Western Uranium & Vanadium

Strategic U.S. Uranium and Vanadium Assets
October 2018

www.western-uranium.com
Forward Looking Statements

Certain information contained in this presentation constitutes “forward-looking information” (as defined in the Securities Act (Ontario)) and “forwarding-looking statements” (as defined in the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Western Uranium Corporation ("Western)). Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur”, “be achieved” or “has the potential to”. Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of each of Western to be materially different from those expressed or implied by such forward-looking information. Western believes that the expectations reflected in this forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct, and such forward-looking information included in this presentation should not be unduly relied upon. This information speaks only as of the date of this presentation. In particular, this presentation may contain forward-looking information pertaining to the following: the likelihood of the benefits to be derived from the Black Range transaction (the “Transaction”); the rationale of the Transaction; the estimates of each of Black Range’s and Western’s mineral resources; expectations regarding the milling of ores and associated cash flows; and expectations with respect to the enhanced recoveries and efficiencies with respect to the application of the Ablation Mining Technologies ("Ablation"). There can be no assurance that such statements will prove to be accurate or that they will not differ materially from those anticipated in the forward-looking information. Accordingly, readers should not place undue reliance on forward-looking statements. These factors are not and should not be construed as being exhaustive. Statements relating to “mineral resources” are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future. The forward-looking information contained in the presentation is expressly qualified by this cautionary statement.

Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources: This presentation may use the terms “measured,” “indicated” and “inferred” mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize them. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resource may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resource will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.

CAUTIONARY STATEMENTS: The operating parameters and recovery estimates derived from field trials have been developed by Western utilizing internal and skilled third party resources. No technical report developed in accordance with NI 43-101 standards has been undertaken to confirm such parameters and recoveries, which therefore cannot be relied upon.

October 2018

www.western-uranium.com
Near-term Uranium and Vanadium Producer
Creating Multiple Revenue Streams

Among the largest U.S. Uranium and Vanadium in-situ resource holders
(Historic resources formerly JORC and NI 43-101)

• Total uranium resource 70,000,000 lbs. +/-
• Total vanadium resource 35,000,000 lbs. +/- grading between 1.4-2%
• Co-credits lower the all-in sustaining cost (AISC)

Near-Term Production Strategy

• Focus on previously producing mines for low CAPEX, existing infrastructure & permitting
• Pursue uranium/vanadium development at the Sunday Mine Complex
• Pursue vanadium development at Sage Mine Project
• Base load production with economic uranium/vanadium supply contracts

Supply Contracts

• Entered into a uranium supply contract with a U.S. utility company in December 2015
• Pursuing additional uranium supply contracts above current price levels
• Pursuing vanadium supply contracts for a 2 /3 year duration

Ablation Mining Technology (“AMT”)

• Application improves mining efficiency and reduces costs for sandstone hosted deposits
• Continue optimizing the production AMT unit/process and uranium regulatory framework
• Deploy AMT to lower production costs of Western’s uranium/vanadium resources
• Monetize alternative AMT applications for other metals and minerals
Management & Board

George Glasier, President and CEO & Board Member
- Founder of Western Uranium & Vanadium Corporation
- 30+ years of experience in the uranium sector
- Extensive experience in sales and marketing, project development and permitting uranium processing facilities
- Founder of Energy Fuels Inc. (Volcanic Metals Exploration Inc.)
- Led licensing of the Piñon Ridge uranium mill

Robert Klein, Chief Financial Officer
- Previously, Vice President – Finance overseeing reporting, financial operations, and the implementation of corporate transactions and public stock listings for Western Uranium & Vanadium Corporation and its predecessors
- Chief Operating Officer at the Cross River Group, a provider of Operating Partner services to WUC
- Extensive operating and investment background with leadership roles in financial services firms
- Holds CFA designation; holds MBA from the Robert H. Smith School of Business, University of Maryland

Michael Rutter, Vice President – Operations
- Oversees resource properties and the advancement of Ablation Mining Technology
- Previously, Operations Consultant for Western
- Former Maintenance and Operations Superintendent for Energy Fuels Utah/Colorado/Arizona uranium production
- Previously Maintenance, Planning & Development for Lisbon Valley Copper Mine
- Formerly an electrician supporting Asarco’s Solvent, Extraction & Electrowinning (SXEW) process & electrical mining equipment
Management & Board

Andrew Wilder, Non-Executive Director
• Managing Member, COO and CFO at Inventiv Capital Management, an infrastructure and private equity fund group
• Founder of Cross River Group, a business development firm with private equity, real asset, and technology focus
• Founder of Kiski Group, an advisory firm to global institutions
• Co-Founder and COO of North Sound Capital, a $3B AUM long/short equity hedge fund.
• Extensive operations background & holds Chartered Accountant (Canada) and CFA designations.

Bryan Murphy, Non-Executive Director, Chairman
• Co-Founder of Quest Partners, a boutique advisory firm serving small and medium companies with corporate finance, M&A, and strategy advice.
• Seasoned restructuring and turn-around professional.
• Holds HBBA and MBA from University of Western Ontario from the Richard Ivey School of Business

Denis Frawley, Corporate Secretary
• Senior Partner at Ormston List Frawley LLP, a Toronto based law firm.
• Practices law in the areas of corporate, commercial and securities law, with an emphasis on advising businesses who require securities advice under both Canadian and U.S. law.
• Member of the Law Society of Ontario and the New York State Bar Association
Applications and Advantages

URANIUM
• **Nuclear Reactor Fuel**: primary application
• **Highest energy density**: one 10 gram uranium pellet equals 17,000 cubic feet natural gas = 149 gallons oil = 1 ton of coal
• **Baseload Energy Source**: available 24/7
• **Carbon Free / Zero Emissions Energy Source**

VANADIUM
• **Steel Making**: as primary application where adding 2 lbs vanadium to 1 ton of steel doubles its strength and reduces weight
• **Vanadium Redox Flow Batteries (VRFB)**: large scale and grid storage applications supported by scalability, lifespan, charge/discharge, and non-flammability properties
• **Smart Windows**: development of nanoparticle films allows passing of infrared energy in winter & blocking of infrared energy in summer
MARKET DYNAMICS

• China: ~40 operational nuclear plants and expanding quickly
• More than 50 new nuclear reactors being built around the world predominantly in China, Middle East, Russia, India, Africa & LATAM
• Big uranium producers cutting production- Cameco & Kazatomprom
• During YTD 2018, uranium spot rallied from ~$20 to ~$27 per pound

UNITED STATES DYNAMICS

• 99 U.S. nuclear reactors consume 50m lbs p.a. of uranium
• Section 232 investigation commenced by U.S. Department of Commerce is industry changing for U.S. uranium producers; recommendation due to President Trump by April 2019.
• Small Modular Reactors (SMR): advancing toward mid-2020’s install
Uranium Price

< $27 @ 9/30
MARKET DYNAMICS
• Currently, ~90% of Vanadium is used in steel making
• Significant supply reduction from China, Russia, and South Africa
• China implementing new rebar standard [effective November 2018]
• China switch from exporter to importer created global supply deficit
• During YTD 2018, vanadium rallied from ~$10 to ~$22 per pound

GROWTH DYNAMICS
• Steel production growth forecasted from global infrastructure plans
• VRFB growth to support non-baseload energy sources (renewables)
• Vanadium Redox Flow Battery Farm growth in (China, Japan, Australia); Dalian China farm developed by battery manufacturer
Vanadium Price
Ablation Mining Technology (AMT)

- Applicable to sandstone-hosted uranium deposits
- Uranium minerals exist within the matrix of sandstones and as a patina around individual sand grains
- Uses kinetic energy to force particles against each other, without any chemicals, to remove the mineralized patina from the barren sandstone grains
- The resulting fine material is a high-grade and high-value ore
- Produces an ore comprised of 85-95% of the uranium/vanadium in only approximately 10-20% of the mass of pre-ablation material
- Western Uranium & Vanadium continues to pursue regulatory clarifications from CDPHE and NRC for ablation mining technology allowing AMT to be advantageously incorporated into company mining operations
- Decision letter by Colorado CDPHE enabled AMT use in Colorado under milling license regulations
Ablation Mining Technology
Benefits

At the Mine
• Observed >90% of mineralization separated into <10-20% of the mass
• Barren material (cleaned sands) can be used for backfill

Mine to Mill
• Up to ~90% reduction in transport costs
• An on-site mill is not required

At the Mill
• Up to ~90% less material to process
• Smaller tanks and equipment for comparable output
• Lower power consumption
• Higher grade input and increased mill output
• Up to 90% less tailings to dispose

Overall
• Economically recoverable resources are increased, as lower cut-off grades can be applied
• Opportunity to use as a cleanup technology such as legacy uranium mining sites
Ablation Mining Technology

Best Practice

Conventional Mining Without Ablation

Run of Mine Haul
- Nearby Mill
- Large Volume

Large Mill

Large Impoundment

Tailings

Mining:
- Open Pit
- Underground

Ablation Mining

Ablation
Waste Rock Returned to Mine

Ore Transport Offsite
Long Distance Possible

Small Mill

Same Amount of Product Production

Small Impoundment

An alternative to remediation or reclamation approach of existing waste-rock piles suggested in the 2014 report is the application of AMT on the waste-rock, protore, & low grade stockpiles in existence today. 69% of the mines identified are located in Colorado and Utah.

### Portfolio of Projects

**Historic Uranium Resources & Vanadium Mineralization and Mine and Mill Locations**

<table>
<thead>
<tr>
<th>Projects</th>
<th>HISTORIC* (Formerly Measured and Indicated)</th>
<th>HISTORIC* (Formerly Inferred)</th>
<th>VANADIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uranium (lbs)</td>
<td>Grade (%)</td>
<td>Uranium (lbs)</td>
</tr>
<tr>
<td>1 Sunday Complex**</td>
<td>1,007,833</td>
<td>0.25</td>
<td>1,906,081</td>
</tr>
<tr>
<td>2 San Rafael***</td>
<td>2,415,400</td>
<td>0.25</td>
<td>587,800</td>
</tr>
<tr>
<td>3 Sage****</td>
<td>459,640</td>
<td>0.23</td>
<td>122,265</td>
</tr>
<tr>
<td>6 Hansen/Taylor Ranch*****</td>
<td>21,328,000</td>
<td>0.062</td>
<td>44,055,000</td>
</tr>
</tbody>
</table>

Additional Uranium and Vanadium Mines: 4. Dunn  
Additional Mills: 5. Piñon Ridge Mill (Proposed) 7. Van 4  
9. White Mesa Mill
Sunday Mine Complex
Already Permitted

- A complex of 5 interconnected underground mines (most recently mined in 2009)
- Uranium and vanadium mines with historic production (Union Carbide, Denison)
- Strong U$_3$O$_8$ grades present at the Sunday Mine Complex (~0.25% to 0.36%)
- Large surface stockpile of ~100,000 tons ready for immediate production; evaluation October 2018.
- Western’s expected first production to be derived from the Sunday Mine Complex
- Transport Sunday ore to the White Mesa Uranium Mill, Pinon Ridge Mill or alternative processing facility
Sunday Mine
High Grade Uranium-Vanadium Ore Bodies
TOTAL HISTORIC URANIUM RESOURCES ~ 70,000,000 lbs

*Important Caution Regarding Historic Mineral Resources:
Historic mineral resources are not mineral reserves and do not have a demonstrated economic viability. All referenced historic mineral resources are historic estimates under NI 43-101. In order to disclose the historic resources as current, Western would need to complete and file an NI 43-101 technical report on www.sedar.com. The mineral resource estimates set out above may be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, legal, political and other factors. There is insufficient information available to assess the extent to which the potential development of the mineral resources described herein may be affected by these risks and the other risk factors discussed in the Company’s most recent Management Discussion and Analysis.

**Anthony R. Adkins, CPG, is responsible for validating the database as adequate for resource estimation and for estimating the mineral resources pertaining to the Sunday Complex described herein. Mr. Adkins is a Qualified Person and is independent of Western within meaning of NI 43-101.

***O. Jay Gatten, P. Geol., LLC was commissioned by Western Uranium to prepare an Independent Technical Report compliant with the Canadian National Instrument, 43-101 on the San Rafael Uranium Project, an advanced-stage uranium property. The report was finalized on November 19, 2014 and filed on sedar.com on November 20, 2015.


*****The information in this presentation that relates to Mineral Resources at the Hansen/Taylor Ranch Uranium Project has been prepared in accordance with JORC standards and is based on information compiled by Mr. Rex Bryan who is a Registered Member of the Society for Mining, Metallurgy and Exploration (SME), which is a Recognized Professional Organization. Mr. Rex Bryan compiled this information in his capacity as a Principal Geologist of Tetra Tech.
The Pinon Ridge Mill (“Mill”) is a planned uranium and vanadium processing facility on 800-acres of private land in Montrose County, Colorado, 12 miles west of Naturita (not owned by Western).

Western signed a Letter Of Intent with the Mill owner in November 2016 to negotiate a definitive agreement (deferred pending regulatory outcome).


A coalition of environmental groups sued CDPHE in September 2014. After April 2018 hearing findings, CDPHE revoked the license rather than continuing litigation recommending the Mill owners reapply for a new license under the new standards leveraging the extensive baseline data and documentation.

The Mill owners petitioned CDPHE in May 2018 for remedies and continue to consider their options, but have not initiated further actions.
Western Milestones

**August 2014**
- Sunday Mine uranium assets acquired from Energy Fuels (NYSE: UUUU)

**January 2015**
- Western Uranium bids on Black Range Minerals (ASX: BLR).

2016
- OTCQX listing in United States (May)
- Submitted technical report and held public AMT meetings for CDPHE
- NRC issues AMT advisory opinion
- Signed LOI for use of AMT and ore processing at the Pinon Ridge Mill
- CDPHE issues decision on regulating AMT at Sunday Mine

**September - December 2014**
- Public entity acquired, renamed “Western Uranium Corp” (“WUC”); listed on Canadian Stock Exchange (“CSE”).

**September 2015**
- Western closes acquisition of Black Range Minerals (ASX: BLR); Acquires mine assets, global rights to AMT
- AMT demonstrated during investor/analyst/utility Colorado mine visit.

**December 2015**
- Top 3 US utility signs multi-year uranium off-take agreement with Western

2018 (as of 9/30/18)
- Pay-off resource property debt
- Sage Mine vanadium development JV (terminated to recognize higher value)
- Change company name to Western Uranium & Vanadium Corp.
- Sunday Mine stockpile sampling and results (October)
- Source economic uranium and vanadium supply contracts (Q4)

2017
- Consolidated administrative operations due to uranium market conditions
- Made AMT advancements
- Increased focus on vanadium including evaluating a vanadium mine acquisition

**Execute Production Strategy**
Production Strategy

Production Goals
• Pursue uranium/vanadium development at the Sunday Mine Complex
• Secondarily pursue vanadium development at Sage Mine Project
• Advance AMT to reduce production cost with goal of becoming the U.S. low cost producer

AMT Preparation
• Advance AMT regulatory framework with state and federal regulators
• Continue AMT testing, data gathering and refining AMT technology

Production Trigger
• Acquire favorable long-term uranium and/or vanadium contracts to initialize production (1)

Pre-Production
• Acquire requisite amendments to mining permits
• Commence mine and infrastructure preparation
• Build additional AMT production units sized and configured to specifications
• Acquire additional resources or capabilities through acquisition, joint venture, or merger

Production
• Commence production at Sunday Mine Complex and/or Sage Mine Project utilizing AMT

Note (1) Production considerations: realizable price, production cost, volumes, permitting and financial considerations.
## Western Uranium & Vanadium (CSE:WUC & OTCQX:WSTRF)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share price</td>
<td>C$2.49</td>
</tr>
<tr>
<td>Market capitalization</td>
<td>C$64,500,000</td>
</tr>
<tr>
<td>Total shares outstanding</td>
<td>25,913,568</td>
</tr>
<tr>
<td>Warrants</td>
<td>6,861,670</td>
</tr>
<tr>
<td>Stock Options</td>
<td>2,716,664</td>
</tr>
<tr>
<td>Totally fully diluted shares</td>
<td>35,491,902</td>
</tr>
<tr>
<td>52 week closing price range</td>
<td>CAD$0.60 - $2.63</td>
</tr>
</tbody>
</table>

### Major Shareholders (10%+)

<table>
<thead>
<tr>
<th>Name</th>
<th>Shares</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>George Glasier</td>
<td>4,783,333 shares</td>
<td>18% ownership</td>
</tr>
</tbody>
</table>
Contact Information

Canadian Office
330 Bay Street, Suite 1400
Toronto, Ontario M5H 2S8
Canada

U.S. Office
31127 Hwy 90 Road
P.O. Box 98
Nucla, CO 81424
United States

Phone : (970) 778-9195
gglasier@western-uranium.com

Investor Relations
ir@western-uranium.com