	5.0%
UR (Buy)	0.0%	0	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	14.0%	14	10.0%



Price Chart, Rating and Target Price History (as of September 8, 2022)



B: Buy; H: Hold; S: Sell; T: Tender; UR: Under Review
 Source: Capital IQ and Haywood Securities

Link to Research Policy: <http://haywood.com/what-we-offer/research/research-policy>
 Member of the Canadian Investor Protection Fund

