



ARROW: THE BASIN'S LARGEST UNDEVELOPED URANIUM DEPOSIT

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Information Contained in this Presentation

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The information contained herein contains “forward-looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 and “forward-looking information” within the meaning of applicable Canadian securities legislation. “Forward-looking information” includes, but is not limited to, statements with respect to the activities, events or developments that the Company expects or anticipates will or may occur in the future, including, without limitation, the completion of the technical report in support of the PEA. Generally, but not always, forward-looking information and statements can be identified by the use of words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes” or the negative connotation thereof or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved” or the negative connotation thereof.

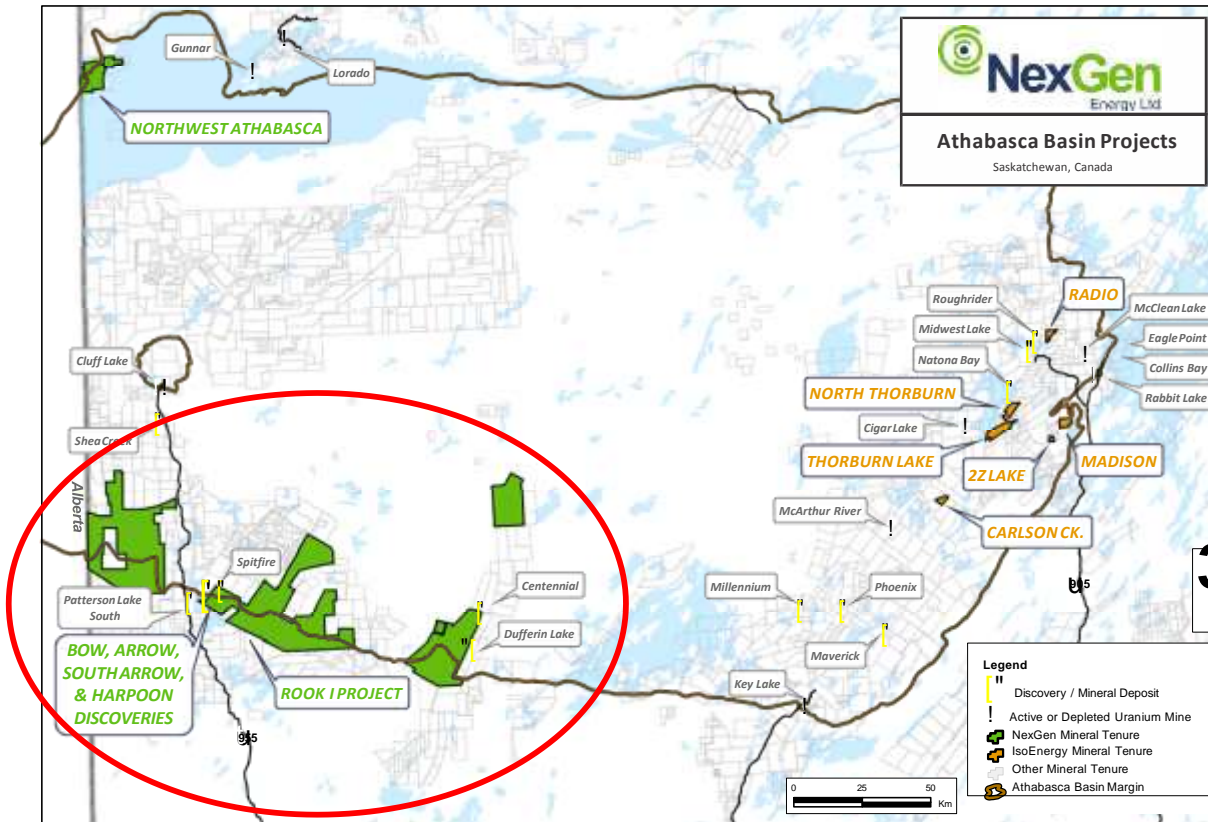
Forward-looking information and statements are based on the then current expectations, beliefs, assumptions, estimates and forecasts about NexGen’s business and the industry and markets in which it operates. Forward-looking information and statements are made based upon numerous assumptions, including among others, the results of planned exploration activities are as anticipated, the price of uranium, the cost of planned exploration activities, that financing will be available if and when needed and on reasonable terms, that third party contractors, equipment, supplies and governmental and other approvals required to conduct NexGen’s planned exploration activities will be available on reasonable terms and in a timely manner and that general business and economic conditions will not change in a material adverse manner. Although the assumptions made by the Company in providing forward-looking information or making forward-looking statements are considered reasonable by management at the time, there can be no assurance that such assumptions will prove to be accurate.

Forward-looking information and statements also involve known and unknown risks and uncertainties and other factors, which may cause actual results, performances and achievements of NexGen to differ materially from any projections of results, performances and achievements of NexGen expressed or implied by such forward-looking information or statements, including, among others, negative operating cash flow and dependence on third party financing, uncertainty of the availability of additional financing, the risk that pending assay results will not confirm previously announced preliminary results, imprecision of mineral resource estimates, the appeal of alternate sources of energy and sustained low uranium prices, aboriginal title and consultation issues, exploration risks, reliance upon key management and other personnel, deficiencies in the Company’s title to its properties, uninsurable risks, failure to manage conflicts of interest, failure to obtain or maintain required permits and licenses, changes in laws, regulations and policy, competition for resources and financing, or other approvals, and other factors discussed or referred to in the Company’s Annual Information Form dated March 31, 2017 under “Risk Factors”.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information or implied by forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended.

There can be no assurance that forward-looking information and statements will prove to be accurate, as actual results and future events could differ materially from those anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements or information. The Company undertakes no obligation to update or reissue forward-looking information as a result of new information or events except as required by applicable securities laws.

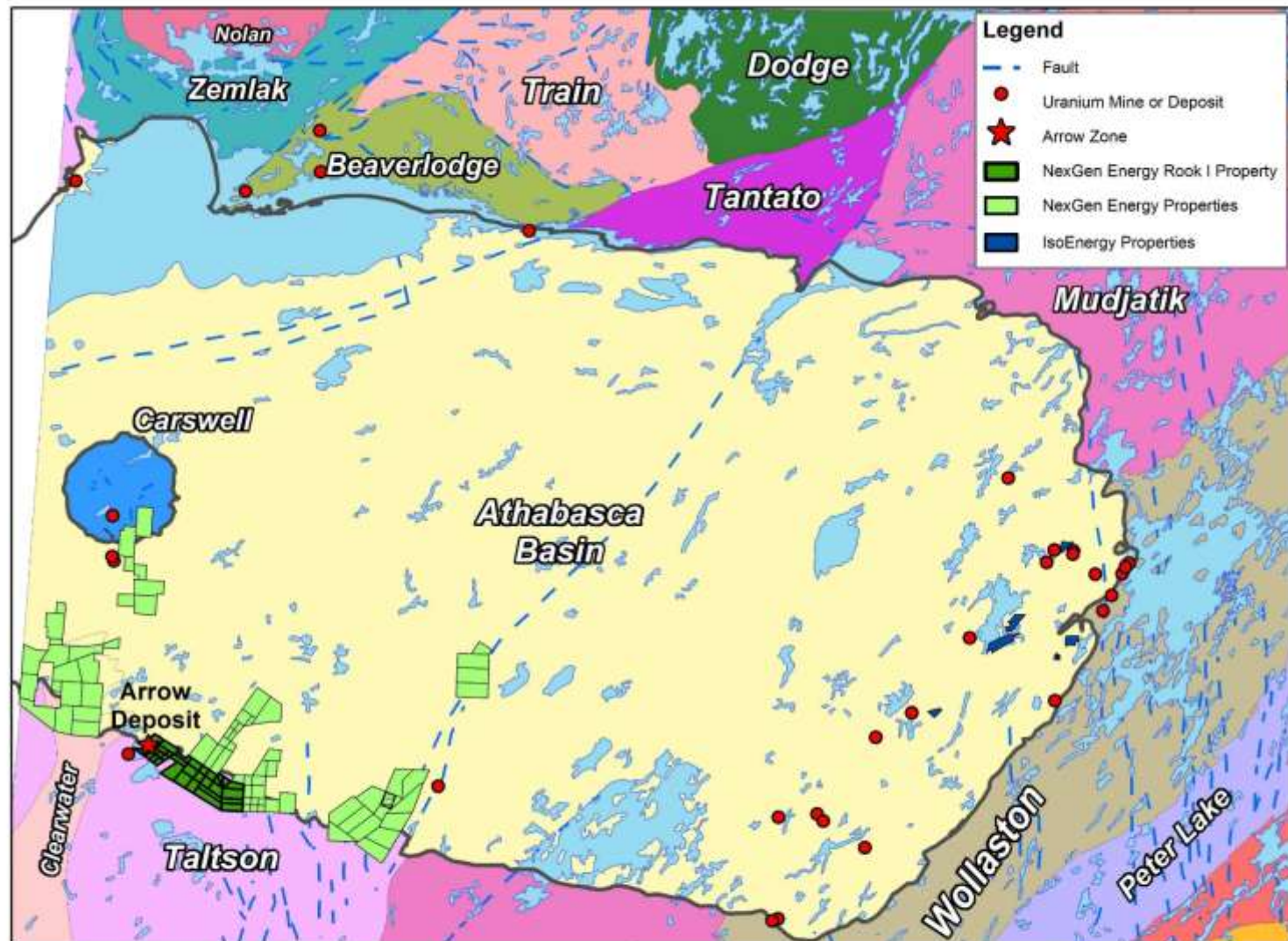
Strategic Land Position



- NexGen holds over 260,000 hectares of prospective exploration ground in the southwest Athabasca Basin.
- Rook I will remain focus and, specifically, the Patterson Corridor which currently hosts multiple uranium discoveries over a 15 km strike length.

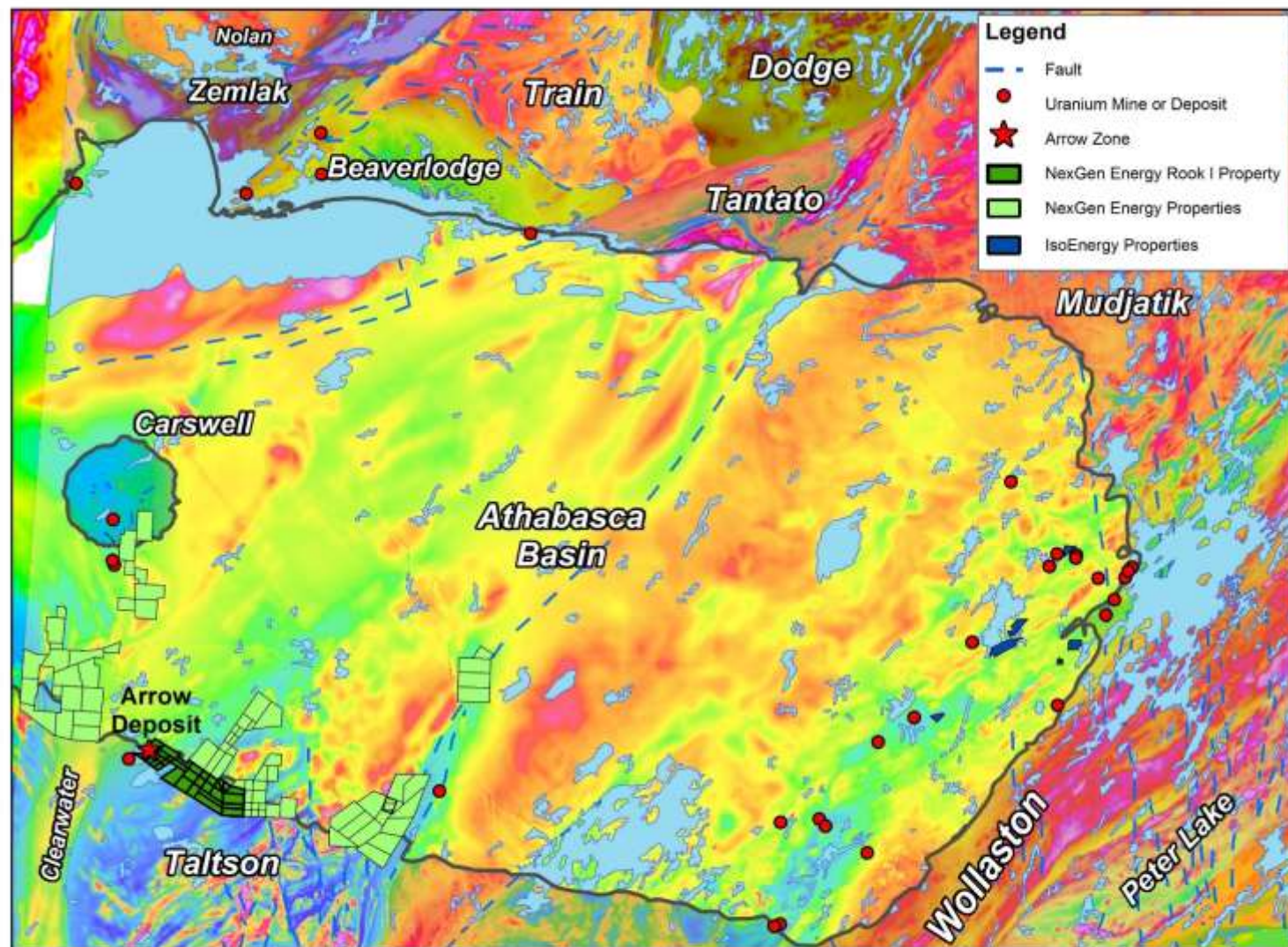
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Geology of the Athabasca Basin



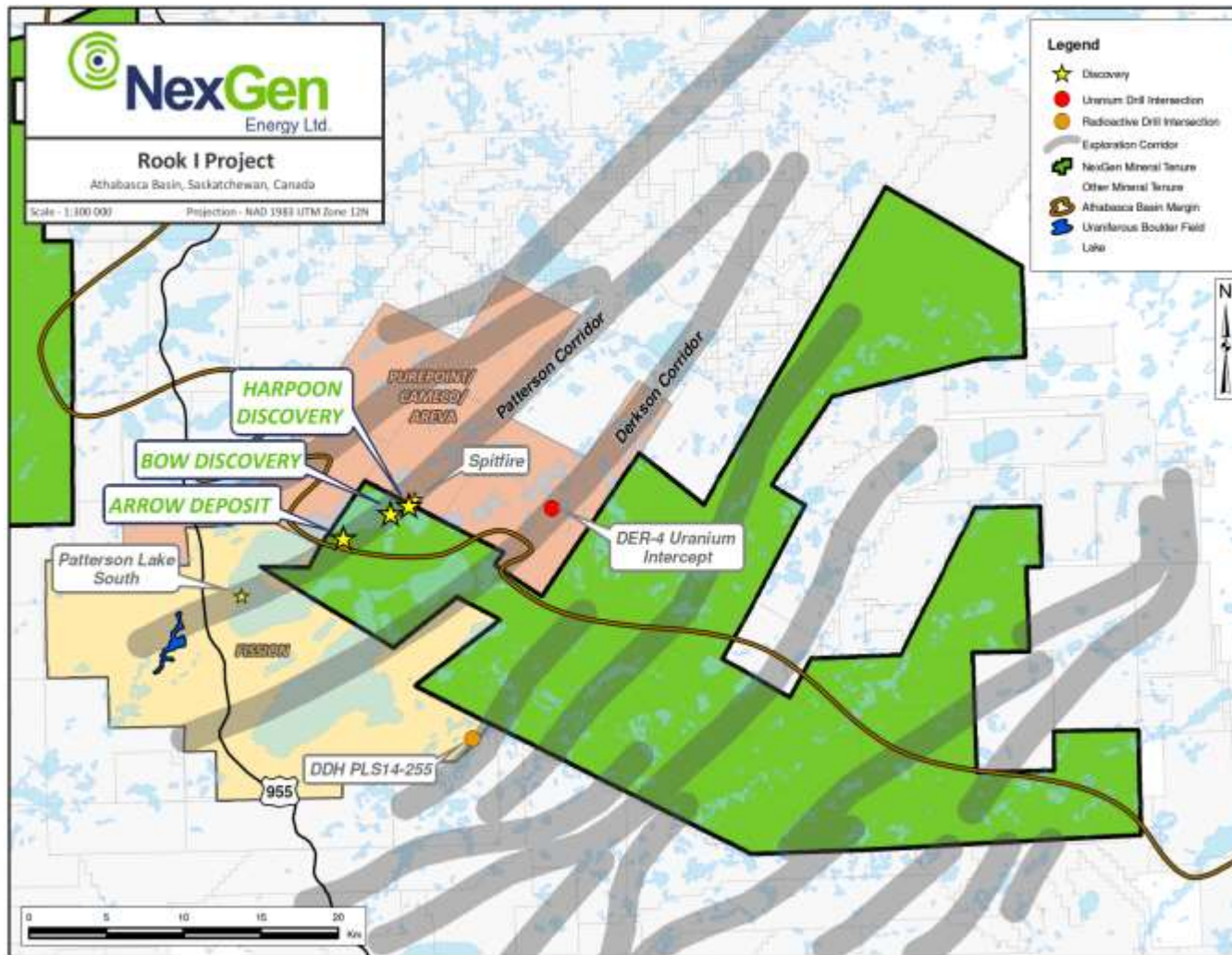
Geology of the Athabasca Basin

Aeromagnetics (TMI) of the Athabasca Basin



Aeromagnetics (TMI) of the Athabasca Basin

Southwest Athabasca Basin



Arrow is the **largest undeveloped uranium deposit in the Basin.**

Discovery opportunity on the Patterson Lake Corridor:

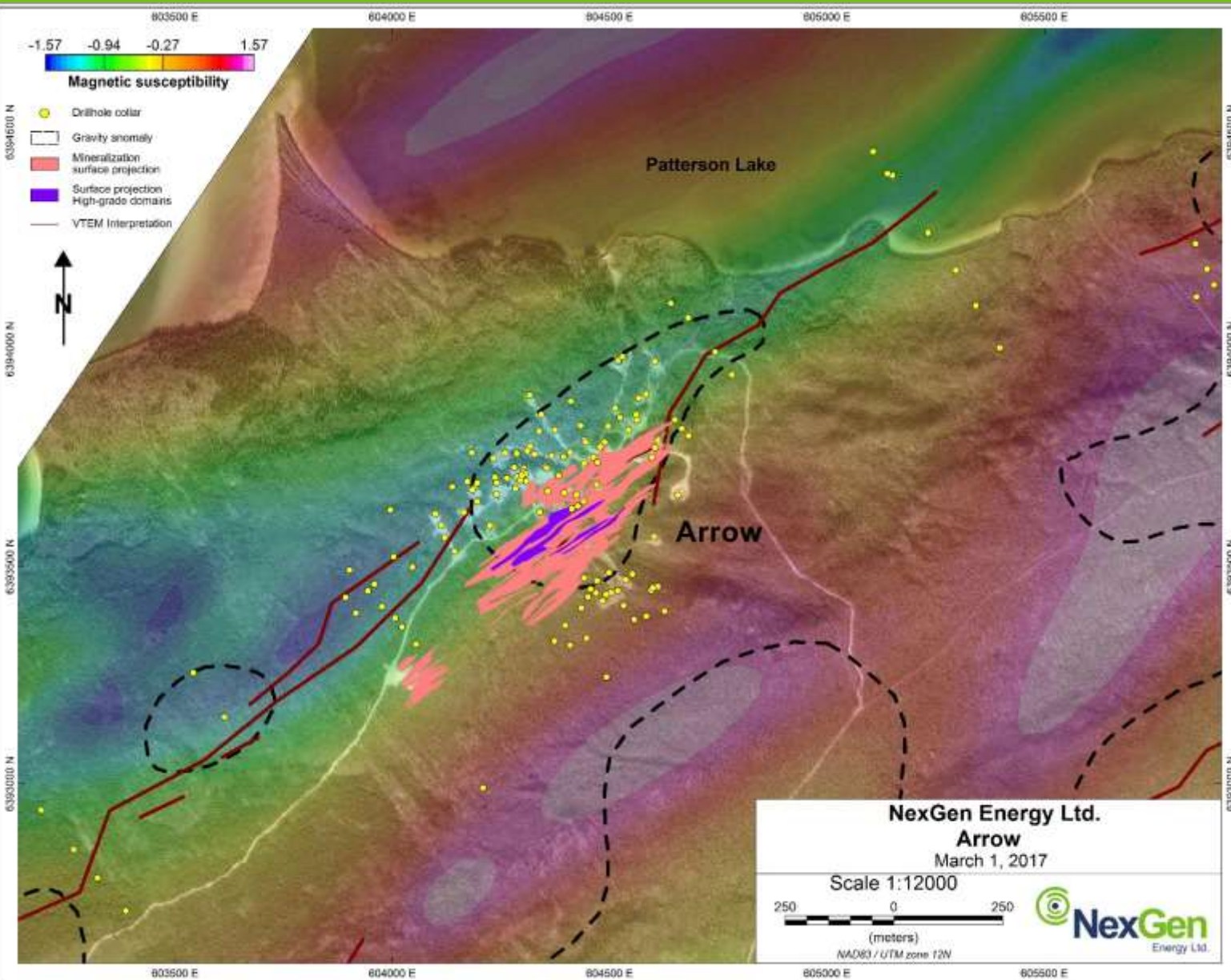
- 2012 – PLS Discovery
- 2014 - Arrow discovery
- 2014 – Spitfire Discovery
- 2015 – Bow Discovery
- 2016 – Harpoon Discovery
- 2017 – South Arrow Discovery

Multiple discoveries along a 15 km trend of the Patterson Lake Corridor, of which 9km is on the Rook I property

Recent History of Southwest Athabasca Basin

- ▶ June 2011: PLS high-grade uranium boulder field discovered by Alpha Fission JV.
- ▶ August 2012: NexGen enters into agreement to acquire properties from Mega Uranium.
- ▶ November 2012: 00E zone discovered at PLS with drill hole PLS12-022.
- ▶ January – April 2013: drilling on PLS discovers high grade 390E and 780E zones.
- ▶ April 2013: NexGen is publicly listed on TSX-V as symbol NXE.
- ▶ August 2013: NexGen carries out first drill program at Rook I. Two drill rig summer program completed 3,029 m in 13 drill holes. Drill hole RK-14-05 intersected 4.0 m at 0.031% U₃O₈ in Area A.
- ▶ February 2014: Two drill rig program completes 7,442 m in 17 total drill holes. **Arrow Deposit discovered** with drill hole AR-14-01 (previously RK-14-21).

Arrow Deposit Discovered in February 2014



Disrupted VTEM conductor.

Edge of magnetic gradient.

Within and on edge of gravity low.

Basin's Largest Undeveloped Deposit

179.5 Mlbs contained in 1.18 Mt **grading 6.88% U3O8** Indicated Mineral Resource; **122.1 Mlbs** contained in 4.25 Mt **grading 1.30% U3O8** Inferred Mineral Resource making it 3rd largest deposit in Basin

Uniquely **100% land based** and **entirely basement hosted** commencing 105 m below surface

Includes 200 holes drilled up to November 2016 (AR-14-01 to AR-16-113c2)

Resilient Resource Estimate

Updated Indicated Mineral Resource Estimate

Cut-Off % U3O8	Tonnes	Grade % U3O8	Contained U3O8
0.25	1,180,000	6.88	179,500,000
0.50	1,000,000	8.26	177,700,000
1.00	600,000	12.51	172,000,000
2.50	400,000	18.64	165,300,000
5.00	400,000	19.34	163,800,000
10.00	300,000	22.27	150,800,000

Notes:

1. CIM Definition Standards were followed for Mineral Resources.
2. Mineral Resources are reported at a cut-off grade of 0.25% U_3O_8 based on a long-term price of US\$65 per lb U_3O_8 and estimated costs.
3. A minimum mining width of 1.0 m was used.
4. Numbers may not add due to rounding.
5. Effective date: December 20, 2016

Mineralization Styles at Arrow

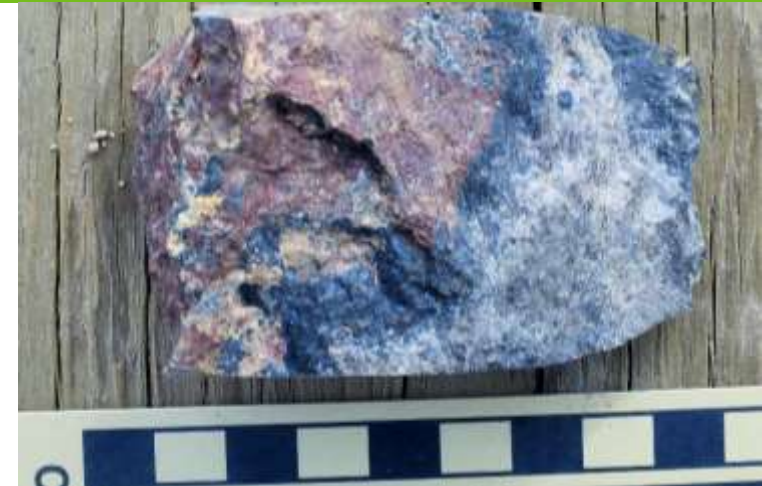
AR-14-29a – Flecks and blebs of uranium mineralization



AR-14-01 Fracture controlled mineralization with selvage

Mineralization Styles at Arrow

AR-14-08 – Uraninite vein with hematite selvage



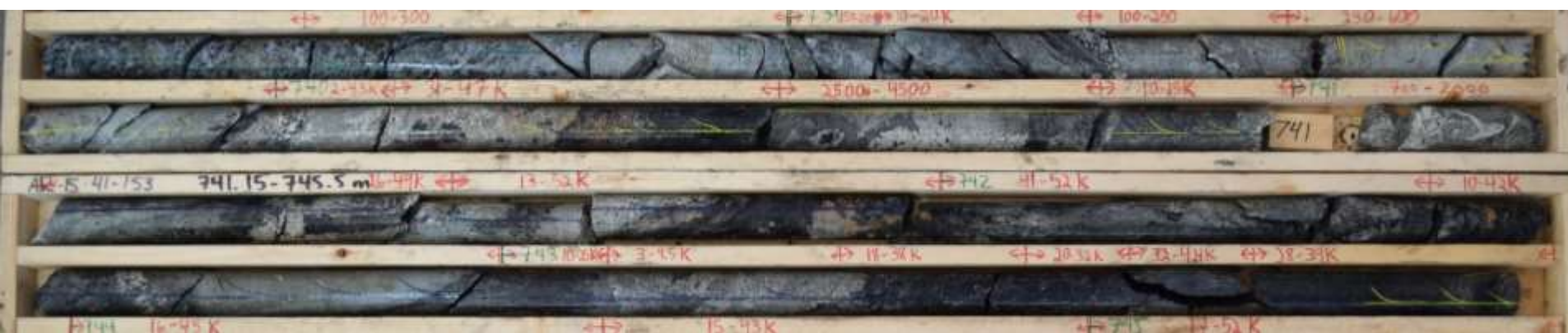
AR-14-28 – Well developed redox front



AR-14-30 – Hematite associated and redox fronts

Mineralization Styles at Arrow

AR-15-41 – Semi-massive uranium mineralization



AR-15-62 – Massive uranium mineralization



Mineralization Styles at Arrow

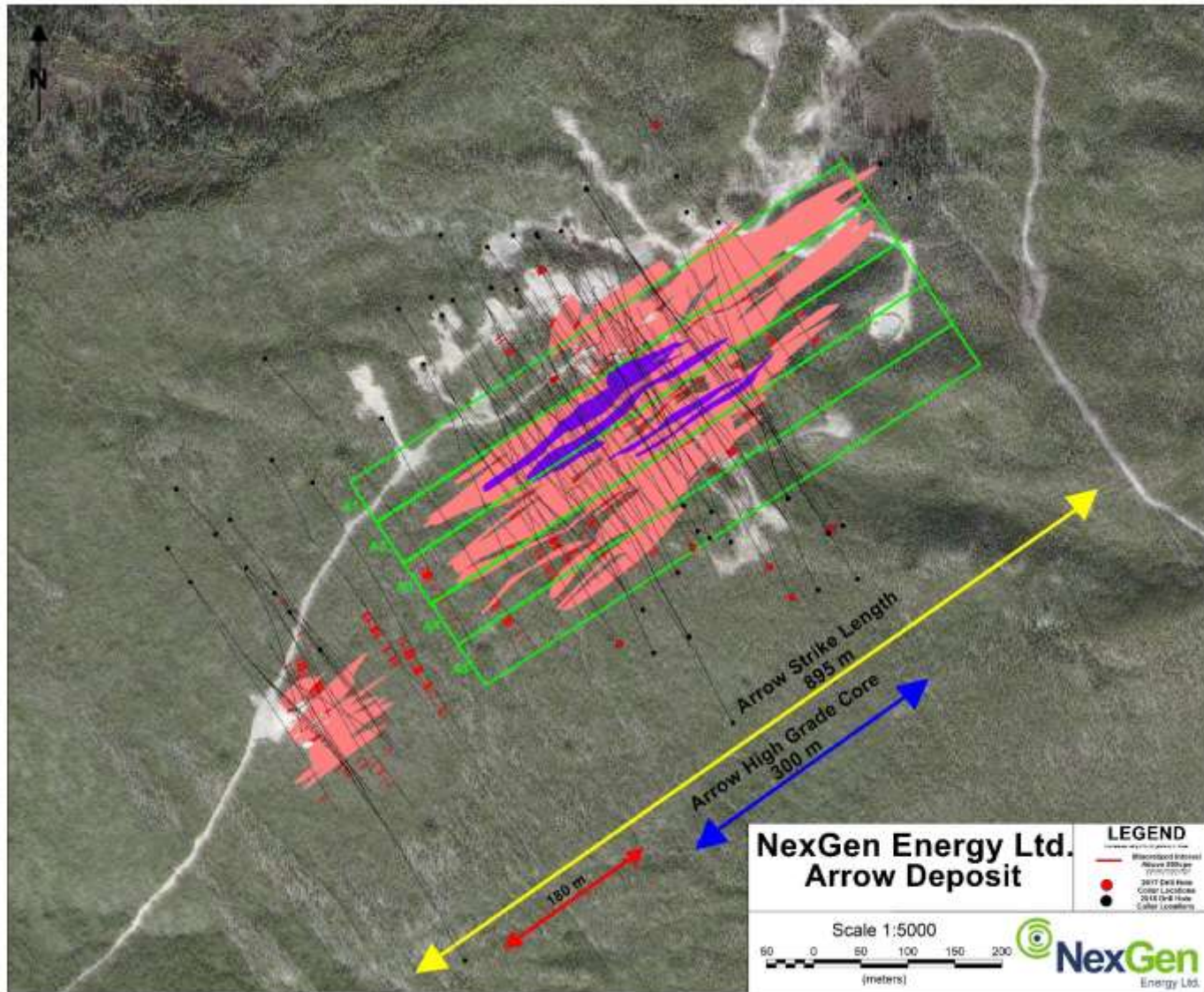


AR-16-98c2 – Massive uranium mineralization cross cut by massive uranium vein

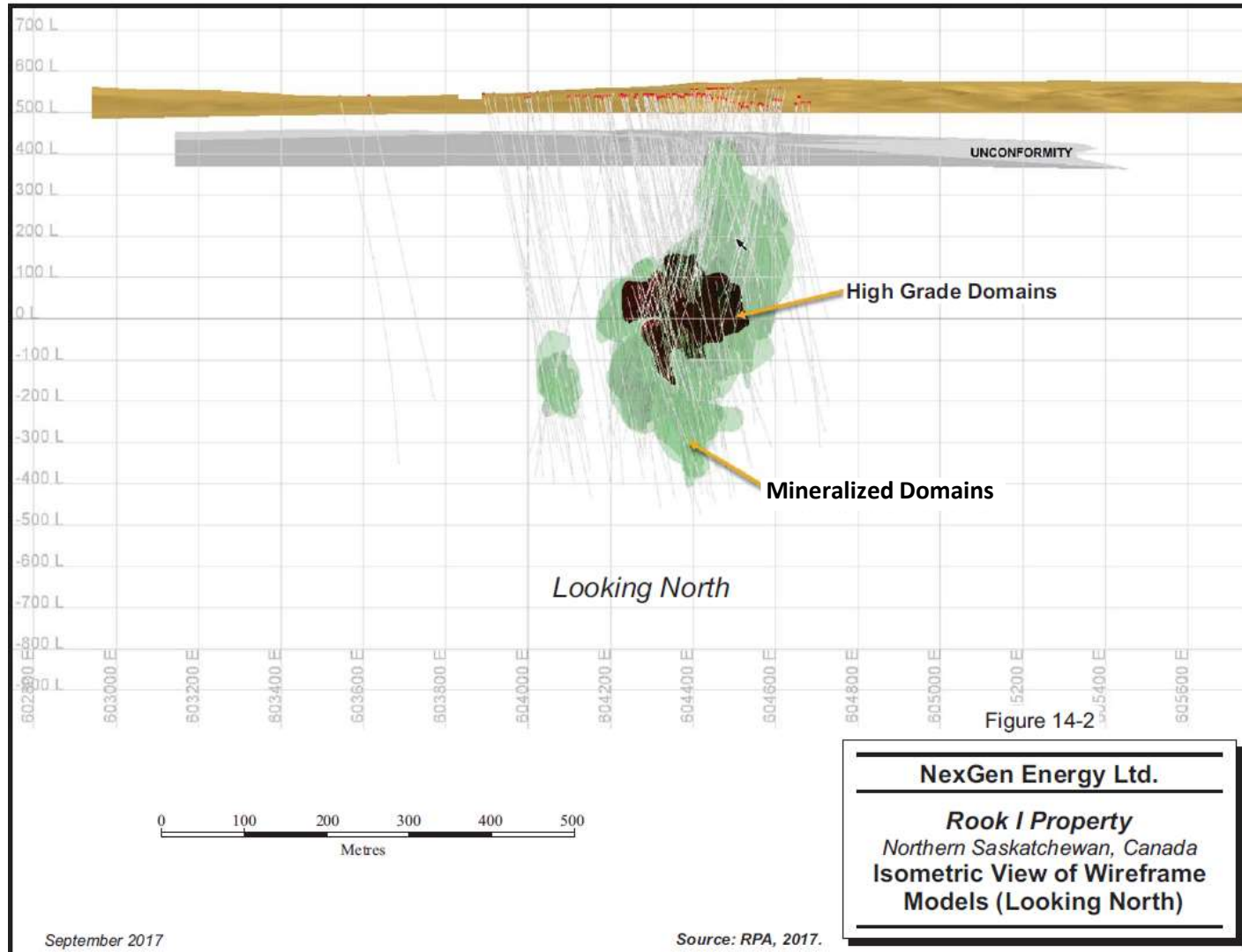


AR-15-44 – Massive uranium mineralization assaying 1.0 m @ 70.0% U₃O₈

Arrow Deposit Geometry



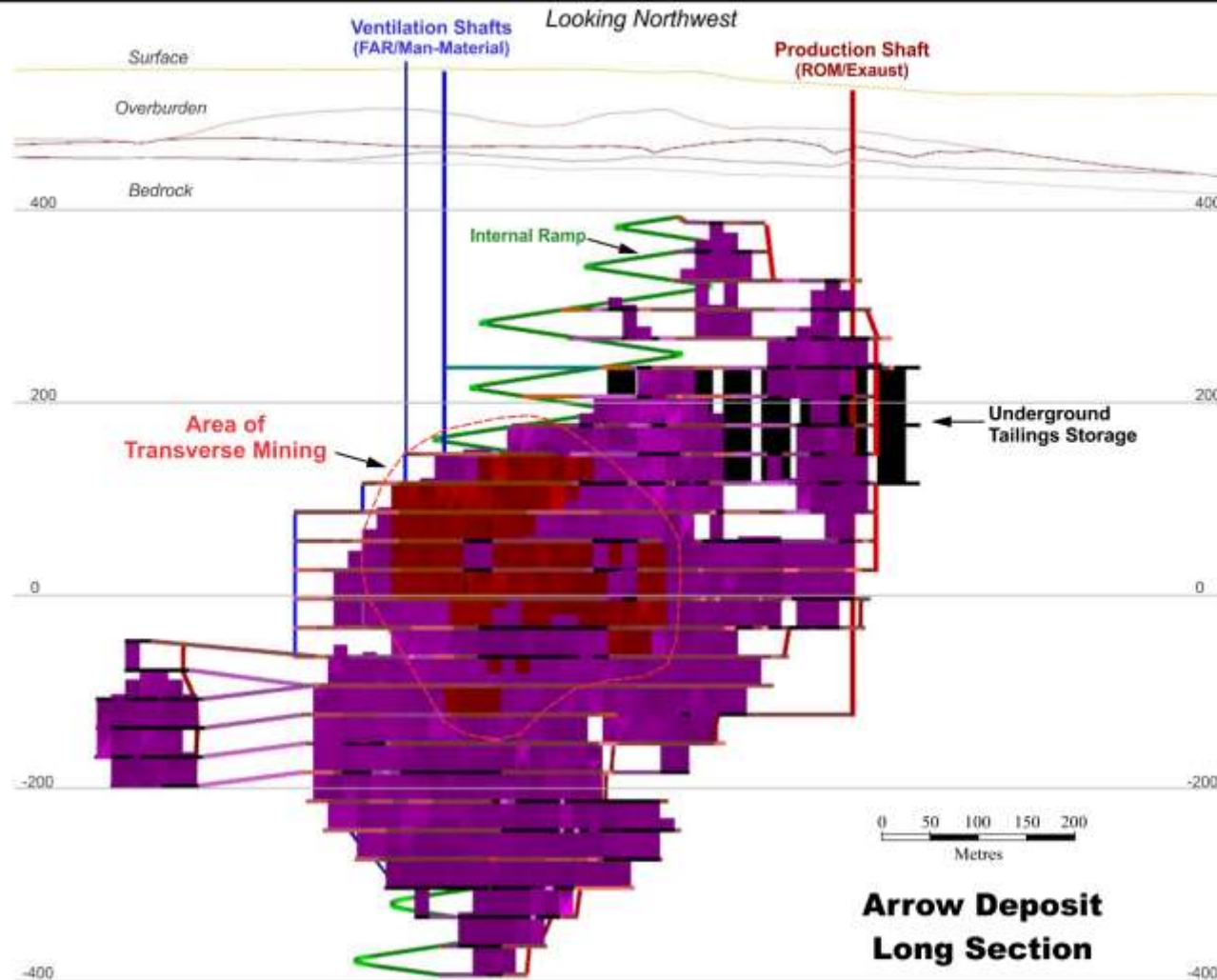
Arrow Deposit Geometry



Isometric view of Arrow Deposit, looking north.

Arrow Deposit - 5 vertical parallel shears; A1, A2, A3, A4 and A5 host 102 mineralized domains, inclusive of 7 highgrade domains.

Arrow Deposit – PEA Mine Plan



**Arrow Deposit
Long Section**

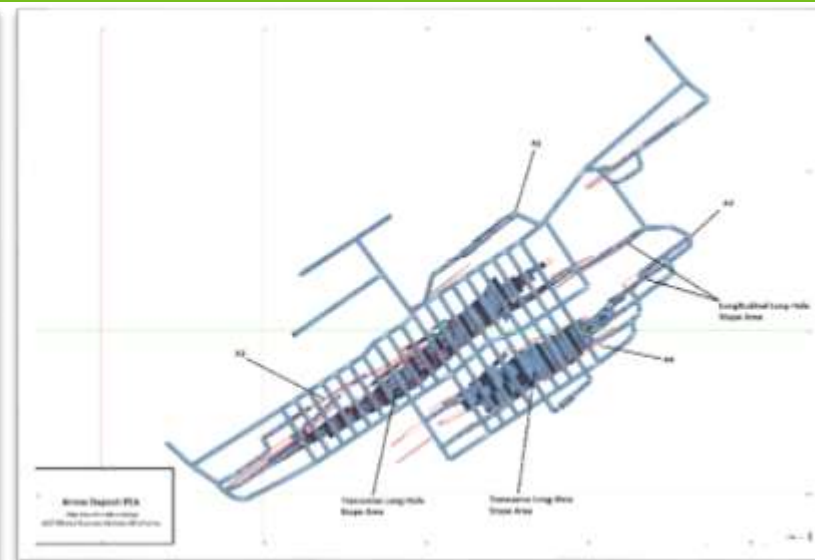
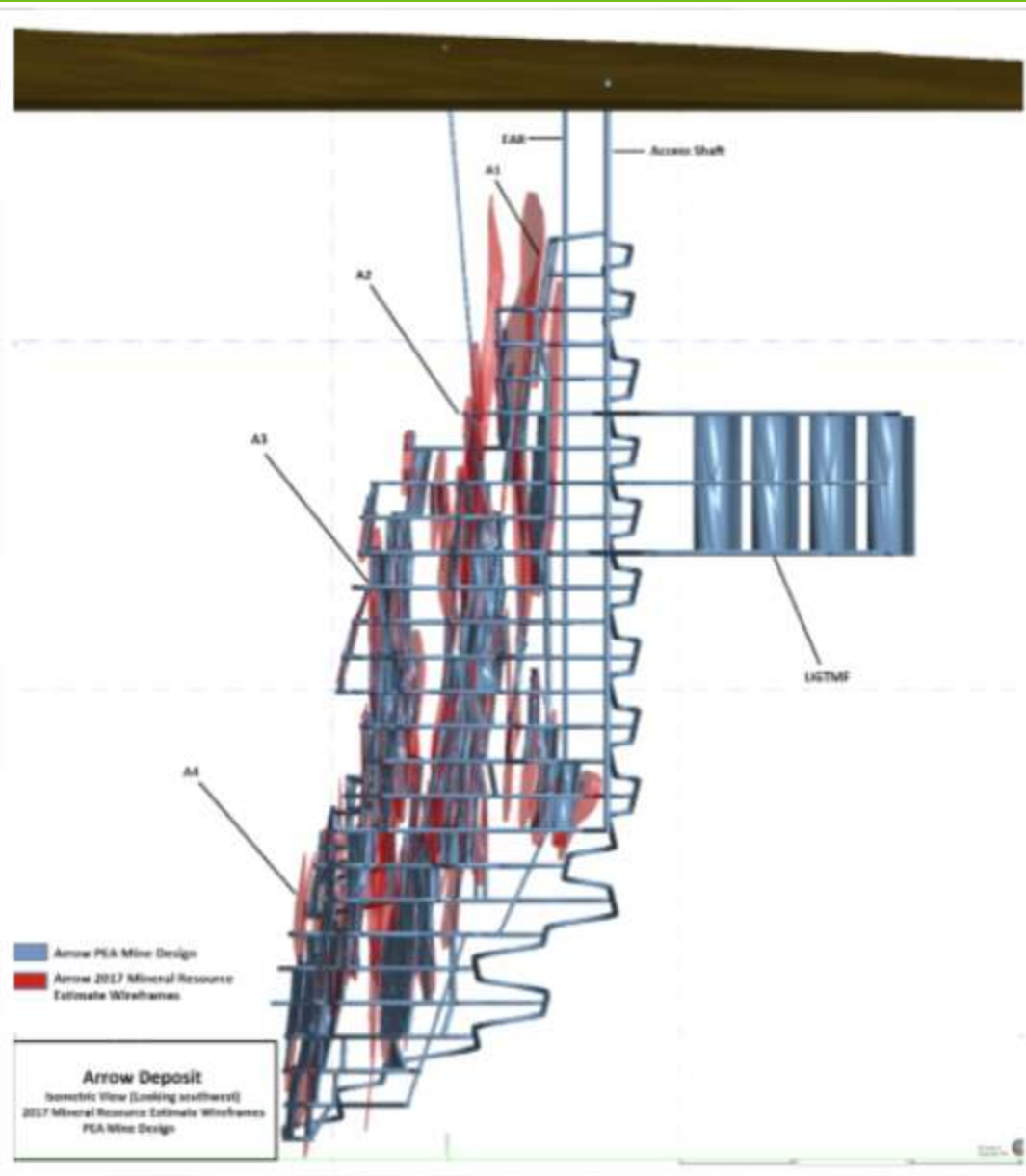
July 2017

Source: RPA, 2017.

The PEA study conceptualizes a conventional mining method consisting of longhole retreat stope mining in both longitudinal and transverse orientations, with 30 m sub-levels.

Depositing tailings underground as paste fill in existing excavations, with excess tailings deposited underground in a purpose-built tailings management facility is currently being studied.

Arrow Deposit – PEA Mine Plan



Isometric view looking southwest and plan view of PEA mine design.

Arrow Deposit – PEA Processing

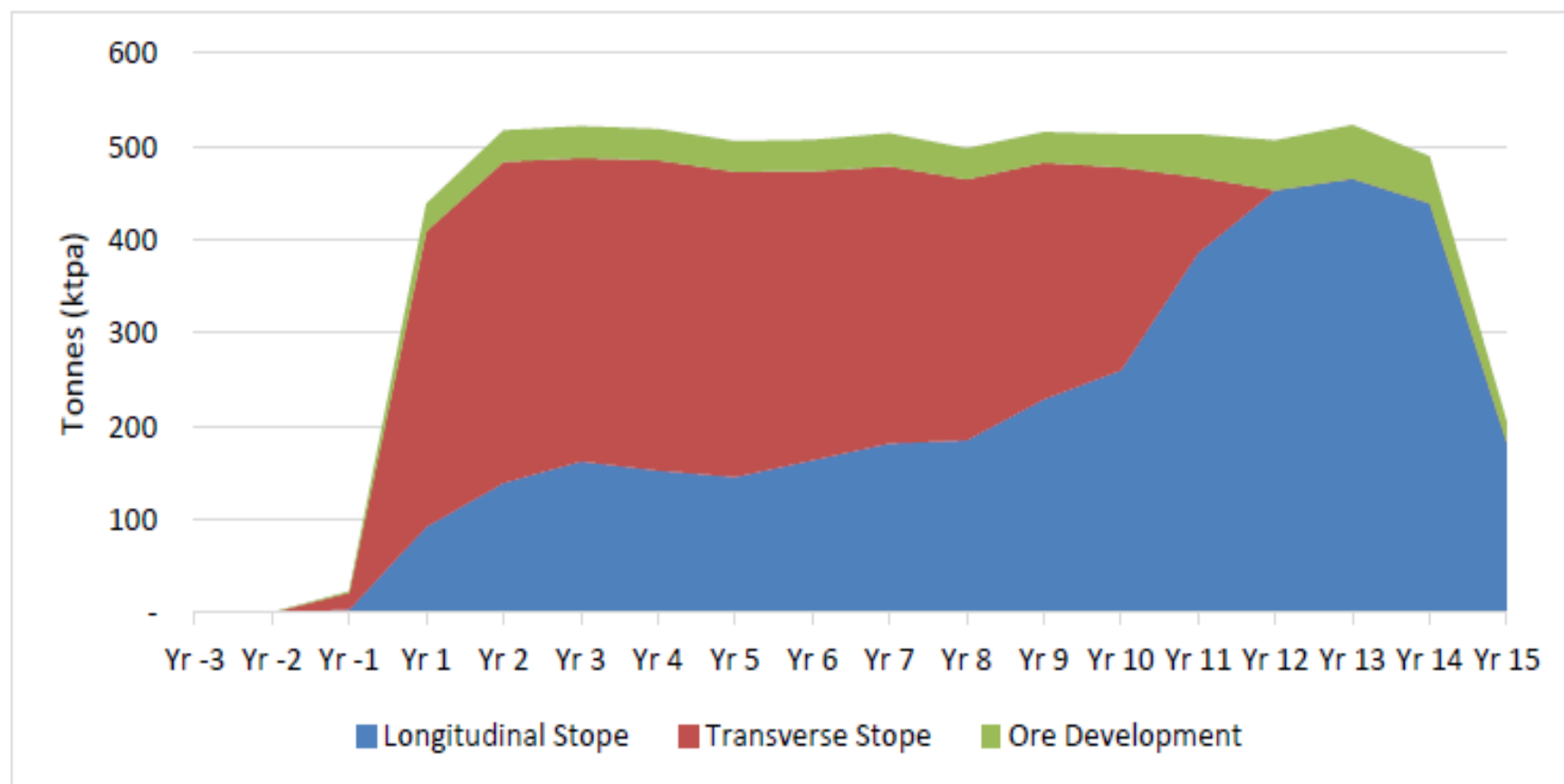
The design is based on a nominal processing rate of 511 ktpa at a head grade of 2.7% U₃O₈. Overall recovery of uranium is estimated at 96.2%, and the plant was designed to have the physical capacity to produce approximately 29 Mlb U₃O₈ per annum.

The process plant is envisaged as a conventional uranium processing facility. Parts of a uranium mill typically include:

- Crushing, Milling and Classification
- Acidic Leaching
- Counter Current Decantation (CCD)
- Tailings Neutralization, Thickening, and Disposal
- Pregnant Leach Solution (PLS) Clarification
- Solvent Extraction (SX)
- Molybdenum Removal
- Precipitation
- Product Drying and Packaging

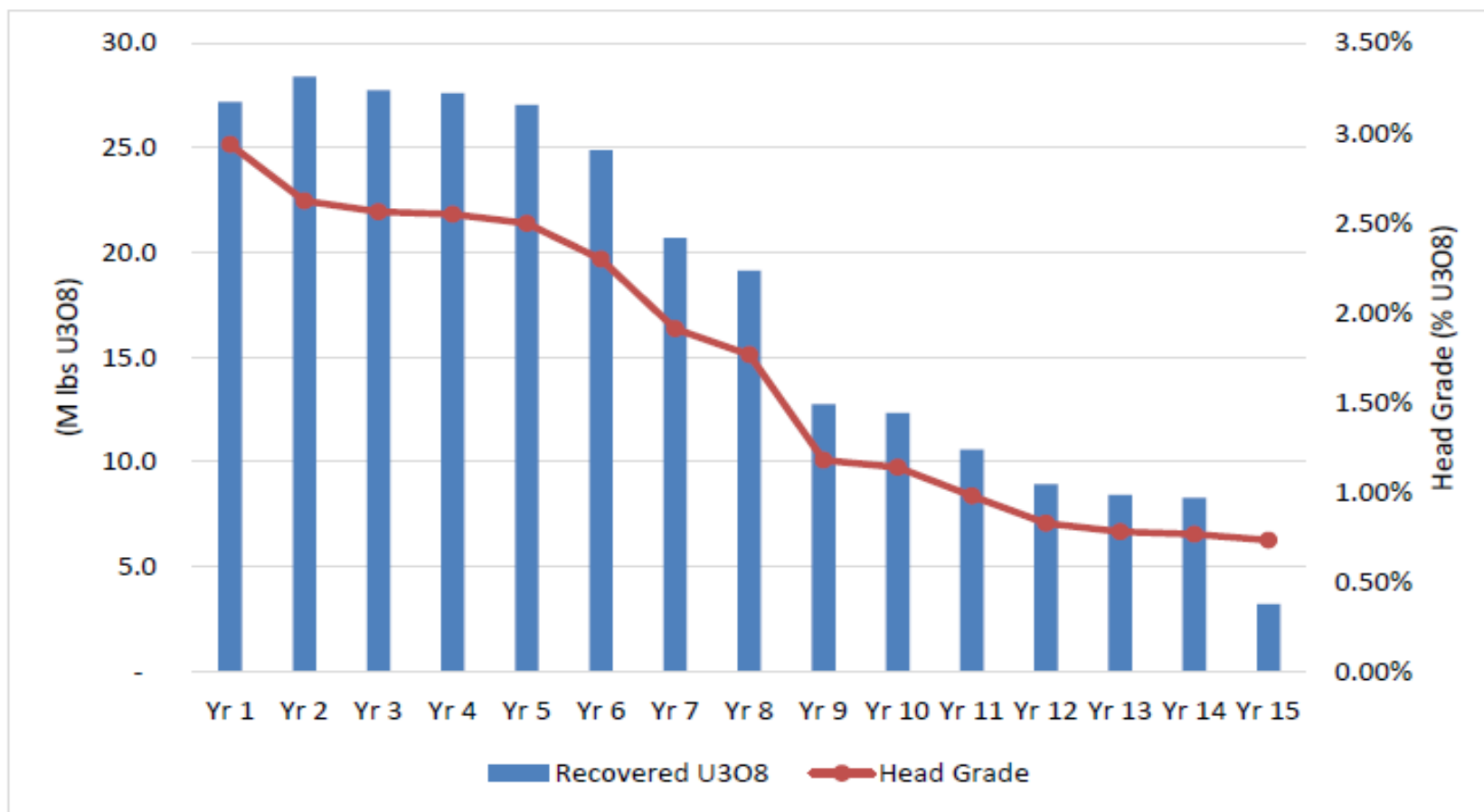
Arrow Deposit – PEA Production Profile

LIFE OF MINE MINERAL PRODUCTION BY MINING METHOD



Arrow Deposit – PEA Production Profile

RECOVERED URANIUM SCHEDULE



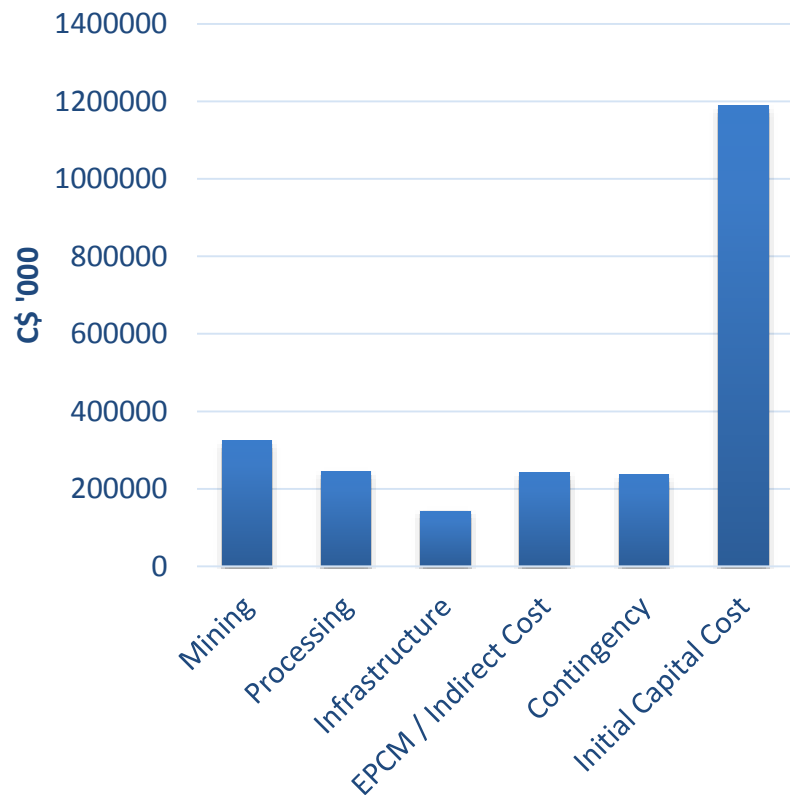
Arrow Deposit – PEA Capital Cost Estimate

Total Capital Cost:

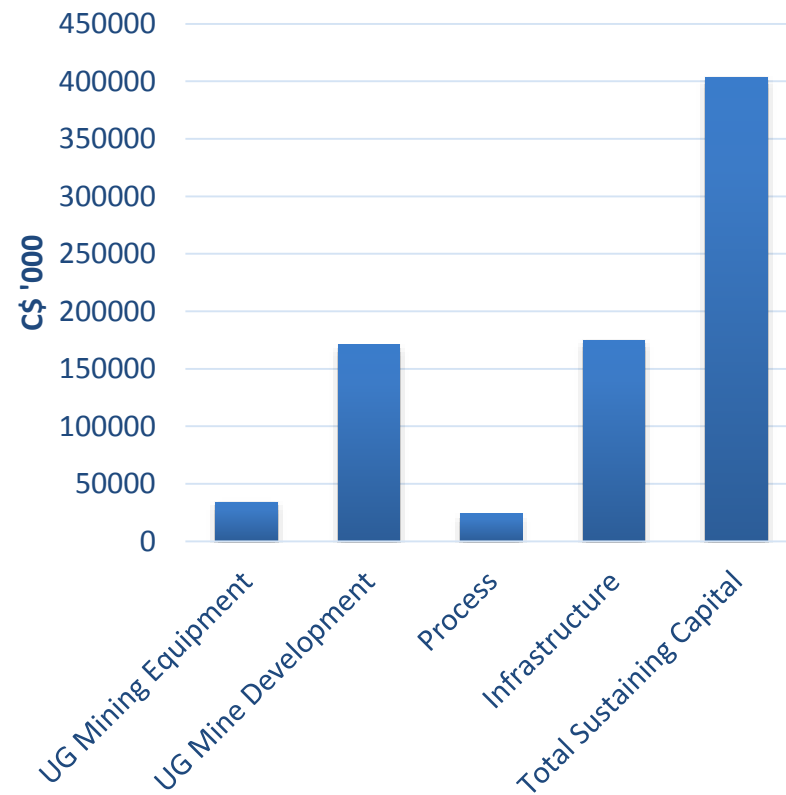
Initial C\$1.19 B

Sustaining: C\$0.47 B

Initial Capital Costs



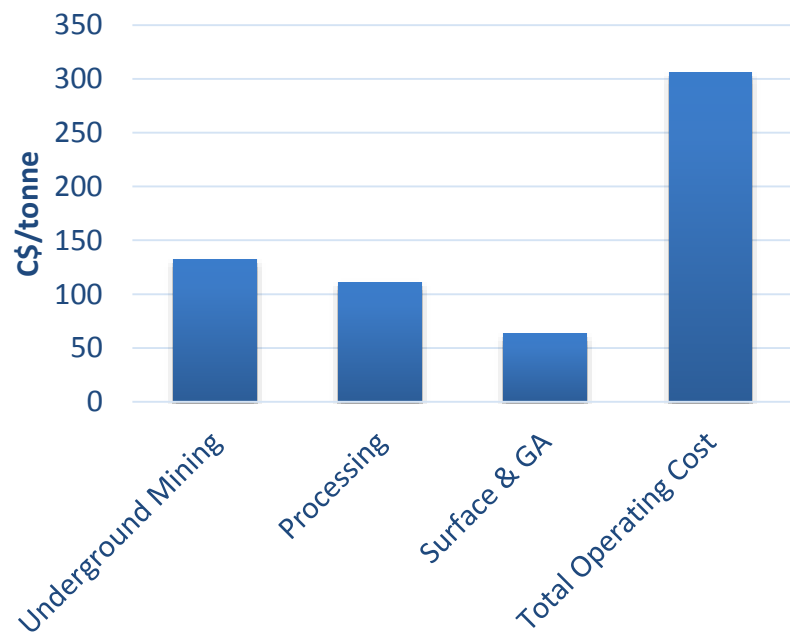
Sustaining Capital



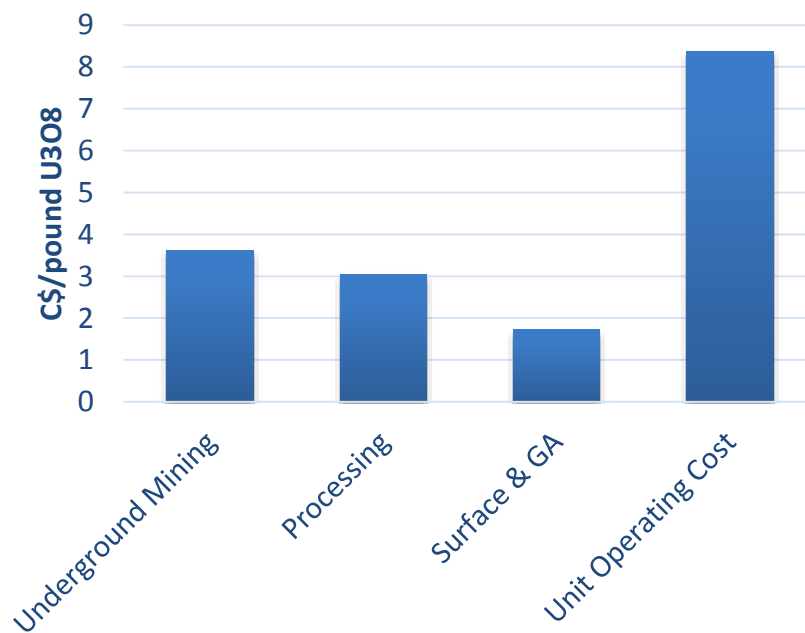
Arrow Deposit – PEA Operating Cost Estimate

Total operating unit cost of \$306/t and \$8.37/pound U₃O₈

Unit Operating Cost per Tonne



Unit Operating Cost per Pound



Arrow Deposit – PEA Project Economics

	Unit	Years 1-5	Years 1-10	LOM
Recovered Production				
Tonnes per Day	tpd	1,430	1,445	1,448
Average Annual Pounds U3O8	'000 lbs U ₃ O ₈	27,591	22,771	18,549
Average Annual Grade U3O8	%	2.62	2.14	1.73
Total Pounds U3O8	'000 lbs U ₃ O ₈	137,955	227,713	267,203
Unit Operating Cost per Tonne				
Total Operating Cost	C\$ / t proc	305	303	306
Unit Operating Cost	C\$ / lb U3O8	5.53 (US \$4.42)	6.73 (US \$5.39)	8.37 (US \$6.70)
Operating Margin	%	90.4	88.3	85.5

PEA Financial Highlights	
After-Tax Net Present Value (NPV _{8%})	CAD \$3.49 Billion
After-Tax Internal Rate of Return (IRR)	56.7%
After-Tax Payback	1.1 Years
Pre-production Capital Costs (CAPEX)	CAD \$1.19 Billion
Average Annual Production (Years 1-5)	27.6 M lbs U₃O₈
Average Annual Production (Life of Mine)	18.5 M lbs U₃O₈
Mine Life	14.4 Years
Average Unit Operating Cost (Years 1-5)	CAD \$5.53 (US \$4.42)/lb U₃O₈
Average Unit Operating Cost (Life of Mine)	CAD \$8.37 (US \$6.70)/lb U₃O₈
Uranium Price Assumption	USD \$50/lb U₃O₈
Saskatchewan Royalties (Life of Mine)	CAD \$2.98 Billion

Arrow Deposit – PEA Project Economics

Arrow Deposit PEA - After-Tax Cash Flow



End Notes

Technical Disclosure

The scientific and technical information in this presentation with respect to the PEA has been reviewed and approved by David Robson, P.Eng., M.B.A. and Jason Cox, P.Eng. of RPA, each of whom is a “qualified person” under National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (“**NI 43-101**”). All other scientific and technical information in this presentation has been approved by Mr. Garrett Ainsworth, P.Geo., Vice President – Exploration & Development for NexGen. Mr. Ainsworth is a qualified person for the purposes of NI 43-101 and has verified the sampling, analytical, and test data underlying the information or opinions contained herein by reviewing original data certificates and monitoring all of the data collection protocols.

Inferred Mineral Resources in PEA

The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that PEA results will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Technical Report

The mineral resource estimate referred to herein was announced by the Company on March 6th, 2017, and has an effective date of December 20, 2016. For details of the Rook I Project including the quality assurance program and quality control measures applied and key assumptions, parameters and methods used to estimate the mineral resource set forth herein please refer to the technical report entitled “Technical Report on the Rook 1 Property, Saskatchewan, Canada” dated effective March 31, 2017 (the “**Rook 1 Technical Report**”). The Rook I Technical Report is available on NexGen’s issuer profile on SEDAR at www.sedar.com. A new technical report in respect of the PEA, that will supersede the Rook 1 Technical Report, will be filed on SEDAR (www.sedar.com) and EDGAR (www.sec.gov/edgar.shtml) within 45 days of the news release announcing the results of the PEA (by mid-September 2017).

SEC Standards

Estimates of mineralization and other technical information included or referenced in this presentation have been prepared in accordance with NI 43-101. The definitions of proven and probable mineral reserves used in NI 43-101 differ from the definitions in SEC Industry Guide 7. Under SEC Industry Guide 7 standards, a “final” or “bankable” feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority. As a result, the reserves reported by the Company in accordance with NI 43-101 may not qualify as “reserves” under SEC standards. In addition, the terms “mineral resource”, “measured mineral resource”, “indicated mineral resource” and “inferred mineral resource” are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under SEC Industry Guide 7 and normally are not permitted to be used in reports and registration statements filed with the SEC. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and great uncertainty 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 securities laws, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Additionally, disclosure of “contained ounces” in a resource is permitted disclosure under Canadian securities laws; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in place tonnage and grade without reference to unit measurements. Accordingly, information contained or referenced in this presentation containing descriptions of the Company’s mineral deposits may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of United States federal securities laws and the rules and regulations thereunder.

Non-IFRS Measures

This presentation refers to cash costs, which measurement has no standardized meaning under IFRS and may not be comparable to similar measures presented by other companies. These measurements are intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.