

## Uranium Price & Stream of Positive Sector Fundamental Headlines Driving Momentum

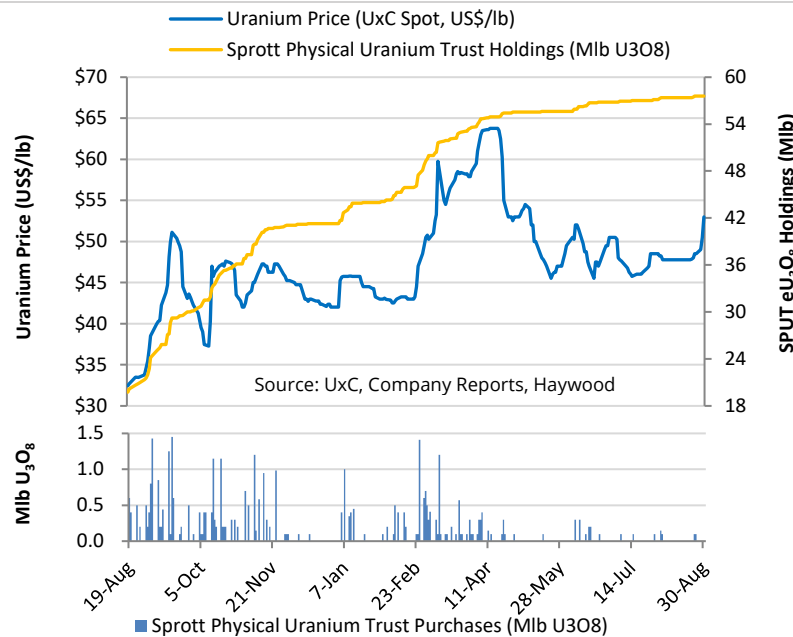
### SPUT RAISING CASH – COULD DRIVE NEXT LEG OF URANIUM PRICE RALLY

#### Uranium Price Update & Sector Commentary: Close of August 31<sup>st</sup>, 2022

Uranium spot price rose more than 10% since our last weekly, notching a big gain (+5%) yesterday, as headlines with positive sector fundamental (demand) implications continue to roll in at an increasing frequency. It's worth noting that spot uranium is up >9% since Friday of last week despite the absence of buying by the Sprott Physical Uranium Trust (aka SPUT, U.UN-T (C\$), U.U-T (US\$), Not Rated). SPUT appears to have around US\$56M in liquidity. The Trust bought 200 klb U<sub>3</sub>O<sub>8</sub> last week but hasn't made a purchase since last Thursday. This week it has issued more than 2 million units, and the added dry powder certainly has the potential to amplify the strength in uranium prices we are seeing daily of late. With month-end prices reported by UxC on Monday, the up-cycle price dynamic that emerged post the Russian invasion of Ukraine persists. Spot conversion prices remain at a >43% premium to term, while term enrichment (SWU) sits at a 50% premium to spot, as the market seeks long-term security of enrichment services. On that note, we saw milestone news of progress on the Global Laser Enrichment (GLE) technology development front this week as Silex Systems completed an 8-month test program on the first full-scale module of the tech (GLE is a 49%/51% JV between Cameco, CCO-T, not rated and Silex Systems, SLX-AU, not rated). On the demand side, Hungary announced the granting of construction licenses for two Russian design VVER-1200 reactor units. South Korea announced it expects nuclear power to comprise 33% of its total power generation by 2030, up from 27.4% last year. France was also in the news talking about the necessity of nuclear in efforts to decouple gas and electricity prices, where the French Economy Minister was quoted as saying "there is no energetic transition without nuclear energy."

#### Uranium Equities - News

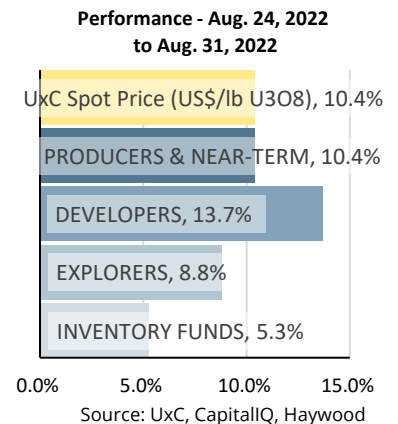
- ◆ **Traction Uranium Corp. (TRAC-CSE, Not Rated):** Provides research program update at Hearty Bay – [link to Aug. 30<sup>th</sup> PR](#)
- ◆ **ALX Resources Corp. (AL-V, Not Rated):** Receives drill results from the Gibbons Creek Uranium Project – [link to Aug. 25<sup>th</sup> PR](#)
- ◆ **92 Energy Limited (92E-AU, Not Rated):** Released assay results from drilling at its GMZ uranium discovery – [link to Aug. 25<sup>th</sup> PR](#)



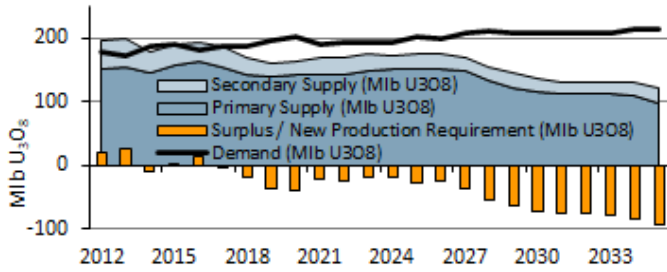
**Uranium required and cost to make 1kg of EUP (4.5% U<sup>235</sup>):** Mine/plant output of 26.7 lb U<sub>3</sub>O<sub>8</sub> (\$1,415 cost) -> Conversion to UF<sub>6</sub> (\$388 cost) -> delivers 10.22 kgU as UF<sub>6</sub> (\$1,803 cumulative cost) -> enrichment: 6.23 SWU (\$561 cost) -> delivers 1kg EUP (\$2,364 cumulative cost). (US\$, spot U<sub>3</sub>O<sub>8</sub>, tails assay of 0.30% U<sup>235</sup>)

UxC U <sub>3</sub> O <sub>8</sub> Prices	(USD per pound)
<b>SPOT (1-day Δ):</b>	<b>\$53.00 (+5.0%)</b>
(1-week Δ):	(+10.4%)
(1-month Δ):	(+9.8%)
<b>3-year (1-week Δ):</b>	\$54.50 (+0.5%)
<b>5-year (1-week Δ):</b>	\$57.75 (+0.4%)
<b>LT (@August 29<sup>th</sup>, 1-mth Δ):</b>	\$50.00 (unch.)

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



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 <sub>3</sub> O <sub>8</sub> )	\$37	\$26	\$22	\$25	\$26	\$29	\$40
Long Term price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$47	\$40	\$31	\$31	\$32	\$32	\$35

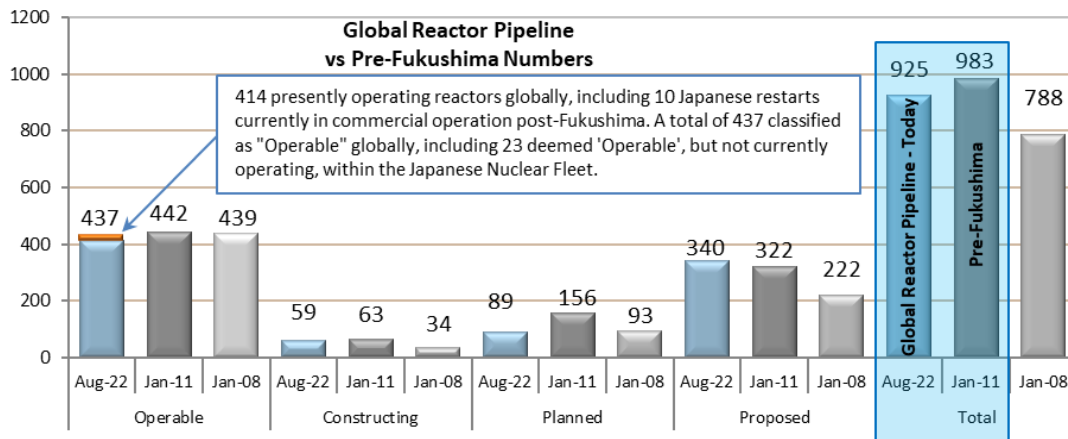
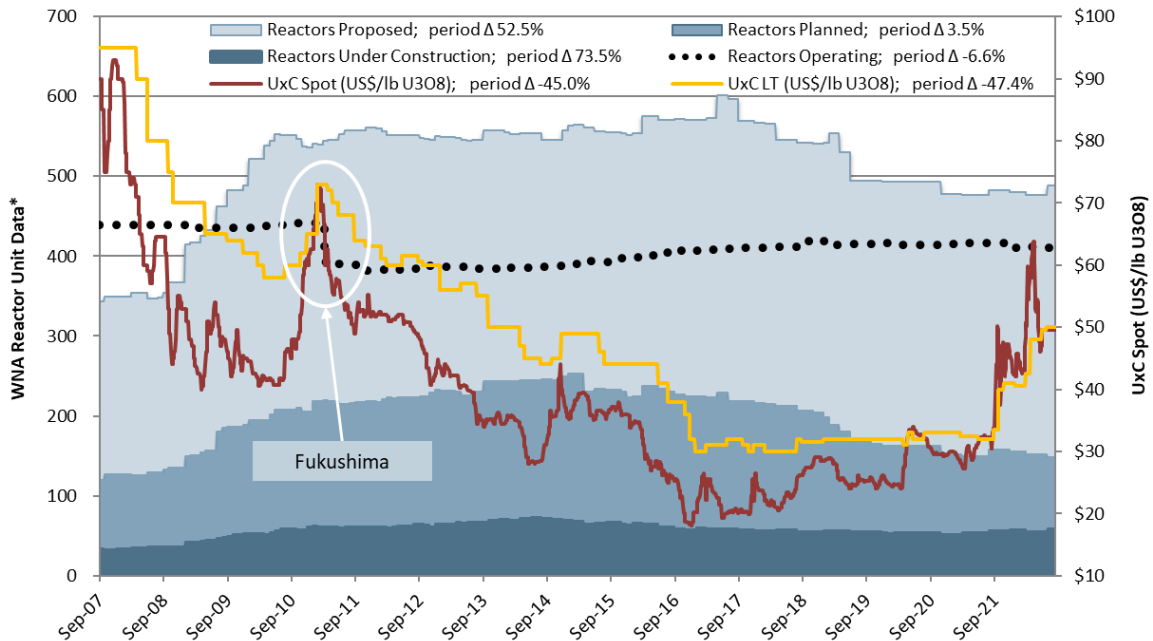
Commodity Price Forecast	2022	2023	2024	2025	2026	2027	2027
Spot price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$47	\$55	\$64	\$65	\$65	\$65	\$65
Long Term price (US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$55	\$63	\$70	\$65	\$65	\$65	\$65

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 U<sub>3</sub>O<sub>8</sub> per year, 10-year mine operation with an after-tax NPV<sub>8%</sub> 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 U<sub>3</sub>O<sub>8</sub>. 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 U<sub>3</sub>O<sub>8</sub> 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

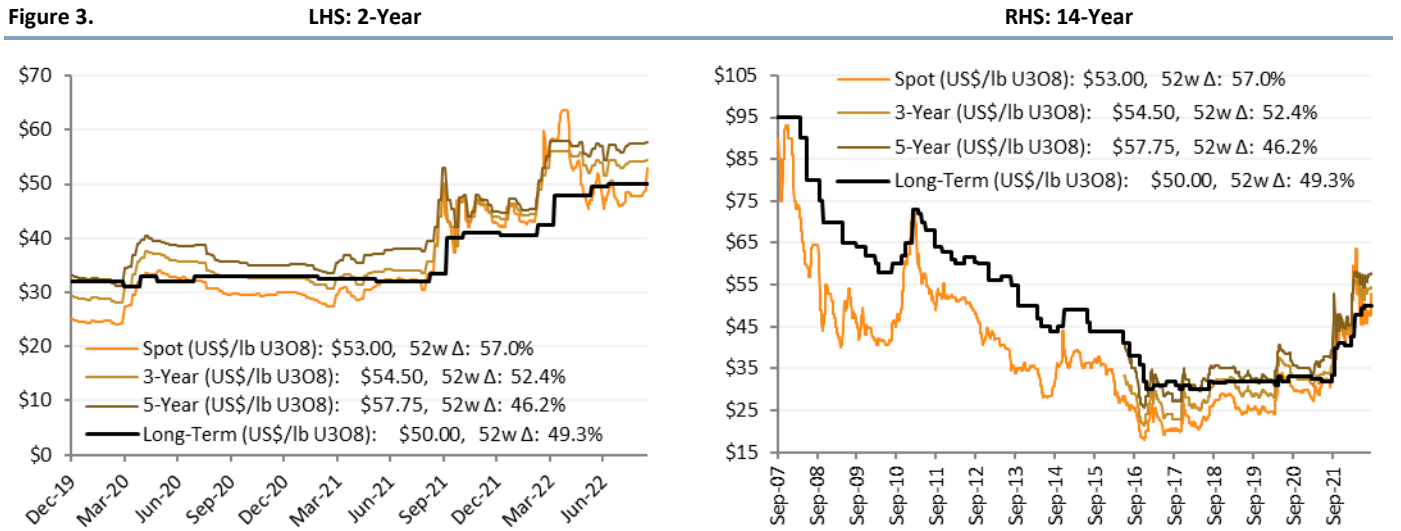
Figure 2. Uranium Sector Haywood Coverage

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	CFPS (US\$) 2023E
Denison Mines	DML-T	CH	\$1.86	818	\$1,521	\$1,455	\$2.90	56%	BUY	C\$2.85	(\$0.01)	(\$0.01)
Energy Fuels	UUUU-US	CH	US\$8.12	158	US\$1,280	US\$1,560	US\$6.75	-17%	BUY	\$6.73	(\$0.02)	\$0.20
IsoEnergy Ltd.	ISO-V	CH	\$4.47	107	\$478	\$486	\$7.00	57%	BUY	C\$7.02	(\$0.07)	(\$0.07)
NexGen Energy	NXE-T	CH	\$5.84	479	\$2,800	\$2,727	\$7.50	28%	BUY	C\$7.50	(\$0.03)	(\$0.03)
Uranium Energy	UEC-US	CH	US\$4.52	335	US\$1,513	US\$1,491	US\$6.60	46%	BUY	\$6.55	(\$0.08)	(\$0.08)

Source: Haywood Securities

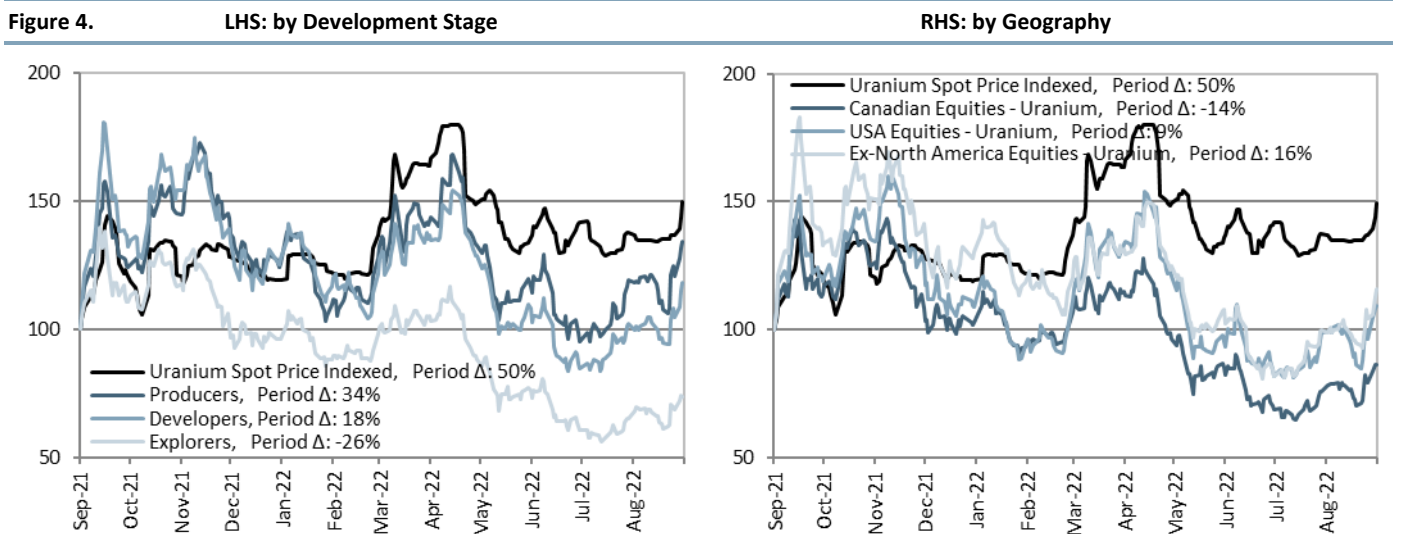


Uranium Price Charts



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. 24, 2022 to Aug. 31, 2022
		Consensus Target	Implied Return			Enterprise Value (USD) (millions)	Total Reserves & Resources (M lb)	USD EV/lb Resource	IBES Consensus NAV	Price / Nav	2021 P/CFPS	2022 P/CFPS	2023 P/CFPS	
<b>PRODUCERS &amp; NEAR-TERM</b>														
Haywood Covered Names bold														
Cameco Corporation (CCO-T)	\$38.28	\$44.08	15%	398	\$15,252	\$11,376	1078.5	\$10.55	\$28.74	1.33x	75.9x	37.8x	20.3x	8.5%
Kazatomprom (KAP-LSE)	\$31.52	\$36.91	17%	259	\$8,175	\$8,265	1339.5	\$6.17	\$34.50	0.91x	12.0x	14.7x	8.6x	4.2%
Paladin Energy (PDN-AU)	\$0.85	\$0.71	17%	2,978	\$2,531	\$1,566	381.7	\$4.10	\$1.17	0.73x			5312.5x	14.9%
Uranium Energy (UEC-US)	\$4.52	\$6.53	44%	335	\$1,513	\$1,491	304.9	\$4.89	\$5.73	0.79x				6.1%
Energy Fuels (UUUU-US)	\$8.12	\$9.70	19%	158	\$1,280	\$1,193	119.6	\$9.98	\$8.83	0.92x			27.5x	11.2%
Boss Energy (BOE-AU)	\$2.72	\$3.08	13%	353	\$959.0	\$621.6	71.4	\$8.71	\$3.20	0.85x				8.6%
EnergyResources (ERA-AU)	\$0.26			3,691	\$959.8	\$543.5	302.3	\$1.80						5.5%
Ur-Energy Inc. (URE-T)	\$1.82	\$4.08	124%	223	\$405.5	\$279.7	41.3	\$6.77	\$3.69	0.49x			22.8x	6.9%
Lotus Resources (LOT-AU)	\$0.30	\$0.32	8%	1,209	\$356.6	\$235.5	44.2	\$5.33	\$0.32	0.92x				27.5%
Peninsula Energy (PEN-AU)	\$0.20	\$0.35	77%	997	\$199.5	\$113.4	53.7	\$2.11	\$0.40	0.50x			140.8x	24.2%
<b>Group Average - Producers</b>						<b>\$6.04</b>			<b>0.83x</b>		<b>44.0x 64.5x 1078.3x</b>			<b>10.4%</b>
<b>DEVELOPERS</b>														
NexGen Energy (NXE-T)	\$5.84	\$9.47	62%	479	\$2,800	\$2,085	337.8	\$6.17	\$8.55	0.68x				4.4%
Denison Mines (DML-T)	\$1.86	\$2.20	19%	818	\$1,521	\$1,112	207.5	\$5.36	\$2.64	0.71x				10.5%
Global Atomic (GLO-T)	\$4.12	\$6.50	58%	178	\$732.4	\$549.2	161.1	\$3.41	\$6.47	0.64x				11.1%
Deep Yellow (DYL-AU)	\$1.17			732	\$852.5	\$488.1	392.2	\$1.24						51.3%
Fission Uranium (FCU-T)	\$0.83	\$1.25	51%	681	\$565.6	\$404.7	135.2	\$2.99	\$1.39	0.60x				4.3%
American Lithium (LI-V)	\$2.50	\$9.42	277%	208	\$519.2	\$384.9	123.4	\$3.12	\$11.00	0.23x				14.2%
IsoEnergy Ltd. (ISO-V)	\$4.47	\$6.50	45%	107	\$477.6	\$372.0	51.3	\$7.26	\$6.62	0.68x				14.3%
enCore Energy (EU-V)	\$1.45	\$2.75	90%	322	\$467.2	\$333.7	129.6	\$2.58						2.0%
Bannerman Energy (BMN-AU)	\$2.36	\$2.96	25%	150	\$353.1	\$229.0	238.8	\$0.96						28.9%
GovEx Uranium (GXU-V)	\$0.31	\$0.71	131%	593	\$180.7	\$141.8	201.7	\$0.70	\$0.75	0.41x				8.0%
Forsys Metals (FSY-T)	\$0.81			195	\$158.1	\$107.2	127.0	\$0.84						18.2%
Laramide Resources (LAM-T)	\$0.63	\$0.80	27%	208	\$131.0	\$97.6	122.7	\$0.80						18.0%
A-Cap Energy (ACB-AU)	\$0.09			1,232	\$110.9	\$72.5	190.6	\$0.38						29.6%
Berkeley Energia (BKY-AU)	\$0.34			446	\$151.6	\$52.2	89.4	\$0.58						4.0%
Western Uranium (WUC-L)	\$1.89			43	\$81.9	\$51.5	52.4	\$0.98						14.4%
Toro Energy (TOE-AU)	\$0.02			3,897	\$77.9	\$42.5	90.9	\$0.47						32.5%
Anfield Energy (AEC-V)	\$0.09	\$0.25	194%	624	\$53.0	\$34.4	22.5	\$1.52	\$0.42	0.20x				12.5%
EnergyMetals (EME-AU)	\$0.17			210	\$35.6	\$16.2	57.6	\$0.28						5.6%
<b>Group Average - Developers</b>						<b>\$2.20</b>			<b>0.52x</b>					<b>13.7%</b>
<b>EXPLORERS</b>														
Alligator Energy (AGE-AU)	\$0.08			3,303	\$257.6	\$136.5								36.0%
Consolidated Uranium (CUR-V)	\$2.33	\$4.15	78%	77	\$179.0	\$117.7	89.6	\$1.31						3.2%
Elevate Uranium (EL8-AU)	\$0.58			275	\$159.8	\$97.7	137.5	\$0.71						42.3%
DevEx Resources (DEV-AU)	\$0.41			360	\$147.4	\$87.8								16.4%
Mega Uranium (MGA-T)	\$0.28			358	\$100.1	\$65.3								18.2%
Skyharbour Resources (SYH-V)	\$0.53	\$0.98	84%	144	\$76.3	\$55.1	7.0	\$7.92	\$1.01	0.52x				28.3%
Baseload Energy (FIND-V)	\$0.90			86	\$77.7	\$51.2								2.7%
Appia Rare (APL)	\$0.53			123	\$65.3	\$43.9	55.8	\$0.79						36.6%
ValOre Metals (VO-V)	\$0.39	\$1.05	173%	154	\$59.2	\$43.0	43.5	\$0.99						4.5%
Azimut Exploration (AZM-V)	\$0.89	\$2.95	231%	82	\$73.2	\$40.6			\$2.66	0.33				0.4%
CanAlaska Uranium (CVV-V)	\$0.53			102	\$54.0	\$30.1								6.1%
Aurania Resources (ARU-V)	\$0.59			54	\$31.8	\$28.6								9.9%
92 Energy (92E-AU)	\$0.65			88	\$57.1	\$27.8								46.8%
Blue Sky (BSK-V)	\$0.19			200	\$36.9	\$26.3	22.7	\$1.16						2.0%
Purepoint Uranium (PTU-V)	\$0.09			369	\$33.2	\$22.0								5.1%
Forum Energy (FMC-V)	\$0.17			171	\$29.0	\$19.6	0.6	\$33.11						8.0%
Globex Mining (GMX-T)	\$0.80			56	\$44.5	\$19.0								8.8%
GTI Energy (GTR-AU)	\$0.02			1,505	\$30.1	\$15.3								32.5%
Standard Uranium (STND-V)	\$0.13			148	\$18.5	\$13.8								8.1%
Fission 3.0 (FUU-V)	\$0.11			297	\$32.6	\$11.3								4.0%
Azincourt Energy (AAZ-V)	\$0.08			227	\$18.2	\$5.8								13.4%
ALX Resources (AL-V)	\$0.04			208	\$8.3	\$4.6								11.8%
Cauldron Energy (CXU-AU)	\$0.01			535	\$5.4	\$3.6	30.9	\$0.12						0.6%
Northern Uranium (UNOH-V)	\$0.03			162	\$4.1	\$3.1								8.0%
Tarku Resources (TKU-V)	\$0.05			79	\$4.0	\$3.1								33.8%
International Prospect (IZZ-V)	\$0.05			40	\$2.0	\$1.4	0.6	\$2.36						23.7%
Avrupa Minerals (AVU-V)	\$0.04			55	\$2.2	\$1.4								13.4%
X-Terra Resources (XTT-V)	\$0.02			99	\$2.0	\$1.2								32.3%
Vanadian Energy (VEC-V)	\$0.03			42	\$1.3	\$1.2								48.8%
Uruvan Minerals (UVN-V)	\$0.16			5	\$0.8	\$0.3								8.0%
Eros Resources (ERC-V)	\$0.07			98	\$6.4	(\$4.3)								8.0%
<b>Group Average - Explorers</b>						<b>\$5.38</b>								<b>8.8%</b>
<b>INVENTORY FUNDS</b>														
Sprott Physical (U.UN-T)	\$16.49	\$23.50	43%	233	\$2,942	\$3,041	57.6	\$52.83						4.3%
Yellow Cake (YCALN)	\$4.21	\$5.30	26%	183	\$770.1	\$760.8	19.8	\$38.37						6.2%
<b>Group Average - Inventory Funds</b>														<b>5.3%</b>
<b>ROYALTY COMPANIES</b>														
Uranium Royalty (URC-V)	\$4.16	\$7.13	71%	97	\$401.9	\$229.7			\$5.08	0.82x				13.4%

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



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

Ticker	Company	$\beta_{\text{uranium}}$ (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
TSXV:UNO.H	Northern Uranium Corp.	1.80	6.895	25%	1	26	20
ASX:ACB	A-Cap Energy Limited	1.61	6.658	46%	2	29	9
ASX:BMN	Bannerman Energy Ltd	1.60	9.431	27%	3	7	18
ASX:TOE	Toro Energy Limited	1.50	8.415	0%	4	10	31
ASX:AGE	Alligator Energy Limited	1.41	9.639	72%	5	4	3
ASX:EL8	Elevate Uranium Ltd	1.40	9.627	42%	6	5	12
ASX:PEN	Peninsula Energy Limited	1.36	10.736	13%	7	1	24
TSXV:URC	Uranium Royalty Corp.	1.28	8.214	7%	8	13	27
US:UEC	Uranium Energy Corp.	1.18	7.363	64%	9	19	4
ASX:DYL	Deep Yellow Limited	1.17	9.186	33%	10	8	16
TSX:FSY	Forsys Metals Corp.	1.12	7.377	(8%)	11	18	36
ASX:92E	92 Energy Limited	1.11	8.298	97%	12	11	1
ASX:LOT	Lotus Resources Limited	1.08	8.253	40%	13	12	13
ASX:GTR	GTI Energy Ltd	1.06	7.660	(14%)	14	16	40
ASX:BOE	Boss Energy Limited	1.06	9.489	87%	15	6	2
TSXV:SYH	Skyharbour Resources Ltd.	1.03	6.543	9%	16	31	25
TSXV:GXU	GoviEx Uranium Inc.	1.03	6.622	4%	17	30	29
TSX:URE	Ur-Energy Inc.	1.00	8.135	4%	18	14	28
TSXV:AEC	Anfield Energy Inc.	1.00	7.341	(39%)	19	20	48
TSXV:ISO	IsoEnergy Ltd.	0.97	5.739	27%	20	43	19
TSX:FCU	Fission Uranium Corp.	0.97	7.171	28%	21	23	17
TSXV:FMC	Forum Energy Metals Corp.	0.97	6.510	(58%)	22	32	54
TSXV:AAZ	Azincoourt Energy Corp.	0.96	7.231	(54%)	23	22	53
TSXV:FUU	Fission 3.0 Corp.	0.96	6.899	(16%)	24	25	43
CNSX:WUC	Western Uranium & Vanadium I	0.95	6.706	(42%)	25	28	49
TSX:EFR	Energy Fuels Inc.	0.94	7.092	43%	26	24	10
TSXV:EU	enCore Energy Corp.	0.91	7.871	(16%)	27	15	42
TSXV:FIND	Baselode Energy Corp.	0.89	6.285	53%	28	36	8
ASX:PDN	Paladin Energy Ltd	0.88	8.457	42%	29	9	11
TSX:MGA	Mega Uranium Ltd.	0.83	6.179	0%	30	38	31
ASX:EME	Energy Metals Limited	0.79	7.235	(5%)	31	21	34
TSXV:CVV	CanAlaska Uranium Ltd.	0.77	4.856	(11%)	32	46	38
AIM:YCA	Yellow Cake plc	0.77	10.641	59%	33	3	5
TSX:DML	Denison Mines Corp.	0.74	6.505	8%	34	33	26
TSX:U.U	Sprott Physical Uranium Trust Fi	0.71	10.729	36%	35	2	14
TSX:GLO	Global Atomic Corporation	0.71	6.206	23%	36	37	22
TSXV:BSK	Blue Sky Uranium Corp.	0.70	6.122	(14%)	37	39	39
TSXV:AVU	Avrupa Minerals Ltd.	0.69	5.158	(50%)	38	44	52
TSX:NXE	NexGen Energy Ltd.	0.67	6.431	(10%)	39	35	37
TSXV:VEC	Vanadian Energy Corp.	0.66	3.996	(67%)	40	49	59
ASX:ERA	Energy Resources of Australia Li	0.62	6.854	(6%)	41	27	35
ASX:BKY	Berkeley Energia Limited	0.60	4.822	19%	42	47	23
TSXV:PTU	Purepoint Uranium Group Inc.	0.58	4.907	(18%)	43	45	44
TSXV:XTT	X-Terra Resources Inc.	0.58	4.070	(79%)	44	48	62
TSXV:CUR	Consolidated Uranium Inc.	0.58	5.778	3%	45	42	30
TSX:CCO	Cameco Corporation	0.57	6.489	55%	46	34	7
TSXV:VO	ValOre Metals Corp.	0.56	5.794	35%	47	41	15
TSXV:IZZ	International Prospect Venture	0.52	3.600	(71%)	48	51	60
KAS:KZAP	JSC National Atomic Company K	0.51	7.387	24%	49	17	21
TSXV:STND	Standard Uranium Ltd.	0.51	3.969	(61%)	50	50	55
TSX:GMX	Globex Mining Enterprises Inc.	0.48	5.831	(21%)	51	40	45
ASX:DEV	DevEx Resources Limited	0.47	3.031	56%	52	56	6
TSXV:UVN	Uravan Minerals Inc.	0.39	3.250	(64%)	53	54	57
TSXV:LI	American Lithium Corp.	0.31	2.396	(15%)	54	58	41
TSXV:AL	ALX Resources Corp.	0.31	2.819	(47%)	55	57	51
TSXV:ERC	Eros Resources Corp.	0.30	3.262	(24%)	56	53	46
ASX:LAM	Laramide Resources Ltd.	0.28	3.047	(5%)	57	55	33
CNSX:API	Appia Rare Earths & Uranium Cc	0.26	1.898	(38%)	58	60	47
ASX:CXU	Cauldron Energy Limited	0.26	2.151	(66%)	59	59	58
TSXV:AZM	Azimut Exploration Inc.	0.25	3.543	(61%)	60	52	56
TSXV:ARU	Aurania Resources Ltd.	0.05	0.452	(78%)	61	61	61
TSXV:TKU	Tarku Resources Ltd.	0.00	0.013	(44%)	62	62	50

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		(1.7)%	(4.4)%	(4.9)%	(2.6)%	(8.6)%	(10.5)%	(8.2)%	14.1%
S&P/TSX VENTURE COMPOSITE	.JX-T		(3.1)%	(4.2)%	(3.7)%	(5.5)%	(14.1)%	(34.1)%	(31.8)%	(18.0)%
S&P/TSX 60 INDEX	T.XLX-T		(1.6)%	(4.4)%	(5.2)%	(2.5)%	(8.7)%	(10.8)%	(7.3)%	14.9%
<b>PRODUCERS</b>										
CAMECO CORPORATION	CCO-T	1.1% / 2.5	(1.9)%	8.1%	27.0%	16.0%	19.3%	36.1%	55.3%	148.6%
KAZATOMPROM S	KAP-LN		(6.4)%	(4.8)%	4.2%	5.1%		(19.7)%	2.6%	87.9%
PALADIN ENERGY L	PDN-AU	4.9% / 6.9	(1.2)%	6.3%	20.9%	17.5%	12.8%	(4.5)%	42.4%	406.0%
ENERGY FUELS INC	UUUU-US	15.6% / 11.2	(6.8)%	7.5%	33.0%	13.0%	15.4%	(0.8)%	36.4%	298.4%
URANIUM ENERGY CORP	UEC-US	14.5% / 7.2	(7.7)%	6.4%	23.4%	0.0%	5.8%	24.5%	62.9%	262.6%
ERA FPO 'A	ERA-AU	0.0% / 0.2	(3.8)%	(2.0)%	0.0%	0.0%	(15.3)%	(26.5)%	(5.7)%	47.1%
UR ENERGY INC	URE-T	0.5% / 2.7	(4.9)%	9.5%	26.3%	10.9%	6.1%	12.3%	4.2%	121.8%
LOTUS RESOURCES	LOT-AU	1.1% / 2.9	0.0%	18.0%	37.2%	28.3%	3.5%	(4.8)%	40.5%	168.2%
PENINSULA ENERGY	PEN-AU	0.8% / 1.4	(10.0)%	5.9%	16.1%	(5.3)%	(5.3)%	(10.0)%	12.5%	160.9%
<b>DEVELOPERS</b>										
NEXGEN ENERGY LTD	NXE-T	1.7% / 3.7	(5.7)%	3.6%	18.0%	1.3%	(6.9)%	(0.5)%	(11.4)%	123.1%
DENISON MINES CORPORATION	DML-T	1.1% / 3.1	(6.5)%	10.8%	27.9%	13.0%	12.3%	0.0%	7.4%	135.1%
AMERICAN LITHIUM CORP	LI-V	0.3% / 0.8	(7.6)%	(12.2)%	(19.5)%	2.7%	(12.8)%	(45.8)%	(16.0)%	53.0%
GLOBAL ATOMIC CORPORATION	GLO-T	0.4% / 1.4	(6.8)%	7.6%	30.2%	7.6%	25.1%	(8.4)%	20.8%	405.3%
BOSS EN FPO	BOE-AU	0.9% / 1.0	(3.7)%	6.1%	12.9%	11.5%	12.0%	16.4%	87.1%	289.9%
FISSION URANIUM CORP	FCU-T	0.6% / 1.9	(7.2)%	4.1%	20.3%	2.7%	1.3%	(1.3)%	26.2%	62.1%
ENCORE ENERGY CORP	EU-V	0.1% / 0.7	(8.3)%	0.8%	10.8%	(8.3)%	9.0%	(16.9)%	(16.9)%	280.0%
DEEP YELLOW	DYL-AU	0.6% / 1.6	(8.2)%	18.2%	49.7%	45.6%	46.6%	24.4%	32.9%	365.2%
BANNERMAN ENERGY	BMN-AU	0.5% / 1.9	(3.0)%	13.9%	33.5%	9.6%	1.8%	(15.2)%	27.2%	487.2%
GOVIX URANIUM INC	GXU-V	0.4% / 1.5	(4.9)%	7.4%	13.7%	0.0%	(6.5)%	(18.3)%	1.8%	107.1%
FORSYS METALS CORP	FSY-T	0.4% / 3.4	(12.3)%	7.6%	22.4%	(4.1)%	22.4%	(16.5)%	(11.3)%	343.8%
LARAMIDE RESOURCES LTD	LAM-T	0.9% / 4.1	(11.1)%	12.0%	27.3%	5.7%	1.8%	(21.1)%	(6.7)%	80.6%
BERKELEY ENERGIA	BKY-AU	0.0% / 4.2	2.9%	1.4%	9.4%	2.9%	2.9%	52.2%	18.6%	(60.0)%
A-CAP ENERGY	ACB-AU	0.1% / 0.2	(1.1)%	18.7%	36.9%	34.8%	1.1%	(38.6)%	53.4%	345.0%
WESTERN URANIUM & VANADIUM CORP	WUC-L		(7.9)%	10.1%	25.2%	5.5%	16.0%	(7.0)%	(41.8)%	126.0%
TORO ENERGY	TOE-AU	0.0% / 0.0	(10.0)%	(0.0)%	20.0%	20.0%	(0.0)%	(18.2)%	(0.0)%	28.6%
ANFIELD ENERGY INC	AEC-V	0.2% / 0.6	(5.9)%	6.7%	23.1%	0.0%	(15.8)%	(15.8)%	(42.9)%	23.1%
ENERGY MET FPO	EME-AU		8.8%	8.8%	15.6%			(31.5)%	(5.1)%	
<b>EXPLORERS</b>										
ISOENERGY LTD	ISO-V	1.7% / 3.8	(9.4)%	11.6%	28.6%	19.1%	19.5%	8.3%	24.6%	226.6%
ALLIGATOR ENERGY	AGE-AU	2.2% / 3.6	(14.1)%	11.7%	31.4%	21.8%	(5.6)%	21.8%	71.8%	1,240.0%
CONSOLIDATED URANIUM INC	CUR-V	0.1% / 0.4	(3.0)%	1.3%	4.6%	13.0%	5.6%	(21.3)%	5.6%	264.5%
ELEVATE URANIUM	EL8-AU	1.7% / 2.4	(0.9)%	21.1%	53.3%	29.2%	15.0%	23.7%	42.0%	584.5%
DEVEX RESOURCES	DEV-AU	0.2% / 0.5	(4.9)%	1.3%	6.8%	36.8%	11.4%	(20.4)%	56.0%	81.4%
MEGA URANIUM LTD	MGA-T	0.5% / 3.6	(7.1)%	8.3%	33.3%	10.6%	6.1%	2.0%	(1.9)%	85.7%
SKYHARBOUR RESOURCES LTD	SYH-V	0.1% / 0.2	(6.6)%	16.5%	37.5%	12.5%	11.2%	2.1%	7.6%	135.7%
BASELODE ENERGY CORP	FIND-V	0.2% / 0.5	(7.8)%	3.8%	20.3%	7.8%	(23.1)%	2.5%	50.9%	118.4%
AZIMUT EXPLORATION INC	AZM-V	0.0% / 0.7	(1.1)%	(3.3)%	(6.4)%	(3.3)%	(31.8)%	(46.7)%	(61.9)%	(47.9)%
APPRIA RARE EARTHS & URANIUM CORP	API-L		(1.9)%	35.1%	60.0%	26.8%	33.3%	(10.3)%	(38.1)%	44.4%
VALORE METALS CORP	VO-V	0.0% / 0.0	(5.2)%	(5.2)%	(3.9)%	(11.0)%	(9.9)%	(33.6)%	35.2%	14.1%
BLUE SKY URANIUM CORP	BSK-V	1.2% / 7.4	0.0%	8.8%	32.1%	(2.6)%	8.8%	(5.1)%	(14.0)%	37.0%
CANALASKA URANIUM LTD	CVV-V	0.2% / 0.8	(5.7)%	(3.8)%	8.7%	(3.8)%	20.5%	13.6%	(9.1)%	112.8%
GLOBEX MINING ENTERPRISES INC	GMX-T	0.1% / 0.6	1.3%	(5.8)%	(5.8)%	(9.0)%	(33.6)%	(26.4)%	(21.4)%	11.0%
AURANIA RESOURCES LTD	ARU-V	0.0% / 0.3	(3.4)%	(6.6)%	(10.9)%	(3.4)%	(18.6)%	(51.3)%	(79.0)%	(87.0)%
FORUM ENERGY METALS CORP	FMC-V	0.0% / 0.1	(2.9)%	(0.0)%	10.0%	10.0%	22.2%	(2.9)%	(58.8)%	3.1%
PUREPOINT URANIUM GRP INC	PTU-V	0.8% / 4.6	(5.6)%	(5.6)%	30.8%	6.2%	21.4%	(0.0)%	(22.7)%	41.7%
92 ENERGY	92E-AU	7.9% / 3.0	(12.3)%	12.9%	54.1%	22.6%	0.0%	(16.2)%	96.6%	
AZINCOURT ENERGY CORP	AAZ-V	0.2% / 0.4	(6.3)%	15.4%	15.4%	7.1%	(21.1)%	(57.1)%	(54.0)%	0.0%
FISSION 3.0 CORP	FUU-V	0.0% / 0.2	(4.5)%	0.0%	23.5%	5.0%	0.0%	(52.3)%	(16.0)%	16.7%
GTI ENERGY	GTR-AU		(10.0)%	5.9%	12.5%	12.5%	12.5%	(25.0)%	(5.3)%	(30.8)%
STANDARD URANIUM LTD	STND-V	1.2% / 3.6	(4.0)%	(4.0)%	4.3%	(7.7)%	0.0%	(44.2)%	(61.3)%	(52.9)%
ALX RESOURCES CORP	AL-V	0.6% / 4.6	0.0%	14.3%	14.3%	0.0%	(11.1)%	(55.6)%	(46.7)%	(46.7)%
CAULDRON ENERGY	CXU-AU		10.0%	10.0%	22.2%	10.0%	(21.4)%	(62.1)%	(65.6)%	(68.6)%
TARKU RESOURCES LTD	TKU-V	0.0% / 0.1	0.0%		(33.3)%	(9.1)%	(9.1)%	(37.5)%	(44.4)%	(58.3)%
NORTHERN URANIUM CORP	UNO'H-V		(20.0)%	0.0%	0.0%	0.0%	(20.0)%	(42.9)%		
INTERNATIONAL PROSPECT VENTURES LTD	IZZ-V	0.0% / 0.1	0.0%				(37.5)%	(68.8)%	(70.6)%	(60.0)%
AVRUPA MINERALS LTD	AVU-V	0.0% / 0.0	0.0%	0.0%	33.3%	14.3%			(50.0)%	(75.0)%
X-TERRA RESOURCES INC	XTT-V	0.0% / 0.7				(25.0)%	(62.5)%	(50.0)%	(78.6)%	(91.2)%
VANADIAN ENERGY CORP	VEC-V	0.0% / 0.2						(40.0)%	(66.7)%	(60.0)%
URAVAN MINERALS INC	UVN-V	0.1% / 0.2				3.2%	6.7%		(63.6)%	
EROS RESOURCES CORP	ERC-V	0.0% / 0.5								(35.0)%
<b>INVENTORY FUNDS</b>										
SPROTT PHYSICAL URANIUM TRUST	U.UN-T	1.7% / 3.5	(0.2)%	7.3%	21.9%	12.6%	4.4%	18.1%	37.0%	
YELLOW CAKE PLC	YCA-LN		(0.4)%	5.8%	20.0%	18.1%		23.2%	58.0%	90.4%
<b>ROYALTY COMPANIES</b>										
URANIUM ROYALTY CORP	URC-V	0.1% / 0.5	(8.4)%	3.0%	22.1%	(0.3)%	0.3%	(16.8)%	5.2%	212.3%

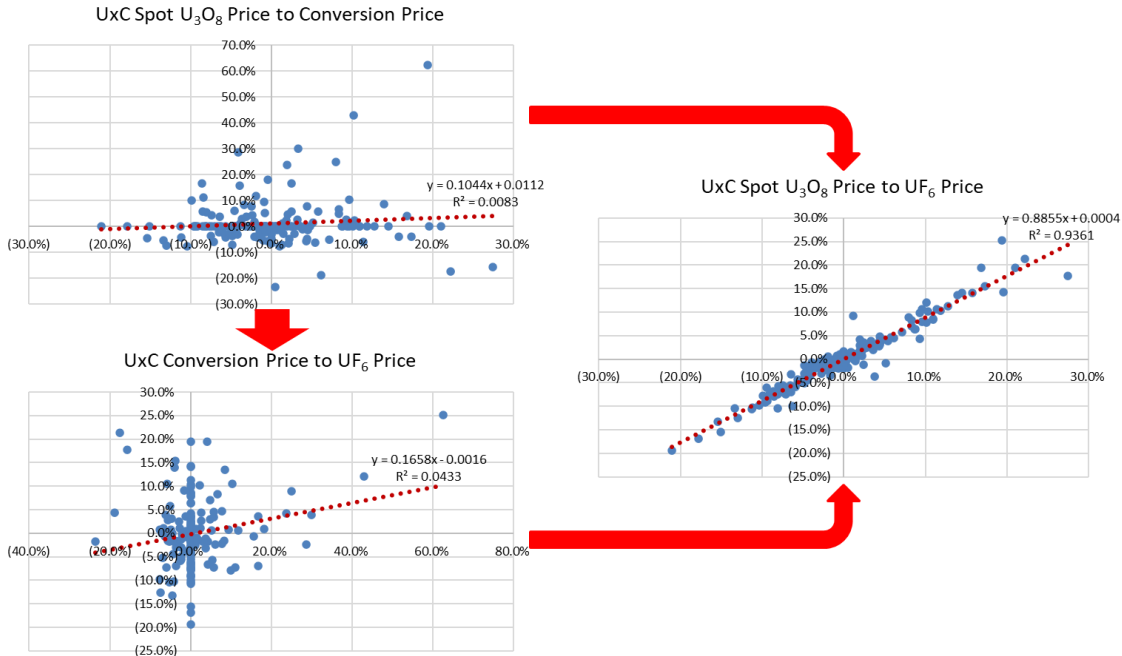
Source: UxC, CapitalIQ, Bloomberg, Haywood



### Uranium Fuel Cycle Price Relationships

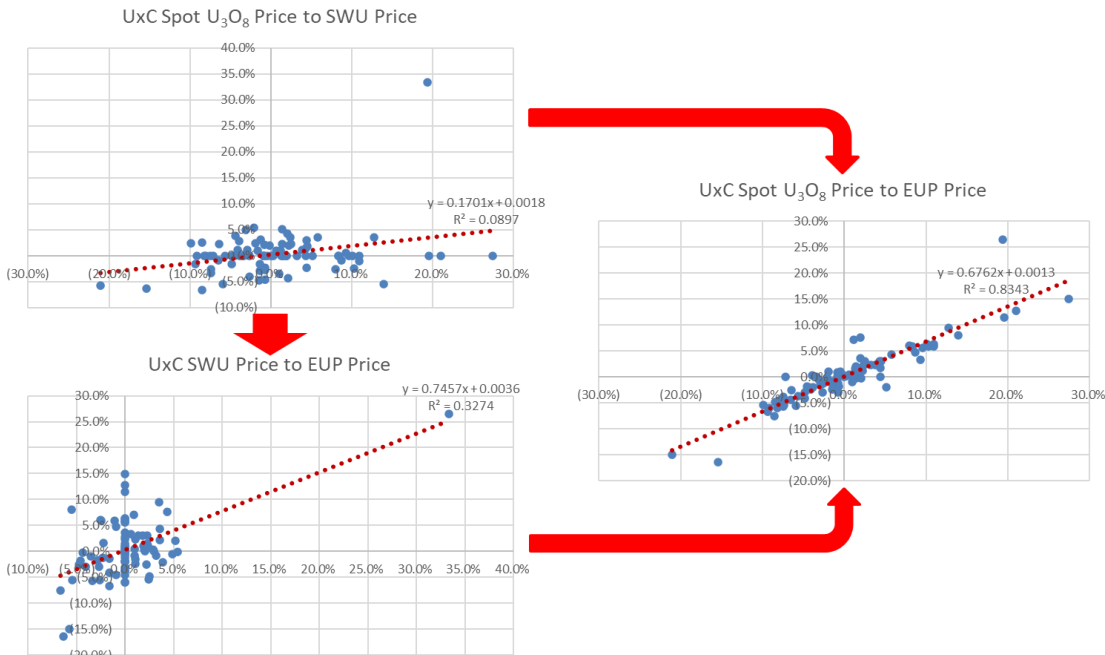
The charts below show that the price of uranium products ( $U_3O_8$ ,  $UF_6$  and EUP) are tightly correlated (monthly %Δ) in the long term (RHS Figures 7 & 8). On the lower left chart of each Figure, we see that the cost of fuel services exhibit a much lower correlation with the monthly % change in 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 21.5%), and SWU costs have made up an average of 26% of the price of EUP (currently 23.7%) (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 31<sup>st</sup>, 2022 (at UxC spot prices)**



Source: Haywood Securities Inc., UxC

**Figure 9:  $U_3O_8$  – SWU – EUP Monthly Performance Correlations – 2015 to August 31<sup>st</sup>, 2022**



Source: Haywood Securities Inc., UxC





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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.

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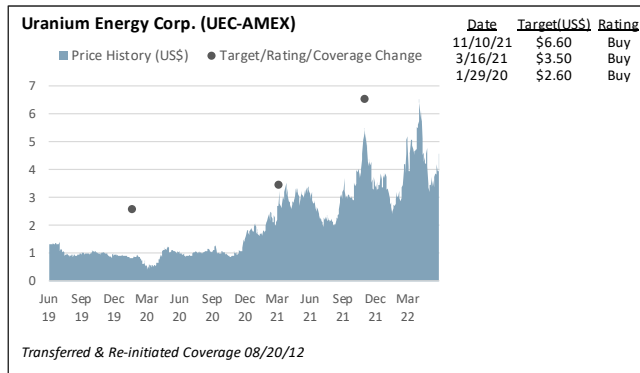
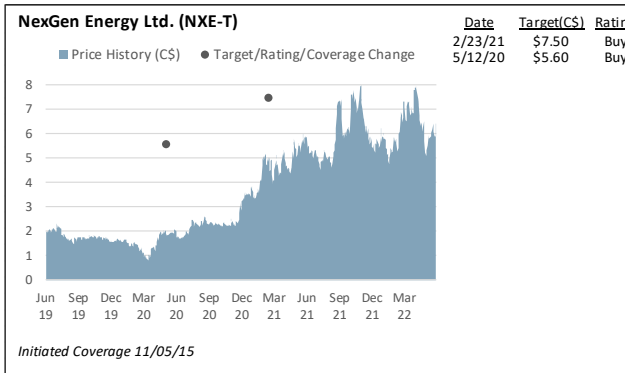
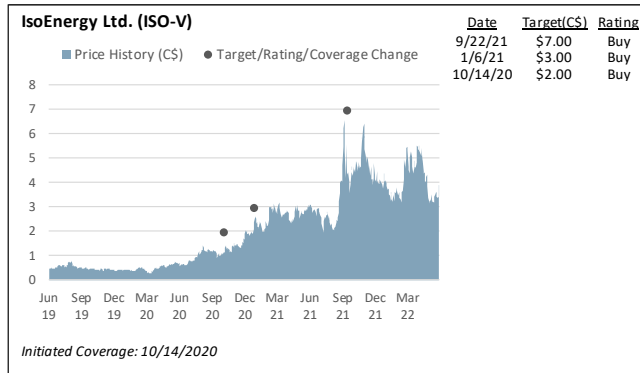
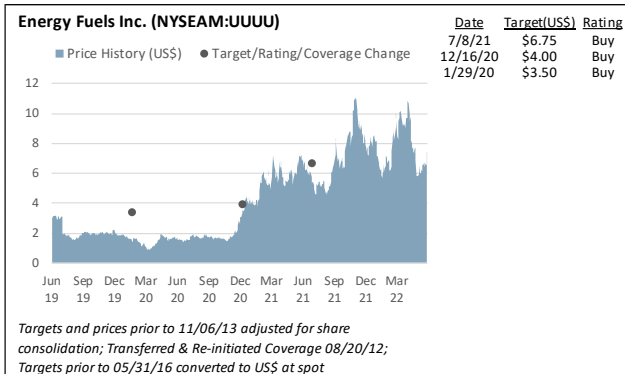
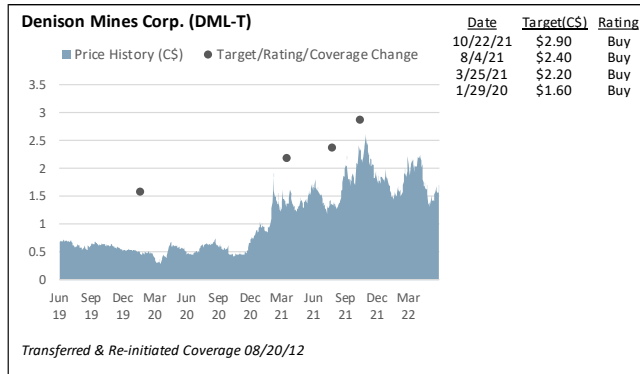
Ticker	Company	1	2	3	4	5	6	7	8	9
TSX:DML	Denison Mines Corp.			X			X			
TSX:EFR	Energy Fuels Inc.			X						
TSXV:ISO	IsoEnergy Ltd.			X						
TSX:NXE	NexGen Energy Ltd.			X						
US:UEC	Uranium Energy Corp.			X						
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	%	#	IB Clients (TTM)
Buy	76.8%	76	70.0%
Hold	14.1%	14	20.0%
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)	8.1%	8	5.0%



Price Chart, Rating and Target Price History (as of September 1, 2022)



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

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