

December 2021



A critical materials company

Corporate Presentation

Exploring for high-grade critical rare
earth elements (monazite) and
uranium in Canada

CSE:API | OTCQB:APAAF | Germany:A0I.F, A0I.MU, A0I.BE

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Forward Looking Statement

This presentation contains forward-looking statements which may include but are not limited to statements with respect to the future financial or operating performance of Appia and its projects, the future price of uranium, capital operating and exploration expenditures, success of exploration activities, permitting timelines, government regulation and environmental risks and costs. Appia has tried to identify these statements by using words such as "plans", "proposes", "expects" or "does not expect", "is expected", "estimates", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements are not based on historical facts and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or events, to be materially different from any future results, performance, achievements or events express or implied by the forward-looking statements. These forward-looking statements reflect current expectations of management regarding future events and performance. Such forward-looking statements are based on a number of assumptions which management believes to be reasonable but may prove to be incorrect and involve significant risks, including but not limited to: the general risks associated with the mining industry, lack of operating history, dependence on key personnel, conflicts of interest, the need to raise additional capital, title to properties, competition, speculative nature of the business, acquiring additional properties, uninsured risks, external market factors, government regulation, environmental regulations, exploration risk, calculation of resources, insufficient resources, barriers to commercial production, maintaining property interests, commodity prices, exchange rates, lack of dividends, lack of public trading market, currency risk and controlling shareholder.

Although Appia has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Anyone reviewing this Site should not place undue reliance on forward-looking statements. While the Company anticipates that subsequent events and developments may cause its views to change, Appia specifically disclaims any obligation to update these forward-looking statements, except as required by law. The factors identified above are not intended to represent a complete list of the factors that could affect the Company.

Qualified Person

The technical information in this Presentation has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101"). The information was reviewed and approved by Dr. Irvine R. Annesley, P.Geo, Advisor to Appia's Board of Directors, and a Qualified Person as defined by National Instrument 43-101.

2021 focus on rare earths, rich history in uranium

Introducing Appia Rare Earths & Uranium Corp.

(formerly Appia Energy Corp.)

Rare Earths & Uranium
Exploration in
Saskatchewan, Canada

- 100% interest in historic Elliot Lake, Ontario mining camp with ~32,000 acres
- Elliot Lake has seen more than 300 M lb of uranium produced. Also Canada's only historic rare earths production (yttrium)
- Saskatchewan's Athabasca Basin is rich in uranium deposits and ongoing extraction
- Appia holds 4 uranium claim blocks: 3 on eastern edge of Basin, one in near centre
- Appia has discovered one of the potentially best monazite-hosted rare earths occurrences in the world (Alces Lake 100% owned)
- Alces Lake monazite also contains high grade gallium in addition to rare earths

Elliot Lake NI 43-101 Compliant Resource

NI 43-101 Compliant Resource*								
Indicated Resource					Inferred Resource			
Teasdale Lake Zone								
	Tonnage (M tons)	Average Grade (lbs./ton)	Contained Metal U ₃ O ₈ (M lbs.)	Contained Metal TREE (M lbs.)	Tonnage (M tons)	Average Grade (lbs./ton)	Contained Metal U ₃ O ₈ (M lbs.)	Contained Metal TREE (M lbs.)
U ₃ O ₈	14.4	0.554	8.0		42.4	0.474	20.1	
REE	14.4	3.30		47.7	42.4	3.14		133.2
Banana Lake Zone								
U ₃ O ₈					30.3	0.912	27.6	
TOTAL	14.4		8.0	47.7	72.8		47.7	133.2

* "A Technical Report on the Appia Energy Corp. Elliot Lake Uranium-Rare Earth Property", by Watts, Griffis and McOuat Limited (July 30, 2013). Mineral resources are not mineral reserves and do not have demonstrated economic viability.
Numbers may not add to total due to rounding

- Strong potential to increase the size of the current resources as they are largely unconstrained along strike and down dip.

* See slide 36 (Appendix A) for qualifying notes for Mineral Resources, and individual element grades supporting reported TREE results

Rare earths found exclusively in Monazite

- High-grade critical rare earths (CREO) project on the 88,173 acre, 100% owned Alces Lake Project (Saskatchewan)
- Exploration 2017-2020 identified high-grade Total Rare Earth Oxide (TREO) with up to 49 wt% TREO (average grades of 16.65 wt% TREO and 3.85 wt% CREO) on or near surface.
- Alces Lake has the potential to be one of the best monazite-hosted rare earths occurrences in the world
- Alces Lake monazite contains high grade gallium in addition to rare earths

Appia Rare Earths & Uranium Corp.

(CSE:API OTCQB:APAAF)

Capital Structure

Tickers - CSE:API OTCQB:APAAF Germany:A0I.F, A0I.MU, A0I.BE	
Share Price (as of December 6, 2021)	C\$0.485
Basic Shares Outstanding	117.0M
Options (<i>weighted avg. strike price of ~C\$0.421</i>)	5.1M
Warrants (<i>weighted avg. strike price of ~C\$1.078</i>)	20.3M
Fully Diluted Shares Outstanding	142.4M
Market Capitalization (Basic)	C\$56.7M
Cash on Hand (Dec. 3, 2021)	C\$12.6M
Management & Director Share Ownership	~29.1%

*Numbers may not add up due to rounding

Share Price Performance (Last 12 Months)



Appia Management (with over 300 years combined industry experience)

Anastasios (Tom) Drivas | CEO & Director

- Business entrepreneur with over 30 years experience in various industries, including over 20 years in the mineral resource industry
- President and CEO of Romios Gold Resources Inc., a publicly traded company he founded in 1995

Frederick Kozak | President

- Highly experienced capital markets and resource executive with extensive private and public company executive and board experience
- Actively involved to move the company's 2021 rare earths and uranium exploration programs forward

Nicolas Guest | Vice President, Exploration

- Nicolas has over 10 years of experience in mineral exploration, with the bulk of his experience attained at Goldcorp/Newmont's Musselwhite Mine, where he led teams responsible for all phases of exploration and achieved record annual reserve replacement.

Frank van de Water | CFO, Secretary & Director

- Involved in international mining, metals and resource companies in North and Latin America, Europe and Africa for over 40 years
- Serves as COO and CFO of Romios Gold Resources Inc. and as a Director at AurCrest Gold Inc., Inter-Rock Minerals Inc. and Razore Rock Resources Inc.

Douglas Underhill | Director

- Geologist with more than 45 years of international experience in uranium including nearly 10 years with the International Atomic Energy Agency (IAEA) in Vienna and 10 years of experience evaluating international REE projects. He also serves as a Director at Stans Energy Corp.

Thomas Skimming | Director

- Over 50 years of experience in the mineral resources industry and was instrumental in the discovery and development of several deposits including the world-class Teck-Corona gold deposit at Hemlo in Canada. He also serves as a Director at Romios Gold Resources Inc.

Brian Robertson | Director

- Registered professional engineer with extensive experience in all aspects of mine operations, development and construction. Previously served in a number of senior management positions with Mexican Gold Corp., Source Exploration Corp., Nuinsco Resources, Yukon Gold, Victory Nickel and is a Director at Romios Gold Resources Inc.

William R. Johnstone | Legal Counsel & Director

- Partner at Gardiner Roberts LLP since 2005 practicing corporate and securities law and is the leader of the firm's Securities Law Group
- Director and Secretary at AurCrest Gold Inc., Romios Gold Resources Inc., Razore Rock Resources Inc., Bold Ventures Inc. and Rockcliff Metals Corp.

Dr. Nick Bontis | Director

- Tenured professor of Strategic Management at the DeGroote School of Business, McMaster University
- Serves as an Executive Board Member and Director at Harvest Portfolios Group.

Appia Investment Highlights

- A clean energy company focused on uranium as a clean source of electricity and rare earths for the world's move to all things electric
- Goal is to become a major producer of critical rare earths in North America
- Two equity raises in 2021 for a total of \$15 million will fund through 2022.
- Saskatchewan uranium claims target at or near-surface, high grade uranium mineralization near existing infrastructure
- Alces Lake high grade rare earths discovery is contained exclusively in monazite with extensive high grade monazite mineralization over 27 sq km of Alces Lake block
- Diamond drilling program in 2021 (8,075 m) more than doubles all previous drilling meterage (2017-2020)
- Potentially some of the highest-grade TREO in the world with up to 49 wt% TREO (average grades of 16.65 wt% TREO and 3.85 wt% CREO) at/near surface.

Note: See Appendix A on slide 36 for individual element grades supporting TREO results



Why is Monazite so important?

- Monazite is one of the highest-value, rare earth-bearing minerals in the world
- Monazite is comprised of 50% to 60% of total rare earth oxides (TREO)
- Approximately 23% to 25% of monazite TREO are Critical Rare Earths: Neodymium (Nd), Praseodymium (Pr), Europium (Eu), Terbium (Tb), Dysprosium (Dy) and Yttrium (Y)
- Nd, Pr, Tb and Dy are extremely desirable for use in permanent magnets
- Extraction of REE from monazite has been successfully and economically proven and established since the 1950s
- Monazite is typically not concentrated. At Alces Lake, monazite occurs as isolated grains, 1 – 3 cm thick lenses and isolated clusters up to metres-thick massive clusters
- Bastnaesite has significantly less Critical REEs (15% to 18%) and is weighted to the lighter rare earth elements: Lanthanum (La), Cerium (Ce) with lesser quantities of Neodymium and Praseodymium compared to monazite deposits

Rare Earth Elements (REE) Primer

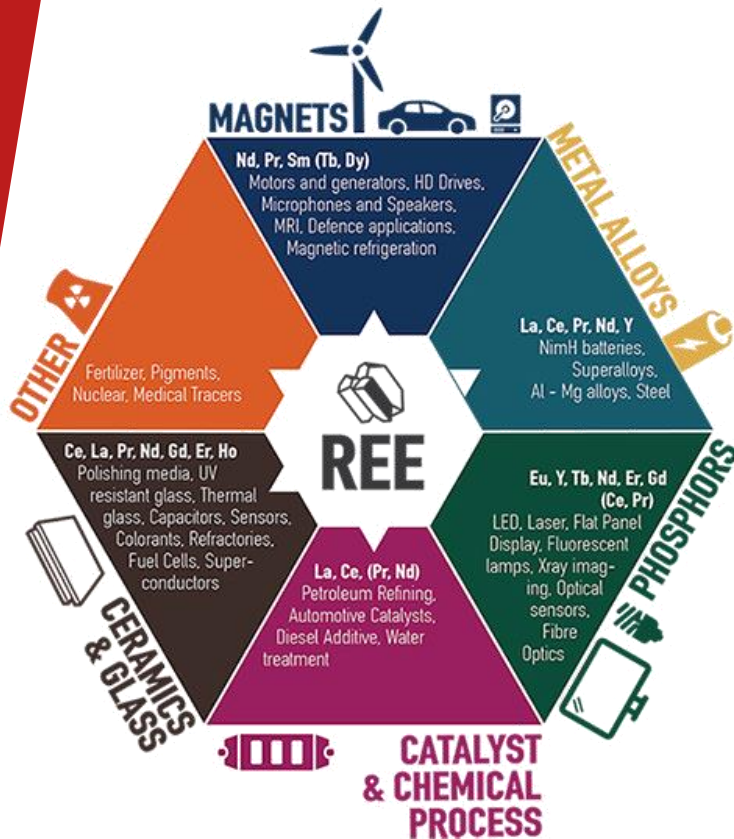
- 17 Rare Earth Elements, divided into Heavy and Light REE (see table)
- **Critical REEs include Neodymium (Nd), Praseodymium (Pr), Europium (Eu), Terbium (Tb), Dysprosium (Dy) and Yttrium (Y)**
- Primary demand growth is accelerating for permanent magnets used in the EV market
- Over 90% magnet production from China
- Critical materials emergency declared by US in 2020 – rebuild domestic supply chain, including rare earths
- Market for magnet Rare Earth Oxides (REO) expected to increase five-fold by 2030
- Global critical REE shortages currently forecast
- Lack replacement, recycling or re-invention

HEAVY Rare Earth Elements
LIGHT Rare Earth Elements
by Geology.com

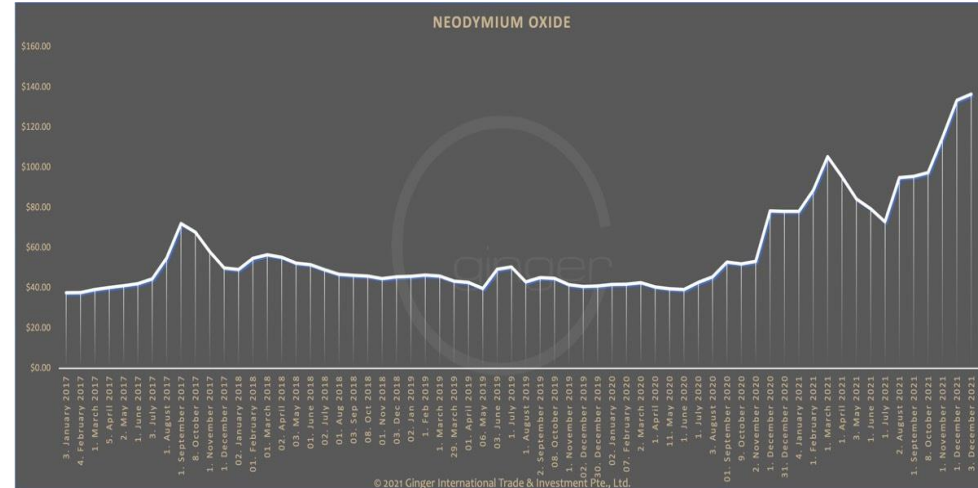
H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La-Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac-Lr	Rf	Db	Sg	Bh	Hs	Mt									
Lanthanides																	
		La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	
Actinides																	
		Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr	

Image source: [REE - Rare Earth Elements - Metals, Minerals, Mining, Uses](#)

Rare Earth Elements (REE)



Neodymium Oxide Pricing (2017 – current)



Price source: [Rare Earth Prices \(giti.sg\)](https://www.giti.sg/) December 3, 2021

- Global pricing is “opaque”
- Historical prices for Critical REEs have increased by 100%-300% since 2017
- 2019 Production: 220,000 tonnes REO (oxides) (2021 US Geological Survey summary)

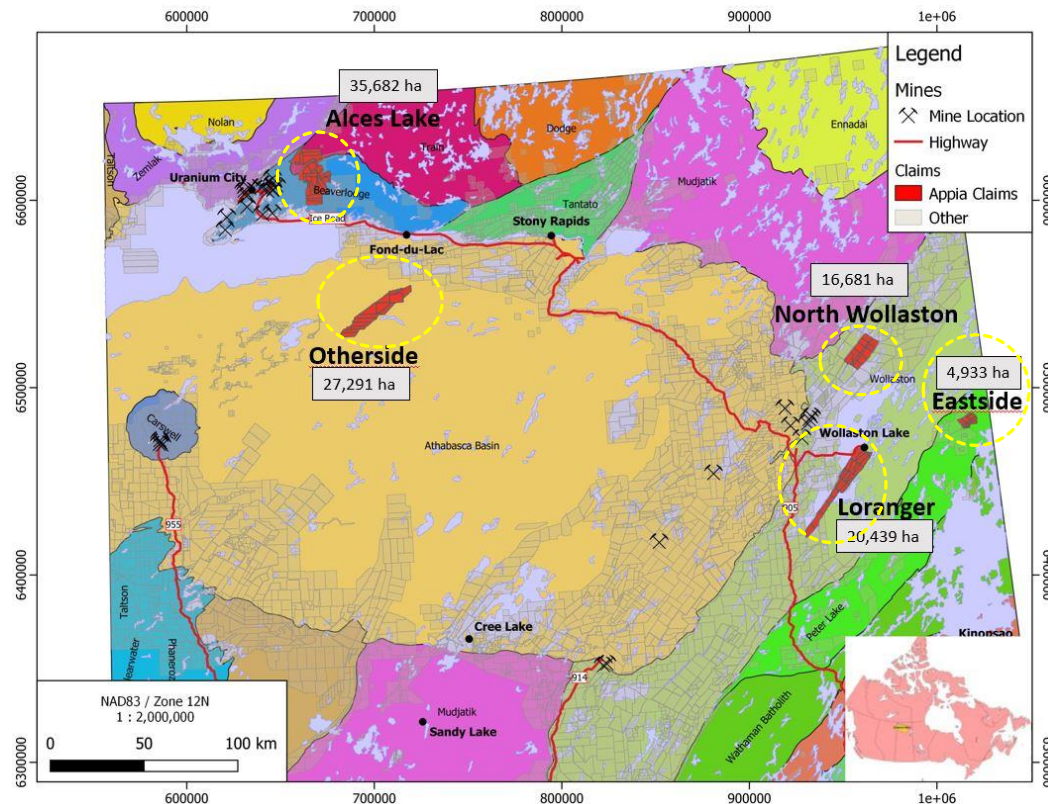
REE Outside of China

- Original Equipment Manufacturers outside of China (USA, Japan, Germany, etc.) seek long-term supply chains, acknowledge probability of **supply disruption**
- USA has recently taken the first steps to develop their own rare earth supply chain independent of China
 - National Defense Act for Critical Materials was passed in USA
 - MOU signed between USA and Canada to cooperate on the development of rare earth projects in North America
 - US Dept. of Defense recently awarded funds to jump-start potential heavy REE production within USA
 - Canada-US committed to build EV supply chain between countries
- **Excellent opportunity to develop a REE project in Canada... next door to USA**



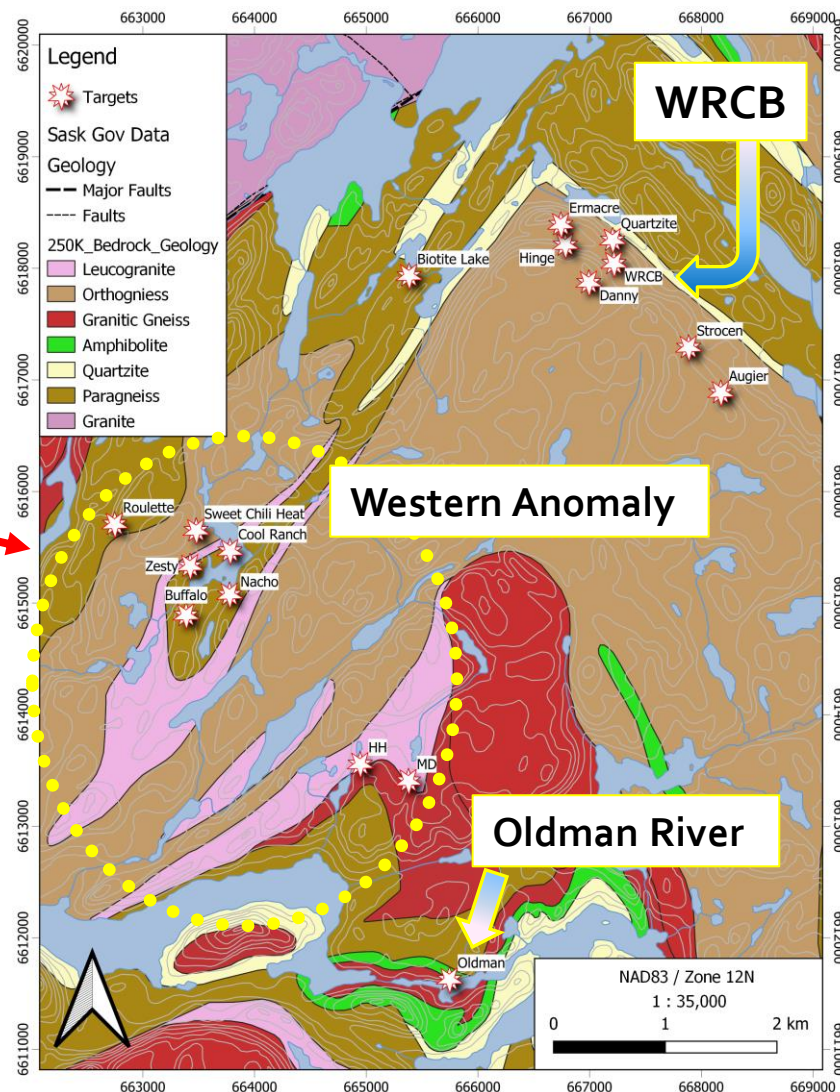
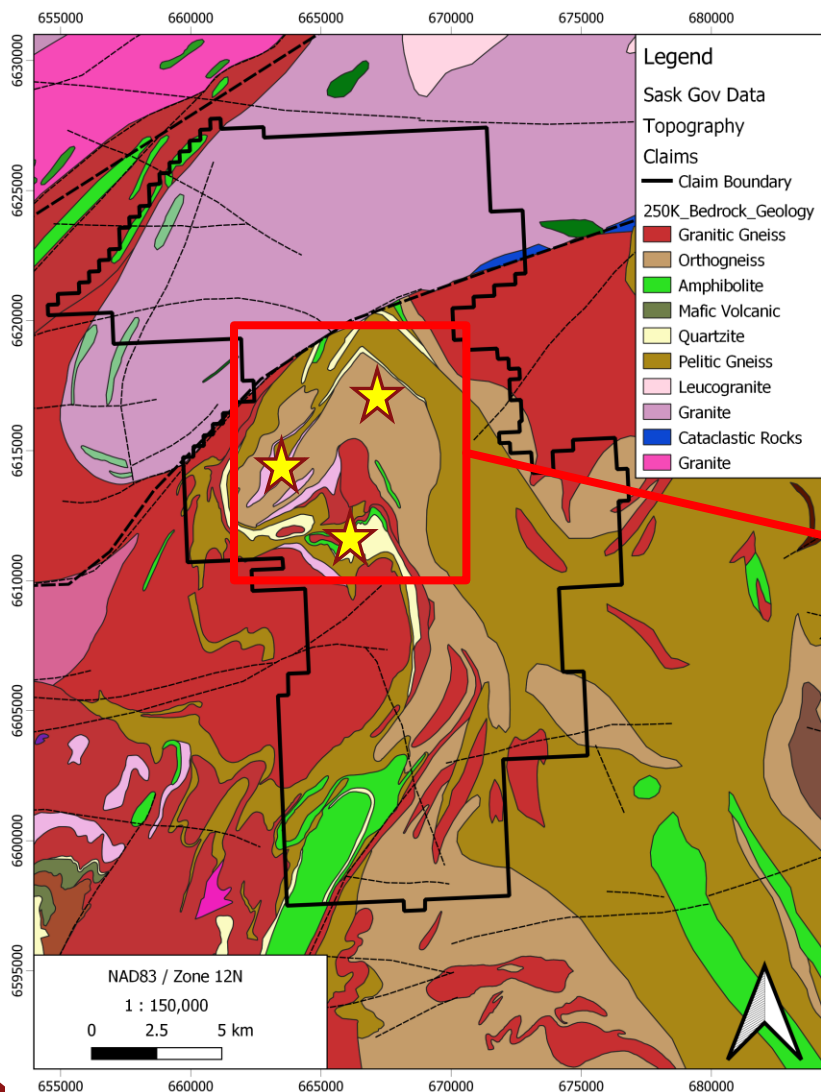
Image source: www.shutterstock.com (2020)

Project Portfolio, Northern Saskatchewan



- **Saskatchewan is a pro-mining jurisdiction; politically stable**
- Athabasca Basin historic uranium-focus.
- Rare earths discovery at Alces Lake has world class potential
- Appia discovery is one of a kind – massive monazite exposure at surface
- Excellent local infrastructure - mills, power, labour, highway, air strips, well-established summer and winter access routes

Alces Lake Project, Northern Saskatchewan



Alces Lake Project Meets Criteria for a Viable REE Project

Massive Monazite Exposed at Surface

- **Grade** - Alces Lake has a grade of up to 49 wt% TREO
- **Mineralogy** – rare earths are completely hosted in coarse-grained monazite
- **Composition** – 23-25% is Critical Rare Earth Oxide (CREO - Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), Terbium (Tb))
- **Location** - Saskatchewan is one of the best mining jurisdictions in Canada and the world
- **Environmental Management and Radiation** – well understood in Saskatchewan
- **Future Processing Facility** – under construction by Saskatchewan Research Council



High-grade REE
mineralization
surface outline

Wilson Zone (North)

Alces Lake – High-Grade REE Zones at Surface

Ivan Zone

>85% monazite
(53.01 wt% TREO over 1.23 m)



Dylan Zone

>57% monazite
(avg. 34.38 wt% TREO for this body)

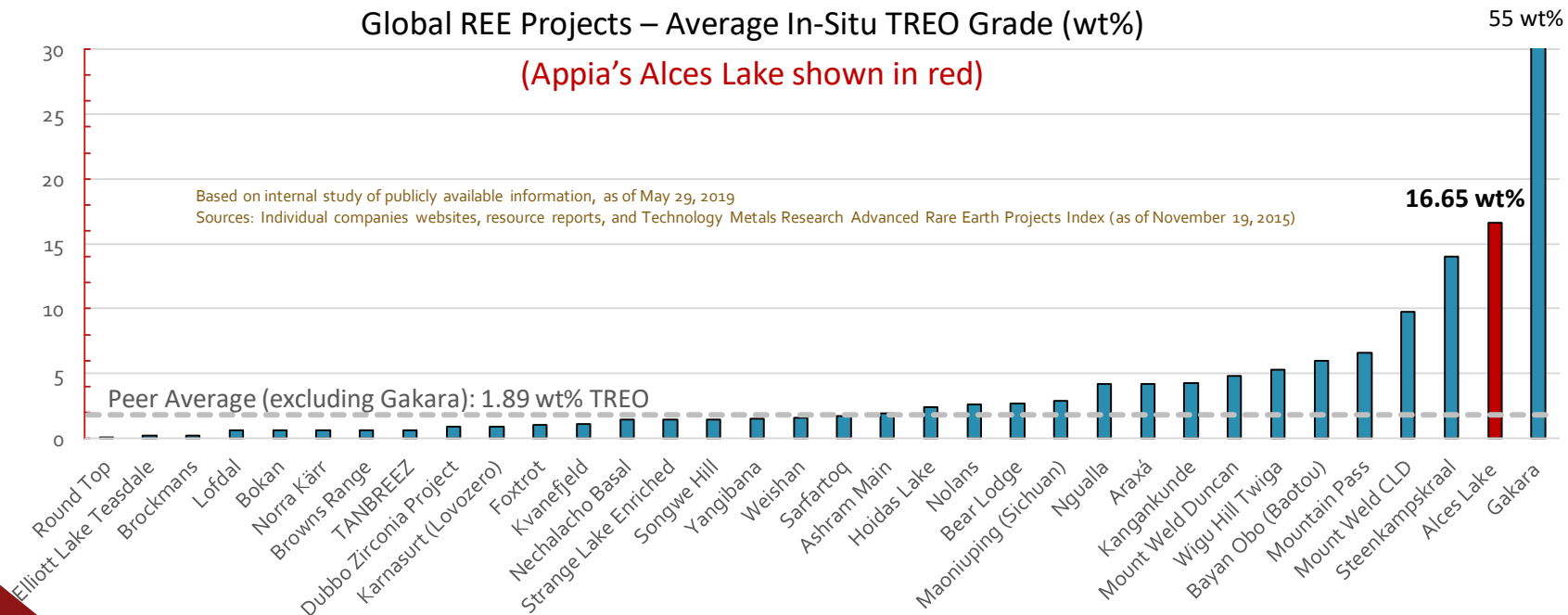


Note: See Appendix A on slide 36 for individual element grades supporting TREO results

Alces Lake Project - Grade

- High-Grade is KING... this is true for any commodity
- **Alces Lake hosts some of the highest REE grades in the world** (2nd highest average grade)
- At 4 wt% Total Rare Earth Oxide cutoff, **Alces Lake average grade is 16.65 wt% TREO***
- **Appia considers “high-grade” as greater than 4.0 wt% TREO**
- Only the highest grade REE deposits have been developed into mines (Bayan Obo, etc.)
- To illustrate the grade at Alces Lake, **one metric tonne of high-grade mineralization from Alces Lake would contain ~166.5 kg of TREO of which ~38.5 kg are CREO** (the potential quantity and grade are both conceptual in nature. There has been insufficient exploration to define a mineral resource. It is uncertain if further exploration will result in the delineation of a mineral resource)

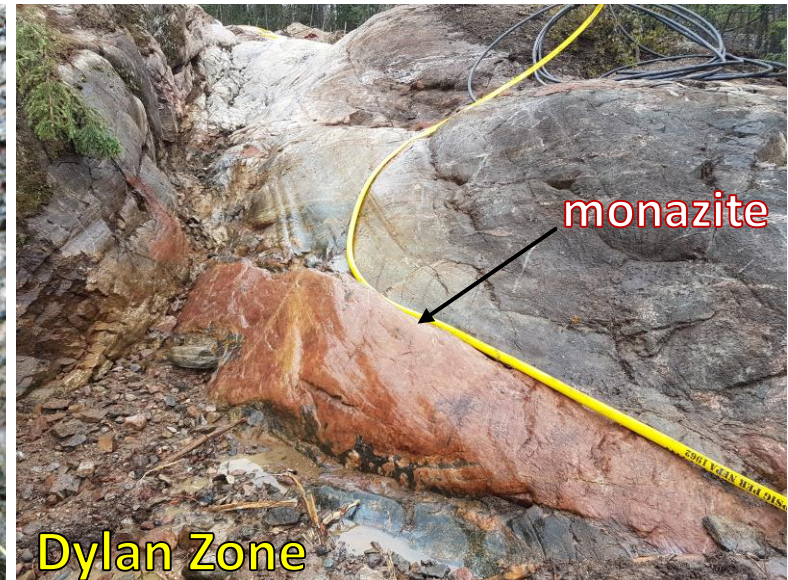
Note: See Appendix A on slide 36 for individual element grades supporting TREO results



*The Alces Lake average grade was calculated from 302 combined surface channel and diamond drill hole samples with >4 wt% TREO out of a total of 997 samples with >0.1 wt% TREO.

Alces Lake Project - Mineralogy

- **All the REE have simple mineralogy and are hosted 100% within monazite**
- Extraction of REE from monazite has been successfully and economically proven and established since the 1950s
- At Alces Lake, monazite occurs as isolated grains, 1 – 3 cm thin lenses, and as isolated clusters to metres thick massive clusters
- High-grade outcrops and drill hole intersections, on average, comprising **27% monazite**, locally up to **85% monazite** (these are naturally pre-concentrated)



Alces Lake Project - Composition

- Enriched in 4 valuable critical rare earth elements (CREE)
- **Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy), Terbium (Tb)**
- These 4 elements account for between **23 to 25% of the TREO**
- Represent ~85% of the potential value at Alces Lake
- Near perfect correlation ($>0.98 R^2$) between TREO and CREO; i.e., higher TREO grades almost always mean higher CREO grades
- **Nd-Pr-Dy-Tb are necessary for the growing permanent magnet industry**



1 to 5 mm-size REE permanent magnet chain holds a half-pound wrench

Image source: Vat19, <https://www.vat19.com/item/buckyballs-rare-earth-magnetic-toy> (2020)

Alces Lake Project – Processing Facility

- In August 2020, Saskatchewan Research Council (“SRC” – a Treasury Board Crown Corporation) and the Government of Saskatchewan announced the plans to fund and develop a “first-of-its-kind” Rare Earth Processing Facility in Saskatoon, Saskatchewan
- SRC currently employs world-renowned REE experts with over 30 years experience
- Alces Lake Project is in the same province as the planned Processing Facility
- **Processing Facility is expected to be partially operational in early 2023**
- Currently existing pilot facilities (below) have already optimized a monazite processing flow sheet

Pilot Processing Plant (1,000 tonnes per annum capacity)



Rare Earth Element Extraction Lab



Images source: Saskatchewan Research Council; <https://www.src.sk.ca> (2018)

Alces Lake Project – Management

- Piggy-back off permits already in-place at SRC to accept, handle and safely dispose of naturally occurring radioactive materials (thorium and uranium)
- Based on high-grade mineralization discovered to date, Appia would “ideally” consider a surface and near-surface operation to start production, smaller than open pit scenario, easier to permit and manage, potentially low CAPEX/OPEX
- **Appia’s goal is to maintain a small environmental foot-print**

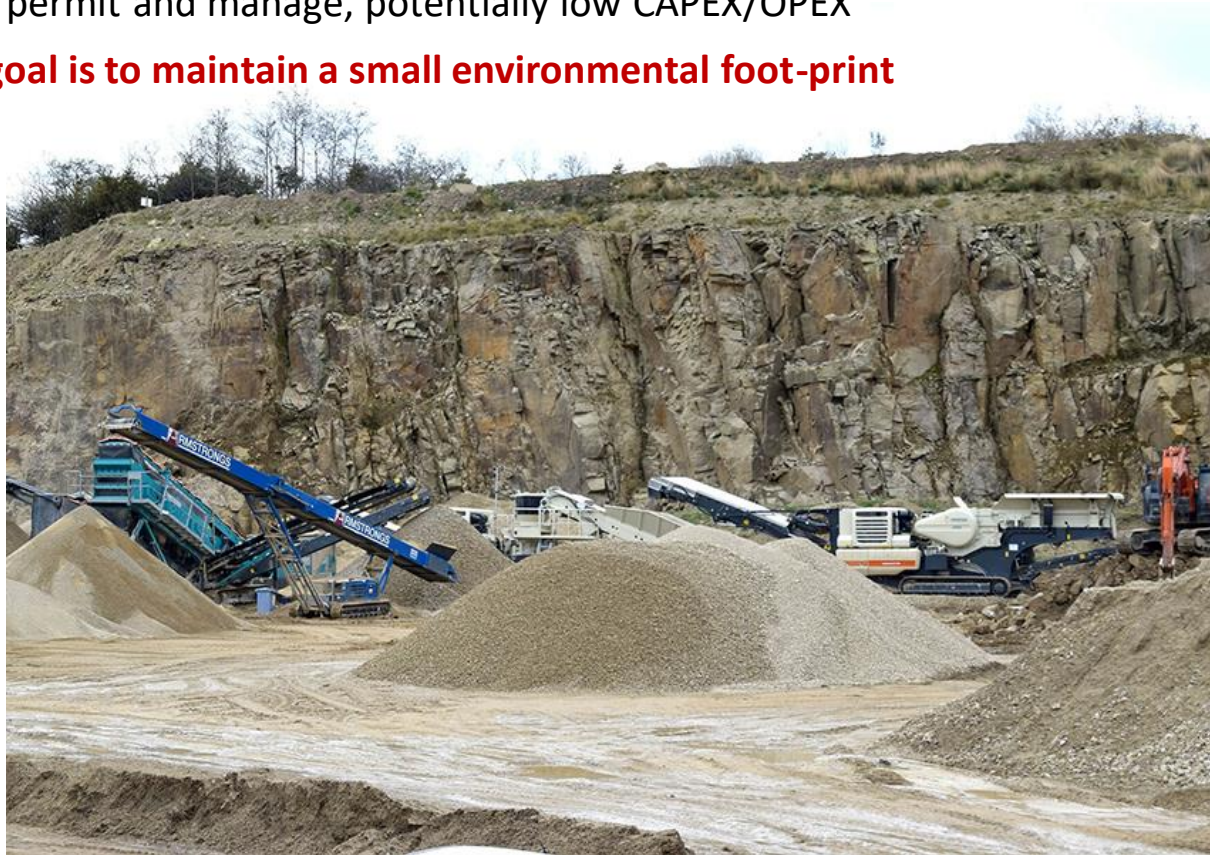
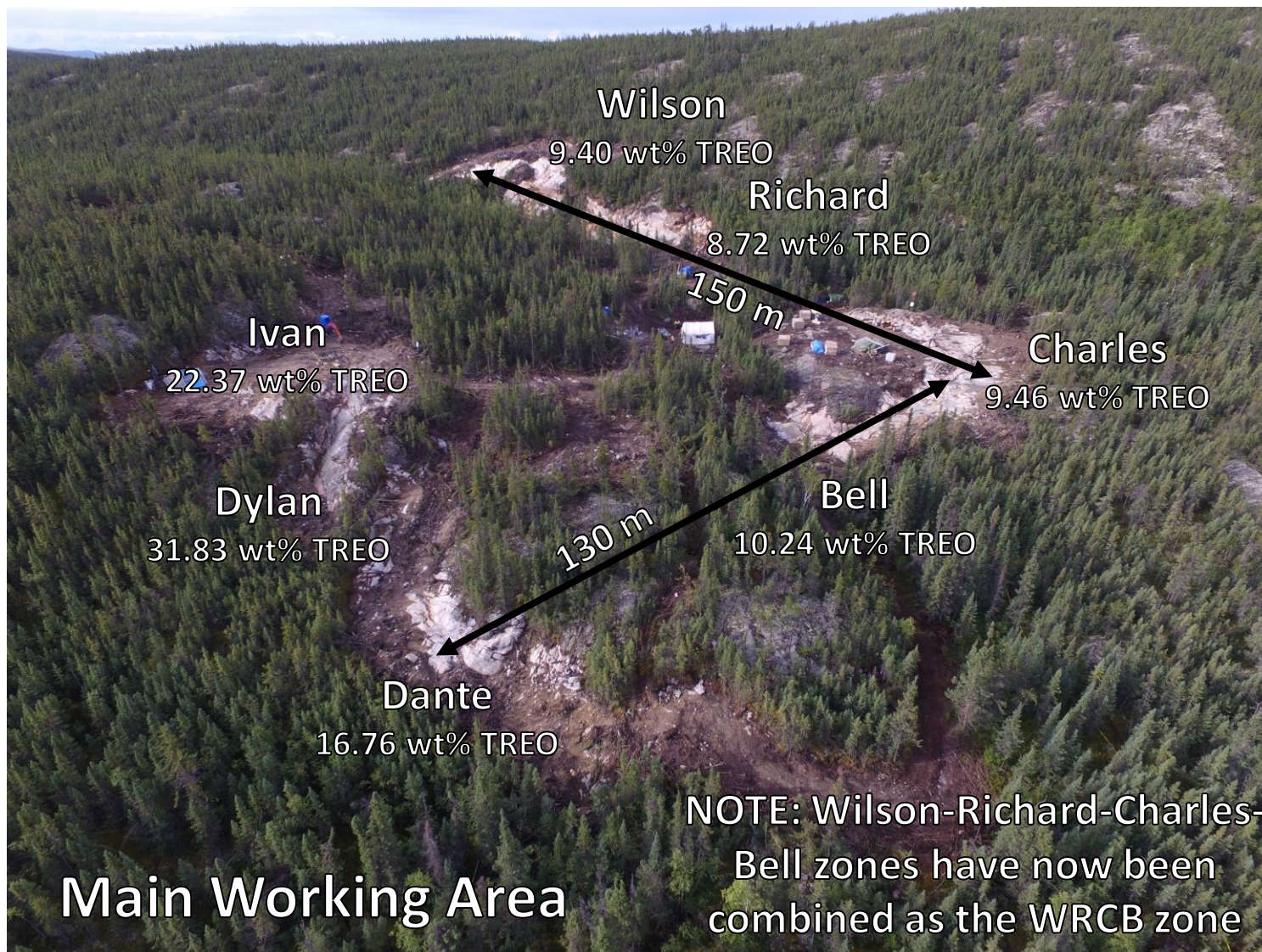


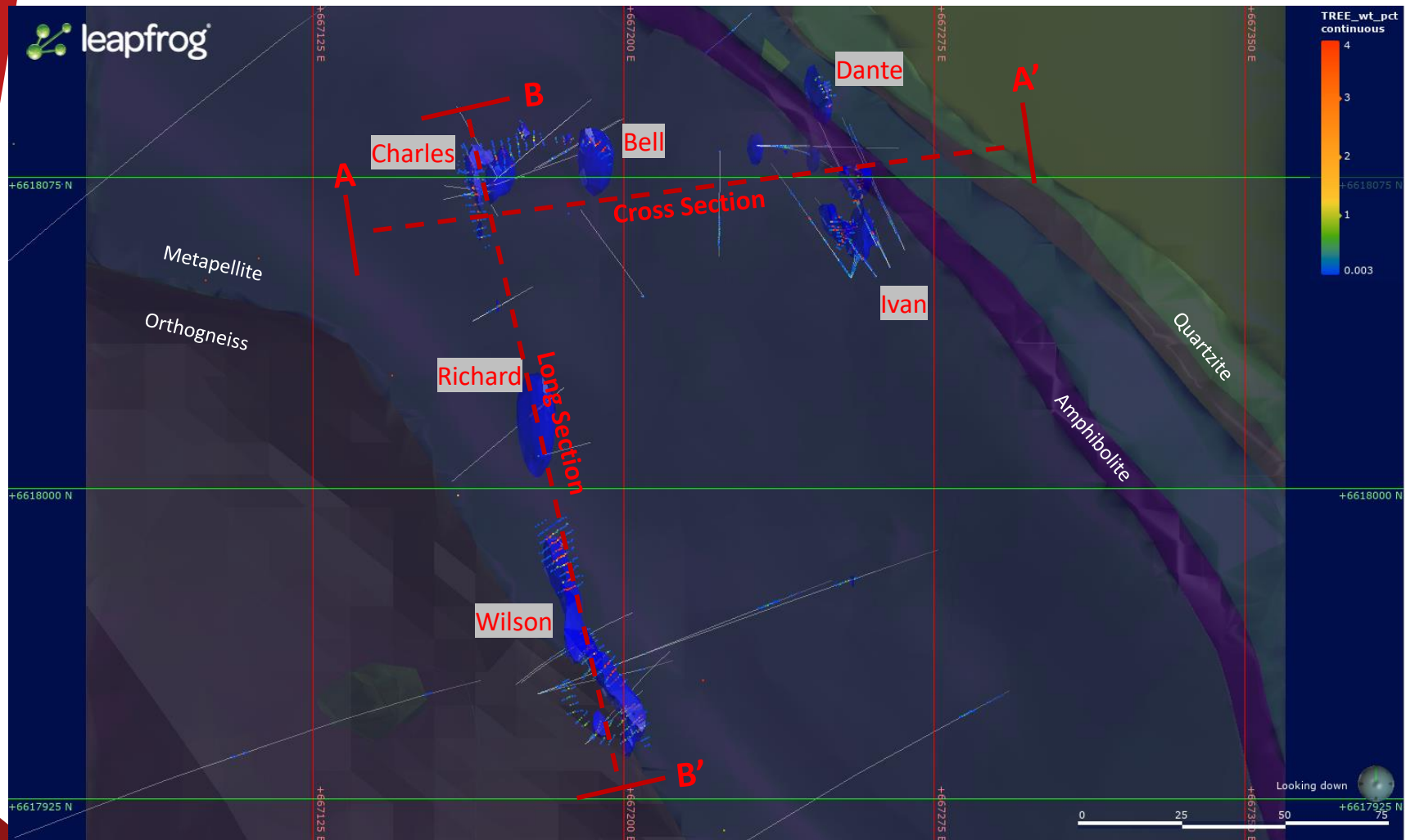
Image source: Rex Cowell Solicitors; <https://www.rexcowellsolicitors.com/news/mining-rights-awarded-to-neighbouring-quarry-owner>(2020)

Alces Lake–High-Grade REE Zones at/near Surface

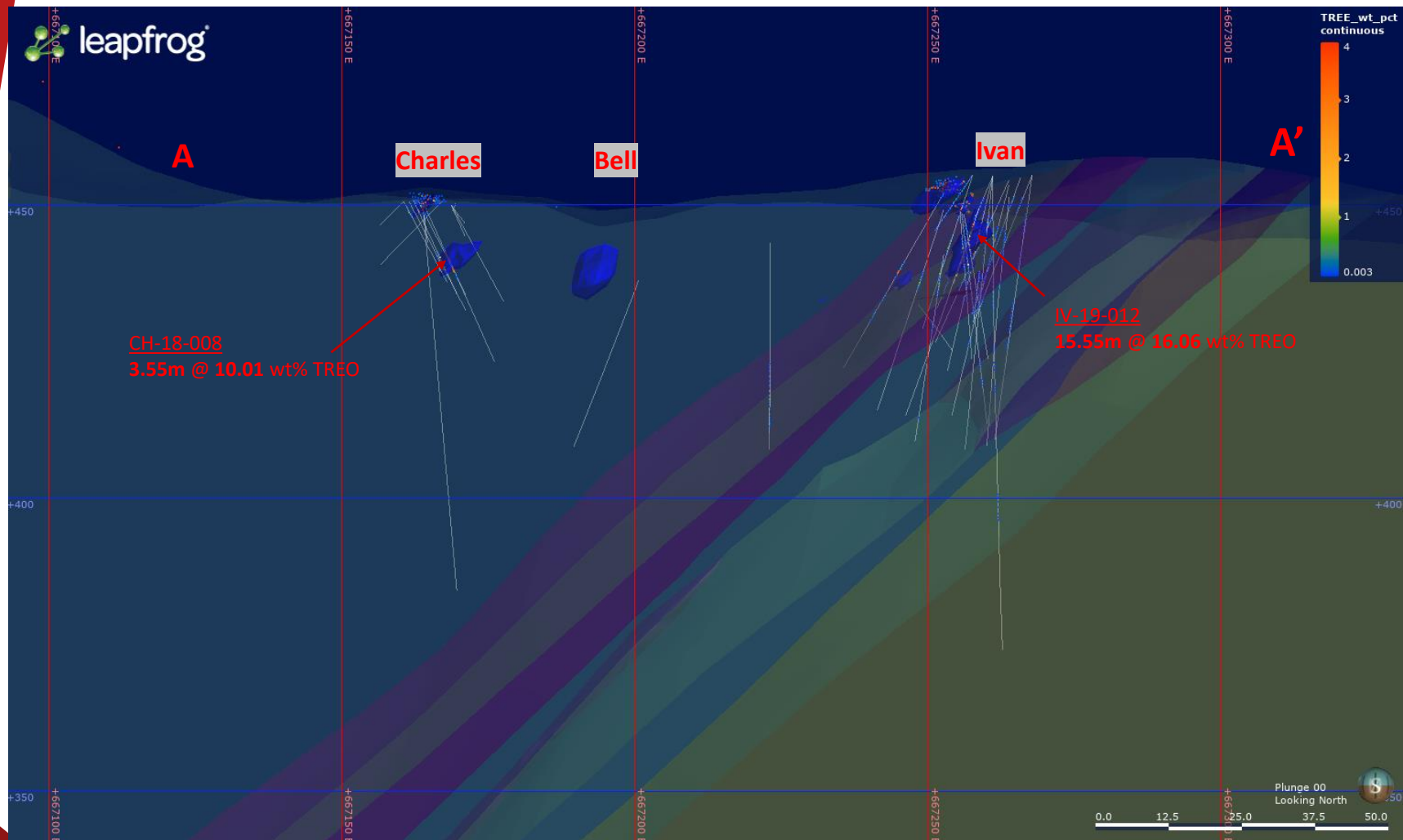


Note: See Appendix A on slide 36 for individual element grades supporting TREO results

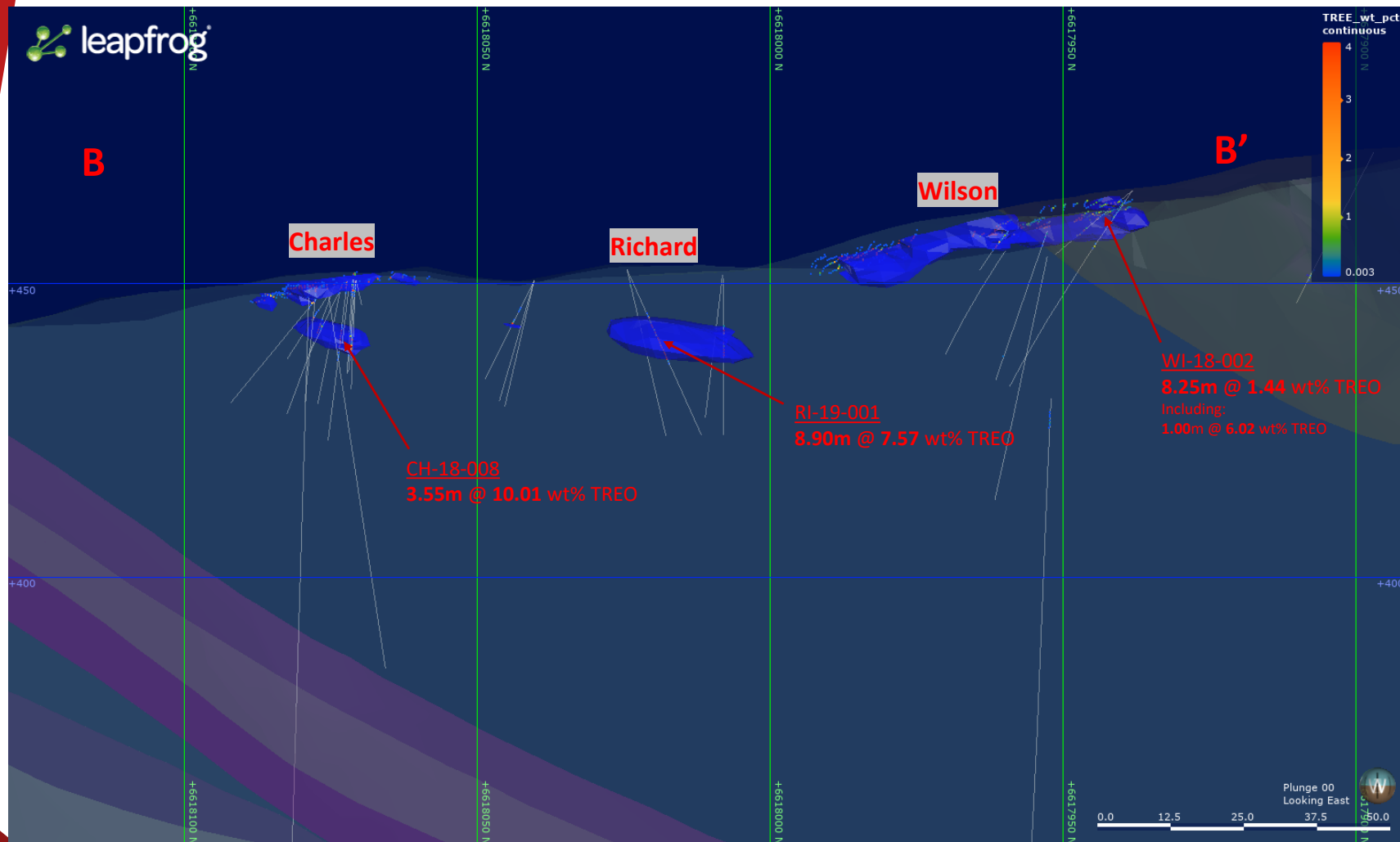
Alces Lake Project - Detail



Alces Lake Project – Cross Section A-A'



Alces Lake Project – Long Section B-B'

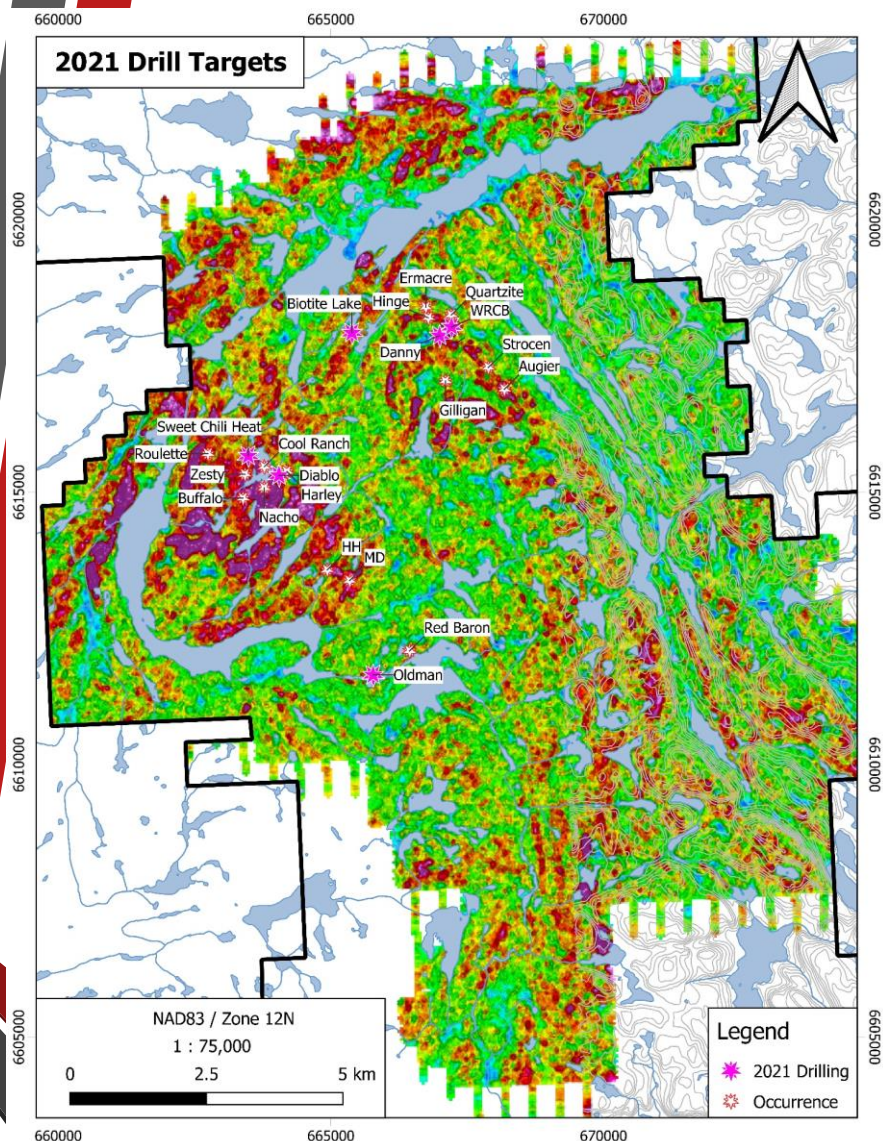


Saskatchewan Exploration 2021

The Company actively advanced the Alces Lake property in 2021 and conducted aerial geophysics on the uranium properties. Activities included:

- i) bench-scale metallurgical testing at the Saskatchewan Research Council (“SRC”) facilities from the WRCB zone to:
 - i) test physical separation of monazite from the host rocks,
 - ii) separate and produce isolated uranium oxide (U₃O₈),
 - iii) produce a mixed REE-carbonate, eventually produce Nd and Pr oxides, and
 - iv) extraction of gallium oxide.
- ii) Re-analysis and re-interpretation of all geophysical and geological data on the property by three independent consultants by using different data
- iii) Summer/Fall 2021 field activities:
 - i) Property-wide airborne magnetic, EM and radiometric geophysical survey completed;
 - ii) additional ground radiometric surveying and geological mapping, following along known mineralized trends and investigating new radiometric anomalies detected by the Property-wide airborne survey;
 - iii) ground geophysics within the main geological hinge area that hosts the high-grade occurrences discovered to date also completed;
 - iv) an extensive diamond drilling program (at least 7,500 m) with ~4,800m at WRCB plus drilling on new discoveries found in the Western Anomaly and Oldman River areas;
 - v) Field geology confirms 27 sq km high grade mineralization over Alces Lake; and
 - vi) Analysis of 2021 drilling and assays may lead to NI 43-101 report early 2022
- iv) Airborne surveys on Saskatchewan uranium projects: Loranger and North Wollaston

Alces Lake Project – Exploration Drilling

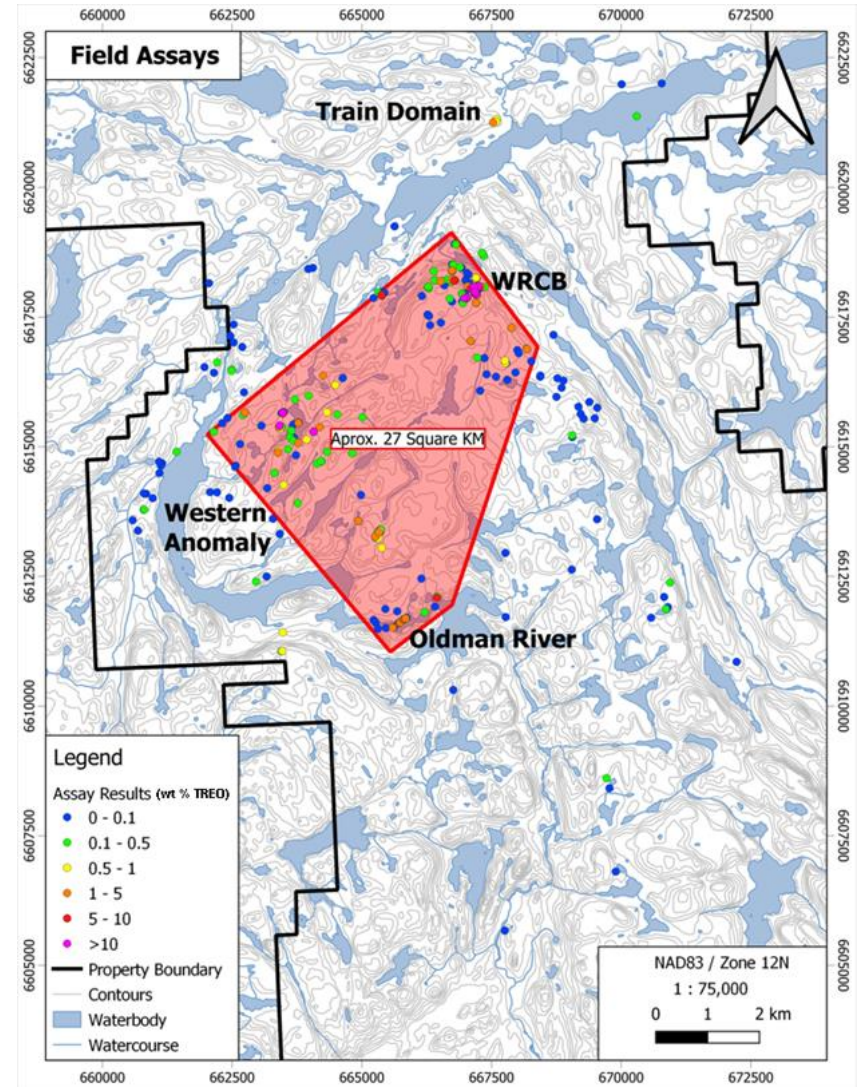
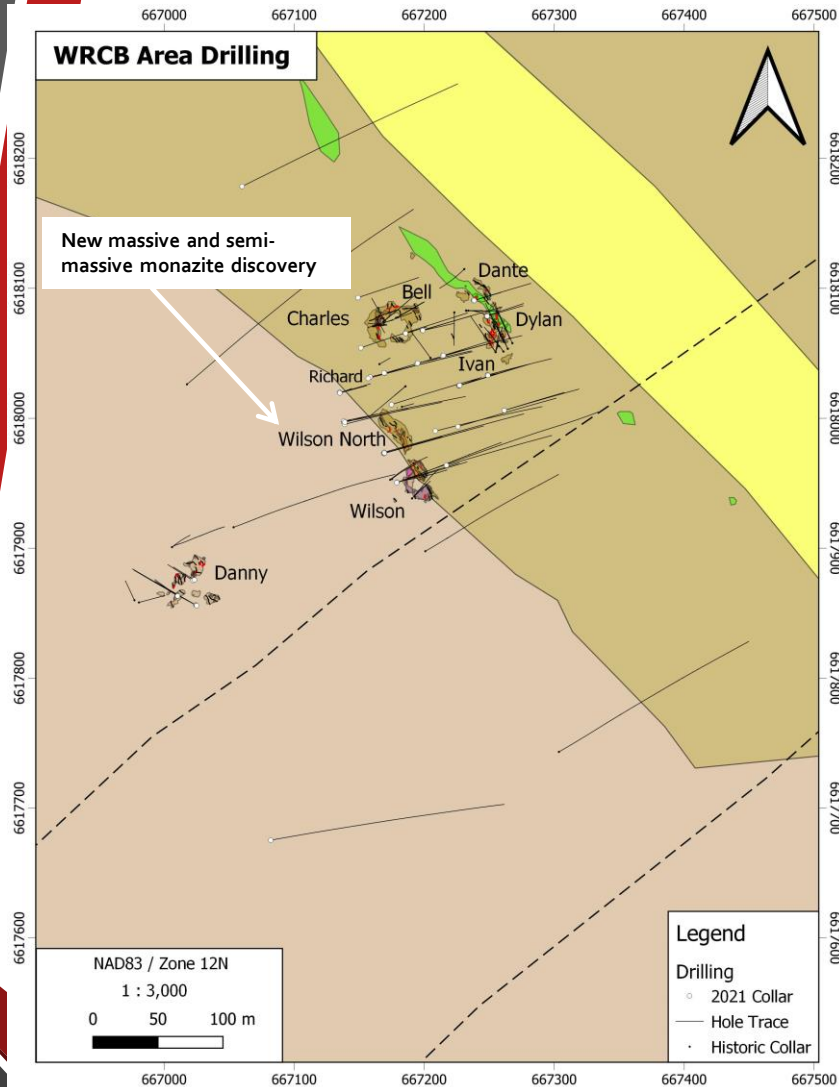


AREA	2021 drilling		2017-2020 drilling		Total drilling	
	# of holes	metres	# of holes	metres	# of holes	metres
WRCB *	54	5,297.09	65	3,293.12	119	8,590.21
Biotite Lake	13	684.52	-	-	13	684.52
Oldman River	8	480.00	-	-	8	480.00
Sweet Chili Heat	14	990.82	-	-	14	990.82
Diablo	4	192.00	-	-	4	192.00
Danny	7	430.83	4	444.80	11	875.63
Cone	-	-	2	592.20	2	592.20
Ermacre	-	-	1	20.40	1	20.40
Hinge	-	-	1	326.10	1	326.10
Mikaela	-	-	2	95.40	2	95.40
Regional	-	-	2	96.40	2	96.40
Total	100	8,075.26	77	4,868.42	177	12,943.68

* Includes Wilson, Wilson North, Richards, Charles, Bell, Ivan, Dante & Dylan

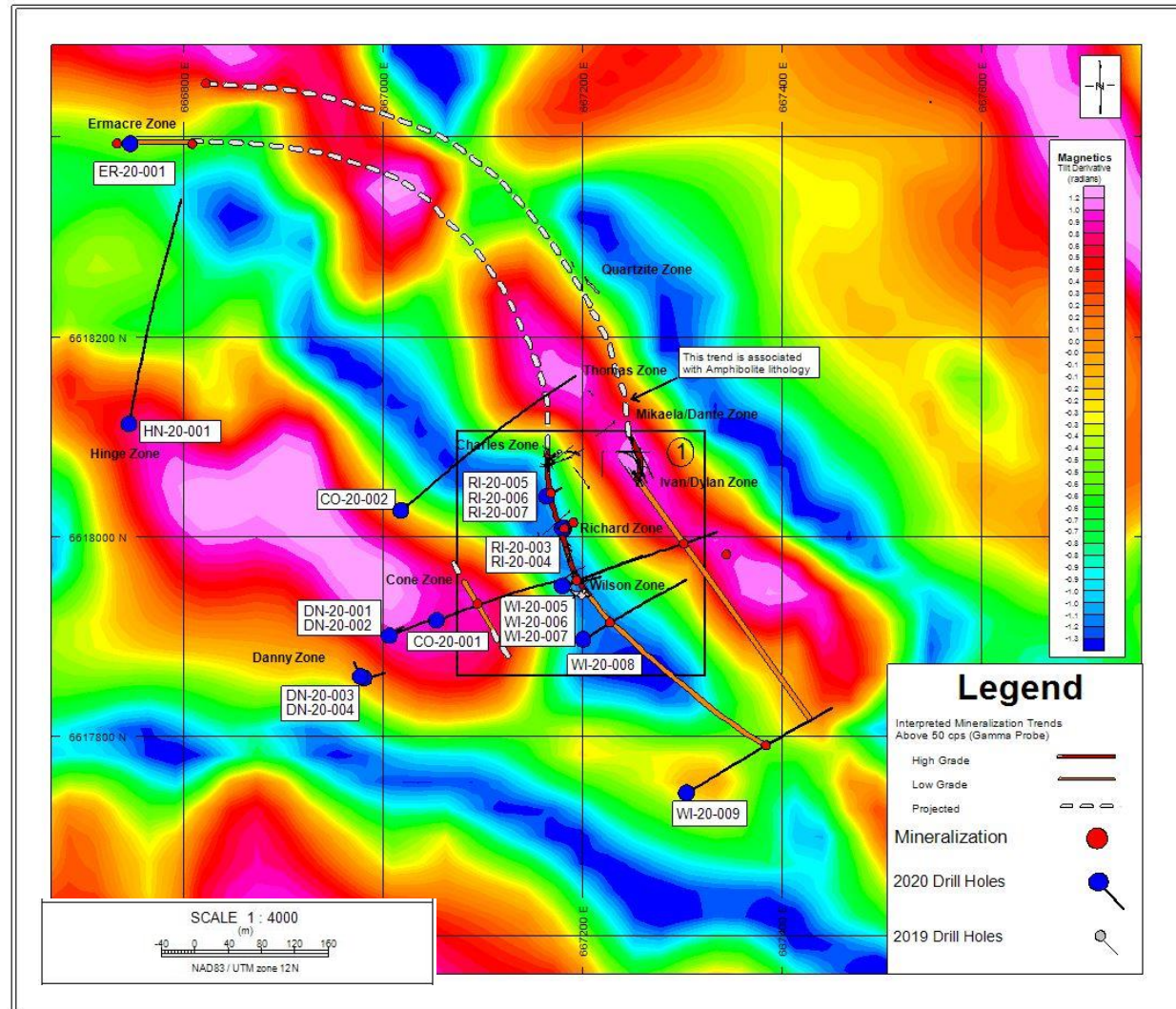
2021 program more than doubled previous drill holes and metres drilled on the property compared to previous four years combined

Alces Lake Project – Exploration 2021



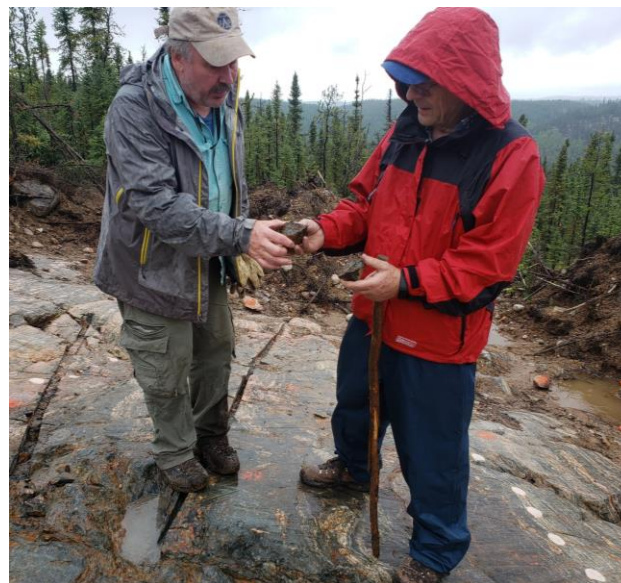
Alces Lake Project – 2020 Exploration Program was a Pivotal Year

- Diamond drilling successfully intersected the REE minerals system:
 - over 875 m strike length
 - as deep as 340 m from surface
 - open in all directions
 - occurs in 2 sub-parallel trends
- Intersects up to 11.035 wt% Total Rare Earth Oxide and 0.025 wt% Gallium Oxide over 2.8 metres
- Confirmed the extension of high-grade REEs over 145 m strike length (WRCB zone)
- Successfully correlated ground AMT geophysical survey results with interpreted REE minerals system



Alces Lake Project – Exploration (2017 – 2020)

- Discovered a material number of REE and U-bearing surface zones and occurrences
- Completed a total of **64 short diamond drill holes** (end of hole average 25 to 50 m depth) **for a total of 2,276.2 m**
- Completed a total of **14 long diamond drill holes** (end of hole >50 m depth) **for a total of 2,615.5 m**
- **Over 95% drill hole success rate intersecting REE-bearing pegmatite system**
- **High-grade WRCB zone exposed at surface and continues to within 10 m of surface (easy mining scenario)**
- To date, less than 1% of the property has been tested with diamond drilling



Alces Lake Project – Exploration (2017 – 2020)

- Highlight drill hole IV-19-012
- Returned **16.06 wt% TREO over 15.55 m** starting at 8.7 m down hole depth (**red** arrows) which **includes 49.17 wt% TREO over 3.70 m** at 9.7 m down hole depth (**yellow** arrows)



Note: See Appendix A on slide 33 for individual element grades supporting TREO results

Alces Lake Summary

1. World-class Total and Critical REO grades (average grade 16.65 wt% TREO and 3.85 wt% CREO) Note: See Appendix A on slide 36 for individual element grades supporting TREO results
2. Enriched with Critical REEs (Nd, Pr, Dy, Tb) used for permanent magnets
3. Coarse-grained monazite: easier to process, simple mineralogy and metallurgy, processing and extraction well-understood and proven
4. Mineralization at and near surface (i.e., starting within 10 m of surface)
5. Multiple zones of REE discoveries i) along geological strike; ii) on sub-parallel trends; and iii) with sub-surface zones open in all directions
6. Extensive high grade monazite mineralization found over 27 sq km of expanded land block
7. Access to REE processing facility in Saskatoon
8. Equipment manufacturers outside of China (USA, Japan, Germany, etc.) seek long-term supply chains
9. Balance sheet and cash position will fund 2022 drilling program
10. Saskatchewan: Top Ranked Canadian “Mining Investment Destination” (Fraser Institute, 2020)

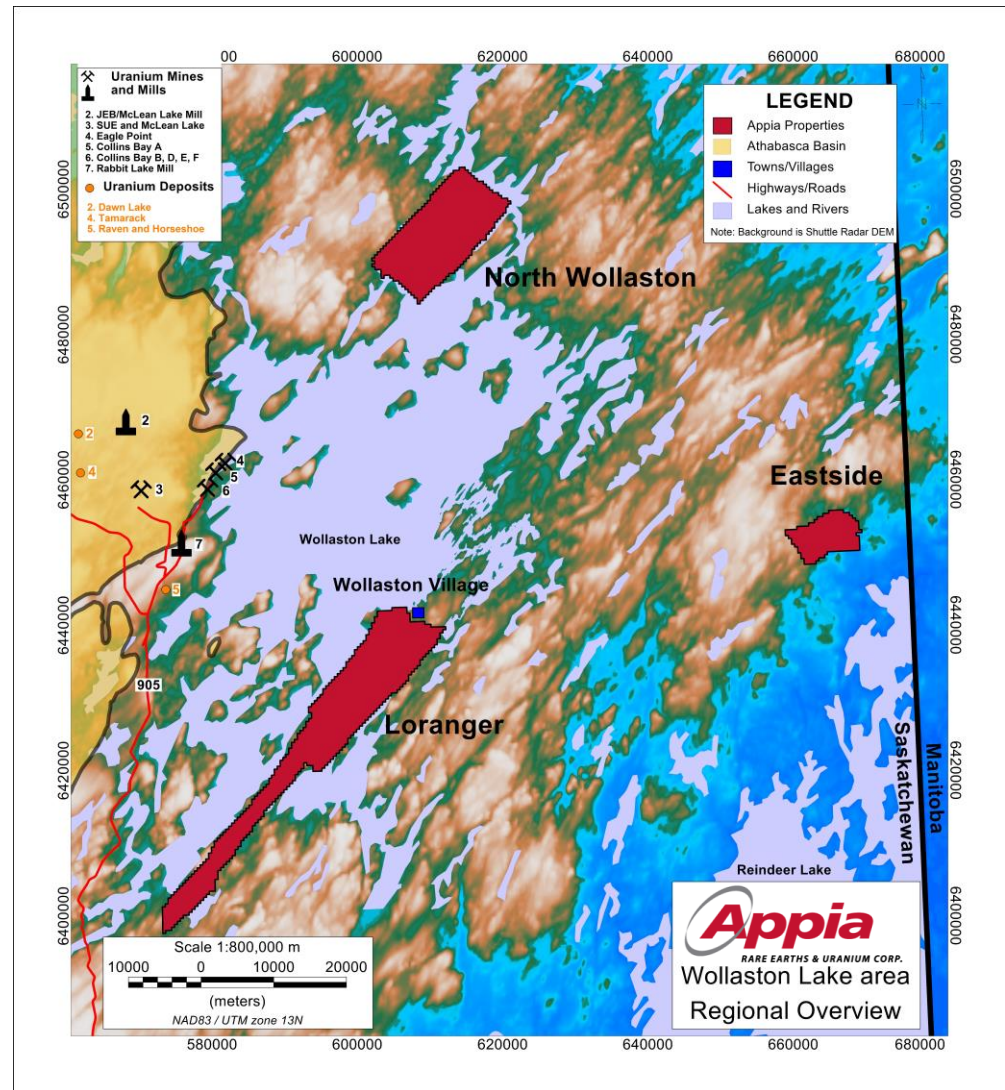
Investment Summary

Appia Rare Earths & Uranium Corp.
Suite 500, 2 Toronto St.
Toronto, ON M5C 2B6
PH: 416 546-2707
email: appia@appiaenergy.ca
CSE:API, OTCQB:APAAF,
Germany: A0I.BE, A0I.F, A0I.MU

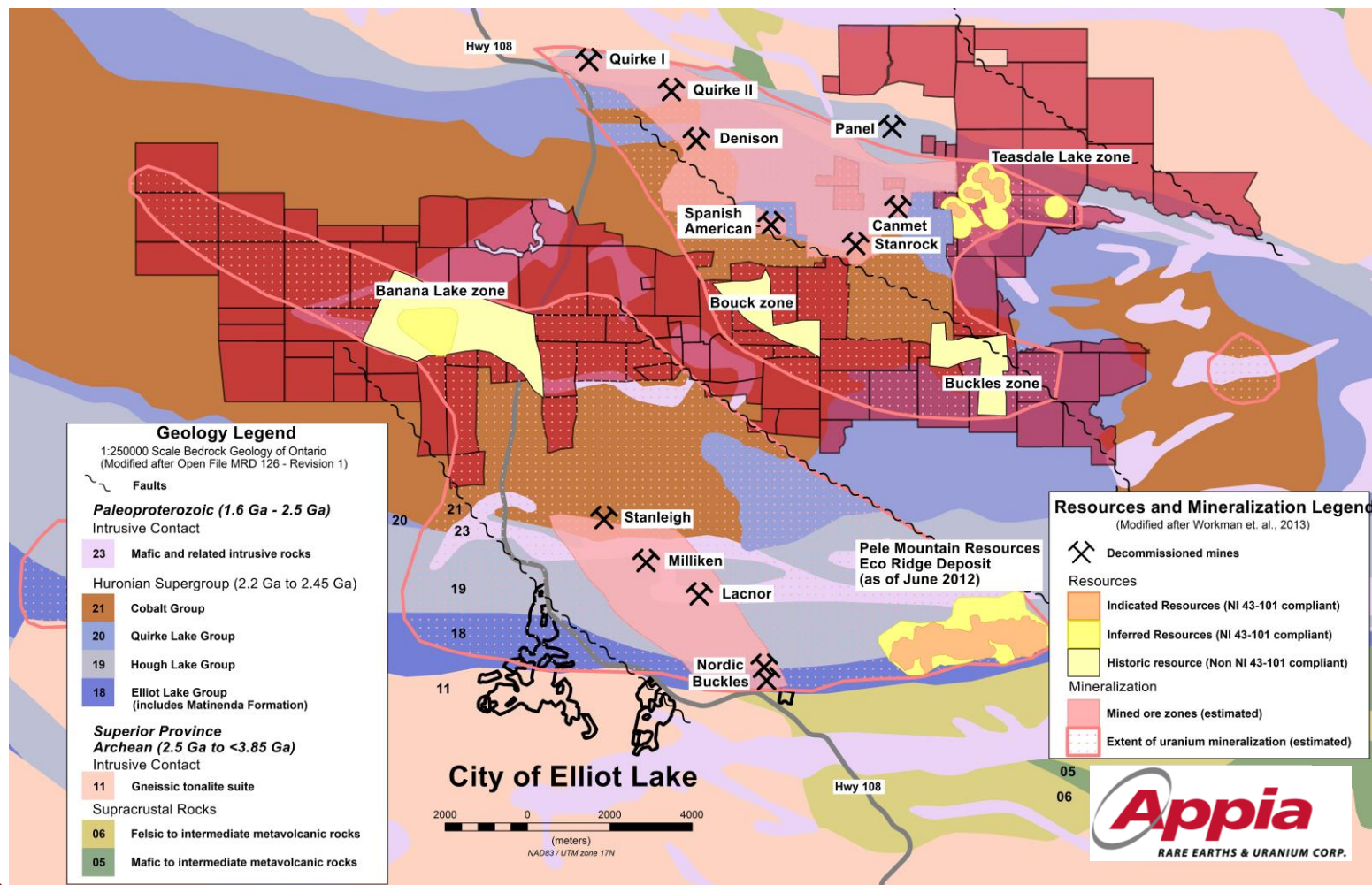


Saskatchewan Uranium Properties

- 4 Properties;
 - Loranger
 - North Wollaston
 - Eastside
 - Otherside
- Easy exploration/mining scenario: at/near surface high-grade uranium, no sandstone cover, negligible overburden
- Close to infrastructure; highway, powerline, airstrip, fuel and groceries
- Proximity to two uranium mills
- Similar geological and geophysical features, structures and rock types with other known high-grade uranium deposits



Elliot Lake, ON: Uranium and REE Resource



Appendix A

Alces Lake REO Summary Chart (2017-2020 results)

Zone	Slide #	La ₂ O ₃ wt%	CeO ₂ wt%	Pr ₆ O ₁₁ wt%	Nd ₂ O ₃ wt%	Sm ₂ O ₃ wt%	Eu ₂ O ₃ wt%	Gd ₂ O ₃ wt%	Tb ₄ O ₇ wt%	Dy ₂ O ₃ wt%	Ho ₂ O ₃ wt%	Er ₂ O ₃ wt%	Yb ₂ O ₃ wt%	Lu ₂ O ₃ wt%	Y ₂ O ₃ wt%	ThO ₂ wt%	U ₃ O ₈ wt%	TREO wt%*	CREO wt%**
Alces Lake Average	5,8	3.873	8.203	0.896	2.896	0.390	0.005	0.214	0.012	0.037	0.004	0.010	0.001	0.000	0.102	2.069	0.057	16.645	3.847
Bell	22	2.394	5.156	0.538	1.647	0.232	0.003	0.137	0.008	0.027	0.003	0.009	0.001	0.000	0.083	1.309	0.038	10.239	2.223
Charles	22	2.250	4.640	0.517	1.601	0.216	0.003	0.125	0.007	0.022	0.003	0.007	0.001	0.000	0.066	1.164	0.036	9.458	2.150
Dante	22	3.794	8.310	0.868	2.999	0.414	0.005	0.215	0.014	0.036	0.004	0.008	0.001	0.000	0.096	2.209	0.056	16.763	3.922
Dylan	22	7.407	15.841	1.719	5.444	0.708	0.010	0.407	0.020	0.066	0.008	0.021	0.001	0.000	0.174	3.842	0.100	31.827	7.259
Ivan	22	5.085	10.961	1.211	4.058	0.546	0.007	0.287	0.018	0.050	0.005	0.011	0.001	0.000	0.128	2.804	0.073	22.369	5.344
Richard	22	1.960	4.225	0.470	1.618	0.228	0.003	0.104	0.009	0.025	0.003	0.005	0.001	0.000	0.074	1.163	0.032	8.725	2.124
Wilson	22	2.267	4.668	0.497	1.535	0.210	0.003	0.121	0.006	0.021	0.002	0.007	0.001	0.000	0.060	1.162	0.034	9.398	2.062
Ivan (Line 4)	16	12.343	26.186	2.875	9.260	1.171	0.016	0.663	0.033	0.110	0.013	0.035	0.002	0.000	0.302	6.179	0.143	53.007	12.293
Dylan (Lines 4, 9 to 13)	16, 18	8.000	17.099	1.861	5.901	0.760	0.011	0.439	0.022	0.071	0.008	0.023	0.001	0.000	0.183	4.182	0.111	34.379	7.865
Ermacre	n/a	0.908	1.965	0.239	0.821	0.128	0.001	0.059	0.005	0.017	0.002	0.004	0.002	0.000	0.057	0.506	0.012	4.209	1.084
Oldman	n/a	0.262	0.535	0.061	0.211	0.029	0.001	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.003	0.137	0.005	1.117	0.275

	Highlighting Nd grades associated with high-grade Total REOs
	Highlighting Pr grades associated with high-grade Total REOs
	Highlighting "High-Grade" Total and Critical REOs (i.e. >1.897 wt% Total REO)
	Indicates light rare earth elements
	Indicates heavy rare earth elements
	Indicates radioactive elements

*TREO = Total Rare Earth Oxide =

sum of La₂O₃+CeO₂+Pr₆O₁₁+Nd₂O₃+Sm₂O₃+Eu₂O₃+Gd₂O₃+Tb₄O₇+Dy₂O₃+Ho₂O₃+Er₂O₃+Yb₂O₃+Lu₂O₃+Y₂O₃

**CREO = Critical Rare Earth Oxide = sum of

Pr₆O₁₁+Nd₂O₃+Eu₂O₃+Tb₄O₇+Dy₂O₃

Conditions Used for Reporting Composite Summary Average Grades

The Alces Lake Average grade was calculated from 302 combined surface channel and diamond drill hole samples with >4 wt% TREO out of a total of 997 samples with >0.1 wt% TREO.

Individual "Zone" and "Line" grades were calculated from the same 302 combined surface channel and diamond drill hole samples with >4 wt% TREO out of a total of 997 samples with >0.1 wt% TREO, but sorted based on unique "Zone"/"Line" identifier

Lithogeochemical Results for Drill Hole IV-19-012 (slide 31)

Zone	DDH	From (m)	To (m)	Interval (m)	La ₂ O ₃ (wt%)	CeO ₂ (wt%)	Pr ₆ O ₁₁ (wt%)	Nd ₂ O ₃ (wt%)	Sm ₂ O ₃ (wt%)	Eu ₂ O ₃ (wt%)	Gd ₂ O ₃ (wt%)	Tb ₄ O ₇ (wt%)	Dy ₂ O ₃ (wt%)	Ho ₂ O ₃ (wt%)	Er ₂ O ₃ (wt%)	Yb ₂ O ₃ (wt%)	Lu ₂ O ₃ (wt%)	Y ₂ O ₃ (wt%)	ThO ₂ (wt%)	U ₃ O ₈ (wt%)	TREO (wt%)	CREO (wt%)
Ivan	IV-19-012	8.70	24.25	15.55	3.653	7.798	0.889	2.946	0.413	0.005	0.205	0.014	0.036	0.004	0.006	0.001	0.000	0.089	2.081	0.054	16.059	3.890
	includes	9.70	17.60	7.90	7.130	15.219	1.735	5.748	0.805	0.010	0.400	0.027	0.071	0.007	0.012	0.002	0.000	0.173	4.058	0.105	31.339	7.591
	includes	9.70	13.40	3.70	11.233	23.833	2.753	8.996	1.258	0.016	0.626	0.042	0.110	0.011	0.019	0.002	0.001	0.266	6.365	0.164	49.165	11.918

Elliot Lake's Teasdale Lake Zone REE Resource Summary Chart

Zone	Category	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	Y (ppm)	TREE (ppm)	CREE (ppm)
Teasdale Lake	Indicated	422.0	745.0	73.8	247.0	41.1	1.7	26.2	3.2	14.3	2.3	5.8	0.8	4.6	0.7	59.4	1647.9	344.1
Teasdale Lake	Inferred	401.0	709.0	69.9	232.0	39.0	1.6	24.6	3.0	13.5	2.1	5.5	0.7	4.4	0.6	56.5	1563.4	323.9

TREE = Total Rare Earth Elements = sum of La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Lu+Y

CREE = Critical Rare Earth Elements = sum of Pr+Nd+Eu+Tb+Dy

The Teasdale Lake zone Uranium and Rare Earth Element Mineral Resource Estimate is effective as of July 30, 2013

Mineral Resources were prepared from a polygonal model estimated at a cut-off value of \$100/tonne, using a uranium price of US \$70/lb. U3O8, a combined TREE price of \$78/kg, and a C\$:US\$ exchange rate of 1:0.9

A specific gravity (S.G.) of 2.85 tonnes/m3 (or 3.14 tons/m3) was used

Indicated amounts may not precisely sum due to rounding

The quantity and grade of reported Inferred Resources are uncertain in nature and there has been insufficient exploration to define these as Indicated or Measured Mineral Resources

The Mineral Resources were estimated using the CIM Mineral Resources and Reserves Guidelines (December 11, 2015)

RAE EARTH & URANIUM CORP.

	Indicates light rare earth elements
	Indicates heavy rare earth elements