



Fission
URANIUM CORP.

Early Days at PLS

Exploration of the Year

Minjng Journal
Outstanding
Achievement
Awards



FissionUranium.com

Disclaimer

The following information may contain forward-looking statements. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements.

All historical resource estimates were completed prior to the implementation of NI 43-101 and the Company has not done the work necessary to verify the classification of the resource or reserve, they should not be relied upon or considered a defined resource according to NI 43-101; Except for those properties where NI 43-101 have been completed.

The technical information in this corporate presentation has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of the company by Ross McElroy, P.Geol. President and COO for Fission Uranium Corp., a qualified person.

Technical Information

Certain of the technical information contained herein is derived from the September 15, 2015 report entitled "Technical Report on the Preliminary Economic Assessment of the Patterson Lake South Property, Northern Saskatchewan, Canada" (the "PEA") – a copy of which is filed on the Company's profile on SEDAR at www.sedar.com. Readers should be aware that the PEA is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized. The PEA considers the PLS project as a stand-alone mine and mill operation, which includes development and extraction of the R00E and R780E zones (Triple R deposit) and that the PEA study is based on a number of qualifications and assumptions including the following (all values in C\$ unless otherwise noted):

Physicals:

- Three years of pre-production and 14 year mine life, processing nominally 1,000 tonnes per day (350,000 tonnes per year)
- Total Tonnes Processed: 4.8 million tonnes at 1.00% U3O8 average grade; open pit mining of 1.56 million tonnes at 2.21% U3O8
- Underground mining of 3.25 million tonnes at 0.42% U3O8
- Process recovery of 95%, supported by metallurgical testwork
- Production of 100.8 million lbs U3O8; an average of 13 million lbs U3O8 per year for 6 years, followed by an average of 3 million lbs U3O8 per year for 8 years

Revenue:

- Long term uranium price of US\$65 / lb U3O8
- Exchange rate of 0.85 US\$ / C\$1.00
- Gross revenue of \$7.71 billion, less Saskatchewan gross revenue royalties of \$556 million
- Less product transportation charges of \$34 million
- Net revenue of \$7.12 billion

Operating Costs

- Average OPEX of \$16.50/lb (US\$14.02/lb) U3O8 over the life of mine
- Unit Operating Costs of \$346 per tonne processed. Combined Mining \$154 per tonne processed
- Processing: \$114 per tonne processed
- Surface and G&A: \$78 per tonne processed
- Operating cash flow of \$5.45 billion

Capital Costs

- Pre-Production capital costs of \$1.1 billion
- Open pit mining \$363 million (includes dyke, slurry wall, and overburden removal)
- Process plant \$198 million
- Infrastructure \$117 million
- Indirects \$209 million
- Contingency \$208 million
- Sustaining capital costs of \$189 million (includes completion of overburden stripping, all underground mine capital costs, and tailings dam lifts)
- Reclamation and closure cost of \$50 million
- Cash flow from operations of \$4.12 billion

Building Shareholder Value Since 1996

Strathmore Minerals Corp ('96)

- 1996 - Uranium at \$7/lb
- \$2M Mkt Cap ('96) to > \$457M ('07)
- Sumitomo Corp (Japan) JV (\$50M)
- Fission Energy Spin out (\$132M)



Fission Energy Corp ('07)

- \$16M Mkt Cap ('07) to > \$150M ('13)
- JV KEPCO (Korea) (\$44M)
- J-Zone Discovery & Sale to Denison (\$85M)
- Triple R Discovery



Fission Uranium Corp ('13)

- Fission takeover of Alpha Minerals (\$350M) Fission 3.0 Spin-Out (\$25M)
- Triple R 43-101 Resource 81.1M Indicated 27.2M Inferred
- PEA - OPEX \$14.02/lb US
- CGN (Chinese Utility) buys 19.99% (\$82M)

Major Exploration Success and Strong Prospects



New Discoveries: Still Early Days



Large, High Grade, Shallow

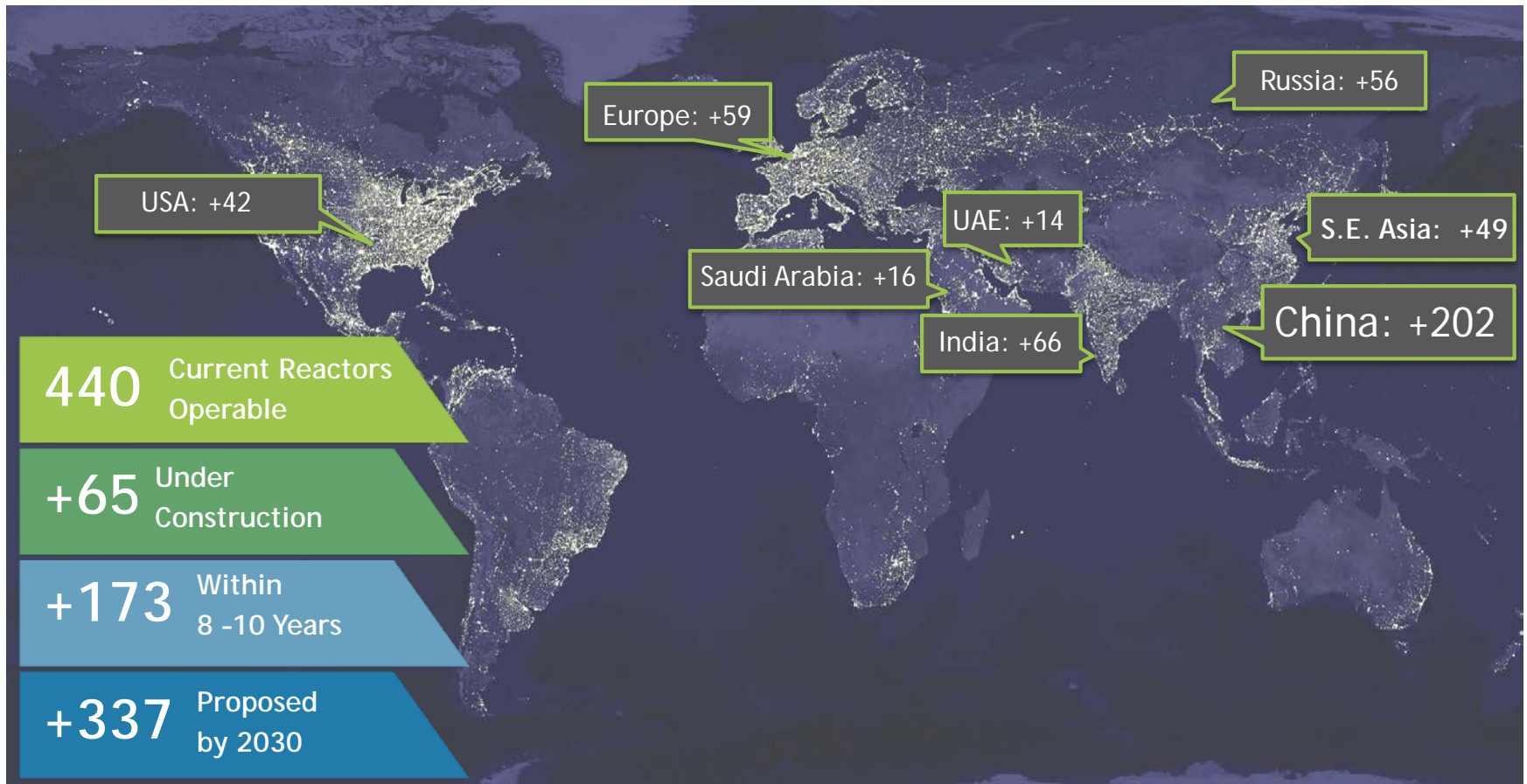


Resource Backed by PEA



Leading Jurisdiction

Electricity Demand +76% by 2030, Reactor Numbers Rising



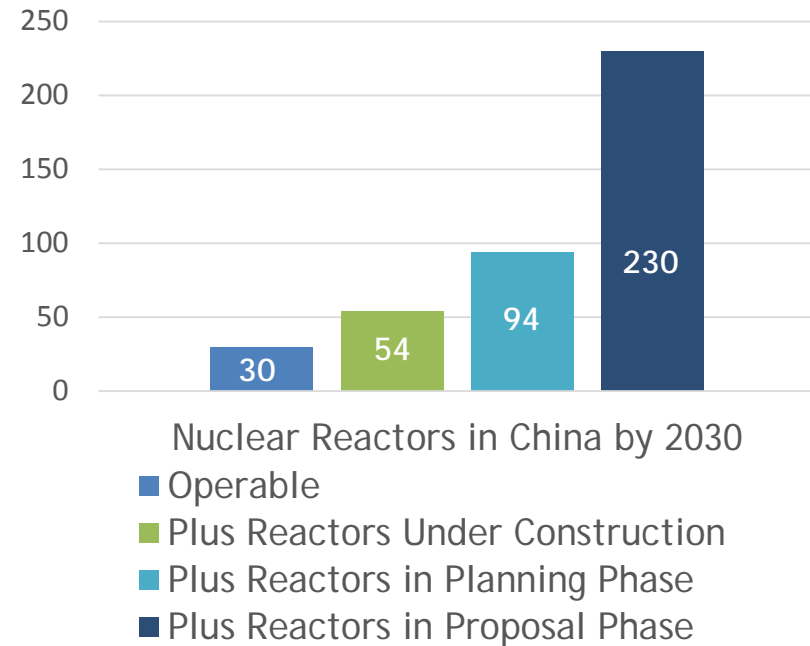
Forecast new reactors by 2030. (Source: World Nuclear Association, March 1, 2016)

China's Leading Nuclear Builder Owns 19.9% of Fission



A sunny day in Beijing, China: Red Alert

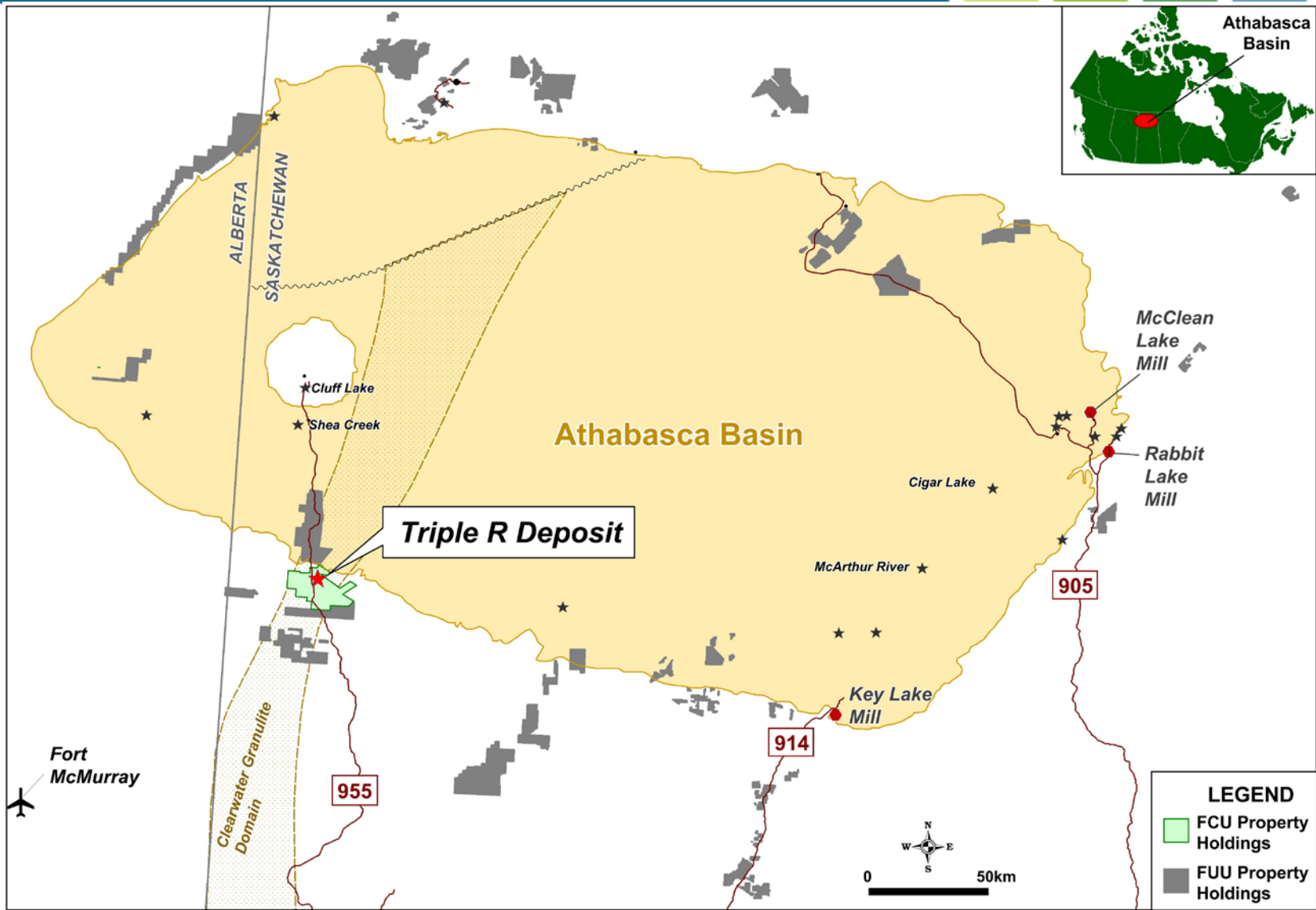
China's Reactor Construction Boom



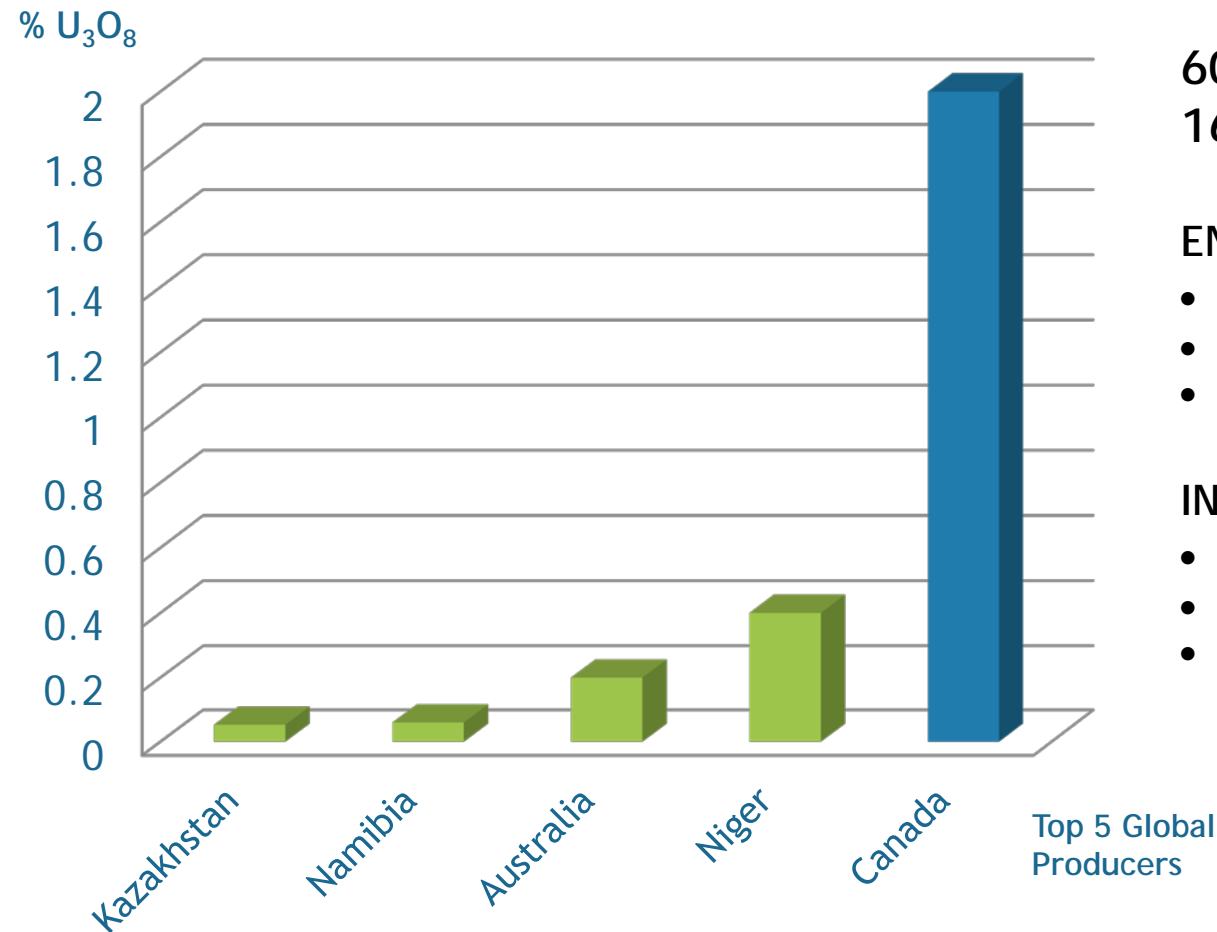
Fission's Strategic Partner

- CGN has 19 operating reactors and a further 23 new reactors in the construction phase
- CGN Mining will purchase 20% of annual uranium production from PLS; option to purchase additional 15% at industry std terms

Canada's Athabasca Basin District



Athabasca: The Premier High-Grade Uranium District



60+ years of mining, supplying 16% of the world's uranium

ENVIRONMENT

- Political stability
- Pro-mining
- Permitting

INFRASTRUCTURE

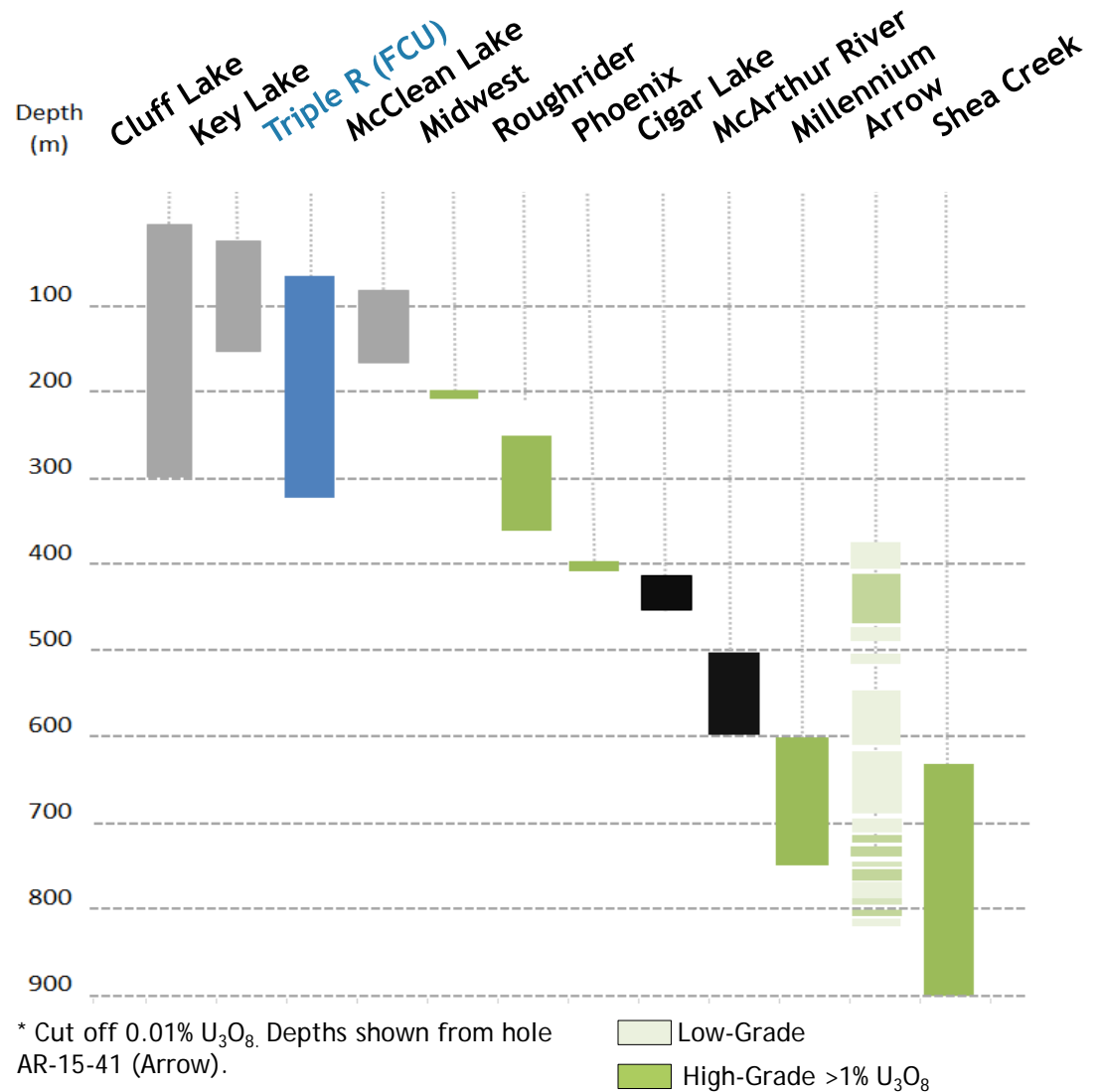
- Mills nearby
- Power Grid
- Highways & Air

Low Hanging Fruit Picked First

- Mined Out
- In Production
- Drilled



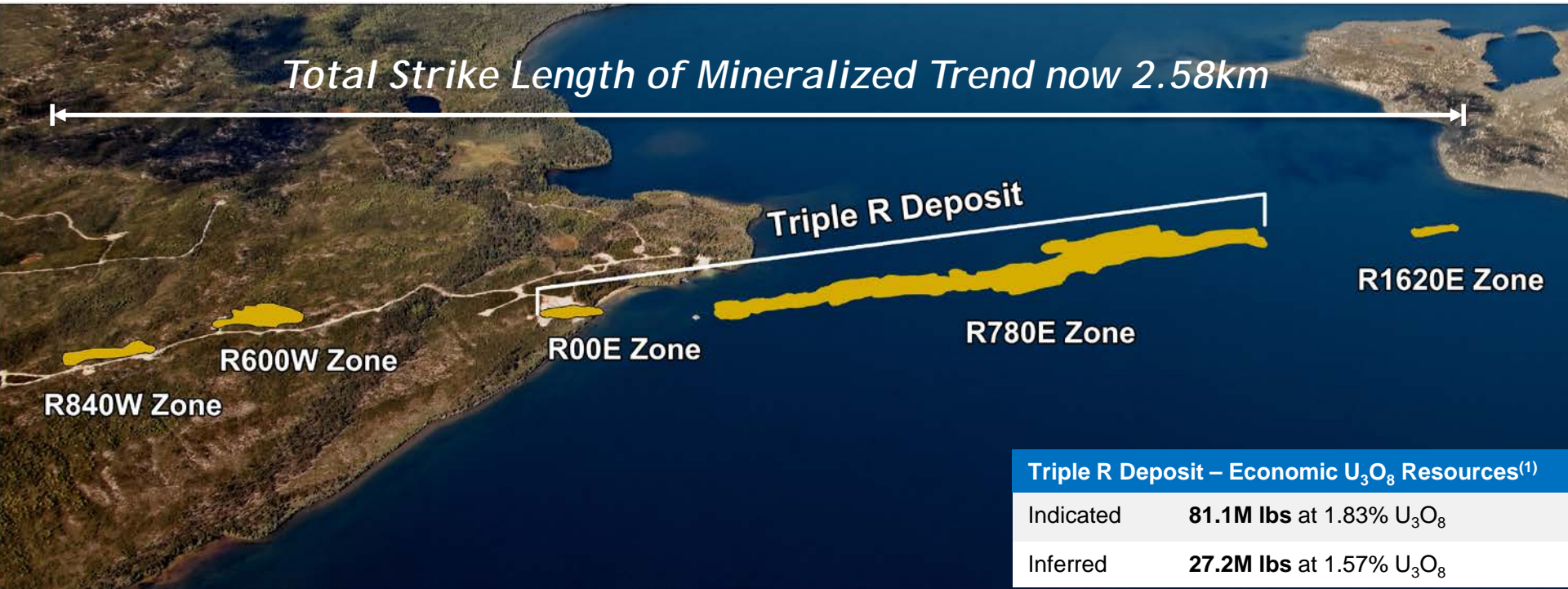
Diavik Mine, Northwest Territories
Open Pit Mine (in lake) with depths in
excess of 250m.



Early Days at PLS: Triple R Deposit & New Zones

“Total E-W strike length is now 2.58 km, well beyond that of even Cigar Lake (1.95 km) or McArthur River (1.70 km) - such a lateral extent to us underlines the magnitude of the strength of the mineralizing system at PLS.”

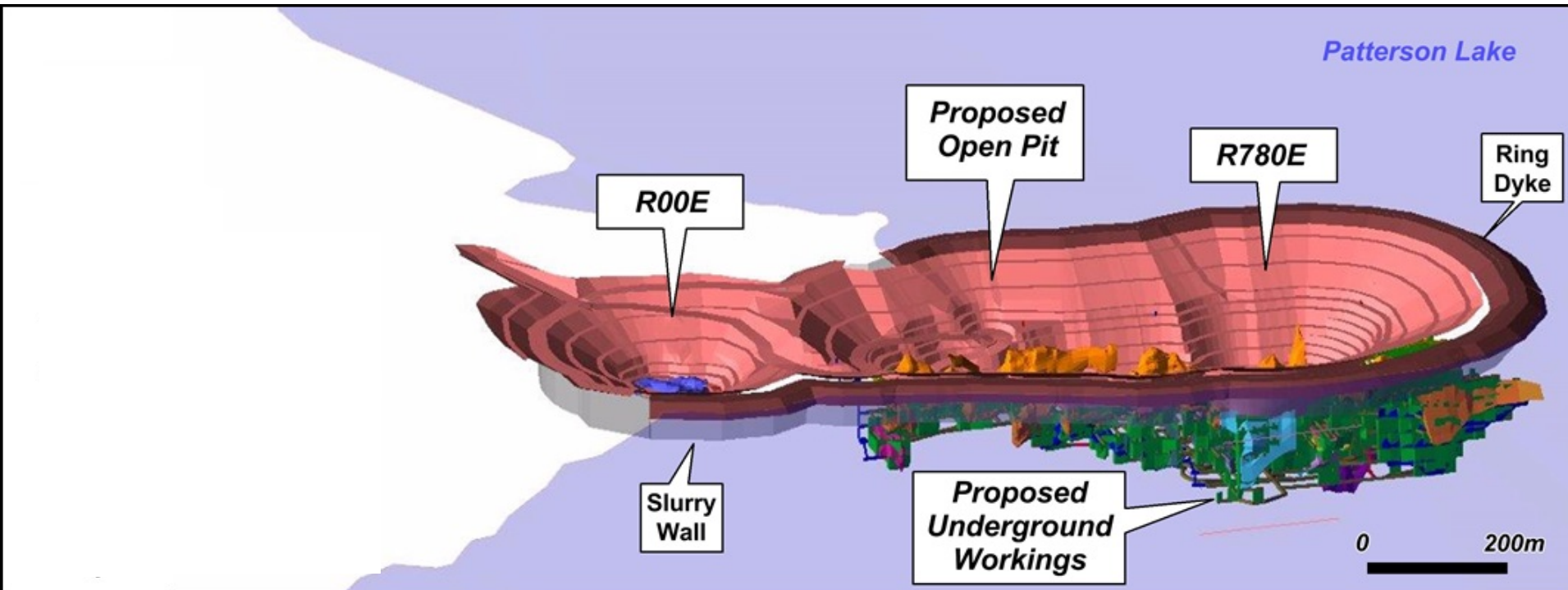
David Sadowski, Raymond James



(1) Please see legal disclaimer on slides 2 and 3 of this presentation

PEA Indicates Large, Low Cost Potential

The Athabasca Basin's Largest Undeveloped Deposit Backed by a PEA



Early Days at PLS: How the Triple R Measures Up

- **Average OPEX of US\$14.02/lb U3O8**
- **Rapid 1.4 yr pay back (pre-tax), 1.7 yr (post-tax)**
- Pre-tax NPV \$1.81 bln, post-tax NPV \$1.02 bln (10% discount rate)
- Pre-tax Net Cash Flow over LOM of \$4.12 bln, post-tax \$2.53 bln
- Pre-tax IRR 46.7%, post-tax IRR 34.2%
- Estimated CAPEX of \$1.1 billion

Project	OPEX (CDN\$/lb U ₃ O ₈)	Owner/Operator
Patterson Lake South (PLS)	\$16.60 ⁽¹⁾	Fission Uranium
Kazakhstan Ave. (ISL mining)	\$18.13 ⁽²⁾	Uranium One
Cigar Lake	\$18.57 ⁽³⁾	Cameco
McArthur River	\$19.23 ⁽⁴⁾	Cameco
Hidden Bay	\$35.71 ⁽⁵⁾	UEX
Willow Creek, US (ISL mining)	\$39.83 ⁽⁶⁾	Uranium One

(1) Base case using US\$65/lb U₃O₈ and an exchange rate of US\$0.85:C\$1.00

(2) Uranium One Inc., Audited Annual Consolidated Financial Statements For the years ended December 31, 2014 and 2013

(3) Cigar Lake Project NI 43-101 Technical Report, February 24, 2012

(4) McArthur River Operation NI 43-101 Technical Report, November 2, 2012

(5) Preliminary Assessment Technical Report on the Horseshoe and Raven Deposits Hidden Bay Project, February 15, 2011

(6) Uranium One Inc., Audited Annual Consolidated Financial Statements For the years ended December 31, 2014 and 2013

Exploration Success at PLS

2013 Drilling Results



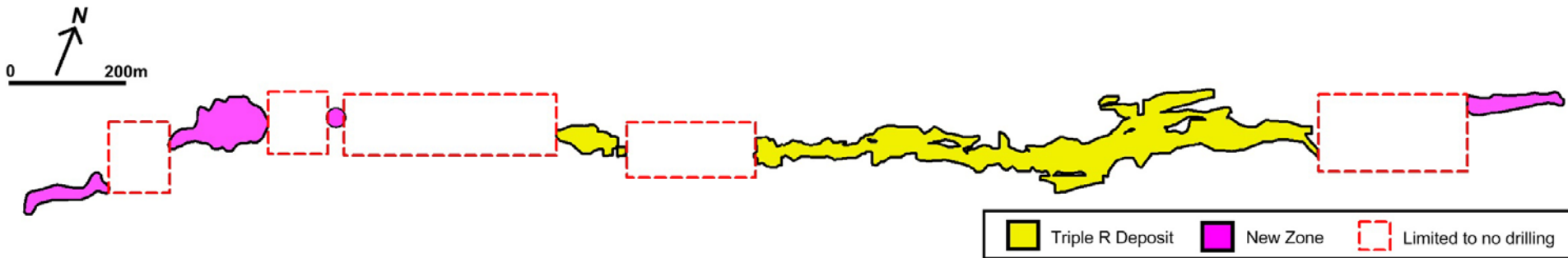
2015 Triple R Deposit - PEA



2016 Winter Drilling



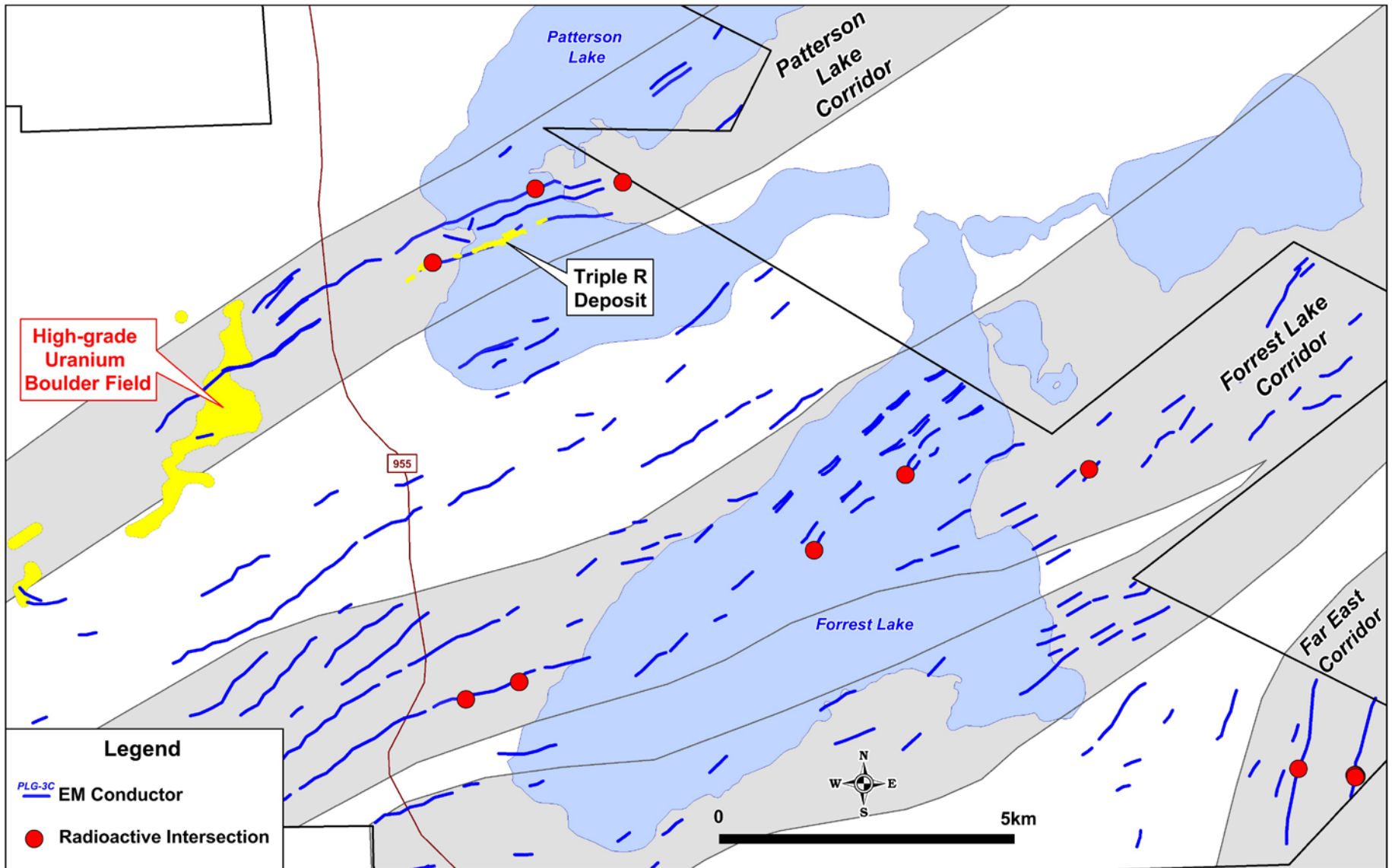
Early Days at PLS: New Zones, Potential to Connect



Exploration Success and Blue Sky

- All zones are high-grade and shallow
- Potential exists to connect zones
- Additional high-priority prospects throughout PLS project

Exploration Upside - Early Days at PLS



Early Days at PLS: Looking Ahead



Winter Exploration
Nov 01, 2015 - Apr 30, 2016

- ❖ Completed Resource Growth Drilling
 - Delineate R600W Zone
 - Expanded R780E High-Grade Zones
 - Expanded R1620E Zone
- ❖ Completed Exploration Drilling
 - Discovered R840W zone
 - Hit Mineralization between R600W and R00E Zone.



Summer Exploration
May 01, 2016 - Oct 31, 2016

- ❖ Summer Drill Program
 - Expand R840W and R1620E High-Grade Discoveries
 - Test gaps between zones
 - Exploration hot spot drilling
 - Expand R600W and R780E Zones

Corporate Information

Financial Summary

Market Cap: C\$314.5 million
(as at May 13, 2016)

Cash: C\$ 74.6 million
(as at April 30, 2016)

Daily trading Ave. (3 month) 1.6 million

Shares outstanding: 483.9 million

Options: 48.0 million

Fully diluted: 531.9 million
(as at April 30, 2016)

Analyst Coverage

Alex Pierce - BMO Capital Markets, London

David Talbot — Dundee Securities, Toronto

Rob Chang — Cantor Fitzgerald, Toronto

David Sadowski — Raymond James, Vancouver

Colin Healey — Haywood Securities, Vancouver

Heiko Ihle — H. C. Wainwright & Co., New York

Louis James — Casey Research, Florida

Tyron Breytenbach — Cormark Securities, Toronto

Management Team:

Dev Randhawa, MBA — Chairman, CEO, Director
Ross McElroy, P.Geol. — President & COO, Director
Paul Charlish - CFO
Rich Matthews - Head of Marketing & IR

Board of Directors:

Dev Randhawa, MBA — Chairman, CEO, Director
Ross McElroy, P.Geol. — President & COO, Director
Frank Estergaard, CA — Director
William Marsh — Director
Jeremy Ross — Director
Anthony Milewski — Director
Raffi Babikian — Director
Paul Ma — Director
Xing Jianhua — Director

Advisory Board:

Ron Netolitzky
Michael Halvorson
Chief Teddy Clark

Fission's Management Team

Dev Randhawa, Chairman & CEO

- Fission Energy founding CEO and chairman from 2007 to 2013 leading company to Tier One status
- **Finance Monthly 'Dealmaker of the Year 2013', Northern Miner 'Person of the Year 2013'**
- Founder of Pacific Asia China Energy, sold for \$34M

Ross McElroy, President and COO

- Formerly with Cameco, Areva, BHP Billiton
- **PDAC 2014 'Bill Dennis Award for Exploration Success', Northern Miner 'Person of the Year 2013'**
- Significant role in 4 major uranium discoveries in Athabasca Basin, incl. Fission's Waterbury Lake & PLS
- Professional geologist of 25+ yrs exp

Paul Charlish, CFO

- Nearly 30 years of finance experience, including audit/tax in public practice and financial reporting and tax for public companies.
- Specializes in the mining sector and is well versed in the requirements of complex regulatory environments
- Played an instrumental role in mergers, acquisitions, spin outs and divestments for mining companies, including Fission Energy and Fission Uranium

Richard Matthews, Head of Marketing and IR

- Experienced IR professional with considerable uranium sector experience
- Comprehensive marketing expertise in the mining sector and private business



PROSPECTORS &
DEVELOPERS
ASSOCIATION
OF CANADA

BILL DENNIS 2014 AWARD • ROSS MCELROY



ROSS MCELROY and DEV RANDHAWA • Winners,
The Northern Miner Person of the Year 2013 Award



DEV RANDHAWA • Winner, Finance Monthly
Dealmaker of the Year 2013 Award



EY Entrepreneur
Of The Year™

2014 Finalist



Winner, Exploration of the Year Award



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